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QIZIRIQ TUMANIGA IJTIMOIY-IQTISODIY GEOGRAFIK TAVSIF

Annotatsiya: *Ushbu maqolada Qiziriq tumaniga ijtimoiy-iqtisodiy geografik tavsif berilgan bo'lib, tumanning aholisi va xo‘jaligi tavsifi, migratsiya hamda tumanning sanoat salohiyati haqida ma’lumotlar keltirilgan.*

Kalit so‘zlar*: aholi, milliy tarkibi, migratsiya, aholining tabiiy o‘sishi, qishloq xo‘jaligi, dehqonchilik, chorvachilik, sanoat, ijtimoiy sohalar.*

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SOCIO-ECONOMIC GEOGRAPHICAL DESCRIPTION OF THE KYZYRYK DISTRICT

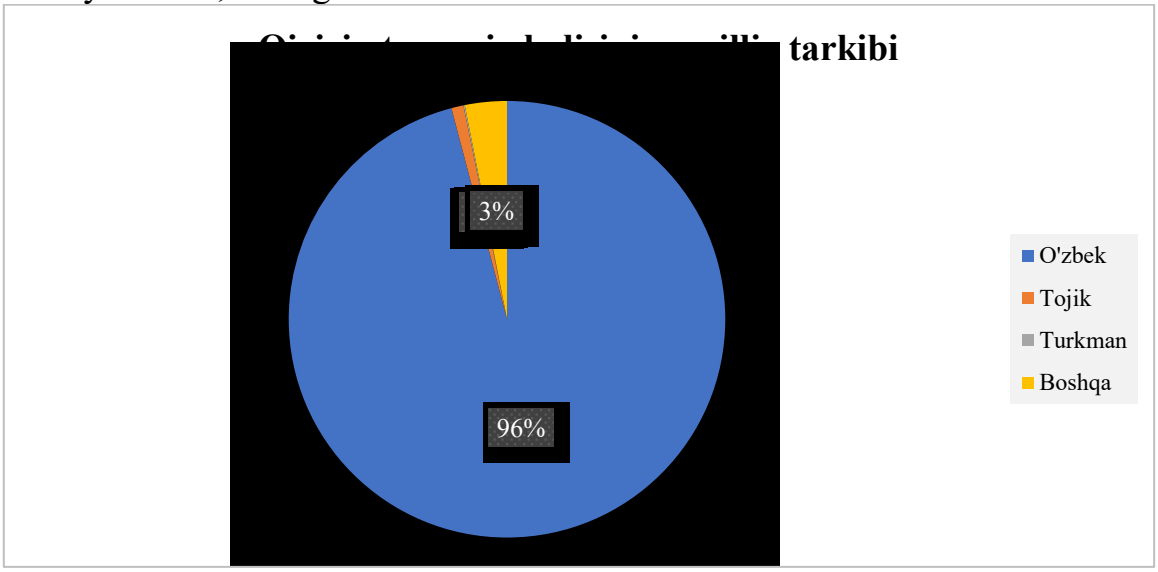
Annotation: *this article gives a socio-economic geographical description of the Kyzyryk district, provides a description of the population and economy of the district, information about migration and the industrial potential of the district.*

Keywords: *population, National composition, migration, natural population growth, agriculture, farming, livestock, industry, social spheres.*

Hududlarning iqtisodiy-ijtimoiy rivojlanganlik darajasini aniqlashda hududning geografik o’rni, xo’jaligi hamda mehnat resurslari, shuningdek respublika va viloyat ma’muriy markaziga nisbatan joylashganligi bilan belgilanadi. Qiziriq tumani Surxondaryo viloyatining tarkibidagi qishloq tumanlaridan biri bo’lib, tumanning iqtisodiy va ijtimoiy rivojlanishida tabiiy-geografik o’rniga ko’ra cho’l mintaqasi hisoblanadi.

Qiziriq tumani 1975 yil 6-martda tashkil etilgan. 2024-yil 1-oktabr holatiga ko’ra Surxondaryo viloyatida jami 2928012 kishi istiqomat qiladi. Shundan 124 ming kishi yoki viloyat aholisining 4,3% qismi tuman hududida yashaydi. 2023-yilga nisbatan 2024 yilda tuman aholisi 1,6% ga o‘sdi. 2022 yil 1-yanvar holatiga ko‘ra tuman aholisi 119,9 kishi bo‘lib, bir yilda 2600 kishiga ko‘paygan . Tuman

aholining milliy tarkibida o‘zbeklar 95,9 foiz, tojiklar 0,9 foiz, turkmanlar 0,1 foizni hamda 3,1 % ni boshqa millat vakillari tashkil etadi (1-rasm). Mahalla fuqorolar yig’inlari (MFY) soni 31 ta. Qiziriq tumanida 2022-yilning ma’lumotiga ko‘ra erkaklar ulushi ayollarga qaraganda 1,6 mingga ko‘pdir. Ya’ni erkaklar 58,7 ming bo‘lsa ayollar 57,1 ming kishini tashkil etadi.



1-rasm. Qiziriq tuman aholisining milliy tarkibi. *Manba:* surxonstat.uz

Tuman aholisi tabiiy o‘sish hisobiga ko‘paymoqda. *Aholining tabiiy o‘sishi bu*-o‘lim ko‘rsatgichidan tug‘ulish ko‘rsatgichining ortiqligi, ya’ni bir vaqt davomida tug‘ilganlar va o‘lganlar o‘rtasdagi farq bo‘lib, aholi soni o‘sishining asosini tashkil qiladi. 2020-yilda tuman hududiga ko‘chib kelganlar soni 318 kishini tashkil qilgan. Shu davr mobaynida ko‘chib ketganlar soni esa 951 nafarga yetgan. Mos ravishda migratsiya qoldig‘i minus (-633) kishini tashkil etgan, 2021-yilning mos davrida migratsiya saldosi (-554) kishi bo‘lgan.

Qiziriq tumani aholisining migratsiya jarayoni va uning ta'siri hududning iqtisodiy rivojlanishi, bandlik darajasi va boshqa ijtimoiy-iqtisodiy sharoitlarga bog‘liq. Qiziriq tumani aholisi migratsiyasi bilan bog‘liq bo‘lgan tendensiyalar asosan mehnat migratsiyasi va ichki ko‘chish bilan bog‘liq. O‘zbekistonning qishloq hududlarida, shu jumladan Qiziriq tumanida ham aholining ayrim qismlari iqtisodiy va ijtimoiy sabablar bilan boshqa hududlarga yoki chet elga ko‘chib kegan.

Iqtisodiyotining eng qadimgi tarmoqlardan biri qishloq xo’jaligi bo’lib, u hozirgi kunda jahon, milliy va mintaqaviy iqtisodiyot tarkibida yetakchi o‘rinlarni egallaydi. Qiziriq tumani viloyatdagi qishloq xo‘jaligiga ixtisoslashgan tumanlardan biri bo‘lib, 1975-yili 17 215 gektar paxtazordan 39 900 tonna o‘rniga 43 478 tonna paxta yig‘ishtirilib olingan. Keyingi yillarda ham dalalarda hosildorlik yuqori bo‘lganligi bois ayrim mavsumlarda, tuman dalalaridan 62 000 tonnadan ko‘proq xomashyo jamg‘arilgani haqida ma’lumotlar mavjud. O'sha davrda va undan keyingi davrlarda birgina Lelin nomli (hozirgi Gilombob) savxozda 22000 tonna paxta yetishtirgan. 1982-yili tumanda 16 240 gektar maydonga paxta ekilib, rejadagi 55807 tonna o‘rniga 69 760 tonna paxta davlatga sotilgani qayd qilingan.

O’sha mavsum tumanda paxta tayyorlash rejasi 125 foizga, yana 14-oktyabrda bajarilgan.

So‘nggi yillarda tuman qishloq xo‘jaligi paxtachilik bilan g‘allachilik ham oqsamoqda. 2020–yilda 5 979 gektar maydonga chigit qadalib dehqonlar 18 642 tonna o‘rniga dalalardan 8 000 tonna paxta yetishtirib oldilar. Hosildorlik tuman bo‘yicha 13,04 sentnerni tashkil qildi. Qiziriqlik fermer dehqonlar nafaqat paxta yetishtirishda shu bilan birga g‘allachilikda ham oqsamoqda. 2020–yilda viloyat g‘allakorlari uchun omadli yil bo‘lgan. Ammo, g‘alla mo‘l bo‘lgan yilda ham Qiziriq tumanida davlat buyurtmasi bazo’r bajarilgan. 11 955 gektar maydonda boshoqli donli ekinlari parvarishlagan fermar xo‘jaliklari belgilangan 81 686 tonna o‘rniga 59 702 tonna don yetishtrilgan. 293 ta fermer xo‘jaligining 61 tasi don tayyorlash rejasini bajara olmagan. Bunga asosiy sabab, yerlar unumdorligining sezilarli darajada pasayib ketganligi hamda sho’rlanish miqdorining yuqori ekanligidir.

Qiziriq tumanida dehqonchilik madaniyatini yuksaltirish, yerlarning meliorativ holatini yaxshilash va unumdorligini oshirish, aholining bandligini ta’minlash maqsadida 2021–yil boshida “Surxon cotton textel cluster” MCHJ paxtachilik va to‘qimachilik klasteri tashkil etildi. Tuman hokimligidan olingan ma’lumotlarga ko‘ra, 2020–yil oxirida 435 ta fermer xo‘jalik yerlari klaster tasarrufiga o‘tkazilgan. Tumanning jami qishloq xo‘jaligida foydalaniladigan yerlar umumiy maydoni bugungi kunda 23 588 gektarni tashkil etmoqda.

Qiziriq tumanida qishloq xo‘jaligi ekinlar ekilgan maydon jami gektarga yillar hisobi bo‘yicha taqsimlaydigan bo‘lsak, 2021–yilda 24 522 gektar va 2022–yilga kelib maydon 22 401gektarga qisqarganligini ko’rishimiz mumkin. Uch yillik hisobi bo‘yicha 2021 –yilda ekin maydoni qolgan yilga qaraganda maydoni kattaligi bilan ajralib turadi.

Qishloq xo‘jaligi hajmi 2022-yilning birinchi yarmida 509,5 mlrd so‘mni tashkil etgan. Qiziriq tumani jami qishloq xo’jaligida foydalanadigan ekin maydonini 100 foiz deb olinsa, shu maydonlarning 60 foizi bug‘doy, 29 foizi paxta, 2 foizi kartoshka, sabzavot ekinlari 4 foizi, 2 foizi poliz ekinlari, yem hashak ekinlari 2 foiz va boshqa ekinlar 1 foizini tashkil etadi. Bu ma’lumotlardan ko’rinib turibdiki, tuman qishloq xo‘jaligining asosiy ekinlari bug‘doy va paxta ekinlari tashkil qiladi. Qishloq xo‘jaligi yerlari bu qishloq xo‘jaligi mahsulotlarini yetishtirish uchun, muntazam ravishda foydalaniladigan yer maydonlari. Qishloq xo‘jaligi yerlariga tarkibi foydalaniladigan va bo‘z yerlar, ko’p yillik daraxtzorlar, pichanzorlar va yaylovlar kiradi. Qishloq xo’jaligi yerlarida qishloq xo‘jaligi faoliyati bilan shug‘ullanuvchi tashkilotlar: dehqon va aholining shaxsiy xo‘jaliklari, fermer xo‘jaliklari foydalanishida, ijara, doimiy yoki vaqtinchalik mulk sifatida bo‘ladi.

Qiziriq tumani transport tizimi hozirgi kunda asosan avtomobil yo'llariga tayanadi. Tuman ichidagi yo’llar va infratuzilma yangilanmoqda, 2021-2023-yillarda 14,2 km davlat ahamiyatidagi va 9 km mahalliy ahamiyatdagi yo'llarni ta'mirlash rejalashtirilgan. Shuningdek, jamoat transporti orqali Termiz shahri va atrofdagi tumandagi yo'nalishlar rivojlantirilmoqda. Transport tizimining

samaradorligini oshirish maqsadida logistik markazlar va yuk terminallari faoliyatini takomillashtirish ustida ish olib borilmoqda. Bu, aholi uchun transport qulayligini oshirishga yordam beradi.

Qiziriq tumanida 2021–yil 1–iyun holatiga faoliyat yuritayotgan sanoat korxonalari jami 185 tani, 2022-yil 222 tani tashkil etdi. Shundan yirik korxonalar yo‘q, 211 ta kichik korxona va mikro firmalar shu jumladan 9 ta xorijiy investitsiya ishtirokidagi korxonalar mavjud.

Tumanning sog‘liqni saqlash tizimidagi davolanish profilaktika muassasalarining aholiga ko‘rsatilayotgan tibbiy xizmat haqida ma’lumotlarga ko’ra, bugungi kunda tuman aholisiga jami 10 ta birlamchi tibbiy sanitariya yordamini ko‘rsatuvchi muassasalar, jumladan, 5 ta oilaviy polikilinika, 4 ta oilaviy shifokorlik punkti, 1 ta ko‘p tarmoqli markaziy polikilinika va 1ta 283 o‘rinli markaziy shifoxona tuman aholisiga tibbiy xizmat ko‘rsatib kelmoqda. Sariq zonada-ahvoli o‘rta darajadagi bemorlar qabul qilinadi. Qizil zonada-shok holatida kelgan bemorlarga mo’ljallangan bo‘lib, ularga barcha reanimatsion yordam ko‘rsatiladi. 2021 yilda 3-ta xususiy klinika yangidan ochilgan bo‘lib, bularning soni 2022-yilda 8 taga yetdi.

Qiziriq tumanida 50 ta umumta’lim va 101 ta maktabgacha ta’lim muassasalari faoliyat ko‘rsatmoqda. Tuman maktab va maktabgacha ta’lim bo‘limiga qarashli 49 ta umumta’lim va 1 tamaktab internati bo‘lib ularda 21603 ta o‘quvchi ta’lim olmoqda va ularga 1947 ta o‘qituvchi ta’lim bermoqda. Bulardan tashqari tumanda 12-sonli Bolalar musiqa va sa’nat maktabi bo‘lib, 1978-yil tashkil etilgan. 2014-yil yangi 150 o‘rinli binoga ko‘chib o‘tgan. Bugungi kunda 30 nafar o‘qituvchi faoliyat olib bormoqda. Hozirda o‘quvchilar 12 yo‘nalishda 172 nafar taxsil olmoqda.

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PEDAGOGIK TADQIQOTLARDA UZVIYLIK VA IZCHILLIK PRINSIPLARI ALOQALARINI RIVOJLANISH JARAYONI

Annotatsiya: *Mazkur maqolada pedagogik tadqiqotlarda uzviylik va izchillik prinsiplari aloqalarining rivojlanish jarayoni o'rganiladi. Tadqiqotlar davomida ushbu prinsiplarning nazariy asoslari tahlil qilinib, ularning amaliyotda qo'llanish imkoniyatlari ochib berilgan. Uzviylik va izchillik tamoyillarining o'zaro aloqasi, ta'lim jarayonlarini takomillashtirishdagi o'rni hamda pedagogik jarayonlarni sifatli tashkil etishdagi ahamiyati yoritilgan. Shu bilan birga, maqolada ilmiy-tadqiqot faoliyatida ushbu prinsiplarga asoslangan holda yondashuvning afzalliklari ko'rsatib berilgan.*

Kalit so'zlar: *pedagogik tadqiqot, uzviylik, izchillik, prinsiplar, ta'lim jarayoni, rivojlanish, ilmiy-tadqiqot faoliyati, uzluksiz ta’lim, izchillik, didaktik tamoyil, o'qitish usullarini optimallashtirish, algoritmlar, uzluksizlik kategoriyasi, "o'zaro faoliyat"*

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THE PROCESS OF DEVELOPING THE PRINCIPLES OF COHERENCE AND CONSISTENCY IN PEDAGOGICAL RESEARCH

Abstract: *This article studies the development of the relationship between the principles of continuity and coherence in pedagogical research. During the research, the theoretical foundations of these principles were analyzed and the possibilities of their application in practice were revealed. The relationship between the principles of continuity and coherence, their role in improving educational processes and their importance in the qualitative organization of pedagogical processes are highlighted. At the same time, the article shows the advantages of an approach based on these principles in scientific research activities.*

Keywords: *pedagogical research, continuity, coherence, principles, educational process, development, scientific research activities, continuous education, coherence, didactic principle, optimization of teaching methods, algorithms, continuity category, "cross-activity"*

Hozirgi zamon ta'lim tizimida uzviylik va izchillik prinsiplari asosida tashkil etilgan tadqiqotlarning ahamiyati kundan-kunga oshib bormoqda. Ushbu prinsiplar ta'lim jarayonlarini samarali tashkil etish, bilimlarni tizimli rivojlantirish va o'quv

jarayonining barcha bosqichlarida sifatni ta'minlashga xizmat qiladi. Maqolada uzviylik va izchillik prinsiplari o'rtasidagi o'zaro aloqalar va ularning pedagogik tadqiqotlarda rivojlanish jarayoni o'rganiladi.

Uzviylik prinsipi. Uzviylik prinsipi ta'lim jarayonining turli bosqichlari o'rtasida uzluksizlikni ta'minlashga yo'naltirilgan. Ushbu prinsip asosida tashkil etilgan tadqiqotlar, o'quv dasturlari va metodikalar talabalarning bilim va ko'nikmalarini bosqichma-bosqich rivojlantirish imkonini beradi. Uzviylik, avvalo, o'quv materiallarining o'zaro bog'liqligida va o'quvchilarning bilim darajasini tizimli oshirishda namoyon bo'ladi.

Izchillik prinsipi.Izchillik prinsipi esa ta'lim jarayonidagi barcha bosqichlarda tartib va ketma-ketlikni saqlashni ta'minlaydi. Ushbu prinsipga asoslangan tadqiqotlar ta'lim jarayonidagi mavzularning mantiqiy ketma-ketligini ta'minlashga xizmat qiladi. Izchillik ta'lim jarayonining barqarorligini saqlash va o'quvchilarning yangi bilimlarni o'zlashtirish jarayonida qiyinchiliklarga duch kelmasligini kafolatlaydi.

Uzviylik va izchillik prinsiplari o'rtasidagi aloqalar. Uzviylik va izchillik prinsiplari bir-biri bilan chambarchas bog'liq bo'lib, ular pedagogik jarayonlarning uzluksizligini ta'minlashda muhim ahamiyatga ega. Ushbu prinsiplarning uyg'unligi ta'lim jarayonida yuqori natijalarga erishishga xizmat qiladi. Masalan, uzviylik prinsipi mavzularni izchil tartibda taqdim etishni talab qilsa, izchillik prinsipi mazkur tartibni qat'iy saqlashni ta'minlaydi.

Ta'limning uzluksizligi tushunchasining rivojlanish tarixini ko'rib chiqsak, biz uzluksizlik muammosini o'rganish mavzusi nuqtai nazaridan ko'rib chiqishga yordam beradigan g'oyalarga batafsil to'xtalamiz. Shuni ta'kidlash kerakki, uzliksizlikni rivojlanayotgan talaba nuqtai nazaridan ko'rib chiqish g'oyasi hozirgacha ko'tarilmagan. Izchillik muammosiga yechim izlash faol o‘qituvchi va passiv o‘quvchi yo‘nalishida davom etdi. Tadqiqotchilarning asosiy intilishlari o'quv jarayonida izchil aloqalarni o'rnatish uchun o'qituvchi foydalanishi kerak bo'lgan usullarni aniqlashga qaratilgan edi.

Komenskiy ta’limning tizimli bo‘lishini talab qiladi. O‘qitilayotgan material o‘quvchilarga asosiy qoidalar tariqasida lo‘nda bayon qilinishi kerak. O‘qitishda dalillardan xulosalarga, misollardan qonunlarga o‘tish, dalillar va misollarni qoidalar tizimiga solib, umumlashtirib berish lozim, aks holda hodisalarning tizimsiz uyumi hosil bo‘lib qoladi. Konkretdan abstraktga, osondan qiyinga, umumiydan xususiyga o‘tish kerak; avval narsa, ya’ni hodisaga umumiy tushuncha berib, keyin uning turli tomonlarini ayrim-ayrim o‘rganish kerakligini ko‘rsatadi. Izchillik tamoyilida — fan asoslarini izchil bayon qilish va sistemali tarzda o‘rgatish talab etiladi. Izchillik tamoyilida, kun, oy, yilga vazifa qo‘yish va uni amalga oshirish uchun intilish kerakligi aytiladi. Bunda aniq vaqtni belgilash, o‘qishning bola yoshiga mos bo‘lishi, material izchillik bilan o‘rganilishi, ya’ni bugungi material ertagi bilan bog‘lanishi va keyingi o‘tiladigan materialga yo‘l ochish kerak.

Komenskiy o‘qitishdagi dogmatik usulga qarshi chiqdi va onglilik tamoyilini ilgari surdi. U ta’limning tizimli bo‘lishini talab qildi.

Uning fikricha, ta’limda izchillik tamoyili katta ahamiyatga ega. O‘quvchilarning kuchi yetadigan narsani o‘qitish kerak. Komenskiy o‘qitilayotgan materialni o‘quvchilarning mustahkam, asosli ravishda o‘zlashtirishlariga katta e’tibor berdi. Shuningdek, ovoz chiqarib takrorlashning ahamiyati kattaligini, o‘quvchilarning qobiliyatini o‘stirishi, nutqining rivojlanishi va rovon bo‘lishi, o‘quvchilarning bilish qobiliyatini imkon boricha kuchliroq o‘stirishga harakat qildi.

Bilimlar o'rtasidagi aloqani o'rnatish g'oyasi qadimgi mutafakkirlarning asarlarida mavjud va klassik o'qituvchilar tomonidan ifodalangan. Shunday qilib, Ya.A.Komenskiy o‘quv jarayonini yagona bilish jarayoni, yagona umumiy ildizdan bilimning bosqichma-bosqich kengayishi deb hisoblagan. Har bir yangi bilim asta-sekin talabalar ega bo'lgan bilimlar ustiga qo'yiladi. Ya.A tomonidan taklif qilingan o'quv jarayonining xususiyatlaridan. Komenskiy shuni ko'rsatadiki, materialni faqat ma'lum bir ketma-ketlikda o'rganish kerak emas (keyingi har doim oldingisiga tayanadi), balki uni allaqachon o'rganilgan narsalar bilan ham bog'lash kerak (oldingisini keyingisida mustahkamlash kerak). U o'z tadqiqotida ta'lim mazmunini tanlashda olingan bilimlarning genetik "hujayrasini" aniqlash kerakligini isbotlaydi, buning asosida talabalar keyinchalik o'rganilayotgan materialning turli xil o'ziga xos xususiyatlarini chiqaradilar.

Xuddi shunday nuqtai nazarni K.D. Ushinskiy ham tadqiqot ishlarini amalga oshirgan. Uning fikricha, yangi material allaqachon ma'lum bo'lgan narsalar bilan bog'liq bo'lishi kerak . Hamda bu qaysi mavzu va bu bilim qachon olinganiga bog'liq bo'lmasligi kerak. K.D. Ushinskiy bilimlarni bir-biridan ajralgan holda o‘rganish uchun taklif qilib bo‘lmaydi, degan edi. Doimiy ravishda o'rganilgan narsaga qaytib, bilimlarni ma'lum bir ketma-ketlikda taqdim etish muhimdir . Shu bilan birga, turli darslarda olingan bilimlarning bir-biriga bog'langanligi muhimdir . Xullas, mumtoz o'qituvchilar o'qitishda ketma-ket aloqalarni o'rnatish zarurligini ta'kidladilar, lekin bu muammoni asosiy muammolardan biri sifatida ko'tarmaganliklari shubhasiz.

Bu davrda o'quv jarayonida ochilishi mumkin bo'lgan turli xil aloqa turlari muhokama qilinadi. Mavzu ichidagi predmet ichidagi bog`lanishlar, bir sikl sub`ektlari o`rtasidagi bog`lanishlar, turli sikllarga mansub sub`ektlar orasidagi bog`lanishlar ko`rib chiqiladi. Asosiy e'tibor fanlararo aloqalarni o'rnatishga qaratilgan. Hozirgi vaqtda vorislikning o'ziga xos xususiyati oldingi materialning keyingisi bilan chiziqli bog'lanishidir.

Izchillikni tushunish bo'yicha qiziqarli nuqtai nazar S. E. Drapkina tomonidan ifodalangan [85]. U ikkita rivojlanayotgan tizimni aniqlaydi: mavzu bo'yicha bilim va talabaning bilimlarni o'zlashtirish qobiliyati. Bu, aslida, ta'limning uzluksizligining yana bir jihatini ajratib ko'rsatadi: bu tushunchani o'rganishning ob'ektiv va sub'ektiv tomonlari o'rtasidagi munosabat, ob'ektiv bilimlar tizimi va talabaning ushbu bilimlarni o'zlashtirish qobiliyatlari o'rtasidagi o'zaro ta'sir sifatida talqin qilish kerak. Afsuski, bu fikr tadqiqotchilar tomonidan yanada rivojlantirilmadi. O‘quvchilarning bir ta’lim bosqichidan ikkinchisiga o’tish davridagi uzluksizlik. Faqat 50 yilda bitta o'tish boshlang'ich maktab - o'rta maktab. ko'rib chiqildi: 1952 yilda "Boshlang'ich maktab" jurnalida bu masala bo'yicha katta

muhokama bo'lib o'tdi. Davomiylik muammosini muhokama qilish chog‘ida mualliflar beshinchi sinf o‘quvchisi boshlang‘ich maktabdan o‘rta maktabga o‘tishda duch keladigan qiyinchiliklarni muhokama qildi va ularni bartaraf etish yo‘llarini taklif qildi. Ta’kidlanganidek, sobiq to‘rtinchi sinf o‘quvchilari beshinchi sinfda fikrlash, xotira va yangicha fikrlash qobiliyatini yanada yuqori darajada rivojlantirishni talab qiluvchi materialni o‘rganishda o‘zlarini ishonchsizlik his qiladi.

Ushbu qiyinchiliklarni bartaraf etishning asosiy vositasi boshlang'ich va o'rta maktab o'qituvchilarining metodik birlashmalarining birgalikdagi faoliyati, darslarga o'zaro qatnashish , ochiq darslarni o'tkazish va hokazolarni o'z ichiga olgan ketma-ket aloqalarni o'rnatish edi.

Afsuski, ko'p yillar davomida maktab amaliyotida ketma-ket aloqalarni o'rnatishda ikkinchi yo'nalish asosan o'rnatildi, bu esa quyida muhokama qilinadi.

Yetmishinchi yillarda , uch yillik boshlang'ich maktabga o'tish amalga oshirilganda, ular davomiylik muammosiga qaytdilar. Ayni paytda maktablar yangi ta'lim mazmuniga o'tmoqda. Yangi g'oyalarni joriy etish jarayonida turli xil nomuvofiqliklar aniqlanadi: boshlang'ich va o'rta maktab dasturlarida; talabalar bilimini baholashda turli mezonlar; materialni taqdim etish tezligida va boshqalar. Hozirgi vaqtda uzluksizlik muammosini hal qilish yuqorida ko'rsatilgan yo'nalishlardan iborat : ta'limning oldingi bosqichidan ta'lim bosqichiga o'tishda ta'lim bilish xususiyatlarini o'rgatishda "uzluksizlik" tushunchasini yanada chuqurroq tushunish va ketma-ket aloqalarni o'rnatish. Keyingisi.

A) tarbiyaviy bilish jarayonida uzluksizlik

Psixologik nuqtai nazardan uzluksizlik kontseptsiyasini tushunib, A. A. Lyublinskaya [155] "o'zaro faoliyat" aqliy harakatlarni ajratib ko'rsatish zarurligini ta'kidlaydi , ularning rivojlanishi mazmunni mazmunli o'rganishni ta'minlaydi va o'quvchiga imkon beradi. turli vazifalarni engish. Tadqiqotchining ta'kidlashicha, bunday ko'nikmalar yuqori umumlashtirish darajasiga etib, ketma-ket aloqalarning o'rnatilishini ta'minlaydigan aqliy faoliyatning umumiy usuliga aylanadi. Biz bu nuqtai nazarga qo'shilamiz, chunki biz o'zaro matematik ko'nikmalarni aniqlash va rivojlantirish boshqa matematik ko'nikmalarni shakllantirishning asosi bo'lishiga ishonamiz. Bu o'zaro faoliyat ko'nikmalar har bir mavzuni o'rganish jarayonida uzoq vaqt davomida shakllanmaydi, balki doimiy ravishda o'zgartiriladi va rivojlanadi. Ushbu kesishgan matematik ko'nikmalarning bilvosita shakllanishi tufayli yangi tushunchalar, faktlar va algoritmlarni o'rganishda umumiylik ta'minlanadi, bu esa maktab matematika kursiga yaxlitlik beradi. Ushbu o'zaro faoliyat ko'nikmalar bilimning alohida elementlari o'rtasidagi ichki aloqalarni ochib berish va ularni tizimga aylantirish imkonini beradi.

V.A. Cherkasov umumta'lim maktablarida o'qitish usullari va usullarini optimallashtirish muammosini o'rganar ekan , o'qitishda ketma-ket aloqalarni o'rnatish yo'llarini ko'rib chiqadi. U o‘z tadqiqotida uzluksizlikni “tabiatdagi, jamiyatdagi, tafakkurdagi taraqqiyotni ham, bog‘lanishning o‘zi ham rivojlanishini tavsiflovchi rivojlanish bog‘lanishi” deb ta’riflaydi. O'rganilayotgan kontseptsiyani bunday tushunish umume'tirof etilganidan biroz farq qiladi. Ob'ektning

rivojlanishini ikki tomondan ko'rib chiqish taklif etiladi : ob'ektning o'zini rivojlantirish va ob'ekt ichidagi va tashqarisidagi aloqalarni rivojlantirish. Muallif shunday yozadi: “... ta’limdagi uzluksizlikni faqat rivojlanish bosqichlari deb hisoblash mutlaqo qonuniy emas. Davomiylik bosqichlarning (bosqichlarning) shakllanishiga mas’uldir” .

Darhaqiqat, maktab amaliyotida ob'ektning o'zida va ob'ektlar orasidagi aloqalarni rivojlantirishga ko'pincha oddiygina e'tibor berilmaydi. Masalan, turli matematika darsliklarini tahlil qilish shuni ko'rsatadiki, sonlar ustidagi arifmetik amallarni o'rganishda asosiy e'tibor algoritmni shakllantirishga qaratiladi . Ammo darsliklarning hech birida ushbu algoritmlarni ishlab chiqish tavsifi berilmagan, bir turdagi raqamlardan boshqasiga o'tishda ularning qanday o'zgarishi, bu o'zgarishlarning sabablari o'rganilmagan .

V.A.Cherkasov materialni umumlashtirishni uzliksiz aloqalarni o'rnatish vositasi deb ataydi . Uning fikricha, “... uzluksizlik jarayon sifatida umumlashtirishning shartidir. Shu bilan birga umumlashtirishning o‘zi ham uzluksizlikni anglash yo‘li va ayni paytda uzluksizlik ro‘yobga chiqadigan shakl vazifasini bajaradi” [325, 5-bet]. Albatta, umumlashtirishni ketma-ket bog'lanishlarni amalga oshirish vositasi deb hisoblash mumkin. Lekin bu har doim ham shunday emas.

Bundan tashqari, muallifning ta'kidlashicha, uzluksizlikni amalga oshirish usullari : bilimlarni tizimlashtirish, sub'ektlar ichidagi va sub'ektlararo aloqalarni o'rnatish, modellashtirish, o'xshashliklarni chizish va boshqalar. Boshqa tadqiqotchilar vorislik aloqalarini o'rnatishning o'xshash usullariga ishora qiladilar (A.V. Bata r - Shev , S.M. Godnik , V.P. Jukovskiy, Yu.A. Kustov, A.G. Moroz, D.S. Yagafarov va boshqalar). Darhaqiqat, ushbu o'qitish usullaridan foydalanganda, individual bilimlar o'rtasida turli xil aloqalar o'rnatiladi. Bizning fikrimizcha, bilimlar orasidagi har bir bog'lanish ketma-ket bog'liqlik emas. Ammo tadqiqotchilarning ishlarida har bir bog‘lanish turining o‘ziga xos xususiyatlari o‘rganilmagan, ketma-ket bog‘lanishning boshqa turlardan farqi, bog‘lanishlarning ketma-ket bo‘lib o‘tish shartlari ko‘rib chiqilmagan.

Xulosa

Pedagogik tadqiqotlarda uzviylik va izchillik prinsiplari asosida ishlash ta'lim jarayonining barcha bosqichlarida samaradorlikni oshiradi. Tadqiqotlar shuni ko'rsatadiki, uzviylik va izchillik tamoyillariga rioya qilish o'quvchilarning bilish jarayonini osonlashtiradi va bilimlarning chuqurroq o'zlashtirilishini ta'minlaydi.

Maqolada uzviylik va izchillik prinsiplari o'rtasidagi o'zaro bog'liqlik pedagogik tadqiqotlar nuqtai nazaridan tahlil qilindi. Tadqiqot natijalari shuni ko'rsatadiki, ushbu prinsiplar ta'lim jarayonlarini samarali tashkil etishda muhim ahamiyatga ega. Ularning uyg'unligi ta'lim sifatini oshirish, o'quvchilarning bilim va ko'nikmalarini tizimli rivojlantirishga xizmat qiladi.

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FEATURES OF PRIMARY OPENING OF LOW-PRESSURE FORMATIONS USING GAS-LIQUID MIXTURES

Annotation: *This article provides information on the features of using a gas-liquid mixture to clean the bottomhole of a well, the negative and positive effects of a gas-liquid mixture on the body of a well.*

Key words: *gas-liquid, speed, pressure, liquid, opening, drilling, speed, walls, wells.*

Introduction

Discovery of a formation with low pressures (even when using progressive drilling fluids) is significantly complicated. During circulation, large pressure differences occur on the formation, which causes a violation of its natural structure, complete absorption of the drilling fluid. In case of catastrophic absorption of the drilling fluid, the filtrate with sludge and other impurities penetrates to such a depth, from where it is impossible to extract it during development [1].

Main part

To open low-pressure formations, it is recommended to use balanced-pressure drilling technology with gas-liquid mixtures. In this case, in addition to the improved quality of formation opening (due to the balanced pressure in the wellbore and formation), the drilling technology allows to increase the drilling speed due to the intensification of bottomhole cleaning. At low flow rates, low carrying capacity of cleaning agents, a significant volume of sludge is not carried to the surface, but is repeatedly ground and re-ground at the bottomhole. Therefore, most of the energy is used not for the destruction of the face, but for grinding and crushing the cuttings.

At a balanced pressure, the borehole walls are maintained in a stable position, which determines the advantages of using gas-liquid cleaning agents during drilling;

prevention of packing, tool seizure, pipe breaks and other types of accidents;

prevention of pressure increase in the injection line, pump compression, intensification of absorption and loss of circulation;

increase in drilling speed by eliminating re-grinding of collapsed rocks;

simplification of the well design by partially eliminating intermediate casing strings used to cover caving intervals;

minimization of inter-formation flows that occur during poor-quality cementing, which is caused by the collapse of the borehole walls due to the eccentric nature of the casing string installation.

The analysis of the listed advantages allows us to conclude that drilling wells with flushing with gas-liquid mixtures can increase the mechanical drilling speed,

reduce the cost of the well, improve the quality of construction, meet environmental protection requirements, and save materials and reagents.

The rational area of application of the technology is determined by the conditions in which the advantages of gas-liquid cleaning agents are most fully manifested. The technology of cleaning the well with gas-liquid mixtures is recommended for use in the following cases.

Drilling in rocks prone to absorption of the filtrate of the cleaning agent.

Unsatisfactory well drilling speed.

Drilling large-diameter wells.

Drilling in rocks prone to swelling and collapse when filtrate penetrates

Increased requirements for environmental protection, cementing quality [3].

The need to simplify the well design, reduce the number of intermediate columns.

Carrying out work in conditions of the absence of a stable supply of water and reagents.

Conclusion

Main parameters of gas-liquid mixtures. The parameters of aerated fluids are selected for the following conditions:

well drilling at balanced pressure;

ensuring the required bearing capacity of the solution at a given pumping equipment capacity, drilling speed and well design;

economical use of reagents.

The main parameter of the gas-liquid mixture is the volume ratio of the liquid and gas phases. Let us determine this ratio. Balanced pressure during drilling is observed in the case of equality of the hydrostatic pressure of the aerated fluid column up to the wellhead to the formation pressure. To ensure stable stability of the well walls, it is usually recommended to drill the well with a repression on the formation within 0.03-0.05 MPa.

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YUQORI MALAKALI BOKSCHI QIZLAR TAYYORGARLIGI TIZIMINING NAZARIY VA AMALIY JIHATLARI

Annotatsiya: *Mazkur maqolada yuqori malakali bokschilarning jismoniy tayyorgarlik jarayoni davomida texnik-taktik tayyorgarlik jarayonida amalga oshiriladigan zarbalar aniqligi, kuchi va shiddatini o‘rganib chiqqan holda ularning fungsional imkoniyatlari hamda irodaviy fazilatlariga baho berib borildi. Aniqlangan natijalarga kora yuqori malakali bokschilarning tayyorgarlik jarayoni yuzasidan kerakli ko‘rsatma va tavsiyalar ishlab chiqildi.*

Kalit so‘zlar: *Yuqori malakali bokschilar, texnik tayyorgarlik, kuch, tezkorlik, jismoniy tayyorgarlik, zarba.*

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THEORETICAL AND PRACTICAL ASPECTS OF THE SYSTEM OF TRAINING OF HIGHLY QUALIFIED GIRLS BOXERS

Annotation: *This article examines the accuracy, strength, and intensity of punches delivered by highly skilled boxers during their technical and tactical training, and evaluates their functional capabilities and willpower. Based on the results, necessary guidelines and recommendations for the training of highly skilled boxers were developed.*

Keywords: *Highly skilled boxers, technical training, strength, agility, physical training, punching.*

Dolzarbligi. Yuqori malakali bokschilar tayyorgarligi jarayonini boshqarish zamonaviy sport fanining dolzarb va murakkab masalalaridan biri bo‘lib, bu jarayonni muvaffaqiyatli amalga oshirish nazariy-metodik asoslarni takomillashtirishga va tizimli-integratsion yondashuv asosida innovatsion boshqaruv texnologiyalarini ishlab chiqishga bog‘liq. Ushbu masala sport faoliyatining barqaror rivojlanishini ta’minlashda, shuningdek, raqobatbardosh sportchilarni tayyorlashda asosiy ahamiyatga ega. Tayyorgarlik jarayonida yangi yondashuvlar sportchilar jismoniy, texnik va psixologik qobiliyatlarini individual xususiyatlarga mos ravishda rivojlantirishni talab qiladi. Shu maqsadda, maxsus jismoniy mashg‘ulotlar, funksional imkoniyatlarni oshiruvchi texnikalar va psixologik tayyorgarlikning ilg‘or usullarini integratsiyalash lozim. Tadqiqotlar

shuni ko‘rsatadiki, individual yondashuv sportchilarning musobaqadagi natijalarini sezilarli darajada yaxshilaydi.

Sportchilar tayyorgarligining texnik-taktik jihatlari ularning fiziologik, morfofunktsional va psixologik ko‘rsatkichlari bilan bevosita bog‘liq. Mashg‘ulot jarayonida kuch, tezkorlik, chaqqonlik va chidamlilik kabi asosiy jismoniy ko‘nikmalar sportchilarning individual ehtiyojlari va imkoniyatlariga mos ravishda rivojlantirilishi zarur. Bu esa ularga musobaqalarda keng texnik-taktik arsenalni qo‘llash imkonini beradi. O‘quv-mashg‘ulot jarayoni sportchilarning har tomonlama rivojlanishini ta’minlovchi kompleks pedagogik jarayon bo‘lib, unda jismoniy, texnik, taktik va psixologik tayyorgarlik uzviy bog‘langan holda amalga oshiriladi. Bu jarayon sportchilarni nafaqat musobaqalarda muvaffaqiyat qozonishga tayyorlaydi, balki ularning umumiy sport salohiyatini oshirishga ham xizmat qiladi. O‘quv mashg‘ulotlari uchun aniq rejalashtirilgan, amaliyotga yo‘naltirilgan dasturlarni ishlab chiqish muhim ahamiyatga ega. Tayyorgarlik va mashg‘ulot o‘rtasidagi metodik farqlarni aniqlash ulardan samarali foydalanishni ta’minlaydi. Tayyorgarlik jarayoni umumiy rivojlanishga qaratilgan bo‘lsa, mashg‘ulotlar maxsus yuklamalar va psixologik chidamlilikni oshirishga mo‘ljallangan. Shu sababli, mashg‘ulot jarayonida sportchilar jismoniy imkoniyatlari va texnik qobiliyatlarini maksimal darajada rivojlantirishga e’tibor qaratilishi lozim.

Xulosa qilib aytganda, yuqori malakali bokschilarni tayyorlash zamonaviy sport nazariyasi va amaliyotining integratsiyalashgan yondashuvlarini talab qiladi. Bu jarayon sportchilarning individual xususiyatlarini chuqur o‘rganishni, ularga moslashtirilgan mashg‘ulot texnologiyalarini ishlab chiqishni va bu texnologiyalarni amaliyotda samarali qo‘llashni talab etadi. Ilmiy tadqiqotlar va innovatsion boshqaruv yondashuvlarining uyg‘unligi sport natijalarini izchil oshirishning garovidir.

Tadqiqotning maqsadi: yuqori malakali bokschilarning jismoniy tayyorgarlik jarayonlarida qo‘llaniladigan texnik-taktik harakatlar samaradorligini oshirish.

Tadqiqotning vazifasi: texnik-taktik tayyorgarlik samaradorligini oshirishga qaratilgan zarbalar majmuasini qo‘llash va takroriyligini oshirish.

Tadqiqot natijalari va muhokamasi: Yuqori malakali bokschi qizlarning tayyorgarlik jarayoni murakkab va ko‘p qirrali bo‘lib, jismoniy, texnik, mental va strategik jihatlarni o‘z ichiga oladi. Quyida ushbu jarayonning asosiy yo‘nalishlari keltirilgan:

1. Jismoniy tayyorgarlik: *Kardio mashg‘ulotlar:* Yugurish, velosiped haydash yoki suzish orqali chidamlilikni oshirish, *Kuch-quvvat mashg‘ulotlari:* Og‘irliklar bilan mashq qilish, plyometrika va tana vazniga asoslangan mashqlar (masalan, push-up, plank) orqali kuchni oshirish, *Tezlik va chaqqonlik:* Shvung sumkasi (speed bag) va oyoq ishlash mashg‘ulotlari bilan reaktsiya tezligi va chaqqonlikni rivojlantirish, *Koordinatsiya va muvozanat:* Arqon sakrash, turg‘unlik mashqlari (balance drills) va aylanma mashg‘ulotlar (circuit training).

2. Texnik tayyorgarlik: *Asosiy zarbalar:* Jab, cross, hook, uppercut kabi zarbalarni mukammallashtirish, *Himoya harakatlari:* Bloklash, qochish (slipping), burilish (pivoting) va kontratak usullarini o‘rganish, *Sparring:* Real jangga yaqin sharoitlarda mashg‘ulot olib borish.

3. Strategik tayyorgarlik: *Jang rejasini tuzish:* Kuchli va zaif tomonlarni hisobga olgan holda jang strategiyasini ishlab chiqish, *Video tahlil:* O‘z janglari va raqiblarning janglarini qayta ko‘rib chiqib, o‘zlashtirish, *Taktik kombinatsiyalar:* Har xil vaziyatlar uchun maxsus zarbalar va harakatlar kombinatsiyasini ishlab chiqish.

Bokschi qizlar o‘zlarining murabbiylari bilan birga ishlashadi va individual ehtiyojlariga qarab rejalar tuzishadi. Ushbu tayyorgarlikni muntazam ravishda va to‘g‘ri tartibda bajarish katta natijalarga olib keladi.

Yuqori malakali bokschi qizlarning tayyorgarlik jarayoni ko‘p qirrali va puxta rejalashtirilgan tizimdan iborat. Bu jarayon ulardan nafaqat jismoniy kuch va texnik mahorat, balki mental barqarorlik, to‘g‘ri ovqatlanish va strategik fikrlashni talab qiladi. Tayyorgarlikning har bir bosqichi — boshlang‘ich asoslarni mustahkamlashdan tortib, jangga tayyor bo‘lishgacha bo‘lgan jarayon — sportchining muvaffaqiyatiga bevosita ta’sir ko‘rsatadi. Jismoniy tayyorgarlikda chidamlilik, tezlik va kuchni oshirishga alohida e’tibor beriladi, texnik mashg‘ulotlar esa zarba aniqligi va mudofaa harakatlarini mukammallashtirishni maqsad qiladi. Mental va psixologik tayyorgarlik stressni boshqarish, diqqatni jamlash va jang oldidan o‘zini to‘g‘ri kayfiyatga keltirishni o‘z ichiga oladi.

Yuqorida qayd etilgan usullardan foydalangan holda hamda bokschi qizlarning texnik tayyorgarligiga aniq baho berosh maqsadida maxsus boks qopiga (Yakkakurashchi zarbalarini o‘lchash uchun dasturli apparat majmuasi) signal orqali zarba berish ko‘rsatkichlari aniqlab olindi.

1-jadval

Yuqori malakali bokschi qizlarning texnik tayyorgarligi samaradorligini aniqlash

F.I.Sh	Vazni	Sport unvoni	Sust kuchlanishdagi zarba	Yuqori kuchlanishdagi zarba	Zarba aniqligi
M.Musurmonova	48	X.T.S.U	70,21	168,89	74,05
M.Alieva	48	S.U	68,14	130,19	52,31
R.Ravshanova	50	S.U	71,54	175,84	65,05
F.Rozieva	54	S.U	80,81	170,12	60,12
Z.Uraimova	54	S.U.N	114,36	161,00	72,31
B.Esanova	57	S.U	77,43	200,92	79,41
Ch.Ergasheva	57	S.U.N	71,40	162,70	80,27
S.Mamatova	60	X.T.S.U	81,13	208,75	71.19
A.Tulegenova	66	S.U	75,59	157,29	80,74
X.Bekova	70	S.U	72,30	177,56	67,55
M.Yangieva	75	X.T.S.U	70,47	209,78	71,00
J.Toxirova	48	S.U	60,13	179,28	62,50
Z.Yusufova	50	S.U	66,80	172,00	66,67
F.Sharipova	57	S.U	77,92	150,23	90,00
R.Bekniyazova	60	S.U	69,30	187,96	71,19
O.Ismoilova	63	X.T.S.U	75,16	198,77	66,67
R.Parpieva	80	S.U	77,99	213,32	67,00
S.Shahobiddinova	81	X.T.S.U	87,11	248,97	74,41

Yuqoridagi jadval bokschi qizlarning turli vazn toifalari va sport unvonlariga ko‘ra sukunatdagi zarba kuchi, yuqori kuchlanishdagi zarba va zarba aniqligi ko‘rsatkichlarini o‘z ichiga oladi. Ushbu ko‘rsatkichlar sportchilarning jismoniy tayyorgarligi, texnik mahorati va umumiy samaradorligini baholash uchun ilmiy asos yaratadi. Quyida ushbu ko‘rsatkichlar bo‘yicha kengroq tahlil berilgan:

1. Vazn va zarba ko‘rsatkichlari o‘rtasidagi bog‘liqlik

Vazn toifasi bokschining zarba kuchiga sezilarli ta’sir ko‘rsatadi. Yengil vazndagi sportchilarning zarba kuchi og‘ir vazn toifasidagi sportchilarnikidan pastligi kuzatiladi:

Sust kuchlanishdagi zarba kuchi eng past ko‘rsatkich 60,13 kg (J.Tohirova, 48 kg vazn toifasida), eng yuqori ko‘rsatkich esa 87,11 kg (S.Shahobiddinova, 81 kg vazn toifasida).

Yuqori kuchlanishdagi zarba kuchi bo‘yicha eng yuqori ko‘rsatkich yana og‘ir vazn toifasida (248,97 kg, S.Shahobiddinova), eng past ko‘rsatkich esa 130,19 kg (M.Alieva, 48 kg vazn toifasida) ekanligi aniqlanadi (1-jadvalga qarang).

Bu natijalar shuni ko‘rsatadiki, og‘ir vazn toifasidagi sportchilar zarba kuchi jihatidan ustunlikka ega bo‘lsa-da, bu ularning har doim yuqori aniqlikka ega ekanligini anglatmaydi.

2. Zarba aniqligi tahlili

Zarba aniqligi sportchining jangdagi samaradorligini belgilaydigan muhim ko‘rsatkichdir. Ushbu jadvalda zarba aniqligi 52,31% dan 90% gacha o‘zgaradi:

Eng yuqori aniqlik: F.Sharipova (90%, 57 kg vazn toifasida).

Eng past aniqlik: M.Alieva (52,31%, 48 kg vazn toifasida).

70% va undan yuqori aniqlikka ega sportchilar: Bu guruhga kirgan sportchilar (F.Sharipova, Ch.Ergasheva, A.Tulegenova, S.Mamatova va boshqalar) zarba kuchi va aniqlikni muvozanatda ushlab turishgan. Bu esa ularning texnik tayyorgarligi yuqori ekanligini ko‘rsatadi (1-jadvalga qarang).

Aniqlikning yuqori bo‘lishi sportchining zarbalarini muvaffaqiyatli amalga oshirishiga va jangdagi ustunlikka olib keladi. Shu bois yuqori aniqlikka erishish mashg‘ulotlarda ustuvor ahamiyatga ega.

3. Sport unvonlari va zarba ko‘rsatkichlari o‘rtasidagi bog‘liqlik

Sportchilarning unvonlari ularning zarba kuchi va aniqligiga sezilarli ta’sir qiladi.

Xalqaro toifadagi sport ustalari (X.T.S.U): Bu toifadagi sportchilar ko‘pincha yuqori zarba kuchiga ega bo‘lib, samarali aniqlik ko‘rsatkichlarini namoyon etishgan. Masalan, S.Shahobiddinova (248,97 kg yuqori kuchlanishdagi zarba va 74,41% aniqlik), S.Mamatova (208,75 kg zarba va 71,19% aniqlik).

Sport ustalari (S.U): Ushbu guruhdagi sportchilar texnik va kuch ko‘rsatkichlari o‘rtasida muvozanatni saqlab kelishgan. Masalan, F.Sharipova zarba aniqligi bo‘yicha eng yuqori ko‘rsatkichni qayd etgan (90%). Bu natijalar sportchilar o‘z unvonlariga qarab mashg‘ulotlarda maxsus texnikalarni o‘zlashtirishini va bu ko‘rsatkichlarning yaxshilanishiga olib kelishini ko‘rsatadi.

4. Zarba kuchining texnik va fiziologik ahamiyati

Sukunatdagi zarba: Bu ko‘rsatkich bokschining tabiiy kuch salohiyatini va tana energiyasini qanday to‘g‘ri yo‘naltira olishini o‘lchaydi.

Yuqori kuchlanishdagi zarba: Sportchining jang paytidagi dinamizm va tezkor kuchlanish bilan birga maksimal zarba berish qobiliyatini aks ettiradi. Ushbu ko‘rsatkich og‘ir vaznli sportchilarda yuqoriroq bo‘lsa-da, texnik mahorat bu natijalarni kuchaytirishda muhim rol o‘ynaydi.

Og‘ir vazn toifasidagi sportchilar zarba kuchida ustunlikka ega, ammo yengil vazn toifasidagi sportchilar yuqori aniqlikka erishishga intilishadi.

Xalqaro sport ustalari yuqori darajada muvozanatli ko‘rsatkichlarga ega bo‘lib, zarba kuchi va aniqligini birdek saqlashgan. Zarba kuchi va aniqlikni oshirish uchun texnik tayyorgarlik, psixologik barqarorlik va fiziologik salohiyatni uyg‘unlashtirish zarur. Sust va yuqori kuchlanishdagi zarba kuchi vazn toifasiga bog‘liq bo‘lib, og‘ir vaznli sportchilar bu ko‘rsatkichda ustunlikka ega.

Zarba aniqligi texnik tayyorgarlikni aks ettiradi va sportchining jangda muvaffaqiyatli zarbalar bera olish qobiliyatini belgilaydi. Sport unvonlari sportchilarning zarba ko‘rsatkichlariga ta’sir qiladi. Yuqori unvonlar texnik mahorat va jismoniy kuchning muvozanatini ko‘rsatadi. Tayyorlov jarayonida har bir sportchi o‘zining individual kuchli va zaif tomonlarini aniqlab, maxsus mashg‘ulotlarni amalga oshirishi kerak. Shu tariqa, sportchilar o‘z ko‘rsatkichlarini yaxshilashga va yuqori natijalarga erishishga muvaffaq bo‘ladilar.

Ushbu tahlil asosida tayyorgarlik jarayonini yanada mukammallashtirish bo‘yicha ilmiy tavsiyalar ishlab chiqish mumkin. Bu tahlillar sportchilar tayyorgarlik jarayonida individual yondashuvning ahamiyatini ko‘rsatadi. Har bir sportchining o‘ziga xos kuchli va zaif tomonlarini aniqlab, mashg‘ulotlar jarayonida ularga mos strategiyalar ishlab chiqish lozim. Shu yo‘l bilan yuqori natijalarga erishish mumkin.

Xulosa

Bokschi qizlarning zarba kuchi, aniqligi va sport unvonlari bo‘yicha o‘tkazilgan tahlil natijalari shuni ko‘rsatadiki, har bir sportchining jismoniy va texnik ko‘rsatkichlari ularning vazn toifasi, tayyorgarlik darajasi va fiziologik xususiyatlariga bog‘liq ravishda sezilarli darajada farqlanadi. Quyidagi asosiy xulosalar keltiriladi:

Sust kuchlanishdagi zarba: Ushbu ko‘rsatkich sportchining mushak tolalarining boshlang‘ich kuch hosil qilish salohiyatini ifodalaydi. Og‘ir vazn toifasidagi sportchilar, masalan, S. Shahobiddinova (87,11 kg) bu borada ustunlikka ega bo‘lib, janglarda kuchli zarbalar bilan raqib ustidan ustunlikka erishish qobiliyatini ko‘rsatadi. Eng past ko‘rsatkich yengil vazn toifasidagi sportchilarda kuzatilgan (J. Tohirova, 60,13 kg), bu esa ularning texnik tezlikka asoslangan o‘yin uslubini aks ettiradi.

Yuqori kuchlanishdagi zarba: Maksimal kuchlanish holatidagi zarbalar jang davomida hal qiluvchi ahamiyatga ega. S. Shahobiddinovaning ko‘rsatkichi (248,97 kg) ushbu yo‘nalishda yuqori natijani ko‘rsatgan bo‘lsa, boshqa og‘ir vazn toifasidagi sportchilar ham (masalan, R. Parpieva – 213,32 kg) yaxshi natijalarga

ega. Yengil vazn toifasidagi sportchilar yuqori kuchlanishdagi zarbalarda nisbatan pastroq natijalarni qayd etishgan.

Zarba aniqligi: Zarba aniqligi sportchining texnik va strategik tayyorgarlik darajasini belgilab beradi. Eng yuqori aniqlik F. Sharipova (90%, 57 kg vazn toifasi) tomonidan qayd etilgan bo‘lib, bu uning zarbalarining samaradorligini tasdiqlaydi. Texnik aniqlik yengil va o‘rta vazn toifasidagi sportchilarda nisbatan yuqori, og‘ir vazn toifasida esa bu ko‘rsatkich o‘rtacha darajada bo‘lgan.

Aniqlikni oshirish: Zarba kuchi yuqori bo‘lgan sportchilarda texnik aniqlikni oshirish bo‘yicha mashg‘ulotlar o‘tkazish kerak.

Zarba kuchini rivojlantirish: Yengil vazn toifasidagi sportchilar uchun kuchni rivojlantirishga qaratilgan kuch va chidamlilik mashg‘ulotlari zarur.

Individual yondashuv: Har bir sportchining individual ko‘rsatkichlarini hisobga olib, ularning zaif tomonlarini rivojlantirishga yo‘naltirilgan tayyorgarlik rejalari tuzilishi lozim.

Texnik-taktik uyg‘unlik: Sportchilar zarba kuchi, aniqlik va tezlikni muvozanatda ushlashga qaratilgan kompleks mashg‘ulotlar orqali janglarda maksimal natijalarga erishishlari mumkin.

Ushbu tahlillar va tavsiyalar asosida tayyorgarlik jarayonini to‘g‘ri rejalashtirish orqali sportchilar xalqaro arenalarda muvaffaqiyat qozonish imkoniyatlarini sezilarli oshirishlari mumkin.

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ASAL ARI ZAXRI SUTEMIZUVCHILARNING GO'SHTIDA ALLERGIYA KELTIRIB CHIQARISHINING O'ZIGA XOSLIGI

Annotatsiya*: So'nggi paytlarda Turkiyaning Qora dengiz mintaqasida sutemizuvchilar go'shti allergiyasi ko'paygan. Bu omil populyatsiyasining kengayishi bilan bog'liq. Hashorotlarning chaqishi natijasida ko'plab sutemizuvchilar go'shtida mavjud bo'lgan galaktoza-alfa-1, 3-galaktoza uglevod allergeniga sezgirlik paydo bo'ladi. Bizning maqsadimiz sutemizuvchilar go'sht allaergiyasi va uning kattalardagi bemorlarning klinik xususiyatlarini baholashdir.*
Kalit so'zlar: *Asal ari zahri,allergiya,sutemizuvchilar go'shti allergiyasi, zahar.*

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THE PECULIARITY OF THE FACT THAT HONEY BEE VENOM CAUSES ALLERGIES IN THE FLESH OF MAMMALS

Abstract: *Recently, there has been an increase in mammalian meat allergy in the Black Sea region of Turkey. This factor is related to population expansion. Insect bites cause sensitization to the carbohydrate allergen galactose-alpha-1, 3-galactose, which is present in the meat of many mammals. Our goal is to evaluate mammalian meat allergy and its clinical features in adult patients.*
Key words: *Bee venom, allergy, mammal meat allergy, poison.*

Turkiyaning Qora dengiz mintaqasida sutemizuvchilar go'shti allergiyasi ko'paygan. Bu omil populyatsiyasining kengayishi bilan bog'liq. Hashorotlarning chaqishi natijasida ko'plab sutemizuvchilar go'shtida mavjud bo'lgan galaktoza-alfa-1, 3-galaktoza uglevod allergeniga sezgirlik paydo bo'ladi. Ushbu tadqiqotda, go'sht allergiyasiga aloqador bo'lgan omil turi Turkiyaning Qora dengiz

mintaqasidagi uy hayvonlarida mavjudligini aniqlangan. Yaqinda yangi tushuncha paydo bo'ldi; alfa-galaktoza allergiyasiga ega bo'lish ko'p zaharga xos immunoglobulin (Ig) E ga sensibilizatsiya xavfi ortishi bilan bog'liqligini ko'rsatadi. Sarum umumiy IgE va mol go'shtiga xos IgE o'lchandi.So'ralgan 50 nafar bemorning 12 nafarida (4 erkak [33,3%) va 8 nafar ayol [66,6 foiz]) zaharga yuqori sezuvchanlik reaktsiyasi tarixi bo'lgan. O'rtacha yoshi 36,50±13,35 yil (diapazon: 18-61). 8 (66,6%) bemorda boshqa allergik kasalliklar tarixi mavjud. Ushbu 12 bemorda ham zahar, ham go'sht allergiyasi terini chaqtirish testlari bilan tasdiqlangan. **Bu bemorlarda asalari zahariga sezgirlik tez-tez uchraydi (83%).**Sutemizuvchilar go'shti allergiyasi - immunoglobulin E (IgE) antitanalari bilan bog'liq bo'lgan allergik reaksiya bo'lib,sutemizuvchilar oligosakkarid epitop galaktoza-alfa-1, 3-galaktoza (alfa-gal) qarshi qaratilgan.Agar odam sutemizuvchilarni go'shtini isre'mol qilsa bir necha soatdan keyin quyidagi belgilar kuzatiladi: qorin og'rig'i, ko'ngil aynishi, qusish, yo'tal, nafas qisilishi xirillash kuzatiladi.Sutemizuvchilarda go'sht allergiyasi butun dunyo bo'ylab endemik hududlarida keng tarqalgan oziq-ovqat allergiyasi turi hisoblanadi. Tadqiqotlar shuni ko'rsatadiki,allergiyalar kelib chiqishiga sabab,chaqish omili bilan bog'liqdir.Asal ari chaqishdan keyin sutemizuvchilarda go'sht allergiyasi birinchi marta 2007 yilda Van Nunen va boshqalar tomonidan xabar qilingan.Keyinchalik 2009-yilda Commins va boshqalar qizil go'sht allergiyasi bo'lgan 24 bemor haqida xabar berishdi. Shunga ko'ra, bemorlarning ko'pchiligi (80%) alomatlar paydo bo'lgunga qadar asal ari chaqqan. Odatiy allergik reaktsiya sutemizuvchilar go'shtini iste'mol qilgandan keyin 3-6 soat o'tgach sodir bo'ladi.Boshqa tomondan, Mabelane T va boshqalar.Alfa-gal allergiyasi simptomlarning tez boshlanishi va oshqozon-ichak ko'rinishining yuqori tarqalishi bilan bog'liqligini xabar qildi. Bu sutemizuvchilar go'shti iste'mol qilinganidan keyin 45-375 minut ichida sodir bo'lishi aniqlandi.Yaqinda o'tkazilgan tadqiqotda Jerath va boshqalar yangi tadqiqotni taklif qilishdi.Ular sutemizuvchilarda go'sht allaergiyasi va hasharotlar allergiyasi o'rtasida bog'liqlik bo'lishi mumkinligini da'vo qilishdi. Ular 109 bemorni alfa-gal va zaharlarga xos IgE ga baholadilar. Ularda sutemizuvchilar go'sht allergiyasi bilan og'rigan bemorlarda qizil go'shtga allergiyasi bo'lmagan bemorlarga nisbatan hasharotlar chaqishi ehtimoli besh baravar ko'proq ekanligini taxmin qilishdi. Va nihoyat, ular sutemizuvchilarning go'shtiga allergiyasi bilan og'rigan bemorlarning zaharga sezgir bo'lish ehtimoli 3,6 baravar ko'proq ekanligini taxmin qilishdi.

Teri sinovlari (terini chaqtirish) Apis mellifera 100 mcg/ml bilan bajarildi.1-Jadval

T\r	Yoshi	Jinsi	Go'sht allergiya bergan yoshi	Boshqa allergik reaksiya	Asal ari chaqishi	Go'shtni iste'mol qilgandan keyingi alomatlar	Go'sht allergiyasining oilaviy tarixi	Simtomlarning paydo bo'lish vaqti	Go'sht reaksiya berishining oxirgi vaqti (oy hisobida)
1	38	Ayol	18	Astma	Ijobiy	A,D	Salbiy	30 minut	6
2	46	Ayol	16	Allergik renit	Noma'lum	A,D	Salbiy	15 minut	12
3	61	Ayol	58	-	Ijobiy	A,D,AP,N,V	Ijobiy	2 soat	6
4	18	Erkak	3	-	Noma'lum	U,A,D	Salbiy	15 minut	2
5	22	Ayol	18	-	Noma'lum	A,D, AP,N,V	Salbiy	30 minut	7
6	35	Ayol	30	Allergik renit	Salbiy	U,A,AP	Salbiy	15 minut	2
7	55	Ayol	20	Astma	Ijobiy	A,D,AP,N,V	Ijobiy	30 minut	36
8	29	Erkak	6	Allergik renit	Ijobiy	A,D,AP,N,V	Ijobiy	30 minut	24
9	16	Erkak	14	Allergik renit	Salbiy	A,D,AP,N,V	Salbiy	30 minut	24
10	32	Erkak	18	-	Noma'lum	U,A,D	Salbiy	15 minut	24
11	43	Ayol	18	Allergik renit	Salbiy	A,D,AP,N,V	Salbiy	30 minut	6
12	40	Ayol	20	Allergik renit	Ijobiy	A,D,AP,N,V	Salbiy	1 soat	36

A-angioderma **D**-dispnoe **AP**-abdominal og'riq **C**-yo'tal **N**-ko'ngil aynishi **V**-qusish **W**-xirillash **U**-qizarish

1-Jadval

Xulosa. Tadqiqotimizdagi sutemizuvchilarning go'shtiga allergiyasi bo'lgan bemorlar. Vaholanki alfa-gal - uglevod tuzilishi allergen, klinik ahamiyatga ega zaharli allergenlardir.Bugungi kunga qadar O'zbekistonda sutemizuvchilar go'sht allergiyasi bilan kasallangan kattalardagi bemorlarning klinik xususiyatlari bo'yicha hech qanday tadqiqot o'tkazilmagan. Ushbu tadqiqotda kattalarning klinik xususiyatlari sutemizuvchilar go'sht allergiyasi va zahar sezgirligi bo'lgan bemorlar haqida birinchi marta xabar beradi.

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INTERNATIONAL BANK CASH OPERATIONS

Abstract : *Banking operations - operations carried out by banks: receiving money into a current or other account, granting loans with or without interest, executing stock exchange orders, purchasing securities, shares, executing customer orders, granting loans against the collateral of goods or commodity documents, as well as any other cash and non-cash transactions. Mainly passive (generating resources for lending) and active (the use of these resources for profit purposes) are divided into types.*

Keywords: *Bank, operations, assets, liabilities, resources, banking activities, central bank.*

In accordance with the Law "On Banks and Banking Activities" adopted by the President of the Republic of Uzbekistan Shavkat Mirziyoyev, the list of operations performed by banks has been supplemented with a number of new banking operations.

In particular, these include transactions such as the purchase and sale of coins made of precious metals, the issuance, use, and payment of electronic money.

Financial transactions carried out by banks include:

- attracting funds to deposits;
- making payments, including without opening bank accounts;
- opening and maintaining bank accounts of individuals and legal entities, including representative accounts of banks;
- to grant loans on its own behalf from its own funds and borrowed funds, subject to their repayment, interest rate and term;
- cash and non-cash transactions with foreign currency;
- trust management of property under a contract concluded with an individual or legal entity;
- providing collection and cash services;
- to issue guarantees and assume other obligations on behalf of third parties, providing for the fulfillment of their obligations;
- obtaining the right to demand the fulfillment of monetary obligations from third parties (factoring);
- issue, purchase, sell, keep records of and store securities, manage securities in accordance with an agreement concluded with a client, and perform other transactions with them;
- purchase and sale of refined precious metals, including maintaining metal custody accounts and dematerialized (non-physical) metal accounts;
- buying and selling coins made of precious metals;

- carrying out transactions with derivative financial instruments (derivatives);
- renting special buildings or safes within them for storing documents or valuables;
- leasing;
- granting loans in the forms provided for by law;
- provision of advisory services related to financial transactions;
- asset portfolio management;
- issuance, use and payment of electronic money;
- Issuing bank cards and processing payments, servicing bank cards in conjunction with other organizations, including other financial institutions.
- Banks also carry out other financial transactions in accordance with the legislation on banks and banking activities.
- Banks are not entitled to carry out financial transactions not specified in the license granting the right to carry out banking activities.

Information on the transactions and accounts of legal entities and other organizations is provided to these organizations themselves, the prosecutor, courts, and, if a criminal case has been initiated, to inquiry and investigative bodies.

Information on accounts and deposits of individuals is provided to the clients themselves and their legal representatives; to courts, inquiry and investigative bodies in cases where funds and other valuables in the accounts and deposits of clients may be seized, levied on, or property may be confiscated.

Upon the death of account and deposit holders, these accounts and deposit certificates are issued to the persons indicated in the will submitted to the bank by the account or deposit holder, to state notary offices conducting inheritance proceedings regarding the savings of deceased depositors, and certificates of accounts of foreign citizens are issued to foreign consular institutions.

The Central Bank's operations to attract funds from commercial banks to deposits at the base rate. These auctions will be carried out in the form of "fixed rate - full allotment" operations starting in March 2022.

The Central Bank of the Republic of Uzbekistan may carry out any operations in foreign currency in the republic and abroad that comply with the laws of the Republic of Uzbekistan and are used in international practice.

Central Bank of the Republic of Uzbekistan:

Participate in the development of currency and financial terms of intergovernmental trade and payment agreements (agreements, mission statements), contributing to ensuring the economic, currency and other interests of the Republic of Uzbekistan; conclude agreements on cooperation with the Central and national banks of countries included in the "ruble" zone and other countries in accordance with intergovernmental agreements (agreements, mission statements);

The Central Bank may refuse to register a bank and issue a license based on the following:

Conclusion. Banking operations are the means by which banks achieve their goals and act. They are divided into active and passive operations, and banks also provide various types of services (factoring, leasing, consulting, trust, etc.).

Bank liabilities - a set of operations related to bank expenses, consisting of capital funds of legal entities and individuals, own funds, and loans from the Central Bank.

Bank assets are a set of various material and financial resources used by banks to carry out their main activities. They are mainly in the form of bank loans, fixed assets, purchased securities, investments, and foreign exchange assets.

Active operations play a major role in obtaining bank loans in our real life. Loans serve as the basis for us to start various businesses.

The decision to refuse to register a bank and issue a license shall be sent to the applicant in writing, indicating the reasons for the refusal and the period within which the applicant may eliminate the indicated reasons and apply for a re-examination. In this case, the period specified in the decision to refuse to register a bank and issue a license shall be proportionate to the time required to eliminate the deficiencies.

Reconsideration of an application for registration of a bank and issuance of a license shall be carried out no later than fifteen days from the date of receipt of the application together with all necessary documents. An application submitted after the expiration of the period specified in the decision to refuse to register a bank and issue a license shall be considered a new application.

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PEDAGOGICAL COMMUNICATION AS A FACTOR IN THE DEVELOPMENT OF PROFESSIONAL THINKING OF FUTURE TEACHERS

Abstract: *the article is devoted to studying the importance of pedagogical communication in the development of professional thinking of future teachers in the educational process, and also shows the educational possibilities of communication in the process of achieving professional maturity.*

Key words*: thinking, profession, communication, future teacher, development, education, characteristics, criterion, result.*

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PEDAGOGIK MULOQOT BO‘LAJAK O‘QITUVCHILAR KASBIY TAFAKKURINI RIVOJLANTIRISH OMILI SIAFTIDA

Annotatsiya: *maqola ta’lim jarayonida bo‘lajak o‘qituvchilar kasbiy tafakkurini rivojlantirishda pedagogik muloqotning ahamiyatini o‘rganishga bag‘ishlangan bo‘lib, muloqotning kasbiy yetuklikka erishish jarayonidagi tarbiyalovchi imkoniyatlari yoritilgan.*

Kalit so‘zlar: *tafakkur, kasb, muloqot, bo‘lajak o‘qituvchi, rivojlanish, tarbiya, xususiyat, mezon, natija.*

Bo‘lajak o‘qituvchi shaxsini shakllantirish muammosi har qaysi kishilik jamiyatining ehtiyojlari va talablaridan kelib chiqqan holda hal qilinadi. Shu boisdan hozirgi davrda qabul qilinishi mo‘ljallangan yangi “Ta’lim to‘g‘risida”gi qonun va ushbu qonun asosida qabul qilinadigan me’yoriy xujjatlarda kasb tanlash motivlari, kasbiy tayyorgarlik, kasbiy layoqat va kasbiy mahorat bilan cheklanib qolmaslikni, balki bo‘lg‘usi pedagogik kadrlarda kasbiy tafakkurni tarkib toptirish mutlaqo zaruriy shart ekanligi ta’kidlanadi.

Respublikamizda o‘qituvchilik kasbining o‘ziga xos etnopsixologik fazilatlari, xislatlari, qobiliyatlari ish uslublari mahoratga erishishning yo‘llari, shaxslararo muloqot maromlari yuzasidan har xil davrlarda bir muncha ilmiy izlanishlar olib borilgan.

Muloqot – muloqot subyektlarining o‘zaro ta’sir jarayoni bo‘lib, bu ta’sir davomida axborot almashinadi, munosabat o‘rnatiladi, rivojlantiriladi. Muloqot vositasida hamkorlikdagi faoliyat tashkil etiladi va amalga oshiriladi. Ayni vaqtda

faoliyat davomida insonlar o‘rtasida yangi-yangi munosabatlar va aloqalar shakllanadi. Demak, muloqot va faoliyat o‘zaro chambarchas bog‘liqdir.

Muloqotning tarbiyalovchi imkoniyatlarini ro‘yobga chiqarish ko‘p jihatdan o‘qituvchining shaxsiy sifatlari bilan belgilanishini aytib o‘tish kerak. Pedagogik muloqotning to‘g‘ri tanlangan, pedagogning betakror individualligiga muvofiq keluvchi uslubi quyidagi vazifalar majmuini hal qilishga yordam beradi:

birinchidan, pedagogik ta’sir ko‘rsatish pedagog shaxsi bilan ayni bir narsa bo‘lib qoladi, auditoriya bilan muloqotda bo‘lish jarayonining o‘zi soddalashadi, u pedagogning o‘zi uchun yoqimli, uzviy bo‘lib qoladi;

ikkinchidan, talabalar bilan o‘zaro munosabatlarni yo‘lga qo‘yish jarayoni ancha yengillashadi;

uchinchidan, pedagogik muloqotning barcha eng muhim vazifalarining, samaradorligi ortadi, shu bilan birga bularning hammasi muloqotning barcha bosqichlarida pedagogning hissiy xotirjamligining ijobiy negizida ro‘y beradi.

Talabalarda muloqotlarning individual uslubini shakllantirish metodikasi quyidagi bosqichlarni o‘z ichiga oladi:

1. Talabalar muloqoti individual uslubining xaqiqiy shaxsiy xususiyatlarini o‘rganish va ularni talabalarning anglab yetishi. Talabalarning mustaqil tahlil qilishi, o‘zaro har tomonlama tavsifnomalari, o‘qituvchilarning kuzatishlari asosida amalga oshadi. Talabalar shu maqsadda «Men boshqa kishilar bilan muloqotda qandayman?» mavzuida esse yozadilar, bir-birlariga shunga o‘xshash mazmunda tavsifnoma tayyorlaydilar va hokazo.

2. Shaxsiy muloqotdagi kamchiliklarni aniqlash va ularni barham toptirish yuzasidan qilinadigan ishlar: uyatchanlikni, tortinchoqlikni, muloqot uslubidagi salbiy holatlarni yengish.

3. Pedagog uchun muloqotning hissiy jihatdan qulay bo‘lgan uslubini ishlab chiqishga doir topshiriqlar va ularni o‘z-o‘zini kuzatish ma’lumotlari bilan taqqoslash.

4. Muloqotda o‘z individual uslubi asosida pedagogik muloqot tarkibiy qismlarini egallash (maxsus mashg‘ulotlarda) sohasidagi ishlar.

5. O‘z muloqot uslubiga muvofiq ravishda pedagogik muloqotdan iborat yaxlit hodisani bilib olish borasidagi ishlar va muloqot uslubiga aniqliklar kiritish (maxsus mashg‘ulotlarda).

6. Haqiqiy pedagogik faoliyat individual uslub asosida talabalar bilan muloqot qilish, bu uslubni mustahkamlash (pedagogik amaliyot va stajirovka jarayonida).

Umumiy o‘rta ta’lim maktablarida ishni endi boshlayotgan o‘qituvchilar individual muloqot uslubini shakllantirish ustida muntazam ish olib borishlari zarur.

Tarbiyaviy jarayonni tashkil etishda pedagogik muloqotning jihatlari muhim rol o‘ynaydi, ular pedagog bilan talabalarning bevosita o‘zaro harakati bilan bog‘liqdir. Bu o‘rinda bir necha bosqichlar ajratib ko‘rsatiladi.

Birinchi bosqich - bu o‘qituvchining tarbiyaviy jarayon vaziyatidan xabardorligidir. Shuni nazarda tutish kerakki, bu bosqich juda tez kechadi va xuddi shu bosqichda zarur so‘z, ohang, hulq-atvor vujudga kelishi lozim.

Ikkinchi bosqich: Pedagogik muloqotning samarali jarayoni uchun uning shart-sharoitlarini bilib olishning o‘zi kifoya qilmaydi. Talabalar bilan o‘zaro harakatning boshlanishi o‘zaro fikr almashishga doir yana bir muhim vazifani hal qilish bilan muloqot obyektining diqqatini o‘ziga jalb qilish bilan bog‘liqdir. Muloqot obyektining, ya’ni talabaning diqqatini o‘ziga jalb qilish deganda nimani anglash kerak? Buning ma’nosi bo‘lajak o‘zaro harakatga, ta’limning rejalashtirilgan usullariga, tashkiliy shakllariga ijtimoiy-psixologik negizni asos qilib olish, darsni o‘tkazish uchun zarur bo‘ladigan talabalar diqqatini jalb qilishdir.

Ko‘pincha yosh pedagoglar, talabalar har doim o‘qituvchiga o‘z diqqatlarini qaratishlari lozim deb hisoblaydilar va o‘zaro fikr almashishga doir bu muhim vazifalarni sobit qadamlik bilan hal qilmaydilar.

Ko‘rsatib o‘tilgan bevosita muloqot bosqichlari pedagogik ta’sir ko‘rsatishning nisbatan mustaqil, har bir ko‘rinishida vaqti-vaqti bilan takrorlanib turadi, tarbiyaviy jarayonni tashkil etganda ularni nazarda tutish kerak bo‘ladi.

Tarbiyaviy ta’sir ko‘rsatishni tashkil etishda muloqotning ahamiyati bilan bog‘liq ravishda pedagogik muloqot madaniyatiga, tarbiyachining dilkashligiga alohida talablar qo‘yiladi, dilkashlik unda kasbiy tafakkur sifatida namoyon bo‘ladi.

Tarbiyachi jamoa, gurux va individual ish olib borish jarayonida odamlar bilan muloqot qila bilishi, uni talabalar bilan aniq maqsadni ko‘zlagan holda tashkil eta olishi va ularni boshqara bilishi lozim. Kasb-korga oid pedagogik dilkashlikning yosh o‘qituvchi amal qiladigan quyidagi mezonlarini alohida ajratib ko‘rsatish mumkin: talabalar bilan turli sohalarda muntazam muloqot qilishda barqaror ehtiyojning mavjudligi, muloqotning barcha bosqichlarida hissiy osoyishtalikning namoyon bo‘lishi, o‘zaro fikr almashishga doir sifatlar, ko‘nikmalar va malakalarning mavjudligi.

Fikrimizcha, zamonaviy o‘qituvchi muloqot davomida to‘g‘ri, omilkor axborot uzatishi va unga suhbatdoshini ishontira bilishi kasbiy zaruriyat hisoblanadi.

Xulosa qilib aytganda kasbiy tafakkur o‘z navbatida muloqot madaniyatiga tayangan holda bo‘lajak o‘qituvchining dunyoqarashini, uning kasbini sevishi orqali yetuklik darajasiga intilishini, o‘z borlig‘ini his etishi, Vatan, jamiyat manfaatlari, rivoji uchun keraklilik hissini anglashini ifodalaydi.

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THE DEMOGRAPHIC AND ECONOMIC CAPACITY OF TASHKENT REGION AND ITS SIGNIFICANCE IN POVERTY REDUCTION

Abstract. *This article provides a scientific analysis of the demographic and economic potential of the Tashkent region based on statistical data. The article also highlights the role and importance of the demographic and economic potential of the region in reducing poverty.*

Key words: *Demographic potential, economic potential, poverty, strategy, inflation, employment, entrepreneurship, labor resources, unemployment, jobs, regional economy.*

Introduction. Tashkent region is a region of the Republic of Uzbekistan, located in the northeast of our republic (Figure 1). The region was established on January 15, 1938. It borders the Republic of Kazakhstan to the north and northwest, the Kyrgyz Republic to the northeast, the Namangan region to the east, the Republic of Tajikistan to the south, and the Syrdarya region to the southwest. The territory of Tashkent region (excluding the area of the city of Tashkent) is 15.14 thousand km2, ranking 8th in the Republic.

Tashkent region's wealth in mineral raw materials, in particular coal, copper, molybdenum, gold, silver, lead, marble, allows for employment in the region and, on this basis, poverty reduction.

The main part. The population is more than 3,051,800 people (as of January 1, 2024). It ranks 6th in the republic in terms of population, and 8% of the country's total population lives in this region. The average population density in Tashkent region is 200 people per km². The population is very dense in river valleys, in the steppe areas, and in the Tashkent agglomeration. Most cities in Tashkent region surround the capital in the form of a huge ring. The region includes 15 districts (Bekabad, Boka, Bostanlyk, Zangiota, Tashkent, Aqqurgan, Ahangaran, Parkent, Piskent, Chinoz, Yukyorchirkhik, Yangiyul, Orta Chirchik, Qibray, Kuyy Chirchik), 16 cities, including 7 cities subordinate to the region: Angren, Bekabad, Almalyk, Ahangaran, Nurafshon, Chirchik, Yangiyul, 9 cities subordinate to the districts: Boka, Dostobod, Keles, Aqqurgan, Parkent, Piskent, Chinoz, Yangiyobod, Gazalkent), 89 towns (the largest are Alimkent, Bozsuv, Gulbahor, Zafar, Iskandar, Kyzyltog, Nurobod, Almazar, Salor, Tuyabogiz, Chigiryk, Charvok, Eshongozar,

Yangibazar, Yangi Chinaz, Yangihayot, Ortaovul, Qibray), there are 828 rural settlements. The regional center is the city of Nurafshon (Table 1).

The level of urbanization in Tashkent region is almost equal to the republican average (50.1%). The urban population in the region is 1,529,200, and the rural population is 1,522,600.

Table 1. The administrative-territorial division of Tashkent region (as of January 1, 2024)

	Area (thousand km²)	**Total cities**	**Including cities under regional subordination**	**Small towns**	**Villages**
Tashkent region	**15,14**	**16**	**7**	**89**	**828**
Cities under regional subordination					
Nurafshon city	0,03	1	1	0	0
Olmaliq city	0,10	1	1	0	0
Angren city	0,17	2	1	0	0
Bekobod city	0,03	1	1	0	0
Chipchiq city	0,05	1	1	0	0
Ohangapon city	0,02	1	1	0	0
Yangiyo‘l city	0,01	1	1		
Districts:					
Oqqurgon	0,38	1	0	2	64
Ohangapon	3,20	0	0	5	81
Bekobod	0,75	0	0	5	81
Bustonliq	4,92	1	0	17	29
Buka	0,59	1	0		92
Zangiota	0,19		0	10	29
Qibray	0,48	0	0	13	35
Quyichirchiq	0,56	1	0	2	60
Parkent	1,09	1	0	4	22
Piskent	0,79	1	0	2	64
Urtachirchiq	0,40	0	0	4	84
Chinoz	0,34	1	0	9	50
Yuqorichirchiq	0,46	0	0	3	51
Yangiyol	0,41	0	0	4	63
Toshkent	0,16	1	0	9	23

Tashkent region is one of the leading regions in our country in terms of economic indicators.

The volume of gross regional product in 2023 amounted to 118,825.3 billion soums. This is 11.1% of the total GDP of Uzbekistan (1,066,569.0 billion soums). Its growth rate compared to 2022 was 105.2% [11].

Of the main macroeconomic indicators of the region, investments in fixed capital amounted to 47,709.3 billion soums, construction works to 14,339.0 billion soums, retail trade turnover to 30,872 billion soums, services to 32,184.9 billion

soums, foreign trade turnover to 5,782.9 million. US dollars, exports to 1,885.1 million. US dollars, imports to 3,897.8 million. US. dollar.

In his Address to the Deputies and Senators of the Oliy Majlis of the Republic of Uzbekistan on December 22, 2017, the President of the Republic of Uzbekistan Shavkat Mirziyoyev emphasized that the issue of creating new jobs in our republic is a constant focus of our attention, that hundreds of thousands of new jobs are being created through the construction of new industrial enterprises, the launch of service facilities, the development of small business and private entrepreneurship, and that ensuring employment of the population on this basis is a priority task for us.

He also noted that the implementation of the adopted programs on reforming the social sphere, which is an extremely important direction of state policy in Uzbekistan, is being gradually ensured, and that our main tasks are to provide our population, especially budget employees and low-income families, with housing. Through these reforms, it will be possible to reduce poverty among the population.

Tashkent region is one of the regions of our country with a highly developed industry. Its geographical location allows its economy to flourish. Currently, the region produces 16.3% of the republic's industrial output, 26% of electricity, 99% of coal, 43% of cement, 100% of steel and rolled metal, and the main part of non-ferrous metals.

In 2023, industrial production in the region amounted to 106,915.3 billion soums, and consumer goods production amounted to 22,401.4 billion soums. This is 16.3% of the total volume of industrial production of Uzbekistan (658,991.0 billion soums) [11].

The leading industries of the region include energy, mechanical engineering, non-ferrous and ferrous metallurgy, coal, mining, chemical industry, footwear, cotton ginning, food industry, textile and agricultural products processing industries.

The largest industrial enterprises in the region are the Uzbek metallurgical plant in Bekabad, the mining and metallurgical combine in Almalyk, the Angren, Yangi Angren, Tashkent thermal power plants, and the refractory and hard-fusible metals combine in Chirchik.

The production associations "Elektrkimyosanoat" in Chirchik, "Ammophos" in Almalyk, and "Uzbekrezinetekhnika" in Angren are among the largest enterprises in the chemical industry of the Republic.These enterprises produce nitrogen and phosphorus fertilizers, ammonium nitrate, and caprolactam for agriculture and other industries.The enterprises "Uzbekkimyomash", "Chirchik Agricultural Machinery", "Transformer" produce cotton seeders, cultivators, seed drills and spare parts necessary for agriculture. The region also has enterprises that produce and process building materials, such as "Ohangaronsement", "Santekhquyma", "Ohangaronshifer", "Ohangaronlinplast", "Bekobodsemta'mir", "Gazalkentoyna", which produce products such as cement, slate, ceramics, glass, bricks, linoleum, reinforced concrete structures.

The food industry is also developed in the region. In this, products are mainly made from local raw materials. This industry includes meat and dairy, oil and fat, flour and confectionery, wine and vodka, tobacco and other sectors.

The food industry is based on cotton products, gardening, viticulture, vegetable growing, livestock breeding, etc. There are many food production enterprises in the cities of Chirchik, Almalyk, Angren, Bekabad, Qibray, Zangiota, Tashkent, Bostanlyk districts.

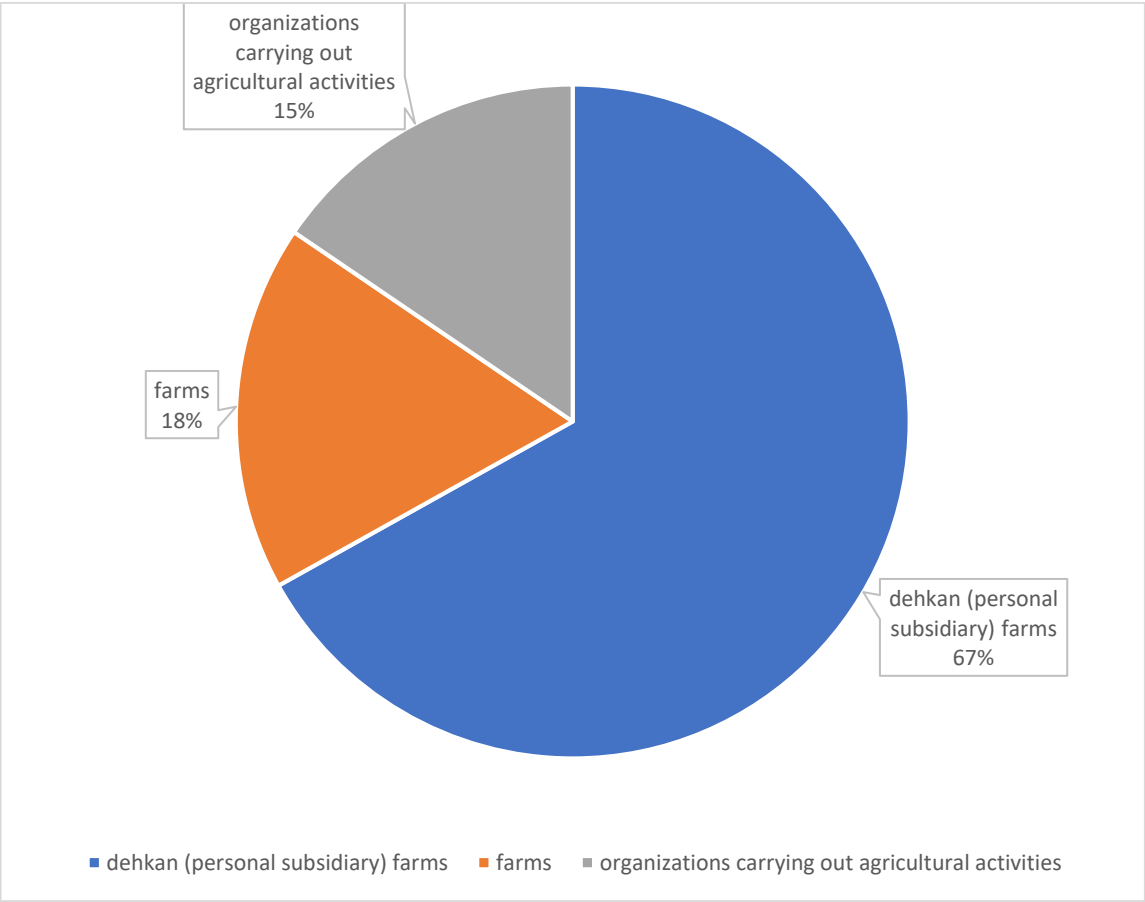
The development of industrial enterprises in the Tashkent region has a significant impact on poverty reduction. This is because new jobs provide jobs for thousands of unemployed people and increase their financial capabilities. The role of large industrial enterprises in the region is especially significant, where thousands of workers receive stable monthly salaries and increase the financial capabilities of their families.

The main branches of agriculture: cotton growing, horticulture, viticulture, cocoon farming; in the foothills of the mountains, small-scale farming (mainly wheat and barley are grown). Especially in the years of independence, diversified types of economy are being formed in the region.

According to the Tashkent regional statistics department, in January-December 2023, the total volume of agricultural, forestry and fishery products (services) amounted to 40,699.5 billion soums, or 104.1% compared to the same period in 2022, including agriculture and animal husbandry, hunting and services provided in these areas - 38,502.5 billion soums (103.8%), forestry - 1,490.2 billion soums (102.9%), fisheries - 706.8 billion soums (135.4%).The share of Tashkent region in the structure of the republic's agriculture, forestry and fishery was 9.6%.

According to the results of January-December 2023, 94.6% of the total volume of agricultural, forestry and fishery products (services) is accounted for by farming and animal husbandry, hunting and services provided in these areas, 3.7% by forestry, and 1.7% by fisheries (Figure 2).

Figure 2. The share of agricultural and livestock products in agricultural production



The analysis by economic categories shows that 66.9% of the total volume of agricultural products falls on dehkan (personal subsidiary) farms, 17.6% on farms, and 15.5% on organizations carrying out agricultural activities (Figure 2).

In Tashkent region, farmers, dehkan farms and agro-industrial clusters are involved in the production of agricultural products. There are a total of 59 clusters in the region. The leading ones are cotton-textile (6) and grain-growing clusters (15). The land area assigned to them is 54,548 hectares [11].

Over the past 10 years, increasing attention has been paid to the development of cotton seed production. As a result of scientific research in the field of cotton selection and seed production in the region, fiber, high-yielding, and early-maturing varieties that meet world requirements are being created.

Until the 1990s, Tashkent region was the only region in the former Union where hemp was grown. Rice is grown on the banks of the Syrdarya and Chirchik rivers. In recent years, special attention has been paid to changing the structure of agricultural crops in the region. The cotton and grain cultivation occupy the main places. In Tashkent region, the cultivation of potatoes, fruits and berries, and grapes is also increasing every year. The silkworm breeding industry is also well established. The livestock breeding is developed in all districts. The livestock breeding mainly specializes in meat and milk.

All farmers, peasants, and private farms in Tashkent region have 997 thousand head of livestock (including 424 thousand cows), 20.2 thousand pigs, 1,089 thousand sheep and goats, 56 thousand horses and 16,750 thousand poultry.

In January-December 2023, the farms of all categories produced 305.9 thousand tons of meat in live weight (7.5% more than in the same period in 2022), 1,022.8 thousand tons of milk (5.4% more), 1,509.7 million eggs (4.8% more), and 27,124.9 tons of fish (40.6% more) were caught [11].

The Chirchik and Akhangaron valleys are the main regions of irrigated agriculture. The total arable land in the region is 289,297.7 ha, and the Chirchik river, partly the Akhangaron and Syrdarya rivers, are used for irrigation.

Tashkent region supplies milk, meat, eggs, fruits and vegetables to the population of the republic's capital. Potatoes and vegetables are grown mainly in farms around the cities of Tashkent, Chirchik, Yangiyol, and Angren. Zangiota and Qibray districts specialize in providing the population of Tashkent with potatoes and vegetables.The viticulture and horticulture are also well developed in the region. Pears and apples are mainly grown in orchards. The main part of the orchards is located in Bostanlyk, Qibray, Yangiyol, Parkent, Ahangaron, Zangiota, Tashkent, and Kuyi Chirchik districts. In the eastern mountainous and foothill districts, sheep and goats are mainly raised. 40% of goats are Angora goats, and sheep are Hisor and Jaidari sheep.

Tashkent region has great potential for the development of agriculture. Soil salinity in the region is much lower than in other regions. The fertile soils, especially gray soils, are widespread. It is well supplied with water resources. It has very good opportunities for selling agricultural products to consumers. The reason is that the location of the capital and large cities of our republic and the high population density serve to reduce poverty. In addition, the fact that the region borders three countries is of great importance in eliminating this problem.

The region has well-developed transport networks. In 2023, the volume of services provided by types of transport amounted to 7,274.3 billion sums.

The length of railways in Tashkent region is 941.2 km, which is 15.4% of the total number of railways in our republic and ranks first in this indicator. A railway line connecting the independent states of Central Asia with the cities of the Eastern European region (including Moscow - Tashkent - Turkmenbashi) passes through the region. Railway networks in the direction of the city of Angren and the town of Charvak begin from Tashkent. The railways around Tashkent are electrified.

The region has a dense network of roads. The total length of regional highways exceeds 10 thousand km. The important highways: Great Uzbek tract, Tashkent-Andijan-Osh-Kashgar highway.

The well-developed transport routes in Tashkent region, meeting high-quality and modern standards, in turn, have a positive impact on reducing poverty.

On October 15, 2024, at a meeting on the development of Tashkent region, chaired by the President of Uzbekistan Sh.M. Mirziyoyev, he said the following about poverty reduction in Tashkent region: “It is a shame that there is a poor family in the region.” Of course, despite the presence of significant economic potential, the

existence of the problem of poverty in the region is a sad situation. In addition, there are works aimed at reducing poverty and problems awaiting solution.

Conclusion. Taking everything into consideration, it should be stated that the existing demographic and economic potential of Tashkent region plays a significant role in reducing poverty. The effective measures are being implemented in Tashkent region to eliminate the above problems based on existing opportunities, and we believe that poverty reduction will be achieved in the near future.

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AGROTURIZMINI HUDUDIY TASHKIL ETISHNING O‘ZIGA XOS JIHATLARI VA MODELLARI

Annotatsiya. *Maqolada turizm hududiy tashkil etish masallari, birinchi navbatda qishloq turizmini rivojlantirish bo‘yicha halqaro tajriba ko‘rib chiqilgan. Qishloq xo‘jaligi turizmining o‘ziga xos xususiyatlari, muammolari va uni rivojlantirish yo‘llari tahlil qilingan. Ushbu sohasini rivojlantirish bo‘yicha eng muvaffaqiyatli modellari ajratib olindi va bu bo‘yicha eng istiqbolli yo‘nalishlari belgilab olingan.*

Kalit so'zlar: *agroturizm, qishloq turizmi, qishloq xo'jaligi turizmi, turizm sanoati.*

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FEATURES AND MODELS OF REGIONAL ORGANIZATION OF AGRO-TOURISM

Abstract. *The article examines examples of territorial organization of tourism, primarily international experience in rural tourism development. Features of agrotourism, problems and ways of its development are analyzed. The most successful models of development of this field are identified and the most promising directions are defined.*

Keywords: *agrotourism, rural tourism, agricultural tourism, tourism industry.*

Turizmni hududiy tashkil etish — bu turizm faoliyatini ma'lum bir geografik hududda rivojlantirish, unga mos infratuzilma, xizmatlar, va resurslarni ta'minlash jarayonidir. Bu jarayon turizmni aniq hududda samarali va barqaror rivojlantirishga qaratilgan bo'lib, u turistik potensialni maksimal darajada ishlatishga va turizm sohasidan iqtisodiy, madaniy, ekologik va ijtimoiy foyda olishga imkon yaratadi.

Turizmni hududiy tashkil etishning asosiy maqsadi — turizmni rivojlantirish orqali hududning ijtimoiy va iqtisodiy rivojlanishini ta'minlash, shuningdek, mahalliy resurslardan samarali foydalanishni yo'lga qo'yishdir. Buning uchun hududning turistik imkoniyatlarini, resurslarini va infratuzilmasini hisobga olib, aniq strategiyalar ishlab chiqiladi. Turizmni hududiy tashkil etish borasida olimlar turizm va geografiya, iqtisodiyot, ekologiya va madaniyat sohalaridagi tadqiqotlarga asoslanib, hududlar bo'yicha turizmni samarali rivojlantirishga oid ko'plab tadqiqotlar olib borgan. Misol uchun: Richard W. Butler (Kanada) turizm

geografiyasi va turizmni hududiy rivojlantirish sohasida keng tanilgan olimdir. Uning "Tourism Area Life Cycle" (TALC) nazariyasi turizmni hududda rivojlantirishning evolyutsion jarayonlarini tushuntiradi. Butlerning ishlari turizmni hududiy tashkil etishning asosiy prinsiplarini belgilashda muhim rol o'ynadi. John Weaver (Avstraliya) ekologik turizm va turizmni hududiy tashkil etishda ekologik barqarorlik masalalariga katta e'tibor qaratgan. U turizmni rivojlantirishda atrof-muhitni himoya qilish, mahalliy resurslarni boshqarish va barqaror turizmni amalga oshirishga oid ko'plab tadqiqotlar olib borgan.

David Harrison (Buyuk Britaniya) turizmni hududiy rivojlantirishda iqtisodiy va ijtimoiy ta'sirlarni o'rganishga e'tibor qaratgan. U turizmning hududlar bo'yicha tengsizlikni qanday keltirib chiqarishi mumkinligini va hududiy resurslarni qanday samarali boshqarish kerakligini o'rganadi. U shuningdek, turizmni hududiy rivojlantirishda mahalliy aholi va madaniyatning ahamiyatini ta'kidlagan. Turizmni hududiy tashkil etish borasida olib borilgan ilmiy tadqiqotlar keng qamrovli bo'lib, geografiya, iqtisodiyot, ekologiya, va madaniyat kabi sohalarni o'z ichiga oladi. Ushbu olimlar turizmning hududiy rivojlanishiga ta'sir qiluvchi turli omillarni tahlil qilib, ularning samarali boshqarilishi va rivojlantirilishini ta'minlash uchun muhim nazariyalar va amaliy tavsiyalar ishlab chiqqan.

Agroturizmini hududiy tashkil etishning o'ziga xos jihatlari — bu turizm va qishloq xo'jaligining o'zaro bog'liqligini hisobga olgan holda, agroturizmni ma'lum bir hududda muvaffaqiyatli rivojlantirishga qaratilgan maxsus yondashuvlar va amaliyotlarni o'z ichiga oladi. Agroturizm, o'z navbatida, qishloq joylarda turizmni rivojlantirishga imkon beradigan faoliyat bo'lib, tabiat, madaniyat, va qishloq xo'jaligi resurslarini birlashtiradi.

Agroturizm faoliyatining turli mintaqa va mamlakatlardagi rivojlanish xususiyatlariga bog‘liq holda jahonda agroturizmning turlicha rivojlanish modellari shakillangan (1.2-jadval). Masalan, A.A.Bakanova agroturizm faoliyatini rivojlantirish mumkin bo'lgan to'rtta asosiy modelni aniqladi.

Angliya-Amerika modeli ingliz tilida so'zlashuvchi mamlakatlarda urushdan keyingi davrda, milliy iqtisodiyot og'ir ahvolda bo'lgan va inqirozdan chiqish uchun zudlik bilan choralar ko'rishni talab qilgan paytda paydo bo'ldi. Bu davrda yo‘llarning faol qurilishi boshlandi, avtoturizm faollashdi. Aynan avtoturistlar ingliz tilida so'zlashuvchi mamlakatlarda agroturizm xizmatlarining asosiy iste'molchilariga aylangan. Bu fakt ushbu modelning quyidagi xarakterli xususiyatlariga olib keldi:

• ichki turizmga e’tibor qaratish;

• asosiy xizmatlar to'plamini taqdim etish, chunki qo'shimcha xizmatlar odatda talab qilinmaydi;

• milliy o'ziga xosliklarga e'tibor bermaslik (milliy o'ziga xosliklar juda aniq ifodalangan Angliya bundan mustasno).

Qishloq turizmining **Osiyo modeli** Angliya-Amerika modeliga mutlaqo qarama-qarshidir, chunki u milliy lazzat, ko'plab qo'shimcha xizmatlar va qishloqda joylashgan maxsus qurilgan "VIP qishloqlar" yoki qimmatbaho milliy mehmonxonalarda agroturistlarni joylashtirishni o'z ichiga oladi. . Agroturizmni

rivojlantirishning Osiyo modeli faqat yuqori mehmondo'stlik madaniyati rivojlangan, turizm sanoati ancha yuqori darajada bo'lgan va yildan-yilga doimiy ravishda chet ellik sayyohlar oqimi kuzatilayotgan mamlakatlarda qo'llanilishi mumkin.

G'arbiy Evropa modeli 1970-yillarda Fransiya va Italiyada qishloq xo'jaligi mahsulotlarining xalqaro bozorda raqobatbardoshligini yo'qotish bilan bog'liq bo'lgan qishloq xo'jaligi inqirozi fonida paydo bo'ldi. Bunday holda, agroturizm Yevropa Ittifoqi tomonidan qishloq xo'jaligi sektorining tanazzulga uchrashi va aholining kamayishiga yo'l qo'ymaslik uchun qabul qilingan choraga aylandi. G'arbiy Yevropa modelining rivojlanishi va faoliyatining muvaffaqiyat omillari quyidagilardir:

• agroturistik fermer xo'jaliklarini tizimli davlat tomonidan qo'llab-quvvatlash;

• umummilliy va mintaqaviy agroturizm mahsulotlarini ilgari surish uchun huquqiy, reklama va axborot ta'minoti;

• agroturizm sub'ektlari uyushmalarini yaratish, barcha agroturizm sektori bo'yicha ma'lumotlar bazalariga ega portallarni qo'llab-quvvatlash;

• moliyaviy qo‘llab-quvvatlash – qishloq xo‘jaligi turizmi korxonalarini imtiyozli kreditlash yoki subsidiyalash tizimi;

• yetarlicha yuqori darajadagi qulaylik va uy-joy fondining yaxshi holati (qoida tariqasida, bu avtonom ta'minot tizimiga ega xususiy uylar).

Qishloq turizmining **Sharqiy Yevropa modeli** Sharqiy Yevropa mamlakatlari – Bolgariya, Polsha, Chexiya, shuningdek, Gretsiya va Kiprda keng tarqalgan. Ushbu modelning shakllanishi qishloq sektorining yomon rivojlangan uy-joy-kommunal fondi sharoitida sodir bo'ldi, shuning uchun qishloqlarni rekonstruksiya qilish dasturlarini ishlab chiqishni talab qildi, bu model G'arbiy Yevropa modelidan farqli o'laroq, ko'proq qimmat. Bundan tashqari hozirgi kunda agroturizm sohasida ilg’or tajribalarga ega bo’lgan quyidagi davlatlarda keltirilgan mavjud agroturizm modellari mavjud.

1. Britaniya modeli. Ushbu modelda agroturizm fermerlarning uyida yoki alohida binolarda yashashga ixtisoslashtirilgan va bilimlarni kengaytirish hamda otda sayr qilish va golf o‘yinlarida ishtirok etishga asoslanadi. Britaniya modelida qishloq xo‘jaligi mahsulotlarini yaratish jarayonida bevosita ishtirok etish nazarda tutilmaydi.

2. Fransuz modeli. Ushbu modelda agroturizm alohida kottejlar yoki yozgi uylarda yashashga asoslanadi va ekoturizm, suv turizmi hamda baliq ovlashga asoslanadi. Fransuz modelida ham qishloq xo‘jaligi mahsulotlarini yaratish jarayonida bevosita ishtirok etish nazarda tutilmaydi.

3. Italyan modeli. Ushbu modelda agroturizm alohida kempinglar (qishloq mehmonxonalari) yoki fermerlarning uyida yashashga asoslanadi va ekoturizm, bilim olish, tog‘-chang‘i, plyaj hamda baliq ovlashga asoslanadi. Italyan modelida qishloq xo‘jaligi mahsulotlarini yaratish emas, balki yig‘ib olish jarayonida bevosita ishtirok etish nazarda tutiladi.

4. Nemis modeli. Ushbu modelda agroturizm fermerlarning uyida birgalikda yashashga hamda pikniklar qilish, baliq ovlashga asoslanadi. Nemis modelida qishloq xo‘jaligi mahsulotlarini yaratish jarayonida bevosita ishtirok etish faqatgina xo‘jalik ishlariga yordamlashishni nazarda tutadi.

5. Avstriya modeli. Ushbu modelda agroturizm fermerlarning uyida dehqonlar ovqati asosida yashashga asoslanadi va baliq ovlash hamda otda yurish ko‘zda tutiladi. Avstriya modelida qishloq xo‘jaligi mahsu-lotlarini yaratish jarayonida bevosita ishtirok etish faqatgina tomorqada ishlashni nazarda tutadi.

6. Kipr modeli. Ushbu modelda agroturizm milliy qishloqlarda mahalliy ovqatlarini iste’mol qilish va piyoda, otda, velosipedda yurishga hamda etnik odatlarga asoslanadi. Kipr modelida qishloq xo‘jaligi mahsu-lotlarini yaratish jarayonida bevosita ishtirok etish faqatgina hosilni yig‘ib olish jarayonidagi ishtirokni nazarda tutadi.

7. Finlandiya modeli. Ushbu modelda agroturizm alohida kottejlarda yashashga va suv turizmi, baliq ovini nazarda tutadi. Finlandiya modelida qishloq xo‘jaligi mahsulotlarini yaratish jarayonida bevosita ishtirok etish nazarda tutilmaydi.

8. Bolgariya modeli. Ushbu modelda agroturizm fermerlarning uyida birgalikda yashashga hamda madaniy, bilim olish, ekologik hamda sport turizmiga asoslanadi. Bolgariya modelida qishloq xo‘jaligi mahsulotlarini yaratish jarayonida bevosita ishtirok etish ixtiyoriy (1-jadval).

1-jadval

Agroturizm modellari va turlari

Agroturizm modellari turlari	Yashash	Ovqatlanish	Dam olish va turizm turlari	Qishloq xo’jaligi faoliyatidagi ishtirok
Britaniya modeli	Fermerlarning uyida	Faqat nonushta	Bilim olish va ekologik turizm	Ko‘zda tutilmagan
	Alohida binolarda	O‘z-o‘ziga xizmat	Otda yurish, golf o‘yini	Ko‘zda tutilmagan
Fransuz modeli	Alohida kottej	O‘z-o‘ziga xizmat	Ekologik turizm	Ko‘zda tutilmagan
	Yozgi uylar	O‘z-o‘ziga xizmat	Suv turizmi, baliq ovi	Ko‘zda tutilmagan
Italyan modeli	Kempinglar, qishloq mehmonxonalari	To‘liq ovqatlanish	Ekologik, bilim olish, tog‘-chang‘i turizmi	Ko‘zda tutilmagan
	Fermerlarning uyida yoki alohida binolarda	Gastronomik turlar dasturi doirasida	Ekskursiyalar, baliq ovi, plyaj turizmi	Hosilni yig‘ib olish
Nemis modeli	Fermerlarning uyida	Uy egalari bilan birgalikda	Pikniklar, baliq ovi	Xo‘jalik ishlarida yordam berish
Avstriya modeli	Fermerlarning uyida	Dehqonlar ovqati	Baliq ovi, otda yurish	Tomorqada ishlash

Kipr modeli	Milliy qishloq	Qishloq ovqati yoki tavernalar	Piyoda, otda, velosipedda yurish va etnik odatlar	Hosilni yig‘ib olish
Finlandiya modeli	Alohida kottej	O‘z-o‘ziga xizmat	Suv turizmi, baliq ovi	Ko‘zda tutilmagan
Bolgariya modeli	Uy egalari bilan bir uyda	Uy egalari bilan birgalikda	Madaniy, bilim olish, ekologik hamda sport turizmi	Ixtiyoriylik

Ko‘pchilik Yevropaliklarning fikricha, agroturizm faoliyati dengiz va tog‘-chang‘i kurortlari kabi daromadli faoliyat hisoblanmasa-da, barqaror va ishonchli daromad keltiruvchi faoliyat hisoblanadi. Agroturizm bugungi kunda Yevropada turistik faoliyatning eng mashhur turlaridan biri hisoblanib, turistik faoliyatdan olinayotgan umumiy daromadning 20 %igacha bo‘lgan qismini tashkil etmoqda.Yuqorida ko‘rib o‘tilgan xorijiy mamlakatlarning agroturizm faoliyatidagi tajribalaridan hamda jahon mam-lakatlarida qo‘llanilayotgan agroturizmni rivojlantirish modellaridan mamlakatimizda turizmning ushbu faoliyat turini rivojlantirishda mahalliy shart-sharoitlar hamda tabiiy-iqlim sharoitlarni hisobga olgan holda foydala-nish mumkin.

Biroq turli mamlakatlarning o‘ziga xos xususiyatlarini nazarda tutuvchi modellar va tajribalarni “ko‘chirish” orqali faoliyatni yo‘lga qo‘yish uning samaradorligini ta’minlay olmaydi. Mamlakatimizda agroturizmning ustuvor yo‘nalishlari sifatida milliy urf-odatlar hamda hududlarning o‘ziga xos jihatlarini o‘z ichiga oluvchi milliy jihatlarini rivojlantirish orqali nafaqat ichki, balki agroturizmga yo‘naltirilgan kirish turizmini ham rivojlantirish imkoniyatini kengaytiradi.

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SURXONDARYO VILOYATIDA MEVA VA UZUM YETISHTIRISH MASALALARI

Annotasiya. *Ushbu maqolada Surxondaryo viloyatida meva va uzum etishtirish, mevachilik va uzumchilik sohalarining hududiy joylashishi, ushbu sohalarni rivojlantirish masalalari yoritilgan.*

Kalit so‘zlar: *Agroiqlim resurslar, yer va suv resurslari, ekin maydonlari, hosildorlik, yalpi hosil, innovatsion texnologiyalar.*

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ISSUES OF FRUIT AND GRAPE CULTIVATION IN SURKHANDARYA REGION

Annotation. *This article covers the issues of growing fruits and grapes in Surkhandarya region, the territorial location of the fields of fruiting and viticulture, the development of these areas.*

Keywords: *agro-climatic resources, land and water resources, arable land, productivity, gross yield, innovative technologies.*

Surxondaryo viloyatida bog‘dorchilik sohasini rivojlantirishga qulay sharoitlar mavjud. Respublikamizning yagona subtropik o‘lkasi bo ‘lgan mintaqada vegetatsiya davri uzoq, ijobiy haroratlar yig‘indisi 5500^0-5900^0ni tashkil etadi. SHu sababli, bu yerda turli xil issiqsevar subtropik mevalar yetishtiriladi. Mintaqada anjir, anor, bodom, pista, yong‘oq, uzum, xurmo, limon kabi mevalar ko‘plab yetishtiriladi.

Bog‘dorchilik sohasi deganda keng ma‘nodagi tushuncha bo‘lib, unga mevachilik, uzumchilik, tsitrus o‘simliklari, rezavor mevachilik, manzarali o‘simlik bog‘lari kiradi. Mevalar va rezavor mevalar tarkibida odam organizmi uchun zarur bo‘lgan shakar, organik kislotalar, oqsillar, yog‘lar, oshlovchi pektin, aromatik moddalar, kolloidlar, mineral tuzlar, fermentlar, har xil vitaminlar bor. SHuning uchun ham ko‘pgina mevalar shifobaxsh xususiyatiga ega bo‘lib, organizmni mustahkamlaydi va himoya qiladi.

Mustaqillik yillarida viloyatda bog‘larga ajratilgan ekin maydonlar ko‘payib borgan. 1991 yilda viloyatda bog‘lar egallagan jami maydonlar 8,5 ming gektarni shundan hosilga kirgan maydonlar 2,9 ming gektarni tashkil etgan. 2017 yilga kelib, jami bog‘lar egallagan yer maydonlar 16,4 ming gektarni, shundan hosilga kirgan bog‘lar 13,0 ming gektarga yetkazilgan. SHuningdek, 1991 yilda meva va rezavor yalpi hosili 10,5 ming tonnadan 2019 yilga 180,4 ming tonnagacha ko‘payib borgan. Viloyatda meva va rezavorlar yalpi hosili 2019 yilda 1991 yilga nisbatan 169,9 ming tonnaga ko‘payib, mazkur yillarda 17,1 martaga o‘sish ta ‘minlangan. Bundan tashqari meva va rezavorlar hosildorligi ham o‘sib borgan.

1991 yilda hosildorlik 36,3 sentnerni tashkil etgan bo‘lsa, 2018 yilda har bir gektardan olingan hosildorlik 98,1 sentnerga yetgan, bu esa bir gektar yerdan olingan hosildorlik 61,8 sentnerga ko‘paygan yoki 2,7 martaga o‘sgan. 2021yilda viloyatda bog‘lar egallagan maydonlar 51ming gektarni tashkil etgan, mazkur ekin maydonlar 1991 yilga nisbatan 6 martaga oshgan. Mazkur yilda viloyatda 172,5 ming tonna meva rezavor yetishtirilgan, hosildorlik 97,8 sentnerni tashkil etgan. 2022 yilda viloyatda 180,3 ming tonna meva rezavor hosili yetishtirilgan

Bog‘dorchilik viloyatning barcha tumanlarida rivojlantirilgan. Biroq meva yalpi hosili bo‘yicha Sariosiyo, SHerobod, Denov, Qumqo‘rg‘on tumanlari alohida ajralib turadi. 2022 yilda ushbu tumanlarga viloyatda yetishtirilgan meva yalpi hosilining 54,0 foizi to‘g‘ri kelgan.

2022 yilda viloyatda meva hosilining 58,1 foizi dehqon va tomorqa xo‘jaliklarida, 39,3 foizi fermer xo‘jaliklarida, 2,6 foizi qishloq xo’jaligi faoliyatini amalga oshiruvchi korxonalarda yetishtirilgan.

1-jadval

Surxondaryo viloyatida qishloq xo‘jaligi ekinlari hosildorligi (bir gektardan tsentnerga)

T/r	Qishloq xo‘jaligi ekinlari	1991y	2017y	2018y	2021y	2021yilda 1991 yilga nisbatan o o‘sish, %-da
1	Meva va rezavorlar	36,3	105,7	98,1	97,8	2,6m
2	Uzum	61,9	116,1	108,8	147,9	2,3m

Jadval mualliflar tomonidan Surxondaryo viloyati statistika boshqarmasining “Surxanstat.uz” rasmiy veb sayti ma‘lumotlari asosida tuzilgan.

Surxondaryo viloyatida uzumchilik sohasi ham rivojlantirilgan. Viloyatda mustaqillik yillarida tokzorlar maydoni kamayib borgan. 1991 yilda viloyatda jami tokzorlar egallagan maydonlar 15,3 ming gektarni tashkil etgan. Ushbu yilda tokzorlar maydoni jami ekin maydonlarining 5,4 foizini tashkil etgan. Hosilga kirgan tokzorlar 9,9 gektarni tashkil etgan. 2017 yilga kelib jami tokzorlar maydoni 9,6 ming, shundan hosilga kirgan tokzorlar maydoni 8,6 ming gektarni tashkil etgan.

2021yilda tokzorlar egallagan maydonlar 11,1ming gektarni, shundan hosilga kirgan maydonlar 10,2 ming gektarni tashkil etgan (1,2,3-jadval).

Viloyatda shuningdek, uzum yalpi hosili o‘sib borgan. 1991 yilda viloyatda 61,8 ming tonna uzum hosili yetishtirilgan bo‘lsa, 2019 yilda bu ko‘rsatkich 112,6 ming tonnaga yetgan. Mazkur yillarda uzum hosili 50,8 ming tonna ko‘payib, 1991 yilga nisbatan o‘sish 1,8 martaga erishilgan. Bundan tashqari har bir gektardan olinadigan hosildorlik ham o‘sib borgan. 1991 yilda hosildorlik 61,9 sentnerdan 2018 yilda 108,8 sentnergacha ko‘payib borgan. Hosildorlik 1991 yilga nisbatan 46,9 sentnerga oshirilib, o‘sish ko‘rsatkichi 1,7 martani tashkil etgan. 2021yilda viloyatda 102,6 ming tonna uzum hosili yetishtirilib, har bir gektardan 147,9 sentner hosil olingan. 2022yilga kelib viloyatda 104,9 ming tonna uzum hosili yetishtirilgan.Ushbu yilda 1991yilga nisbatan 1,6 marta ko‘p uzum hosili olingan (2-jadval).

2-jadval. Surxondaryo viloyatida qishloq xo‘jaligi ekinlari yalpi hosili (ming tonna hisobida)

T/r	Qishloq xo‘jaligi ekinlari	1991 y	2017y	2018y	2019y	2021y	2022y	2022yilda 1991 yilga nisbatan o‘sish %-da
1	Meva va rezavorlar	10,5	137,4	154,6	180,4	172,5	180,3	17,1
2	Uzum	61,8	100,0	91,9	112,6	102,6	104,9	1,6

Jadval mualliflar tomonidan Surxondaryo viloyati statistika boshqarmasining “Surxanstat.uz” rasmiy veb sayti ma’lumotlari asosida tuzilgan.

Uzum yetishtirish viloyatning barcha tumanlarida yo‘lga qo‘yilgan. Uzum yetishtirishda Oltinsoy, Denov, Qumqo‘rg‘on tumanlari alohida ajralib turadi. 2022 yilda mazkur tumanlarga viloyatda yetishtirilgan uzum yalpi hosilining 62,9 foizi to‘g‘ri kelgan.

2022 yilda viloyatda uzumning 42,3 foizi dehqon va tomorqa xo ‘jaliklari xo’jaliklarida, 53,6 foizi fermer xo‘jaliklarida, 4,1 foizi Qishloq xo‘jaligi faoliyatini amalga oshiruvchi tashkilotlarda yetishtirildi.

Xulosa qilib aytganda so‘nggi yillarda meva-sabzavotchilikni rivojlantirish bo‘yicha respublikamiz prezidentining qator farmon va qarorlari qabul qilindi.Bu borada 2019 yilda Surxondaryo viloyati Oltinsoy tumanini meva va bog‘dorchilikka moslashtirish hamda 5000 gektar yer maydonlarida uzumzorlarni yangilash to‘g‘risida vazifalar belgilab berildi. Jumladan, Oltinsoy tumanida barpo etilgan uzumzorlarni yangi bozorbop navlarga, ya‘ni “In Vitro” texnologiyasi yordamida yetishtiriladigan sog‘lomlashtirilgan uzum ko‘chatlariga almashtirish, tomchilatib sug‘orishga o‘tishni jadallashtirish, uzumni qayta ishlash korxonalarini tashkil

qilish maqsadida tuman qishloq xo‘jaligi fermerlarini birlashtirib, yirik kooperatsiyalarni tashkil qilish masalalari muhokama etildi.

SHuningdek, respublikamizda meva-sabzavotchilik va uzumchilik sohalarini rivojlantirish maqsadida O‘zbekiston Respublikasi Prezidentining 2019 yil 14 martdagi “Meva-sabzavotchilik sohasida qishloq xo‘jaligi kooperatsiyasini rivojlantirish chora tadbirlari to‘g ‘risida”gi PQ-4239-son qarori, va O‘zbekiston Respublikasi Prezidentining 2019 yil 11- dekabrdagi “Meva-sabzavotchilik va uzumchilik tarmog‘ini yanada rivojlantirish, sohada qo‘shilgan qiymat zanjirini yaratishaga doir qo‘shimcha chora-tadbirlar to‘g‘risida”gi qarorining qabul qilinishi tarmoq sohalarini tizimli rivojlantirishning istiqbolli yo‘nalishlari belgilab berildi.

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CHANGES IN NETWORKS AND TERRITORIAL COMPOSITION OF REGIONAL INDUSTRY NETWORKS

Annotation: *In this article, the formation and development of industrial sectors in the Surkhandarya region, the sector and regional structure of the industry, and the production of industrial products in the years of independence are discussed.*

Key words: *Specialization, cooperation, incorporation, combination, processing industry.*

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VILOYAT SANOAT TARMOQLARINING TARMOQLAR VA HUDUDIY TARKIBIDAGI O’ZGARISHLAR

Annotatsiya. *Ushbu maqolada Surxondaryo viloyatida sanoat tarmoqlarining shakllanishi va rivojlanishi, sanoatning tarmoq va hududiy tarkibi,mustaqillik yillarida sanoat mahsulotlari ishlab chiqarish masalalari yoritilgan.*

Kalit so’zlar: *Ixtisoslashuv, kooperatsiya, mujassamlashuv, kombinatlashuv, qayta ishlash sanoati.*

Mustaqillik yillarida respublikamizda amalga oshirilgan bozor iqtisodiyoti islohotlari negizida iqtisodiyot tarmoqlar tarkibini o’zgartirish, mahalliy arzon xom-ashyo, yetarli mehnat resurslari, ichki va tashqi bozorda iste’mol tovarlarga

ehtiyojning mavjudligini hisobga olgan holda sanoat tarmoqlarini modernizatsiya qilish, sanoat tarmoqlar va hududiy tarkibini takomillashtirishga alohida e'tibor qaratildi. Bu borada respublikamizda yoqilg'i-energetika, neft, kimyo va neft-kimyo, rangli metallurgiya, qurilish, yengil sanoat xususan to'qimachilik, oziq-ovqat tarmoqlari qayta modernizatsiya qilinib, mahsulot ishlab chiqarish hajmi oshirildi.

Viloyatda 2013-2022 yillarda sanoat yalpi mahsuloti 5 martaga o'sgan bo'lsa-da, Surxondaryo viloyati sanoat ishlab chiqarishining respublikadagi ulushi yuqori emas. Viloyat sanoatining respublika yalpi sanoatidagi ulushi 2013yilda 1,8 foizni, 2017-yilda 2,3 foizni, 2022 yilda 1,3 foizni tashkil etgan. 2022 yilda 2013-yilga nisbatan viloyat tog' kon sanoatida sanoat yalpi mahsuloti ishlab chiqarish 4,4 martaga, qayta ishlash sanoatida esa 5,5 martaga o'sgan.

Tadqiq etilayotgan yillarda viloyatda sanoat ishlab chiqarish o'sish sur'atlari oldingi yillarga nisbatan yuqori ko'rsatkichga ega bo'lgan bo'lsa faqatgina 2017 yildagina bu ko'rsatkich ancha past bo'lgan.

Viloyat sanoat yalpi mahsulotida tog'-kon sanoatiga nisbatan qayta ishlash sanoatining ulushi yuqori ko'rsatkichga ega. Qayta ishlash sanoati yalpi mahsulotida ayniqsa to'qimachilik, oziq-ovqat, nometall mineral mahsulotlar, koks va neftni qayta ishlash sohalarining ulushi so'nggi yillarda sezilarli o'smoqda.

2022yilda viloyatda ishlab chiqarilgan sanoat yalpi mahsulotining 2,9 foizi tog'-kon sanoati va ochiq konlarni ishlash tarmoqlariga, 88,5 foizi ishlab chiqaradigan sanoatga, 7 foizi elektr, gaz, bug' bilan ta'minlash va havoni kondensatsiyalash sohasiga, 1,6 foizi suv bilan ta'minlash, kanalizatsiya tizimi, chiqindilarni yig'ish va utilizatsiya qilish tarmoqlariga to'g'ri kelgan.

Viloyat sanoat tarmoqlari tarkibi tahlili shundan dalolat beradiki, mintaqa tog'-kon sanoatiga ko'mir, neft, tabiiy gaz, elektro-energetika, rangli metallurgiya, qurilish xom-ashyosini qazib olish tarmoqlari kiradi. Viloyat tog'-kon sanoati geografiyasini tog'li hududlardagi boy ko'mir, polimetall, qurilish xom-ashyosi, tog' oldi va tekislik hududlarida joylashgan neft va tabiiy gaz konlari belgilab beradi.

Mintaqa qayta ishlash sanoati asosan qishloq xo'jaligi mahsulotlarini qayta ishlashga ixtisoslashgan. Mazkur sanoat tarmoqlari viloyatning sug'orma dehqonchilik qilinadigan Surxon –SHerobod vodiysida joylashgan. Viloyat qayta ishlash sanoati korxonalari asosan paxta, donli ekinlar, sabzavot, poliz, meva va uzum, pilla kabi mahsulotlarni qayta ishlab undan yarim tayyor va tayyor mahsulotlar ishlab chiqaradi.

Viloyat sanoat tarmoqlariga qarashli korxonalarda o'ndan ortiq turdagi sanoat mahsulotlari ishlab chiqariladi. Viloyat yoqilg'i sanoatining etakchi tarmoqlaridan biri ko'mir qazib olish sanoatidir. Mintaqada asosan toshko'mir SHarg'un (Sariosiyo) va To'da (Boysun) konlaridan qazib olinadi. Viloyat respublikada qazib olinadigan ko'mirning 2,5-3,0 foizini beradi. So'nggi yillarda viloyat ko'mir sanoatiga xitoylik xorijiy ishbilarmonlar bilan hamkorlikda 105mln AQSH dollari miqdorida ivestitsiya jalb etildi, va natijada ko'mir qazib olish hajmini yaqin kelajakda qariyb 1mln tonnaga yetkazish ko'zda tutilgan.

2013-2022 yillar davomida ko’mir qazib olish 123,5 ming tonnadan 282,3 ming tonnaga yetkazilgan. Bu esa 2022 yilda 2013-yilga nisbatan 158,8 ming tonna ko’p ko’mir qazib chiqarilgan. O’sish sur’ati esa 2,2 martaga o’sgan.

Viloyat yoqilg’i sanoatining yana bir muhim tarmog’i neft sanoati hisoblanadi. Neft sanoati asosan viloyat hududida joylashgan Kakaydi, Lalmikor, Tolli, Qo’shtar va boshqa o’nlab konlardan qazib olinadigan mahalliy neft xom-ashyosiga tayanadi. Viloyatda qazib olinadigan neft hajmi uncha yuqori emas. Viloyat neft sanoatida har yili o’rtacha 80 ming tonna atrofida neft qazib olinmoqda. 2022-yilda 2013-yilga nisbatan neft qazib olish 99 foizga o’sgan. Ayniqsa 2017-yilda viloyatda neft qazib olish hajmida ancha pasayish kuzatilgan.

1-jadval

Surxondaryo viloyati tumanlarida sanoat mahsulotlari va iste’mol mollari ishlab chiqarish

(amaldagi narxlarda, mlrd.so`m)

/r		2013	2018	2019	2020	2021	2022	2022 yilda 2013 yilga nisbatan o’sish,%
	Surxondaryo viloyati	1321,4 537,8	3234,7 1218,0	4231,3 1601,3	5322,7 2161,1	6675,3 2 640,6	7298,7 2632,0	5,5m 4,8m
	Oltinsoy	21,6 19,1	59,2 49,9	63,4 56,8	125,0 116,8	186,6 171,0	175,1 167,0	8m 8,7m
	Angor	61,2 19,8	96,9 47,0	91,5 63,9	90,9 71,4	196,2 89,7	152,9 87,4	2,4m 4,4m
	Bandixon	- -	- 0,0	- -	7,1 6,8	60,4 11,5	129,0 10,0	18m 1,4m
	Boysun	32,9 27,9	58,4 45,0	69,8 59,8	84,5 67,2	100,6 77,3	113,5 82,5	3,4m 2,9m
	Muzrabod	59,6 20,5	71,7 31,5	78,5 42,5	182,7 69,3	261,5 100,3	268,6 77,6	4,5m 3,7m
	Denov	166,8 99,5	431,0 239,9	467,0 281,1	839,0 325,6	431,8 327,3	408,5 320,0	2,4m 3,2m
	Jarqo`rg`on	254,1 23,2	666,8 69,8	867,4 160,3	933,8 154,1	983,9 290,3	1033,8 362,0	4m 15,6m
	Qumqo`rg`on	72,3 23,1	202,2 50,6	226,4 65,7	350,1 106,2	510,3 116,0	637,0 128,2	8,8m 5,5m
	Qiziriq	64,8 18,2	115,5 35,1	74,5 64,6	155,5 88,1	234,1 151,0	210,9 64,0	3,2m 3,5m
	Sariosiyo	75,2 32,6	248,6 103,4	530,2 100,2	266,2 105,1	723,5 127,2	779,2 133,2	10,3m 4m
0	Termiz	35,7 29,0	109,9 70,2	105,5 89,6	114,5 110,4	280,3 125,8	371,5 165,2	10,4m 5,6m
1	Uzun	49,0 21,4	120,0 52,9	92,4 61,0	95,0 70,3	287,0 111,6	319,9 81,8	6,5m 3,8m

2	Sherobod	93,1 38,9	154,2 100,6	342,9 104,8	419,3 116,9	567,3 128,1	586,4 140,1	6,2m 3,6m
3	Sho`rchi	146,1 95,5	352,9 166,5	361,3 245,4	464,7 290,5	618,8 342,5	817,2 402,4	5,5m 4,2m
4	Termiz sh.	189,0 69,2	547,4 155,6	860,5 205,6	1194,4 462,3	1233,0 471,1	1295,4 410,5	6,8m 5,9m

Izoh:Kasr sur'atida sanoat mahsulotlari, kasr maxrajida iste'mol mollari ishlab chiqarish.

Jadval mualliflar tomonidan Surxondaryo viloyati statistika boshqarmasining "Surxanstat.uz" rasmiy veb sayti ma'lumotlari asosida tuzilgan.

So'nggi yillarda mintaqada paxta xom-ashyosi hajmining kamayishi hisobiga, paxta tozalash sanoatida paxta tolasi ishlab chiqarish, yog'-moy sanoatida o'simlik moyi ishlab chiqarish hajmida pasayish kuzatilgan. Bundan tashqari viloyat qayta ishlash sanoatida dizel yoqilg'isi, mazut, bitum, portland sement, paxta tiviti (lint), aroq, sabzavot konservalari, sariyog' ishlab chiqarishda ham pasayish jarayonini kuzatishimiz mumkin.

Surxondaryo viloyati sanoatining hududiy tarkibi yuqori darajada takomillashmagan. Yuqorida keltirilgan 1–jadval ma'lumotlaridan ma'lumki, viloyatning ma'muriy tumanlari bo'yicha sanoat ishlab chiqarishi bir tekis rivojlanmagan. Viloyatda 2022 yilda 2013yilga nisbatan sanoat mahsulotlari ishlab chiqarish 5,5 martaga, iste'mol mahsulotlari ishlab chiqarish 4,8 martaga o'sgan. Viloyatning ma'muriy markazi bo'lgan Termiz shahri va Jarqo'rg'on, SHo'rchi, Denov tumanlarini "o'sish qutb"lari sifatida ko'rishimiz mumkin. Mazkur tumanlarga viloyatda ishlab chiqarilgan sanoat mahsulotlarining 48,7 foizi hamda iste'mol mollarining 27,4 foizi to'g'ri keladi.

Xulosa qilib aytganda, so'nggi yillarda respublikamizda amalga oshirilayotgan iqtisodiy islohotlar mintaqalar sanoati tarmoqlarining hududiy joylashishi va rivojlanishida ijobiy o'zgarishlarga olib kelmoqda. Bu esa aholi uchun iste'mol mollari ishlab chiqarish hajmining ko'payishiga olib keladi.

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PRAGMOLINGUISTICS AS A MEANS OF STUDYING CHARACTERISTICS

Annotation. *Pragmalinguistics, a subfield of linguistics, offers a powerful lens through which to examine various human characteristics. Unlike purely structural linguistic approaches that focus on the formal aspects of language, pragmalinguistics investigates how context, social factors, and intentions shape meaning and communication. This contextual understanding is crucial for unlocking insights into several key characteristics: Personality and individuality, social and cultural identity, cognitive abilities, emotional states, communicative competence.*

Keywords: *Emotions,pragmalingustics, social factor, communication, emotional state, intention shape, cross-cultural communication, confidence, personality and individuality, social and cultural identity, cognitive abilities, emotional states, communicative competence.*

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PRAGMOLINGVISTIKA XUSUSIYATLARNI O'RGANISH VOSITASI SIFATIDA

Annotatsiya. *Tilshunoslikning kichik sohasi bo'lgan pragmalingvistika insonning turli xususiyatlarini o'rganish uchun kuchli ob'ektivni taklif qiladi. Tilning rasmiy jihatlariga e'tibor qaratadigan sof strukturaviy lingvistik yondashuvlardan farqli o'laroq, pragmalingvistika kontekst, ijtimoiy omillar va niyatlar ma'no va muloqotni qanday shakllantirishini o'rganadi. Ushbu kontekstual tushunish bir nechta asosiy xususiyatlarni tushunish uchun juda muhimdir: shaxsiyat va individuallik, ijtimoiy va madaniy o'ziga xoslik, kognitiv qobiliyatlar, hissiy holatlar, kommunikativ kompetentsiya.*

Kalit so'zlar: *Hissiyotlar, pragmalingvistika, ijtimoiy omil, muloqot, hissiy holat, niyat shakli, madaniyatlararo muloqot, ishonch, shaxsiyat va individuallik, ijtimoiy va madaniy o'ziga xoslik, kognitiv qobiliyatlar, hissiy holatlar, kommunikativ kompetentsiya.*

In the context of English and Uzbek speech communication, the emotional state of the speaker can vary based on factors such as language proficiency, cultural

background, personal experiences, and the dynamics of the communication exchange. Pragmalinguistics, a subfield of linguistics, offers a powerful lens through which to examine various human characteristics.

Pragmatics, the study of how context contributes to meaning, has revolutionized our understanding of communication. A key branch, pragmalinguistics, focuses specifically on the relationship between linguistic structures and their pragmatic functions, offering a powerful tool for investigating a range of human characteristics. While traditional linguistics often analyzes the formal structures of language, pragmalinguistics delves into the nuances of how language is used in real-world contexts, revealing insights into the speaker's personality, cultural background, cognitive abilities, and emotional state.

One significant area of exploration is personality and individuality. Pragmalinguistic analysis can uncover subtle differences in communication styles that reflect individual personalities. For example, the frequency and type of apologies, the directness or indirectness of speech acts, and the use of humor all provide clues to an individual's character. A person who consistently uses indirect requests might be considered more polite or less confrontational than someone who frequently employs direct commands. Similarly, the use of self-deprecating humor could signal a certain level of self-awareness or insecurity.

Beyond individual differences, pragmalinguistics sheds light on social and cultural identity. Language is deeply embedded in cultural norms and values. Analyzing pragmatic features like politeness strategies, forms of address, and conversational turn-taking reveals significant cultural variations. What constitutes polite behavior in one culture might be considered rude or overly formal in another. Understanding these differences is crucial for effective cross-cultural communication and avoiding misunderstandings.

Furthermore, pragmalinguistics offers insights into cognitive abilities. The successful interpretation of implicature, the understanding of figurative language (metaphors, idioms), and the management of complex conversational exchanges all demand advanced cognitive skills. Difficulties in these areas can point to cognitive impairments or developmental delays. Analyzing pragmatic language use can be a valuable diagnostic tool in various clinical settings.

Emotional states are also subtly encoded in pragmatic features. While emotions might not always be explicitly stated, they often leak through tone of voice, choice of words, and conversational strategies. For example, sarcasm, heightened emotional language, or hesitant speech can all provide clues to underlying feelings. This area is particularly relevant for researchers studying emotional intelligence and the relationship between language and emotion regulation.

Finally, pragmalinguistics directly addresses communicative competence. It focuses on how well individuals use language in social interactions. This encompasses understanding social cues, choosing an appropriate register, adapting language to different audiences, and managing conversations effectively. Assessing communicative competence through a pragmalinguistic lens is valuable for

evaluating language learning progress, identifying communication disorders, and training individuals in effective communication strategies.

While pragmalinguistic analysis offers a rich source of data, it's crucial to acknowledge its limitations. The interpretation of pragmatic meaning can be subjective and influenced by the researcher's own biases. Context plays a critical role, making generalizations across different situations challenging. Nevertheless, pragmalinguistics offers a unique and valuable approach to understanding human characteristics, adding depth and nuance to our understanding of the intricate relationship between language and human experience. Future research should continue to refine methods and address the challenges to maximize the potential of this insightful field.

Let's explore examples of how pragmalinguistics can be used to study characteristics in English and Uzbek, highlighting cross-cultural differences where applicable. The focus will be on how pragmatic features reveal aspects of personality, culture, and communication styles.

English:

• Directness vs. Indirectness: English, particularly American English, tends towards directness in many communicative contexts. A request might be phrased as a command ("Close the door"). This directness can reflect a cultural emphasis on efficiency and clarity. However, indirectness is also used, depending on the social context and relationship between speakers. Someone might say "It's cold in here," implying a request to close a window, rather than directly asking. The choice reflects aspects of personality (assertive vs. considerate) and social dynamics (power balance).

• Humor and Sarcasm: The use of humor and sarcasm is prevalent in English conversation, often signifying intelligence, wit, or a particular social stance. However, the interpretation of sarcasm requires understanding the context and speaker's intention. Misinterpretations can lead to conflict, revealing the importance of shared cultural understanding for successful communication. Analyzing the frequency and types of humor used can offer insights into a person’s personality and social skills.

• Politeness Strategies: English employs politeness strategies that vary depending on social distance and power dynamics. Using formal language with strangers demonstrates politeness, while informal language is appropriate with close friends. Analyzing deviations from these norms can reveal aspects of personality (e.g., someone consistently using overly formal language might be perceived as distant or insecure).

Uzbek:

• High-Context Communication: Uzbek communication often relies heavily on context and shared understanding (high-context communication). Indirectness and politeness are highly valued, with requests often embedded within conversations or expressed through suggestions. This reflects a cultural emphasis on maintaining harmony and avoiding direct confrontation. Directness, especially with elders or those in positions of authority, can be considered impolite.

• Honorifics and Forms of Address: The use of honorifics (e.g., “aka,” “opa,” “uka”, “singil”) and appropriate forms of address is crucial in Uzbek. Incorrect use can be perceived as disrespectful and reflects a lack of cultural sensitivity. Analyzing the choices made in addressing individuals reveals understanding of social hierarchy and cultural norms.

• Emphasis on Relationships: Uzbek pragmatics emphasizes the importance of interpersonal relationships in communication. Maintaining harmony and avoiding conflict are prioritized, often leading to indirect communication strategies. This contrasts with the more direct style often found in English. The choice of communication strategy reflects the cultural value placed on social harmony.

Cross-Cultural Comparison:

Comparing the use of directness, politeness strategies, and humor in English and Uzbek reveals significant cultural differences in communication styles. These differences highlight the importance of pragmalinguistic analysis for understanding intercultural communication and avoiding misunderstandings.

These examples showcase how pragmalinguistic analysis can uncover valuable insights into various characteristics. It’s important to remember that these are generalizations, and individual variation exists within any culture. Analyzing real-world interactions requires a nuanced approach that accounts for individual differences and specific contexts.

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TALABALARNI OTA-ONALAR BILAN HAMKORLIK QILISHGA TAYYORLASH VAZIFALARI VA PEDAGOGIK JARAYON BOSQICHLARI MODULI

Annotatsiya: *Ushbu maqola oliy ta’limda pedagogik amaliyot orqali talabalarni ota-onalar bilan hamkorlik qilishga yo‘naltirilgan pedagogik texnologiyalarni joriy qilish va takomillashtirish usullari, vazifalari va pedagogik jarayon bosqichlari moduli aks etgan.*

Kalit so‘zlar: *modulli dastur, yillik reja, tavsiya, maslahatlar, portfolio, hamkorlik muhiti, , anatomik-fiziologik, ruxiy xususiyatlar.*

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MODULE OF TASKS AND STAGES OF THE PEDAGOGICAL PROCESS FOR PREPARING STUDENTS TO COOPERATE WITH PARENTS

Annotation: *This article reflects the module of methods, tasks and stages of the pedagogical process for introducing and improving pedagogical technologies aimed at cooperating students with parents through pedagogical practice in higher education.*

Keywords: *modular program, annual plan, recommendations, advice, portfolio, collaborative environment, anatomical-physiological, psychological characteristics.*

Har qanday mamlakat taraqqiyoti o‘z sohasining yetuk mutaxassisi bo‘lgan kadrlarga bog‘liq. Rivojlanish bosqichini samarali bosib o‘tgan mamlakatlarning 64 foizi[1] aynan inson kapitali sifati, jumladan, aholi tomonidan ishlab chiqarish jarayoni va kundalik hayotda samarali yechimlarni topish uchun to‘plangan bilim va ko‘nikmalarga bog‘liq bo‘lgan.

Fikrimizcha, “Uzluksiz ma’naviy tarbiya konsepsiyasi“[2]da nazarda tutilgan vazifalarni oila va uzluksiz ta’lim tizimi (Oliy ta’lim, maktabgacha ta’lim, oila)da pedagogik amaliyot vositasida amalga oshirish, xorijiy ta’lim va ilm-fan texnologiyalarini jalb etish bilan bir qatorda, talabalarni ota-onalar bilan hamkorlik qilishga tayyorlashga yo‘naltirilgan pedagogik texnologiyalarini yangicha tarzda foydalanishni taqozo etadi.

Oilaviy tarbiya ijtimoiy tarbiyaga nisbatan bolalarning ruhiy olamiga, hissiyoti va tuyg‘ulariga chuqur ta’sir ko‘rsatadi. Hozirgi sharoitda oilalarda umuminsoniy va milliy qadriyatlarga tayangan, sharqona axloqiy xususiyatlar aks etgan ma’naviy-axloqiy munosabatlar qaror topmoqda va oilalarda huquqiy, axloqiy va ruhiy asoslar takomillashib bormoqda. Uyda sog‘lom axloqiy muhit, o‘zaro muomala madaniyati, axloqiy tamoyil chuqur ildiz otmasa, oilada bo‘shliq, salbiy holatlarning qaror topishi muqarrardir[3].

Ma’lumki, MTTda ota-onalar bilan ishlash bo‘yicha juda ko‘p ishlarni tarbiyachi-pedagog amalga oshiradi, chunki u bola tarbiyasida yuz berayotgan o‘zgarishlarni hammadan ko‘proq ko‘radi va bolalar hayoti bilan yaqindan tanish bo‘ladi. Maktabgacha ta’lim tashkiloti tarbiyachilarining oila bilan olib boradigan ish mazmuniga quyidagilar kiradi: bola tarbiyasi, oilani mustahkamlash, onalik va bolalikni himoya qilish bo‘yicha maktabgacha ta’lim tashkilotida amalga oshirilayotgan ishlarning mazmuni bilan tanishtirib borish, ota-onalarga o‘z farzandlarining tarbiyasi uchun davlat va jamiyat oldida javobgar ekanliklarini tushuntirib borish, ota-onalarni bola tarbiyasi uchun zarur bo‘lgan bilim, malakalardan habardor qilish (bolalarning yosh, anatomik-fiziologik va ruxiy xususiyatlari, ularni oilada tarbiyalashning mazmuni, metodi, shart-sharoitlari bilan tanishtirish), bola tarbiyasida oila bilan hamjixatlik, bolani to‘g‘ri tarbiyalashni nazorat qilib borish, oila tarbiyasining eng yaxshi na’munalarini o‘rganish va ommalashtirish.

Yuqoridagi ishlarni rejalashtirish, tashkil etish va ularga rahbarlik qilishda tarbiyachi javobgar shaxs hisoblanadi. Ota-onalar bilan ishlash bo‘yicha yillik reja tuziladi. Bu reja pedagogik kengashda muhokama qilinadi. Rejada umumiy va guruhiy majlislar, ota-onalar uchun ochiq eshik kunlari, suhbat va maslahatlar, otaliq tashkilotlarida ko‘rgazmalar tashkil etish va konsertlar qo‘yib berish, shuningdek bu tadbirlarni o‘tkazish vaqtlari va unga mas’ul bo‘lgan shaxslar belgilanadi. Ota-onalar bilan olib boriladigan ishlarning mavzulari va mazmuni tarbiyachi uslubchining rejasida va tarbiyachining kalendar rejasida aks etadi. Ota-onalar bilan ishlashda quyidagi alohida ish shakllaridan foydalaniladi: suhbatlar, maslahatlar, oilalarga borish, ayrim ota-onalarni MTTga taklif etish, alohida esdaliklar va ko‘chma papkalardan foydalanish. Bolaning uyiga borishdan ko‘zlangan maqsad oila sharoiti, bolaning oiladagi xulqi qiziqishlari, ota-onasi vazifalaridir. Albatta, tarbiyachining oila bilan olib boradigan ishida bolaning yoshi, imkoniyatlari, o‘ziga xos xususiyatlari e’tiborga olinadi.Tarbiyachining ota-onalarga beradigan tavsiya va maslahatlari ishonarli bo‘lishi uchun ota-onalar yoki oilaning boshqa a'zolari maktabgacha ta’lim tashkilotiga taklif qilinadi.Oilaga borishning maqsad va mazmuni tarbiyachining rejasi va xisobotida, kundalik daftarida aks yettirilishi kerak. Tarbiyachi har bir bolaning oilasiga yiliga kamida 2 marta borishi kerak. Ota-onalarga mo‘ljallangan, ularning tafakkurini va amaliy faoliyatini kuchaytiruvchi, oilada bolaning hulqini va o‘zlarining tarbiyaviy ta'sirini tahlil qilishga undovchi pedagogik bilimlarni yanada kengroq targ‘ib qilish kerak. Oiladagi ijtimoiy pedagogik omillar va oila tuzilishi bolalar soni va katta yoshli kishilarning mavjudligi.

Shuningdek, noto‘liq oilalarda tarbiya jarayonlarining bolalar tarbiyasiga ta’sirini tahlil qilish. Mashg‘ulotda oilaviy muhit ayniqsa, ota-onaning yoshi, kasbi va ijtimoiy tuzilishining (dehqon, ishchi, ziyoli) bolalar tarbiyasidagi o‘rni tahlil qilinadi. Yakka yolg‘iz o‘g‘il-qiz bolalari mavjud, yo aksincha ko‘p bolali oilalardagi tarbiya jarayoni o‘rganiladi. Katta yoshdagi bobo va buvilarning yosh xususiyatlari va ularning nabiralariga tarbiyaviy ta'sirlari tavsiflanadi. Mashg‘ulotda qanday “Oilani mustahkam oila deyish mumkin?” mavzusidagi suhbatga tayyorlanib kelish vazifasi beriladi. Suhbat albatta o‘tkazilishi kerak. Ota-onalarning tarbiya madaniyatini oshirish va ularga umumiy tarbiyaga oid bilim berish zarurligini nazariy va amaliy jihatdan o‘rganish, xulosa chiqarish tarbiyachi uchun muhim masaladir.

Talabalarni ota-onalar bilan hamkorlikka tayyorlashga qaratilgan ta’lim texnologiyalarini amalga oshirish xususiyatlari ya’ni talabalarning yosh va individual xususiyatlari, ta’limning mazmuni va shakllari ularning yosh imkoniyatlariga mos kelishi ularning qiziqishlari va qobiliyatlarini, ehtiyojlari va talablarini hisobga olish muhim ahamiyat kasb etadi.

Odatda, amaliyotning birinchi kunida har bir talabaga amaliyot uchun kerakli hujjatlar: amaliyotchi talabaning amaliyot rejasi, kundalik, tarbiyachi ish rejasi, faoliyat (mashg’ulot) tahlili, tarbiyaviy ish reja, tarbiyaviy tadbir ssenariyasi, MTT tarbiyachisi hujjatlari majmui, bolaga va guruhga pedagogik-psixologik tavsifnoma, talabaga tavsifnoma (MTT tarbiyachisi tomonidan), hisobotni yuritish kerak.

Kunlik amaliyot rejasiga asosan talabalar guruhlarga bo‘linib, belgilangan guruh faoliyatini o‘rganadilar. Amaliyot rahbarlari talabalar guruhini 1-2 soat mobaynida bajariladigan ishlar mazmuni bilan umumiy tanishtiradilar. Qolgan vaqtda talabalar rejalashtirilgan jarayonlarni mustaqil o‘rganishlari, tarbiyachining ish faoliyatini kuzatishlari va kunlik bajarilgan ishlarni kundalik daftarga yozib borishlari talab etiladi.

Mazkur bosqichda talabalarni ota-onalar bilan hamkorlik faoliyatini tashkil etishda amaliyot rahbari tomonidan oldindan tuzilgan modulli dastur yaxshi samara beradi. Modulli dasturi har bir modul uchun alohida tuzilib, ish faoliyati elementlari, ya’ni kichik modullar va har bir elementining maqsadi hamda talaba o‘zlashtirishi lozim bo‘lgan materialga oid topshiriqlar va ularni bajarish bo‘yicha ko‘rsatmalar, har bir elementdagi topshiriqni bajarish uchun belgilangan bahoni o‘z ichiga oladi.

Bu holatda har bir talabaga modulli dastur tarqatiladi, talaba o‘zi uchun belgilangan guruhda amaliyot rahbarining umumiy tanishtiruvidan so‘ng, modulli dastur va topshiriqlarni bajarish bo‘yicha ko‘rsatmalarga asosan belgilangan topshiriqlarni mustaqil hamda ayrim murakkab, pedagogik vaziyatlarda amaliyot rahbarlari hamda MTT tarbiyachisidan o‘rgangan holda bajaradi.

Pedagogik amaliyotining modul dasturi talabaning modulni o‘rganish uchun belgilangan vaqt ichida ota-onalar bilan hamkorlik qilishga oid bilimlarni o‘rganishni tizimliligi va uzviyligi ta’minlab, pedagogik amaliyotning boshqa vazifalarini hal etishga to‘sqinlik qilmaydi.

Shuningdek, talabalarning har kuni 6 soatdan 2 soatiga mo‘ljallangan aniq dasturdagi topshiriqlarni bajarish bilan mashg‘ul bo‘lishlari natijasida ularning

bekor qolishi, amaliyotdan erta ketib qolishi yoki keraksiz ishlar bilan shug‘ullanishlariga chek qo‘yiladi.

Shuningdek, tadqiqot doirasida talabalarni ota-onalar bilan hamkorlik qilishga tayyorlash vazifalari va pedagogik jarayon bosqichlari moduli ishlab chiqildi. (2.2.1-jadvalga qarang).

Talabalarni ota-onalar bilan hamkorlik qilishga tayyorlash vazifalari va pedagogik jarayon bosqichlari moduli

№	**Talabalarni ota-onalar bilan hamkorlik qilishga oid topshiriqlar.**	**Talabalarni ota-onalar bilan hamkorlik qilishga oid ko‘rsatmalar.**	**vaqti**	**baho**
1.	**Maqsad:** Tarbiyachi ota-onalar bilan hamkorlik ish rejasi va kuzatuv kengashida ota-onalarning o‘rni bilan tanishish (ishtirok etish) va tahlil qilish. **Topshiriqlarni bajaring:** Ish reja va kuzatuv kengashida nazarda tutilgan mavzular mazmuni bilan tanishing.	Tarbiyachi ota-onalar bilan hamkorlik ish rejasiga tarbiyachi munosabatini kuzating. Shaxsiy pozitsiyangizni bildirib izohlang. Kundalik daftarga qayd etib boring.	4	
2	**Maqsad:** Ota-onalar yig’ilish jadvali mavjud holati va mazmuni bilan tanishish va ishtirok etish. **Topshiriqlarni bajaring:** Guruhdagi tarbiyalanuvchilarning ota-onalari to‘g‘risida ma’lumotlar va oila turlarini aniqlang.	Jadvalda aks etgan ota-onalar yig’ilish mazmuni holatini kuzating oilaviy ahvoli bilan tanishing.	4	
3	**Maqsad:** MTT bilan hamkorlik aloqalari sust beqaror bo‘lgan ota-onalarning uylariga tashrifni amalga oshirish. **Topshiriqlarni bajaring:** 1. Ota-onalar bilan farzandining yutuqlari haqida ayting. 2. MTT bilan hamkorlik qilishga jalb qiling.	Tashrifdan oldin puxta tayyorgarlik ko‘ring. Talab emas taklif sifatiga muloqotni amalga oshiring.Majburiyatlar yuklamang.	6	

4	**Maqsad:** Ota-onalar uchun buklet, tavsiya va fleerlar tayyorlash va taqdim etish **Topshiriqlarni bajaring:** Farzand tarbiyasiga oid tavsiyalar ishlab chiqing.	Tavsiyalar hajmi ko‘p bo‘lmasligi, yorqin ranglarda bo‘lishi kerak. Ota-onalar MTTga ertalab farzandlarini olib kelganda bering. Xadicha Kubro Tongarning “***Baqirmaydigan onalar***” kitobi tavsiya etiladi.	6	
5	**Maqsad:** “***Odobli bola***” o‘yin texnologiyasini o‘tkazish **Topshiriqlarni bajaring:** 1.Tarbiyalanuvchilarni yoshiga mos odob-ahloq qoidalarini o‘rganing. 2. Ota-onalar bilan hamkorlikda ishlashga mavzular tavsiya bering.	Ziyovuddin Rahim. “***Bola – odobi bilan aziz”*** (Farzand tarbiyalashda ota-onalarga maslahatlar) kitobi asosida mavzularni tanlab ota-onalar bilan ishlang.	8	
6	**Maqsad:** Sport musobaqalarini tashkil etish **Topshiriqlarni bajaring:** Musobaqa shartlarini ishlab chiqing.	Tarbiyachi maslahatini oling. Kun tartibiga muvofiq rejalashtiring.	8	
7	**Maqsad:** Tarbiyalanuvchi portfoliosi tarkibiga kiruvchi – **“Mening oilam”** bo‘limda oila a’zolari haqida qisqacha ma’lumot olish. **Topshiriqlarni bajaring:** ular qaysi sohada ishlaydi, sevimli mashg‘uloti nima, ularning qanday yaxshi fazilatlari bor kabi savollarni bering.	Tarbiyalanuvchilarning yoshiga mos savvollar tuzing.Javoblarini portfolosiga joylang.		
8	**Maqsad:** Modul dasturini yakunlash.	Modulda belgilangan topshiriqlarni bajarish	4	

	1. Modul dasturi maqsadini yana bir bor o‘qib chiqing va o‘zingizni bilish-anglash faoliyatingizni baholang. 2. Test topshiriqlarini bajarishga kirishing. 3. Qaysi ishingizdan qoniqmasangiz uni qaytadan bajaring.	bo‘yicha o‘z faoliyatingizni tahlil qiling. Test topshiriqlarini bajaring va test kaliti yordamida o‘z natijangizni baholang. Har bir to‘g‘ri javob uchun 1 ball		

Ma’lumki, amaliyot Nizomiga ko‘ra, uning natijalarini baholash yakuniy bosqich hisoblanib, kafedrada dekan, tegishli kafedra mudiri, o‘quv-uslubiy boshqarma (bo‘lim) vakili hamda amaliyot rahbarlari ishtirokida talaba amaliyot davrida o‘zlashtirgan bilimlari, olgan taassurotlari haqida hisobot beradi.

Fikrimizcha, amaliyotchining 1 oy mobaynida egallagan bilimlarini 15-20 daqiqalik hisoboti asosida to‘laqonli baholab bo‘lmaydi.

Hisobot vaqtida amaliyotga faol ishtirok etgan, hamma topshiriqlarni o‘z vaqtida to‘g‘ri bajargan talabalar o‘zi egallagan bilimlarini to‘liq bayon qila olmasligi, yoki hayajonlanishi va boshqa sabablarga ko‘ra yaxshi natija ko‘rsata olmasligi mumkin. Hisobot vaqtida past baholanishi, uning o‘rganishga bo‘lgan ishtiyoqini pasaytiradi va o‘z faoliyatidan, komissiya xulosasidan qoniqmaganlik hisini tug‘diradi.

Zamonaviy pedagogik amaliyot sharoitida talabalarning bilim, ko‘nikma va malakalarini nazorat qilish va baholash ham yangicha mazmun kasb etishi lozim. Talabalarning ota-onalar bilan hamkorlik qilishni o‘zlashtirishini baholashni har bir modulni o‘rganish jarayonida tashkil etish maqsadga muvofiq. Talabalarning pedagogik amaliyotda o‘zlashtirish natijalarini aniqlashda har bir modul yakuni bo‘yicha nazorat topshiriqlarini turli variantlarda, masalan, 8 ta test topshiriqlari asosida ishlab chiqish mumkin.

Ma’lumki, pedagogik testlar talabaning bilim o‘zlashtirish darajasini aniqlash va obyektiv baholash vositasi bo‘la oladi[4]. Test topshiriqlari talabalarning bilish faolligini oshirish, tanlash qobiliyatini rivojlantirish hamda o‘z-o‘zini baholashda ahamiyatlidir.

Har bir modul yakunida o‘z bilimi natijasini o‘zi baholagan talaba guruh ichida past baho olmaslikka, topshiriqlarni o‘z vaqtida bajarishga, yaxshi baho olishga intiladi, ya’ni guruhda raqobat muhiti yaratiladi. Bu holat hamkorlik faoliyatini o‘zlashtirish va pedagogik amaliyot natijalarining yuqori bo‘lishini ta’minlaydi. Har bir modul bo‘yicha baholashda quyidagi mezonlarga asoslanishni tavsiya etamiz (2.2-jadval).

№	Faoliyat turi	Nazorat soni	Baholash me’zoni	Maksimal ball
1	Test topshirig’i	8	To‘g‘ri javob uchun	10 ball

Izoh:

5 baho uchun - 8-10 ball

4 baho uchun - 6-7 ball

3 baho uchun - 4-5 ball

Amaliyotni yakuniy baholashda esa modular bo‘yicha to‘plangan ballarning o‘rtacha qiymati hamda hisobot davridagi talabaning faolligi, kasbiy sifatlarini namoyon eta olganligini e’tiborga olish maqsadga muvofiqdir.

Shuni alohida ta’kidlash joizki, pedagogik amaliyotini o‘tkazish va baholashni innovatsion texnologiyalar asosida tashkil etish amaliyot natijalarining samarali bo‘lishini ta’minlabgina qolmay, mehnat bozorida raqobatlasha oladigan yuqori malakali mutaxassislarni tayyorlashga zamin yaratadi.

Pedagogik kuzatishlar va tadqiqot natijalari quyidagi imkoniyatlarni shakllantirishga qaratiladi;

- Pedagogik amaliyot vositasida talabalarni ota-onalar bilan hamkorlik qilishga tayyorlash modulli texnologiya asosida tashkil etish talaba faoliyatini to‘g‘ri rejalashtirilishini ta’minlaydi. Shuning uchun xar bir modul uchun tuzilgan dastur sodda va talaba uchun tushunarli bo‘lishi, hamkorlik shakllari, metod va vositalarini o‘rganishga;

- Modul dasturi asosida har bir moduldagi muayyan topshiriqlarni amaliyot rahbari, talaba, MTT tarbiyachisi, ota-onalar hamkorlik muhitini o‘rganish talabalarda mustaqil ishlash, o‘rganish, bilmaganini so‘rash, pedagogik amaliyot vositasida boshqalar bilan munosabatga kirishish kabi ko‘nikmalarni shakllanishiga yordam beradi. Shu sababli talabalarga amaliyot rahbari va MTT tarbiyachisini tayinlashda, ularning kasbiy mahorati, ustozlik sifatlarini e’tiborga olish lozim.

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BIOLOGICAL ROLE OF ANTIOXIDANTS

Abstract. *In today's fast-paced world, where stress, pollution, and unhealthy lifestyle choices are rampant, the importance of antioxidants cannot be overstated. Antioxidants are compounds that play a crucial role in protecting the body against damage caused by free radicals, which are unstable molecules that can wreak havoc on our cells and tissues. In this comprehensive essay, we will delve deep into the world of antioxidants, exploring their sources, functions, benefits, and potential risks. We will also examine the role of antioxidants in preventing chronic diseases, promoting longevity, and enhancing overall well-being. By the end of this essay, you will have a thorough understanding of why antioxidants are essential for optimal health and how you can incorporate them into your daily life.*

Keywords: *Antioxidants, vitamins, oxidative stress, free radicals, anti-inflammatory.*

Antioxidants are molecules that inhibit or neutralize the damaging effects of free radicals, unstable molecules with unpaired electrons. Free radicals can cause oxidative damage to cells and tissues, leading to inflammation, DNA mutations, and accelerated aging. Antioxidants work by donating electrons to stabilize free radicals, thereby preventing cellular damage and maintaining cellular health.

The balance between free radicals and antioxidants is crucial for overall health. When free radicals outnumber antioxidants, a state known as oxidative stress occurs, which can contribute to chronic diseases such as cancer, cardiovascular disease, and neurodegenerative disorders. Antioxidants play a key role in protecting cells from oxidative damage, supporting immune function, and promoting overall well-being.

Antioxidants come in various forms, including vitamins (such as vitamin C and E), minerals (such as selenium and zinc), phytochemicals (such as flavonoids and carotenoids), and enzymes (such as superoxide dismutase and catalase). Each type of antioxidant has unique properties and mechanisms of action, contributing to the overall defense against oxidative stress. Understanding the structure and function of antioxidants is essential for harnessing their full potential in promoting health.

Vitamin C: Known for its potent antioxidant properties, vitamin C plays a critical role in scavenging free radicals, supporting collagen synthesis, and enhancing immune function. Found in citrus fruits, berries, and leafy greens, vitamin C is a water-soluble vitamin that must be obtained through diet or supplementation.

Vitamin E: A fat-soluble antioxidant, vitamin E protects cell membranes from oxidative damage and helps maintain skin health. Sources of vitamin E include nuts, seeds, and vegetable oils.

Beta-carotene: A precursor to vitamin A, beta-carotene is a powerful antioxidant that supports eye health, immune function, and skin integrity. Orange and yellow fruits and vegetables are rich sources of beta-carotene.

BHA (Butylated hydroxyanisole): Used as a food preservative, BHA exhibits antioxidant properties by preventing lipid oxidation in processed foods.

BHT (Butylated hydroxytoluene): Similar to BHA, BHT is a synthetic antioxidant commonly added to food products to extend shelf life and prevent rancidity.

TBHQ (Tertiary butylhydroquinone): Another synthetic antioxidant used in food processing, TBHQ helps maintain product quality by inhibiting oxidation.

Health Benefits of Antioxidants:

Protection Against Oxidative Stress: By neutralizing free radicals and reducing oxidative damage, antioxidants help protect cells from premature aging and disease development.

Anti-Inflammatory Properties: Some antioxidants exhibit anti-inflammatory effects by modulating immune responses and reducing inflammation in the body.

Immune System Support: Antioxidants play a crucial role in supporting immune function by enhancing the body's defense mechanisms against pathogens and infections.

Cardiovascular Health Benefits: Certain antioxidants have been linked to improved cardiovascular health by reducing oxidative stress in blood vessels, lowering blood pressure, and improving cholesterol levels.

Skin Health Benefits: Antioxidants like vitamin C and E help protect the skin from UV damage, promote collagen synthesis, and maintain skin elasticity, contributing to a youthful appearance.

Antioxidants and Disease Prevention. Cancer Prevention: Antioxidants have been studied for their potential role in preventing cancer by reducing DNA damage, inhibiting tumor growth, and enhancing immune surveillance against cancerous cells.

Heart Disease Prevention: Antioxidants may help lower the risk of heart disease by reducing inflammation in blood vessels, improving blood flow, and protecting against plaque formation in arteries.

Neurodegenerative Disease Prevention: Research suggests that antioxidants can protect brain cells from oxidative damage associated with neurodegenerative diseases like Alzheimer's and Parkinson's.

Diabetes Prevention: Some antioxidants have been shown to improve insulin sensitivity, regulate blood sugar levels, and reduce complications associated with diabetes.

Antioxidants are essential components of a healthy diet and lifestyle, offering protection against oxidative stress, inflammation, and chronic diseases. By incorporating a variety of antioxidant-rich foods into our daily meals and considering supplementation when necessary, we can optimize our antioxidant intake and support overall well-being. Continued research into the mechanisms and benefits of antioxidants will further expand our understanding of their role in h ealth

promotion and disease prevention. Embracing the power of antioxidants is a proactive step towards enhancing longevity and vitality in the modern age.

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EFFECTIVENESS OF USING NANOPRODUCTS IN THE RESTORATION OF ARCHITECTURAL MONUMENTS

Abstract: *This article describes the methods and results of using nanotechnological products, the latest innovative technology, in the repair and restoration of architectural and cultural heritage monuments, preservation of architectural heritage, their effective use and service life extension.*

Key words*: Nanoproduct, nanotechnology, restoration, nanopowder, nanovarnish, nanopaint, coating, wood, murals, enamel*

Intraduction. Humanity is on the threshold of the next technological revolution. In recent years, the development of science and technology has reached such an important milestone that it is even able to radically change the living conditions of a person. This is due to the fact that nanotechnologies have started to be applied to all sectors of the economy. The word "nanotechnology" is composed of two words - "nano" and "technology", "Nano" is "nannos" in ancient Greek, and in Uzbek it means "small", "tiny", and "technologies" means "art, skill"means.

It follows that nanotechnology is the science of tiny particles and their enormous capabilities, meaning art and creativity. Even textbooks on nanotechnology have been created [1]. Nanotechnology works with the smallest particles, the size of which does not exceed thousands of nanometers (tenths to ninths of a meter). With their help, we can save time, spend less, and have more material wealth and treats. [2]. [figure 1].

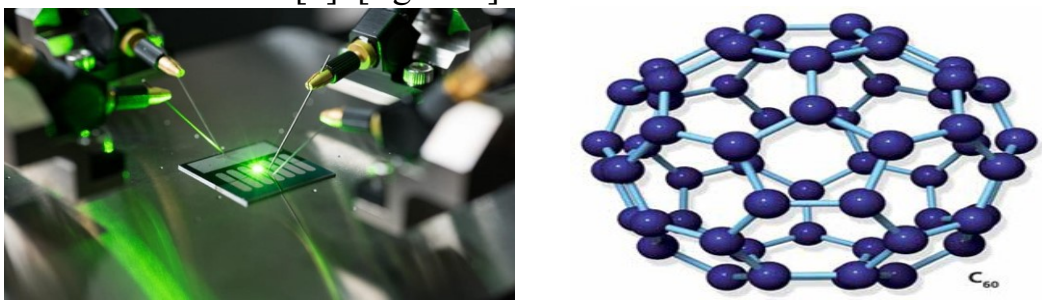

Fig. 1.

Main part. We can see this in the example of the Arabic inscriptions written on the walls of the complex. For many centuries, the memorial buildings of the Timurid period have been surprising even foreign tourists with their appearance, beauty and the presence of a divine atmosphere that attracts people. We know that today we have accumulated enough experience in the field of restoration and construction, which gives us the opportunity to preserve architectural masterpieces.

Unfortunately, time, nature and man are the main factors that shorten the life of historical structures. In such cases, the demand for the use of innovative technologies becomes stronger. In this field, the use of innovative technologies, in particular nanoproducts, leads to unexpected efficiency.

Long-term protection of walls and preservation of the beauty of monumental structures, nanomaterials that provide specific properties of damaged parts - transparent coatings, nanopowders, nanoenamels, steam and laser cleaning devices, hydroxide nanoparticles have been identified, which help to restore the architectural monument to its original state and permanently prevent damage in the future. is the main factor in obtaining [figure 2]. The use of these products leads to high efficiency in the repair of damaged parts of historical buildings.

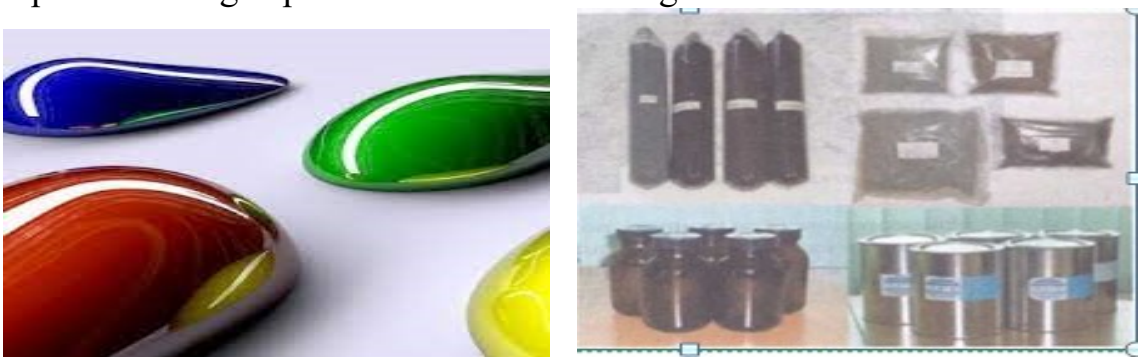

Fig.2.

Today, more than a thousand enterprises in various fields are engaged in the production of nanoproducts. Nanotechnology enables the creation of new and improvement of existing technologies and materials, with the help of nanotechnology it is possible to obtain coatings combining properties such as elasticity and high hardness, as well as most colorfast materials. For example - lotus effect - or a self-cleaning surface created on the basis of the effect of minimal wetting of the surface. This material is based on a structural imitation of the lotus leaf plant, and is characterized by moisture and water resistance, while also being self-cleaning and capable of killing any microbes. It is mainly used as a coating in objects.

Nanotechnology makes it possible to create paint materials that can be used as self-cleaning materials. As a result of their movement, under the influence of UV rays, free radicals that oxidize organic substances are formed on the surface of nanoparticles. In Russia and Germany, paints and colored materials capable of creating non-flammable, heat-resistant coatings with low thermal conductivity are being developed and produced [3,4]. Such coatings are able to slow down the process of heating the building structure to its critical temperature for some time. Such coatings can be easily applied to concrete and wood. In the event of a fire, such paint quickly swells, expands and prevents heat from penetrating into the base layer. Thus, it provides protection. Smart nanoparticles in these products perform different tasks at the same time, that is, a coating is formed that prevents the main material from various external influences - dust, dust, microbes, sharp rays of the sun, extreme cold temperature, and parts such as wood, tiles, domes, murals are

created in the original way. plays an important role in maintaining the status quo. It also has the ability to kill various microbes and removes traces of many pollutants. Easily removes stains of biological origin (fat, sauce, blood), as well as traces of pencil, ink, watercolor [figure 3].

Fig.3.

Despite the external influences, the paint always keeps a new look. Due to the presence of nanoparticles, it gives the painted surface breathability, which is important for the care of the facade. These nano-paints are environmentally friendly, easy to apply and have good antibacterial properties, these paints are used not only in the process of renovation, but also in hospitals, kindergartens, schools, hotels , can be used as an ideal facade and interior coating for restaurants and residential buildings. A bioactive coating developed with the help of silver nanoparticles is a water dispersion paint with biocidal properties, which ensures the biological activity of the nanomodified coating and has been successfully proven to fight against a number of pathogenic bacteria, viruses, fungicidal pollutants and other microflora. These paints are "smart wall coverings" with unique properties[5]. Nanotechnologies make it possible to purposefully change the properties of surfaces in such a way that they can perform practically any required function. The use of nanotechnology has given unique properties to paints and created such types of paint nanomaterials as facade paints, interior paints, as well as primers and fire-resistant paints.

It has the ability to burn sticky harmful substances, eliminating traces of nicotine, soot and other pollutants. Due to the presence of nanoparticles, it gives the painted surface breathability, which is important for the care of the damaged facade. This nano-paint is environmentally friendly, easy to apply and has good antibacterial properties, and this coating is an ideal coating for renovation of hospitals, kindergartens, schools, hotels, restaurants and residential buildings.

In order to protect the walls, wood, varnish and plaster in the interior of historical buildings from cracking and mold, it is necessary to provide the rooms with the necessary microclimate in every season. In this case, the use of electrically conductive nano-paints allows more efficient use of energy for heating the room. Ordinary water-based latex paint is made electrically conductive by carbon nanofibers. Can be applied to wall, wood, paper, glass or metal by brush or spray.

Results. New technologies are active and successful to restore the image of cities and local cultural attractions. There are also new inorganic nanoparticles that both restore interior decoration and protect it from further damage[6].

Figure 4.

This nanoproduct is hydroxide nanoparticles that can be applied to frescoes and other fine art samples, not only as an effective barrier against subsequent damage to murals and antiques that are part of an architectural monument, but also to help restore them [figure 4].

The new coating is very easy to use, first the nanoparticles are dispersed in isopropanol, then the suspension is brushed or sprayed on the surface of the damaged part, if the damaged part is very thin, Japanese paper (large hole paper) is placed on the surface,and the nanoparticles are delivered to the damaged part through the holes in the paper.

There are also calcium, strontium, barium, and magnesium hydroxide nanoparticles, all of which are used effectively for various purposes. For example, calcium and magnesium hydroxides can be used to preserve paper, wood and other cellulose. hydroxide nanoparticles can be used to protect all types of surfaces except metal [7]. This method is a new nanotechnological approach that can be used not only in the preservation and restoration of ancient monuments, but also in the future protection of cultural heritage objects from external influences. In memorials, windows are an integral part of the building, wooden and glass structures are the first to be damaged and require restoration. This is an important and understandable situation considering their continuous operation and direct interaction with the environment. Therefore, in most cases, the original windows are replaced with new windows that repeat the shape and color, but made of modern materials.

Recovery glass meets requirements such as thermal insulation, strength, sound insulation and durability. After all, it is designed not only to replace the old structure, but also to provide reliable protection of the interior from the destructive effects of weather disasters and the harsh atmosphere of the modern city. This protects the building from overheating in the summer, that is, wood, wall paintings and decorations, as well as varnishes in the interior of the building prevent drying, cracking and loss of their properties, and in the winter it protects from overheating, i.e. from rusting, mold and cracking. . In addition, the window should fully match the style of the building, its decorative and architectural appearance. According to experts, plastic windows are the best solution that ensures the fulfillment of all these

conditions. The peculiarity of this material is that it becomes elastic when heated, which makes it possible to create any shape - arch, round, cross-shaped, etc. [8]. The main reason for this is the use of nano ions in the glass surface coating. This nanoproduct is especially important for protecting the interior of historical buildings from external factors. Also, wood products from external negative effects. The use of titanium dioxide nanoparticles for protection against harmful substances is of great importance. Products created on the basis of titanium dioxide nanoparticles, including nanovarnish and nanoenamels, have self-cleaning properties, do not absorb any negative effects, namely dust, mold, strong rays of the sun and extreme cold temperature, and pass the protective agent. This is very important for any type of cultural heritage. In addition, it is proposed to use nanoemulsions of water-insoluble biocides to protect products made from this material against biological damage[9].

Conclution.The 21st century is considered the century of nanotechnology, and as in all other fields, great achievements are being made in the field of architecture and construction. It is shown that these products bring unexpected results not only in modern memory styles and volumetric spatial images, but also in the repair and restoration of historical memory objects, restoring facades to their original condition. Based on the results of the research, it was found that in the architecture of Uzbekistan, in particular, the repair and restoration of historical monuments, prolonging their life is one of the urgent issues, and the use of special types of nanoproducts as a solution to these problems is considered the main factor in preserving the unique masterpieces of memory. State support and targeted funding programs allow the preservation of the historical appearance of any city for future generations.

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YOSH GANDBOLCHILARNI TEZKORLIK CHAQQONLIK SIFATLARINI RIVOJLANTIRISH USULLARI

Annotatsiya.*Yosh gandbolchilarni tezkorlik va chaqqonlik sifatlarini rivojlantirish sportning asosiy omillaridan biridir. Bu sifatlar o'yinchilarga raqobatchilarga qarshi kurashda ustunlik berib, ularning harakatlarini aniq va tezkor qilish imkonini yaratadi. Tezkorlik va chaqqonlikni oshirish, sportchilarning tez harakatlanish, tezkor qarorlar qabul qilish va raqibni har xil holatlarda yengish imkoniyatlarini kengaytiradi.*

Tezkorlikni rivojlantirish uchun o'yinchilarga tez o'zgarishlarni amalga oshirish, tezkor yugurish va to'p bilan ishlashning aniq va tezkor usullarini o'rgatish muhimdir. Chaqqonlikni oshirish uchun esa, o'yinchilarga turli xil tezkor manevrlar, ya'ni to'pni tezda olish, o'zgartirish, o'z yo'nalishini o'zgartirish va hujum yoki mudofaa harakatlarini muvofiqlashtirishga yo'naltirilgan mashqlarni bajarish kerak.

Shu bilan birga, yosh gandbolchilarga individual va jamoaviy treninglarni muvaffaqiyatli o'tkazish, ularni psixologik jihatdan tayyorlash va doimiy ravishda o'z maqsadlariga erishish uchun motivatsiya berish ham muhim ahamiyatga ega. Bu jarayonlar sportchilarning barcha jismoniy va ruhiy imkoniyatlarini rivojlantirishga yordam beradi, natijada ular tezkorlik va chaqqonlikni samarali tarzda o'zlarida shakllantiradilar.

Kalit so‘zlar *Tezlikni oshirish – Tezkorlikni rivojlantirish uchun maxsus mashqlar, sprintlar, va shartli to‘siqlarni o‘z ichiga olgan treninglar.*

Chaqqonlikni rivojlantirish – Yo‘nalish o‘zgarishi, burilishlar, tezkor javob berish, va tana harakati nazorati mashqlari.

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YOUNG HANDBALL PLAYERS ARE DISTINGUISHED BY THE SPEED AND DEXTERITY OF THEIR DEVELOPMENT METHODS

Abstract:*Developing the qualities of agility and agility of young handball players is one of the main factors in the sport. These qualities give players an advantage in the fight against competitors, making their actions clear and quick. Increasing agility and agility will expand the chances of athletes moving quickly, making quick decisions and overcoming an opponent in different situations.*

To develop agility, it is important to teach players accurate and fast ways to make quick changes, run fast and work with the ball. To increase agility, however, players need to perform a variety of quick maneuvers, i.e. exercises aimed at getting the ball quickly, changing its direction, and coordinating offensive or defensive movements.

However, it is also important to give young handball players the motivation to successfully conduct individual and team training, prepare them psychologically and constantly achieve their goals. These processes help to develop all the physical and mental capabilities of athletes, as a result of which they effectively form agility and agility in themselves.

Keywords: *Increasing speed is training that includes special exercises, sprints, and conditional obstacles to develop speed.*

Development of agility-direction changes, twists, quick response, and body movement control exercises.

Yosh gandbolchilarni tezkorlik va chaqqonlik sifatlarini rivojlantirish usullari Jismoniy fazilatlardan biri bo‘lgan tezkorlik deganda biz gandbolchining ma’lum sharoitda qisqa vaqt ichida harakatlami bajara olish qobiliyatini tushunamiz.

Tezkorlik namoyon bo‘lishining quyidagi shakllari mavjuddir:

- tafakkur (fikrlash) jarayonining tezligi;
- oddiy va murakkab reaksiyalaming qanday bo‘lmasin biron-bir
- tashqi ta’sir yoki majmua ta’sirlarga javoban tezligi;
- yakka harakatni bajarish tezligi;
- harakatlar tezligi (ayrim harakatlar takrorlanishini bajarish vaqti).

O‘yinchi harakat faoliyatining tezligi birinchi navbatda harakatlami koordinatsiya qiluvchi markaziy asab tizimining faoliyatiga munosib bo‘lishi lozim. Gandbolchining tezkorligi aniq reaksiya tezligida, jadal siltanishda, 15 - 25 m. masofada ko‘rsatiladigan yugurish tezligida hamda to‘p bilan va to‘psiz texnik usullami bajarish tezligida aniq ifodalanadi.

Tezkoriikni rivojlantirish uchun yugurishda qayta tezlanish, velosipedda uchish va shunga o‘xshash har xil yuqori tezlanish bilan bajariladigan davriy mashqlaridan foydalaniladi. Qayta tezlanishda yuqori darajaga yetkazadigan qilib tezlikni sekin-asta, tekis oshirib borib, harakat amplitudasini kattalashtirish lozim.

Tezkoriikni rivojlantirishga yordam beradigan yana ko‘pgina mashqlami keltiramiz:

- yonboshlab orqa bilan jadal yugurishni bajarish;
- tizzani yuqoriroq ko‘tarib tezlikda yugurish;
- 25 - 80 m. masofaga oyoq uchida depsinib tez sakrab-sakrab harakat qilish;
- yuqori tezlikda aylantirilayotgan kalta va uzun arg‘amchi bilan sakrash;
- aylanib turgan arg‘amchi tagidan yoki ustidan yugurib o‘tish;

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- o‘rta masofaga yugurayotganda tezlikni to‘satdan o‘zgartirish;
- dastlabki yugurib borishdan so‘ng (6 - 8 m) 20 - 30 m masofada yuqori tezlikka erishish.

Siltanish va tez yugurishlar har xil estafetalarda musobaqa metodi bilan o‘tkazilgani ma’qul. Bir mashg‘ulotga mo‘ljallangan tezkorlikni rivojlantirishga qaratilgan mashg‘ulot (trenirovka)ning hajmi uncha kata bo‘lmasligi kerak.

Tezkorlikni rivojlantirish uchun o‘yin texnikasi va taktikasiga oid ayrim mashqlardan foydalanish mumkin. Shuningdek, tez yorib o‘tish, pressing, yuqori tezhkda to‘pni yerga urib yurish va chalg‘itib o‘tish kabi mashqlar ham tezkorlikni rivojlantirishga imkon yaratadi.

Baland bo‘yli o‘yinchilaming yakka harakatida hujum va himoyada oyoq harakatini tezlantirib, harakat tezligini rivojlantirishga kata ahamiyat berish kerak.

Gandbol – bu tezkor va chaqqonlikni talab qiladigan jismoniy faollikni o'z ichiga olgan sport turi bo'lib, unda futbol va qo'l to'pi elementlari birlashtirilgan. Yosh gandbolchilarni rivojlantirishda eng muhim jihatlardan biri — ularning tezkorlik va chaqqonlik ko'nikmalarini shakllantirishdir.

Bu sifatlar sportchilarning o'yin davomida tez qaror qabul qilishlari, raqiblarni o'tib ketishlari, to'pni tez va aniq uzatishlari uchun zarurdir. Quyida yosh gandbolchilarni tezkorlik va chaqqonlik sifatlarini rivojlantirishga yordam beradigan asosiy usullar keltirilgan.

1. Tezlik va chaqqonlikni rivojlantiruvchi mashqlar

Tezkorlik va chaqqonlikni rivojlantirish uchun turli xil maxsus mashqlarni bajarish zarur. Bu mashqlar yosh sportchilarni nafaqat jismonan, balki ruhiy jihatdan ham tayyorlashga yordam beradi. Masalan:

Skripka (shuttle run) mashqi: Bu mashqda sportchi tezda oldinga va orqaga yugurib, tezlik va chaqqonlikni rivojlantiradi. Bu mashqning davomida sportchi jismoniy va aqliy ravishda tez qarorlar qabul qilishga majbur bo'ladi.

Piramida mashqi: Sportchi tezkorlikni oshirish uchun to'pni tez o'zgartirib, ko'p qavatli piramida shaklida harakatlanadi. Bu mashq chaqqonlik va tezlikni rivojlantirishga yordam beradi.

Konuslar bilan harakatlanish: Konuslar yoki to'siqlar orqali harakatlanish, sportchining chaqqonligini oshiradi. Bu mashqning maqsadi tezda burilishlar qilish va qisqa masofalarga tez yugurishdir.

2. Reaksiya va koordinatsiyani rivojlantirish

Tezkorlik faqat jismoniy tezlik bilan bog'liq emas, balki sportchining harakatlariga tezkor va aniq reaksiya bildirish qobiliyati bilan ham chambarchas bog'liqdir. Reaksiya va koordinatsiyani rivojlantirish uchun quyidagi usullarni qo'llash mumkin

Ko'zni sinash mashqlari: To'pni yoki boshqa obyektni tezda ko'rib, uni tutish yoki qaytarish talab qilinadi. Bu mashqlar sportchining vizual va aqliy reaksiyasini rivojlantirishga yordam beradi.

Gandbolda tezkorlik va chaqqonlik — bu sportda yoki kundalik hayotda faoliyatni tez va aniq bajarish qobiliyatidir. Bu ikki unsur bir-biri bilan chambarchas bog'liq bo'lib, tezkorlik va chaqqonlik insonning fiziksaviy va psixologik imkoniyatlarini birlashtiradi. Ularning har biri alohida ravishda o'rgatiladi, lekin ko'pincha birgalikda rivojlanadi.

Tezkorlik (Tezlik)

Tezkorlik — bu biror harakatni yoki jarayonni qisqa vaqt ichida amalga oshirishdir. Masalan, sportda tezkorlik sportchi yoki jismoniy shaxsning qisqa vaqt ichida masofa yoki vazifani bajarish tezligini ifodalaydi. Tezkorlikni oshirish uchun:

Jismoniy tayyorgarlik: mushaklarning kuchi, chidamliligi va mushak tezligini rivojlantirish.

Reaksiya va qobiliyatni yaxshilash: qaror qabul qilish va jismoniy harakatni tezda amalga oshirishni o'rganish.

Chaqqonlik

Chaqqonlik — bu mushaklarning tezligi, muvozanat va koordinatsiyaning uyg'unligi bilan bog'liq bo'lib, odamning to'liq tanasini tezda harakatga keltirish qobiliyatidir. Chaqqonlik odamning holatini tezda o'zgartirish, turli pozitsiyalarni samarali va tezda bajarish imkonini beradi. Chaqqonlikni oshirish uchun:

Jismoniy mashqlar: tezkor o'zgarishlar, yugurish, burilishlar va sakrashlar.

Muvozanat va koordinatsiya mashqlari: turli holatlar va yengil texnikalar orqali mushaklarning muvozanatini rivojlantirish.

Gandbolda bu qobiliyatlarning roli

Gandbol — tezkor va chaqqon harakatlarni talab qiladigan sport. Bu sportda tezkorlik va chaqqonlik juda muhim, chunki:

Tezkor reaksiya: To'pni qaytarish, o'zgartirish va zarbalar uchun tezkor harakatlar zarur.

Koordinatsiya: To'pni to'g'ri olish, uzatish va o'ynashda tananing barcha qismlarini bir vaqtning o'zida ishlatish zarur.

Strateji qarorlar: Tezkor qarorlar va tez o'zgarishlar orqali raqibni alday olish, himoya va hujumni o'zgartirish mumkin.

Koordinatsion to'siqlar bilan mashqlar: Sportchi turli xil harakatlar (skachat, yugurish, to'pni olish) orqali to'siqlardan o'tib, tezkor va aniq harakatlarni bajaradi. Bu mashqlar yosh sportchilarning koordinatsiya va chaqqonligini oshiradi.

3. Taktikani o'rganish va o'yin tajribasini oshirish

Gandbol o'yinida tezkorlik faqat jismoniy harakatlar bilan cheklanmaydi, balki taktika va strategiyani bilish ham muhimdir. Yosh sportchilarga to'g'ri va tez qarorlar qabul qilishni o'rgatish uchun o'yin mashg'ulotlarini bajarish zarur. Ba'zi usullar:

Pozitsion o'yin mashqlari: Sportchilarni to'g'ri pozitsiyalarni egallashga o'rgatish, raqibni tezda aniqlash va unga qarshi kurashish ko'nikmalarini rivojlantiradi.

Jamoaviy o'yin mashqlari: Jamoaviy harakatlarni samarali bajarish, tez va aniq uzatmalarni amalga oshirish, sportchilarning chaqqonligini va reaktsiyalarini oshiradi.

4. Yorug'likni va sharoitlarni o'zlashtirish

Tezkorlikni oshirish uchun, sportchi faqatgina mashg'ulotlar davomida emas, balki real o'yin sharoitida ham yuqori samaradorlik ko'rsatishi kerak. Shuning uchun o'yin sharoitlarini simulyatsiya qilish zarur:

Yorug'lik va tezlikni o'rganish: Mashg'ulotlarni turli sharoitlarda (masalan, yarim qorong'ida yoki tez harakatlanayotgan to'plar bilan) o'tkazish, sportchilarning tezkorlikni va chaqqonlikni rivojlantirishga yordam beradi.

5. Jismoniy tayyorgarlik

Tezkorlik va chaqqonlikni rivojlantirish uchun jismoniy tayyorgarlik ham juda muhimdir. Yosh gandbolchilarga yaxshi jismoniy tayyorgarlikni ta'minlash uchun quyidagi elementlarni qo'shish zarur:

Kardio tayyorgarlik: Tez yugurish va tezkor harakatlarni amalga oshirish uchun yaxshi yurak va qon tomir tizimi zarur. Bu mashqlar uchun yugurish, velosipedda sayr qilish, va boshqa kardio mashqlarini o'z ichiga olgan dasturlarni qo'llash kerak.

Kuch va chidamlilik: Kuchli va chidamli sportchi tez va to'g'ri harakatlarni amalga oshirishda osonroq bo'ladi. Kuch mashqlari (masalan, yuklarni ko'tarish, push-up) va chidamlilikni oshiruvchi mashqlar yordamida bu sifatlar rivojlanadi.

6. Motivatsiya va psixologik tayyorgarlik

Yosh sportchilarga o'zlariga bo'lgan ishonchni oshirish, yuqori darajadagi motivatsiya va ruhiy barqarorlikni saqlash ham muhimdir. Motivatsiya va ruhiy tayyorgarlik orqali sportchilar o'zlarini qiyin vaziyatlarda ham tez va aniq harakat qilishga undaydilar

Xulosa

Yosh gandbolchilarni tezkorlik va chaqqonlik sifatlarini rivojlantirish, ularning o'yin davomida samaradorligini oshirish va raqiblarga qarshi ustunlikni qo'lga kiritish uchun juda muhimdir. Tezkorlik va chaqqonlikni rivojlantirishda bir qator jismoniy, texnik va psixologik usullarni qo'llash zarur.

Tezkorlikni rivojlantirish usullari: Sprintlar va interval mashqlari, tezlikni oshirish uchun samarali. Qadam tezligini va samaradorligini oshirish - Reaksiya tezligini yaxshilash uchun mashqlar (masalan, to'plarni tez tutish va yo'nalishni o'zgartirish). Chaqqonlikni rivojlantirish usullari To'siqlardan o‘tish va yo'nalishni tezda o'zgartirish mashqlari. Agility (chaqqonlik) mashqlari, masalan, konuslar orasidan tez yurish. To'pni tez qabul qilish va uzatish mashqlari

Yosh gandbolchilarni tezkorlik va chaqqonlik sifatlarini rivojlantirishda turli jismoniy mashqlar, texnik va taktik o'quv usullari birgalikda ishlatilishi kerak. Bu, sportchilarning o'yin davomida tez va aniq qarorlar qabul qilishiga yordam beradi va natijalarga ijobiy ta'sir ko'rsatadi. Muntazam va to'g'ri yondashuv bilan sportchilarning yuqori natijalar ko'rsatishi mumkin.

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CASE STUDIES AND BEST PRACTICES IN DEVELOPING COMMUNICATIVE COMPETENCE IN ECONOMICS STUDENTS

Abstract: *Developing communicative competence is a vital component of English language education, particularly for economics students who must operate in a globalized environment. This article explores case studies and best practices that demonstrate effective strategies for enhancing communicative competence in this specialized field. The findings underscore the importance of context-specific teaching methods, interdisciplinary collaboration, and technology integration in fostering students' linguistic and professional abilities.*

Keywords: *Communicative competence, English for Specific Purposes (ESP), economics students, task-based learning, interdisciplinary content, technology-enhanced learning, globalized education.*

Introduction. The formation of communicative competence in teaching English has gained increased importance for economics students, who require proficiency in both general and professional communication to succeed in global markets. Communicative competence encompasses not only linguistic accuracy but also the ability to convey ideas effectively within specific professional contexts. This paper aims to examine case studies and identify best practices that contribute to achieving this goal.

Methods A qualitative approach was adopted to gather data from multiple case studies conducted in diverse educational settings. The studies focused on English for Specific Purposes (ESP) programs tailored to economics students. Data collection methods included classroom observations, interviews with instructors and students, and analysis of course materials and assessments. The findings were analyzed to identify recurring themes and effective strategies.

Results. The analysis of case studies revealed three key practices that significantly enhance communicative competence in economics students:

1. **Task-Based Learning in Real-World Contexts**. Case studies from universities in Europe and Asia demonstrated the efficacy of task-based learning activities. Students participated in simulations of business negotiations, presentations on economic topics, and collaborative problem-solving tasks. These activities allowed students to practice language skills in realistic scenarios, increasing their confidence and fluency.

2. **Integration of Interdisciplinary Content**. Successful programs integrated economics-specific content into language instruction. For instance, students analyzed economic reports, debated market trends, and composed professional emails. This approach not only improved their language proficiency but also deepened their understanding of economic concepts.

3. **Technology-Enhanced Learning**. Digital tools such as virtual meeting platforms, language learning apps, and online discussion forums were widely adopted. One case study highlighted the use of a virtual stock market simulation, where students practiced discussing market strategies in English, combining linguistic and professional skills.

Discussion. The findings highlight the importance of aligning language teaching with the professional needs of economics students. Task-based learning encourages active engagement, while interdisciplinary content ensures relevance to students' academic and career goals. Technology offers innovative opportunities for practice and collaboration, especially in remote or hybrid learning environments. However, challenges such as varying levels of language proficiency and cultural differences must be addressed to ensure inclusive and effective instruction.

Conclusion. The case studies and best practices analyzed in this paper underscore the critical role of context-specific strategies in developing communicative competence for economics students. Educators should focus on creating authentic learning experiences, integrating professional content, and leveraging technology to prepare students for the demands of a globalized workforce. Further research could explore longitudinal impacts of these practices on students' professional success.

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THE IMPACT OF ATMOSPHERIC POLLUTION ON THE ENVIRONMENT AND HUMAN HEALTH

Annotation*: In Andijan region, including Jalakuduk district, a situation has arisen similar to that in the rest of our country, where the pollutants in the atmospheric air of residential areas are significantly worsening the ecological condition of these areas. This is causing changes in the chemical composition of all components of the ecosystem.*

Keywords*: Jalakuduk district, atmospheric pollution, diseases, population, Yorqishloq village, drinking water.*

Andijan Region, Jalakuduk District: Ecological Issues and Their Impact on Public Health Jalakuduk District, located in Andijan region, was established on September 29, 1926. The district borders the cities of Qo'rg'ontepa, Xo'jaobod, and Andijan, as well as the Osh region of the Kyrgyz Republic. Its area covers 0.37 thousand km². The district lies in the northeastern part of the region and features a low plain, hills, and terraces. The climate is sharply continental, with an average temperature of 27°C in July and -3°C in January. The growing season lasts between 160-180 days, with an average annual rainfall of 250 mm. The Shahrixonsoy, Savay canals, and the Qoradaryo River flow through the area, while Andijonsoy is 3.5 km in length. The soils in the district are light-colored and contain steppe grasslands, with ephemeral plants on the slopes, and saline areas in uncultivated land.

In Jalakuduk district, as in many parts of the country, air pollution from industrial and household emissions significantly deteriorates the ecological condition. These pollutants have caused significant changes in the chemical composition of local ecosystems, impacting both environmental quality and public health. There is a clear connection between air pollution and the increase in diseases among the population. This issue is acute in several cities, including Andijan, where atmospheric pollution correlates with higher rates of illness.

Regarding public health, acute infectious intestinal diseases are prevalent in the district. The intensity of these diseases is 32.5 per 100,000 people in the district, and the number is 25.4 in the Yorqishloq QFY area. The incidence of viral hepatitis in the district is 50.1 per 100,000 people, while in the Yorqishloq QFY area, it is 38.1, showing an increase from 2017 to 2018. Endocrine diseases are also of concern, with general incidence rates at 11.5 per 100,000 people, and the primary incidence rate is 4.9. In Yorqishloq QFY, the general disease rate per 1,000 people is 22.2, and the primary incidence rate is 9.6.

Despite efforts by the District Sanitary-Epidemiological and Environmental Monitoring (DSENM) specialists to monitor and address these issues, further data

is needed. Currently, 82% of the district population has access to clean drinking water, although some areas, such as Oxunboboev Sh., South Olamushuk ShFY, Teshik-Tosh QFY, Oyim QFY, Yorqishloq QFY, Beshtol QFY, and Abdullabiy QFY, still suffer from inadequate access to safe drinking water, with coverage at only 65-70%.

Over the past seven months, several areas, including Oxunboboev Sh., South Olamushuk ShFY, Qoratol QFY, Guliston QFY, and Jalaquduq QFY, have witnessed a 2-3 times increase in the incidence of viral hepatitis compared to the previous year.

Recommendations for Improvement:

1. ***Sanitation of Waste Collection Points:*** Waste management should follow hygiene and sanitation standards, ensuring the timely disposal of both solid and liquid waste.
2. ***Leaf Waste Disposal:*** Timely removal of leaves and other organic waste from urban and rural areas is necessary to maintain cleanliness.
3. ***Environmental Education***: Promote ecological knowledge and culture among the youth, starting with preschools and continuing through all educational levels. This can help instill environmental values early on.
4. ***Use of Alternative Energy Sources:*** Implementing renewable energy options, such as solar panels, is an effective way to reduce environmental damage. For example, installing solar water heaters in homes is a sustainable and cost-effective solution.
5. ***Public Transport and Sustainable Mobility***: Encourage the use of public transport, cycling, and walking instead of private vehicles to reduce vehicle emissions.
6. ***Tree Planting:*** Large plants, especially trees, are a great solution for reducing noise and air pollution in urban areas.
7. ***Water Conservation:*** It is vital to reduce water wastage. Simple actions like turning off taps while brushing teeth or washing hands can significantly conserve water, thus reducing the amount of water that needs to be treated.
8. ***Community Engagement:*** Every citizen must contribute to green spaces and take responsibility for their local environment.
9. ***Respect for the Environment:*** All citizens are obligated to show care and responsibility toward the natural environment.

These measures are essential for improving environmental quality and public health in Jalakuduk district and across the region.

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YANGI O‘ZBEKISTON TARAQQIYOTIDA TINCHLIK VA BARQARORLIKNI MUSTAHKAMLASHDA INSON OMILI: (IJTIMOIY-FALSAFIY TAHLIL)

Annotatsiya: *Mazkur maqola O‘zbekistonning yangi taraqqiyotida tinchlik va barqarorlikni mustahkamlashda inson omilining rolini ijtimoiy-falsafiy nuqtai nazardan tahlil etadi. Inson omili mamlakatda jamiyatning ijtimoiy barqarorligini ta'minlashda muhim o‘rin tutadi, chunki tinchlik va barqarorlik, avvalo, fuqarolarning axloqiy, ma'naviy va siyosiy ongida mustahkamlanadi. Maqolada ta'lim, ma'naviyat, diniy bag‘rikenglik, fuqarolik jamiyati va inson huquqlari kabi omillar tinchlikni saqlash va jamiyatning barqarorligini ta'minlashdagi o‘rni ko‘rsatilgan. Shuningdek, ushbu tahlil O‘zbekistonning o‘z ichki rivojlanishida va jahon hamjamiyatida o‘z o‘rnini mustahkamlashda inson omilining ahamiyatini ochib beradi.*

Kalit So‘zlar: *tinchlik, barqarorlik, inson omili, ijtimoiy barqarorlik, ma'naviyat, axloq, fuqarolik jamiyati, diniy bag‘rikenglik, millatlararo totuvlik, inson huquqlari, ta'lim, ma'naviy qadriyatlar, sotsial hamjihatlik.*

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THE HUMAN FACTOR IN PROMOTING PEACE AND STABILITY IN THE DEVELOPMENT OF THE NEW UZBEKISTAN: (SOCIAL-PHILOSOPHICAL ANALYSIS)

Annotation: *this article analyzes the role of the human factor in strengthening peace and stability in the new development of Uzbekistan from a socio-philosophical point of view. The human factor plays an important role in ensuring the social stability of society in the country, since peace and stability are strengthened, first of all, in the moral, spiritual and political consciousness of citizens. The article outlines the role factors such as education, spirituality, religious tolerance, civil society and human rights play in maintaining peace and ensuring the stability of society. This analysis also reveals the importance of the human factor in strengthening Uzbekistan's place in its internal development and in the world community.*

Keywords: *peace, stability, human factor, social stability, spirituality, ethics, civil society, religious tolerance, interethnic harmony, human rights, education, spiritual values, social solidarity.*

KIRISH

O‘zbekistonning yangi taraqqiyot yo‘lida tinchlik va barqarorlikni ta'minlash- mamlakatning ichki va tashqi siyosatining asosiy yo‘nalishlaridan biridir. Biroq, bu jarayonda har bir fuqaroning ma'naviy va axloqiy saviyasi, ijtimoiy faolligi va davlatga bo‘lgan ishonchi katta ahamiyat kasb etadi. Inson omili, ya'ni jamiyatdagi har bir a'zo o‘z mas'uliyatini anglab, faol ishtirok etganida, tinchlik va barqarorlikni saqlash osonlashadi. O‘zbekistonda barqarorlik va tinchlikni ta'minlashda inson omilining roli nafaqat siyosiy qarorlar bilan, balki har bir shaxsning ichki dunyosi, axloqiy qadriyatlari va jamiyat oldidagi burchlari bilan ham chambarchas bog‘liqdir. Insonning ijtimoiy faoliyatidagi mas'uliyat, ta'lim va tarbiya orqali ma'naviy jihatdan kamol topishi, davlat tomonidan qo‘llab-quvvatlanayotgan diniy bag‘rikenglik va millatlararo totuvlik kabi omillar tinchlikni mustahkamlashda hal qiluvchi o‘rin tutadi. Ushbu maqolada, O‘zbekistonda tinchlik va barqarorlikni ta'minlashda inson omilining ahamiyati, uning ijtimoiy va falsafiy jihatlari tahlil qilinadi. Inson omilining jamiyatda tinchlik yaratishda qanday muhim rol o‘ynashi, jamiyatdagi har bir fuqaroning ijtimoiy faolligi va mas'uliyatini oshirish orqali barqarorlikni qanday ta'minlash mumkinligi masalalari keltiriladi.

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Karimov, I. A. (2016). Yuksalish yo‘lidagi O‘zbekiston: davlat mustaqilligi va xalqaro xavfsizlik. Islom Karimovning ushbu asari O‘zbekiston mustaqillik yo‘lida qanday barqaror siyosat olib borishi va tinchlikni ta'minlashga qanday yondashuvlarni qo‘llashini tasvirlaydi. Kitobda tinchlikni ta'minlashning nafaqat ichki, balki tashqi siyosatdagi o‘rni ham tahlil qilinadi. Karimov mamlakatdagi siyosiy barqarorlikni mustahkamlash, iqtisodiy va ijtimoiy taraqqiyotga erishish uchun tinchlikni va xavfsizlikni saqlashni ustuvor vazifa deb hisoblaydi.

Shodiev, D. (2021). Inson huquqlari va erkinliklar: O‘zbekistondagi huquqiy islohotlar. Ushbu asarda O‘zbekistonda inson huquqlari va erkinliklari sohasidagi islohotlar tahlil qilinadi. Kitobda inson huquqlari, erkinliklar va huquqiy tartibni ta'minlash jamiyatda tinchlik va barqarorlikni saqlashda qanday rol o‘ynashi haqida so‘z yuritiladi. Inson huquqlari va erkinliklarini ta'minlash orqali, ijtimoiy tenglik va adolatni yaratish mumkin.

Yuldashev, M. (2023). O‘zbekiston Respublikasida yoshlar tarbiyasining ijtimoiy-falsafiy masalalari. Yuldashevning asari yoshlarni tarbiyalash va ularning ijtimoiy faolligini oshirish masalalariga qaratilgan. Maqola, yoshlarning tarbiyasi orqali ularni milliy qadriyatlar, axloqiy me'yorlar va ijtimoiy mas'uliyatga

yo‘naltirish, mamlakatda barqarorlikni ta'minlashda muhim ahamiyatga ega ekanligini ko‘rsatadi. Yoshlar jamiyatning kelajagini shakllantiruvchi asosiy kuch sifatida ijtimoiy barqarorlikni ta'minlashga xizmat qiladi.

Zaripov, A. (2019). Ijtimoiy barqarorlik va tinchlikni ta'minlashdagi inson omili. Zaripovning asarida ijtimoiy barqarorlikni ta'minlashda inson omilining muhim roli alohida ta'kidlanadi. Kitobda insonning ma'naviy va axloqiy xususiyatlari, uning jamiyatdagi o‘rni va ijtimoiy faolligi tinchlikni saqlash va barqarorlikni ta'minlashda hal qiluvchi omillar sifatida ko‘rsatiladi.

NATIJA VA MUHOKAMA

O‘zbekistonning mustaqillikka erishganidan keyin, mamlakatning taraqqiyot yo‘li, iqtisodiy, siyosiy va ijtimoiy sohalardagi islohotlar davomida tinchlik va barqarorlikni mustahkamlash masalasi o‘ta dolzarb bo‘lib qolmoqda. Yangi O‘zbekiston taraqqiyotida inson omili, ya'ni odamlarning ijtimoiy, axloqiy va ruhiy holati, jahon hamjamiyatida mamlakatning nufuzini oshirishda muhim ahamiyatga ega. Ushbu maqolada O‘zbekistonda tinchlik va barqarorlikni ta'minlashda inson omilining roli va ijtimoiy-falsafiy nuqtai nazardan tahlil qilinadi.

Tinchlik va barqarorlikni mustahkamlashda inson omilining ahamiyati

Tinchlik va barqarorlik nafaqat davlatlararo munosabatlar, balki har bir jamiyatdagi individual va ijtimoiy omillarga bog‘liq. O‘zbekistonda ijtimoiy barqarorlikni ta'minlash, asosan, aholi orasida millatlararo totuvlik, diniy bag‘rikenglik, ijtimoiy adolat va tenglikni o‘rnatish bilan bog‘liq. Inson omili nafaqat davlat siyosati, balki har bir fuqaroning ongida, ruhiyatida o‘zgarishlarni amalga oshirishni talab etadi.

1. *Ma'naviyat va axloq*. O‘zbekistonning ijtimoiy taraqqiyotida inson ma'naviyatining o‘rni beqiyosdir. Ma'naviy-axloqiy qadriyatlar, milliy va umumbashariy tamoyillar, har bir fuqaroning ongida chuqur ildiz otganida, ijtimoiy totuvlik va tinchlikni ta'minlash osonlashadi. Yangi O‘zbekiston taraqqiyotida ma'naviyat va axloqiy qadriyatlarni mustahkamlash, fuqarolarni axloqiy me'yorlarga rioya qilishga, shuningdek, o‘zaro hurmat va fidoyilikka chaqirish, mamlakatning tinchligi va barqarorligini ta'minlashga xizmat qiladi.

2. *Ta'lim va tarbiya*. O‘zbekistonda ta'lim tizimining islohoti, yosh avlodni intellektual va axloqiy jihatdan tarbiyalash orqali jamiyatning barqarorligini ta'minlashda muhim ahamiyatga ega. Yoshlar orasida ijtimoiy faollik, tinchlikni qadrlash, vatanparvarlikni oshirish, shuningdek, ularni millatlararo totuvlik va bag‘rikenglik ruhida tarbiyalash, kelajakda mamlakat barqarorligiga hissa qo‘shadi. Ijtimoiy va ma'naviy qadriyatlar asosida shakllangan yosh avlod mamlakat taraqqiyotiga yangicha nafas kiritishi mumkin.

3. *Ijtimoiy faoliyat va fuqarolik jamiyati*. O‘zbekistonning taraqqiyotida fuqarolik jamiyatining rivoji va aholi ishtirokini kengaytirish muhim o‘rin tutadi. Ijtimoiy faol fuqarolar, davlat siyosatining ijrosida va jamiyatning rivojlanishida faol ishtirok etish orqali, mamlakatning barqarorligini mustahkamlashga yordam beradi. Shuningdek, fuqarolik jamiyatining rivojlanishi, inson huquqlarini hurmat qilish va adolatni ta'minlash orqali tinchlikning ta'minlanishiga hissa qo‘shadi.

4. *Diniy bag‘rikenglik va millatlararo totuvlik*. O‘zbekistonda diniy bag‘rikenglik va millatlararo totuvlikni mustahkamlash, ijtimoiy barqarorlikni saqlashning asosiy omillaridan biridir. O‘zbekiston — ko‘p millatli va turli dinlarga mansub aholisiga ega mamlakatdir. Bunday sharoitda, jamiyatdagi barcha millat va elatlarning bir-biriga hurmatini, diniy erkinlikni ta'minlash, tinchlikni saqlash va barqarorlikni ta'minlash uchun zarurdir.

Ijtimoiy falsafiy tahlil

Yangi O‘zbekiston taraqqiyotida tinchlik va barqarorlikni mustahkamlashda inson omilining falsafiy jihatlari ham muhim rol o‘ynaydi. Ijtimoiy falsafa, bir tomondan, individ va jamiyat o‘rtasidagi o‘zaro aloqalarni tahlil qilsa, boshqa tomondan, insonning o‘z haq-huquqlari, erkinliklari va mas'uliyatlari haqida tasavvurga ega bo‘ladi.

1. *Inson huquqlari va erkinliklar*. Ijtimoiy falsafaning asosiy qadriyatlaridan biri — inson huquqlari va erkinliklaridir. O‘zbekistonning yangi rivojlanish siyosati, shu jumladan, inson huquqlarini hurmat qilish va asosiy erkinliklarni ta'minlashga qaratilgan. Barqarorlikni ta'minlash uchun jamiyatda tenglik, adolat va huquqiy tartibning mavjudligi zarurdir. Inson huquqlari va erkinliklarini ta'minlash, jamiyatda tinchlikni saqlashning muhim shartlaridan biridir.

2. *Sotsial hamjihatlik*. Sotsial hamjihatlikning rivoji, jamiyatda bir-biriga yordam berish, qo‘llab-quvvatlash, insonlarning umumiy manfaatlari uchun birlashishi barqaror ijtimoiy muhitni yaratadi. Insonlar o‘rtasidagi ijtimoiy bog‘liqlik, ularning o‘zaro yordamga tayyorligi va jamiyatda barqarorlikka xizmat qilish istagi, tinchlikning mustahkamlanishiga hissa qo‘shadi.

Xulosa: O‘zbekistonda tinchlik va barqarorlikni mustahkamlashda inson omili, ayniqsa, ma'naviy-axloqiy qadriyatlar, ta'lim, diniy bag‘rikenglik, fuqarolik jamiyati va inson huquqlariga hurmat qilish kabi asosiy jihatlarga asoslanadi. Yangi O‘zbekistonning ijtimoiy va siyosiy rivoji, insonning jamiyatdagi o‘rni va roli bilan bog‘liq bo‘lib, barqarorlik va tinchlikni ta'minlashda har bir fuqaroning mas'uliyati muhim ahamiyatga ega. Inson omili, uning ijtimoiy faolligi va ma'naviy-axloqiy rivoji, mamlakatning barqaror taraqqiyotida hal qiluvchi rol o‘ynaydi.

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SUN’IY INTELLEKT YORDAMIDA QAROR QABUL QILISH TIZIMLARIDA FOYDALANILADIGAN ALGORITMLAR

Annotatsiya: *Sun’iy intellekt algoritmlarini o‘rganishda nazariy bilimlar, matematik asoslar, amaliy qo‘llanmalar va maxsus tadqiqotlar tahlil qilindi. Ushbu yo‘nalishlar algoritmlarning nazariyasi, real hayotdagi qo‘llanilishi va hisoblash resurslari talablarini yoritadi.*

Kalit so‘zlar: *SI, qaror qabul qilish, algoritm, chuqur o‘rganish, neyron tarmoqlar, optimallashtirish, hisoblash resurslari.*

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ALGORITHMS USED IN DECISION-MAKING SYSTEMS USING ARTIFICIAL INTELLIGENCE

Abstract: *The study of artificial intelligence algorithms analyzed theoretical knowledge, mathematical foundations, practical applications, and specialized research. These areas highlight the theory of algorithms, their real-life applications, and computational resource requirements.*

Keywords: *AI, decision-making, algorithm, deep learning, neural networks, optimization, computational resources.*

Kirish

Qaror qabul qilish tizimlari insoniyat tarixida muhim o‘rin egallab, muammolarni hal qilish va murakkab jarayonlarni boshqarishda asosiy vosita sifatida xizmat qilgan. Ilk mexanik tizimlardan zamonaviy raqamli algoritmlarga qadar bo‘lgan taraqqiyot qaror qabul qilishni samaraliroq va aniqroq amalga oshirish imkonini berdi. Bu jarayonda sun’iy intellekt (SI) roli ortib, turli sohalarda yangi imkoniyatlar yaratmoqda. SI algoritmlari tizimlarga avtomatlashtirish, moslashuvchanlik va prognozlash qobiliyatini olib kirdi. Ular katta ma’lumotlarni qayta ishlash, noaniqlik sharoitida qarorlar qabul qilish va samaradorlikni oshirish imkonini beradi. Natijada, SI algoritmlari zamonaviy tizimlarning ajralmas komponentiga aylandi. Ular nafaqat ma’lumotlarni tahlil qilish va tavsiyalar ishlab chiqish, balki jarayonlarni optimallashtirish va murakkab vaziyatlarda maqbul yechimlarni tanlashda ham muhim rol o‘ynaydi. Bu esa qaror qabul qilish jarayonlarini tezkor va ishonchli qiladi.

Adabiyotlar tahlili

Sun’iy intellekt algoritmlarini o‘rganishda asosiy yo‘nalishlar nazariy adabiyotlar, algoritmlarning matematik asoslari, amaliy qo‘llanmalar, soha bo‘yicha maxsus tadqiqotlar va hisoblash resurslari bo‘yicha tahlilni o‘z ichiga oladi. Nazariy

adabiyotlar, masalan, Russell va Norvigning “Artificial Intelligence: A Modern Approach” asari, sun’iy intellekt va qaror qabul qilish tizimlarining asoslarini yoritadi. Algoritmlarning matematik tamoyillari, xususan, Bishopning "Pattern Recognition and Machine Learning" va Goodfellowning "Deep Learning" kitoblarida batafsil ko‘rib chiqilgan. Amaliy qo‘llanmalar, jumladan, Friedman va Hastie’s "The Elements of Statistical Learning" asari, algoritmlarning real hayotda qo‘llanishini tushuntiradi. Shuningdek, tibbiyot va transport sohalarida sun’iy intellekt algoritmlarining ishlatilishi bo‘yicha ilmiy tadqiqotlar ham ahamiyatlidir. Hisoblash resurslari va texnologik cheklovlar, ayniqsa chuqur o‘rganish sohasidagi hisobotlar, algoritmlarning samaradorligini oshirishda muhim rol o‘ynaydi. Samarali qo‘llanilish uchun nafaqat nazariy bilimlar, balki amaliy tajriba ham zarur.

Tadqiqot metodologiyasi

Tadqiqot metodologiyasi quyidagi bosqichlarni o‘z ichiga oladi: ma’lumot yig’ish (ilmiy manbalar va statistik ma’lumotlardan foydalanish), tahlil usullari (statistik va analitik metodlar), eksperiment (nazariyani tasdiqlash yoki inkor qilish), nazariy asos (ilmiy adabiyotlar bilan bog’lanish), va xulosa (ilmiy natijalar va tavsiyalar). Bu bosqichlar tadqiqotning aniqligi va tizimliligini ta’minlaydi.

Tahlil va natijalar muhokamasi

Quyida har bir algoritmni chuqurroq tahlil qilish uchun amaliy misollar, tahliliy jadvallar va algoritmlar o‘rtasidagi taqqoslash natijalari shakli keltirilgan.

1. Ma’lumotlarni tasniflash algoritmlari

Decision trees: kredit xavfini baholashda bank mijozlarini tasniflashi mumkin. Kichik ma’lumotlar to‘plamida tez va samarali foydalanish mumkin.

Kirish ma’lumotlari	*Me’zon*	*Natija*
Yil_dar: 500 mln, kredit tarixi: toza	Daromad > 300 mln.	Kredit beriladi
Yil_dar: 200 mln,kredit tarixi: salbiy	Daromad < 300 mln.	Rad etiladi

Random forests: Bu algoritm yordamida tibbiyotda kasalliklarni aniqlash, masalan, o‘simtalar xavfini baholash mumkin. Ushbu algoritm yodamida kata MBlari bilan ishlash yuqori hisoblash resurslarini talab qiladi.

Algoritm	*Qaror qabul qilish aniqligi (%)*	*Resurs talabi*
Decision Trees	85%	Past
Random forests	92%	O‘rtacha-yuqori

2. Ma’lumotlarni klasterlash algoritmlari.

K-Means: marketingda mijozlarni xarid qilish odatlari bo‘yicha segmentlash imkoniyatini beradi. Oddiy va tezkor ishlaydi, katta o‘lchamli ma’lumotlarga ham moslashadi. Kamchiligi esa klasterlar sonini oldindan belgilash shart bo‘ladi.

DBSCAN: geografik joylashuv ma’lumotlarini klasterlash, masalan, transportni optimallashtirishda foydalanish mumkin. Shovqinli (xalaqit beruvchi) ma’lumotlarni qayta ishlash imkoniyatini beradi, klaster shakli haqida oldindan bilim talab etilmaydi. Ma’lumotlar zich bo‘lishi kerak.

Algoritm	*Qaror qabul qilish aniqligi (%)*	*Resurs talabi*
K_Means	85%	Yo‘q
DBSCAN	90%	Ha

3. Optimizatsiya algoritmlari.

Genetik algoritmlar: logistika va marshrutni optimallashtirishda eng qisqa yo‘lni aniqlashda foydalanish samarali hisoblanadi. Keng qamrovli qidiruv imkoniyati, global maksimumni topish mumkin. Shu bilan bir qatorda sekin ishlash va katta ma’lumotlar to‘plami uchun vaqt talabi yuqori hisoblanadi.

Algoritm	*Yechim topish tezligi*	*Optimal natijaga yaqinlik*
Genetik algoritmlar	85%	Yuqori
Gradient descent	90%	Yuqori

5. Qayta o‘rganuvchi algoritmlar (Reinforcement learning).

Q-Learning: o‘yinlarda agentning strategiyasini optimallashtirish imkoniyatini beradi. Murakkab muhitlarni modellashda samarali hisoblanadi. Deep *Q-Networks (DQN):* avtonom transport vositalarida harakatni boshqarishni amalga oshirish mumkin. Chuqur neyron tarmoqlar orqali murakkab muhitni tahlil qilish. Hisoblash esa juda yuqori quvvat talab qiladi.

Algoritm	Afzalliklari	Cheklovlari	Amaliy qo‘llanilishi
Decision Trees	Tushunarli va tezkor	Overfitting muammosi	Kredit xavfini baholash
Random Forests	Yuqori aniqlik va barqarorlik	Resurs talabchanligi	Sug’urta xavfini baholash
K-Means	Oddiy va samarali	Klasterlar sonini oldindan belgilash zarur	Mijozlarni segmentlash
Neural Networks	Kompleks masalalarni hal qilish	Yuqori hisoblash resurslari talab etadi	Tibbiy diagnostika
Deep Q-Networks	Murakkab muhitlarda samarali	Sekin ishlash va katta resurs talabi	Tibbiy diagnostika

Ushbu algoritmlar orasidan samaradorligi va ma’lumotlar xususiyatlariga mosligini hisobga olib tanlash qaror qabul qilish jarayonining asosiy qismi hisoblanadi. Algoritmlarning diversifikatsiyasi va amaliy qo‘llanilish sohalari ularning muhimligini tasdiqlaydi. Agar ma’lumotlar yoki vazifalar ko‘p qatlamli va o‘zgaruvchan bo‘lsa, neyron tarmoqlar yoki chuqur o‘rganish algoritmlari tanlanadi, kichik va sodda masalalar uchun esa oddiy tasniflash algoritmlari kifoya qiladi.

Xulosa

Ma’lumki, sun’iy intellekt tizimlarining samarali ishlashi uchun nafaqat ularning nazariy tamoyillari, balki amaliy kontekstda qo‘llanilishi ham muhim ahamiyatga ega. Matematik va statistik modellarning chuqur tushunilishi, ayniqsa, mashina o‘rganish va chuqur o‘rganish sohalarida algoritmlarning yuqori

samaradorligini ta’minlashga yordam beradi. Shuningdek, algoritmlar samaradorligini oshirish uchun zarur bo‘lgan hisoblash resurslari va texnologik cheklovlar ham e’tiborga olinishi zarur. Maqola, sun’iy intellektning turli sohalarda, jumladan, tibbiyot, transport va boshqa industriyalarda qo‘llanilishining yangi imkoniyatlarini yoritib, nazariy va amaliy bilimlarni birlashtirish orqali qaror qabul qilish tizimlarining samaradorligini oshirish mumkinligini ko‘rsatadi. Bu esa, o‘z navbatida, sun’iy intellektning kelajakdagi rivojlanishiga muhim hissa qo‘shadi.

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PYTHON DASTURLASH TILI YORDAMIDA SIRTNING FAZODAGI TENGLAMALARINI VIZUALIZATSIYA QILISH METODIKASI

Annotatsiya: *Maqolada Python dasturlash tili yordamida fazoviy tenglamalarni vizualizatsiya qilish metodikasi yoritilgan. Tadqiqotda ko‘p o‘zgaruvchili matematik modelning sirtdagi geometrik ko‘rinishini chizish uchun Matplotlib, Plotly, Mayavi kabi kutubxonalar qo‘llanildi. Grafikalarni yaratish jarayonlari bosqichma-bosqich ko‘rsatilib, ularning aniqligi va samaradorligi tahlil qilindi.*

Kalit so‘zlar: *fazoviy tenglamalar, vizualizatsiya, Python, Matplotlib, Plotly, Mayavi, ko‘p o‘zgaruvchili tenglama, 3D grafika, matematik model.*

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METHODOLOGY FOR VISUALIZING THE EQUATIONS OF THE SURFACE IN SPACE USING THE PYTHON PROGRAMMING LANGUAGE

Abstract: *The article describes a methodology for visualizing spatial equations using the Python programming language. The study employed libraries such as Matplotlib, Plotly, and Mayavi to plot the geometric representation of a multi-variable mathematical model. The graph creation processes are demonstrated step by step, and their accuracy and efficiency are analyzed.*

Keywords: *spatial equations, visualization, Python, Matplotlib, Plotly, Mayavi, multi-variable equation, 3D graphics, mathematical model.*

Kirish

Talabalar sirt tenglamalarini faqat matematik formulalar sifatida qabul qilishadi va ularning geometrik mohiyati haqida chuqur tushunchaga ega bo‘lmaydilar. Bu esa nazariyani amaliy masalalarga qo‘llash qobiliyatini pasaytiradi. Shu sababli, o‘quv jarayonida vizualizatsiya vositalarini qo‘llash talabalarning mavzu mohiyatini yanada chuqurroq o‘zlashtirishiga yordam beradi. Python dasturlash tilining grafik vizualizatsiya imkoniyatlari ushbu maqsadga erishishning samarali usuli sifatida xizmat qiladi.

Masalan, sfera tenglamasi matematik jihatdan oddiy ko‘rinadi, ammo talabalar bu tenglama orqali sferaning fazodagi haqiqiy shaklini va radius o‘zgarishlarining geometrik ta’sirini tasavvur qilishda qiynalishadi. Xuddi shunday, paraboloid yoki giperboloidning uch o‘lchamli tasviri talabalarni mavzuni chuqur

o‘rganishga yetarlicha jalb qilmasligi mumkin. Shu sababli, fazoviy sirtlarni o‘rganishda vizual yondashuvning ahamiyati ortib bormoqda.

Adabiyotlar tahlili

Python dasturlash tili o‘zining qulay sintaksisi, keng imkoniyatlari va turli kutubxonalari tufayli ta’lim jarayonida keng qo‘llanilmoqda.

1. Matplotlib- bu kutubxona 2D va 3D grafiklar yaratish uchun asosiy vositalardan biri hisoblanadi. *mpl_toolkits.mplot3d* moduli yordamida 3D grafikalar qurish mumkin. ***2. NumPy***- ko‘p o‘zgaruvchili funksiyalarni hisoblash va massivlar bilan ishlash uchun mo‘ljallangan. ***3. SciPy***- ilmiy hisoblash va modellashtirish uchun mo‘ljallangan kutubxona. Fazoviy sirtlarning tahlili va murakkab matematik operatsiyalarni bajarishda qo‘llaniladi. Vizualizatsiya usullariga oid tadqiqotlar ko‘p bo‘lishiga qaramasdan, ayrim cheklovlar[1] mavjud: *aniqlik*- ba’zi dasturlar vizualizatsiya jarayonida matematik aniqlikni yo‘qotishi mumkin. *Resurs talabi*- katta ma’lumotlarni qayta ishlashda resurslarning samarali ishlatilmasligi. *Interaktivlik cheklovi*- ko‘pgina vositalar statik grafiklar bilan chegaralanadi va foydalanuvchiga interaktiv boshqaruv imkonini bermaydi. Mazkur tadqiqot ushbu cheklovlardan qochish uchun Python asosidagi yangi metodikani taklif qiladi, bu esa fazoviy tenglamalar vizualizatsiyasini yanada oson qilishga xizmat qiladi.

Tadqiqot metodologiyasi

Python va uning Matplotlib, Plotly, Mayavi kutubxonalari yordamida fazoviy tenglamalar vizualizatsiyasi amalga oshirildi. Matematik modellash, grafikalar yaratish bosqichlari o‘rganilib, samaradorlik boshqa usullar bilan taqqoslandi.

Tahlil va natijalar muhokamasi

Bu modelda ko‘p o‘zgaruvchili tenglamalar asosida sirtlar hosil qilinadi. Quyidagi asosiy sirt turlarini ko‘rib chiqamiz: Umumiy ko‘rinishdagi sirt tenglamasi: bu ko‘rinish orqali sirtlar funksiyalar yordamida aniqlanadi. Masalan, paraboloidni ifodalaydi. giperboloid. Ushbu tenglamalar maxsus chegaralash yoki optimallashtirish masalalarida qo‘llaniladi.

Quyida ishlatiladigan asosiy kutubxonalar va ular yordamida vizualizatsiya qilish bosqichlari keltirilgan. Vizualizatsiya bosqichlari:

1. Tenglamani aniqlash. Matematik model asosida fazodagi sirtni tavsiflovchi tenglama aniqlanadi. Masalan,

```
def surface_equation(x, y): return x**2 + y**2
```

2. Tarmoqlarni yaratish (meshgrid). Fazodagi nuqtalarni birlashtiruvchi koordinatalar tarmog‘i hosil qilinadi. NumPy kutubxonasi bunda yordam beradi.

```
import numpy as np x = np.linspace(-5, 5, 100) y = np.linspace(-5, 5, 100) X, Y = np.meshgrid(x, y) Z = surface_equation(X, Y)
```

3. 3D grafikni yaratish. Matplotlib yoki Plotly yordamida grafik quriladi.

```
import matplotlib.pyplot as plt from mpl_toolkits.mplot3d import Axes3D fig = plt.figure() ax = fig.add_subplot(111, projection='3d') ax.plot_surface(X, Y, Z, cmap='viridis') plt.show()
```

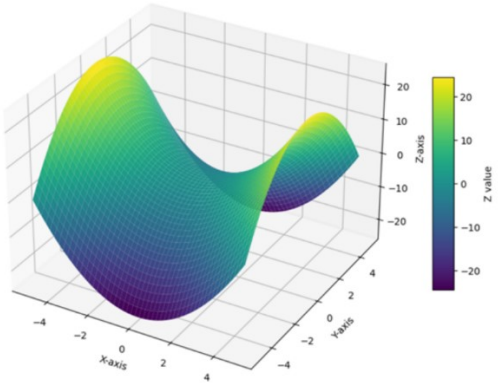
4. Grafikni ranglarini tanlash. Grafikni aniq ko‘rinishi uchun ranglar, yorug’lik, va boshqa vizual xususiyatlar qo‘shiladi. Plotlyda bu:

```
import plotly.graph_objects as go fig = go.Figure(data=[go.Surface(z=Z, x=X, y=Y, colorscale='Viridis')]) fig.show()
```

Quyida giperbolik paraboloidning $z = x^2 - y^2$ vizualizatsiyasini hosil qilamiz.

```
import numpy as np import matplotlib.pyplot as plt from mpl_toolkits.mplot3d import Axes3D def surface_equation(x, y): return x**2 - y**2 x = np.linspace(-5, 5, 100) y = np.linspace(-5, 5, 100) X, Y = np.meshgrid(x, y) Z = surface_equation(X, Y) fig = plt.figure(figsize=(10, 8)) ax = fig.add_subplot(111, projection='3d') surface = ax.plot_surface(X, Y, Z, cmap='viridis', edgecolor='none') cbar = fig.colorbar(surface, ax=ax, shrink=0.5, aspect=10) cbar.set_label('Z value') ax.set_title("3D Plot of the Hyperbolic Paraboloid", fontsize=14) ax.set_xlabel("X-axis") ax.set_ylabel("Y-axis") ax.set_zlabel("Z-axis") plt.show()
```

Va tenglamaning 3D tasviri quyidagicha hosil bo‘ladi.



1-rasm: ko‘rinishdagi giperbolik paraboloidning geometrik ko‘rinishi.

Ushbu metodikani boshqa usullar bilan taqqoslaganda quyidagi afzalliklarini keltirish mumkin: vizualizatsiyaning aniqligi, tezligi va qulayligi. Matlab yoki boshqa grafik dasturlar bilan taqqoslaganda, Python bepul va ochiq manbali bo‘lgani uchun keng foydalaniladi. Masalan, kabi tenglamaning grafik interpretatsiyasi orqali talabalar konusning shakli va uning matematik tavsifini

yaxshiroq tushunishlari mumkin. Ushbu yondashuv nazariya va amaliyot o‘rtasidagi bog’liqlikni kuchaytiradi. Bu nafaqat talabalarni faol ishtirok etishga undaydi, balki ularning mantiqiy fikrlash qobiliyatlarini ham rivojlantiradi. Pythonda kod yozish va grafikalar yaratish orqali talabalar nafaqat matematik tushunchalarni, balki dasturlash ko‘nikmalarini ham mustahkamlaydi. Bu esa ularga kelgusida ilmiy tadqiqotlar olib borish yoki texnik loyihalar yaratishda qo‘l keladi. Bundan tashqari, Python yordamida yaratilgan grafikalarni boshqa ko‘rgazmali vositalar bilan taqqoslash orqali talabalar vizualizatsiya vositalarining imkoniyatlari va cheklovlarini tushunib yetadi.

Xulosa

Ushbu metodika nafaqat matematik bilimlarni mustahkamlashga, balki dasturlash ko‘nikmalarini rivojlantirishga ham xizmat qiladi. Talabalarga interaktiv grafikalar yaratishni o‘rgatish orqali ularni mavzuga qiziqtirish va mustaqil ishlashga undash mumkin. Buning natijasida talabalar nazariy bilimlarni amaliyotga tatbiq qilishga muvaffaq bo‘ladilar. Fazoviy tenglamalarni vizualizatsiya qilish usullarini yanada rivojlantirish uchun sun’iy intellekt va mashinani o‘qitish usullaridan foydalanish mumkin. Masalan, grafikalarni optimallashtirish yoki foydalanuvchi talablariga moslashtirish uchun algoritmlar yaratish. Python yordamida fazoviy grafikalarni virtual va qo‘shimcha haqiqat texnologiyalari bilan birlashtirish imkoniyatlarini o‘rganish muhim yo‘nalishlardan biri bo‘lishi mumkin.

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HUKUMAT A’ZOLARI MAQOMINI TAKOMILLASHTIRISH (QORAQALPOG’ISTON RESPUBLIKASI MISOLIDA)

Annotatsiya: *Maqolada suveren Qoraqalpog‘iston Respublikasi maqomi va Qoraqalpog‘iston Respublikasida davlat hokimiyati organlari bo‘linish prinsipiga asoslanishi, shuningdek, Qoraqalpog‘iston Respublikasi hukumati Raisi va a’zolarining konstitutsiyaviy-huquqiy maqomini Konstitutsiya va tegishli qonun hujjatlarda belgilash taklifi ilgari surilgan.*

Kalit so‘zlar: *“Suveren Qoraqalpog‘iston Respublikasi”, “Qoraqalpog‘iston Respublikasi davlat hokimiyati organlari”, “Qoraqalpog‘iston Respublikasi hukumati Raisi”, “Qoraqalpog‘iston Respublikasi hukumati a’zolari”.*

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IMPROVING THE STATUS OF MEMBERS OF THE GOVERNMENT (ON THE EXAMPLE OF THE REPUBLIC OF KARAKALPAKSTAN)

Abstract: *The article considers the status of the sovereign Republic of Karakalpakstan and the principle of separation of state power in the Republic of Karakalpakstan, as well as a proposal to determine the constitutional and legal status of the Chairman and members of the Government of the Republic of Karakalpakstan in the Constitution and relevant legal documents.*

Keywords: *"Sovereign Republic of Karakalpakstan", "State authorities of the Republic of Karakalpakstan", "Chairman of the Government of the Republic of Karakalpakstan", "Members of the Government of the Republic of Karakalpakstan".*

Kirish. Ma'lumki, bugungi kunda hukumatning davlat hokimiyati tizimida tutgan o‘rnini belgilash, uning konstitutsiyaviy-huquqiy vakolatlarini aniqlashtirish va parlament oldidagi hisobdorligini oshirish, shuningdek, hukumat tarkibini shakllantirishning huquqiy mexanizmini takomillashtirish orqali hukumat a'zolari maqomi va ularning faoliyatini baholash hamda hukumatning boshqa davlat hokimiyati organlari bilan o‘zaro munosabatlarini takomillashtirish bo‘yicha tadqiqotlarga alohida e’tibor qaratilmoqda.

Fikrimizcha, xorijiy davlatlarda hukumat tarkibi davlat boshqaruv shakli asosida shakllantiriladi. Jumladan, ***prezidentlik*** (Amerika qo‘shma shtatlari, Rossiya, Qozog‘iston, Turkmaniston, Turkiya, Belarus, Armaniston, Gruziya, Moldova, Filippin, Salvador, Argentina, Braziliya, Venesuela, Kolumbiya, Peru, Ekvador, Yegipet, Irlandiya, Islandiya, Portugaliya), ***parlamentar*** (Germaniya, Kanada, Koreya, Yangi Zellandiya, Bangladesh, Isroil, Mongoliya, Bolgariya, Polsha, San-Marino, Sloveniya, Xorvatiya, Chexiya, Estoniya) va prezidentlik boshqaruv shaklidagi parlamentar davlatlar boshqaruvi, ya'ni, ***aralash boshqaruvi*** (Avstriya, Vengriya, Gretsiya) shakllari mavjud bo‘lib [1.S.33,..786], ushbu boshqaruv shakllari asosida hukumat tarkibi shakllantiriladi.

Prezidentlik boshqaruvda hukumat tarkibi Prezidentning siyosiy irodasiga bog‘liq bo‘lib, uning asosiy yetakchiligi ostida (hukumat Raisini tayinlash va lavozimidan ozod etishda parlamentning roziligi asosida) shakllantiriladi. Bunda Prezident hukumat tarkibiga nomzodlarni tanlash va tayinlashda asosan mustaqil ravishda (ayrim hollarda hukumat Raisining taqdimiga muvofiq) harakat qiladi.

Parlamentar boshqaruvida hukumat tarkibi parlamentning bevosita ishtiroki va rahbarligida, shuningdek, parlament tarkibidan shakllantiriladi. Ushbu boshqaruv shaklida asosiy shart sifatida hukumat parlamentning to‘la ishonchini qozonishi talab qilinadi. Shuningdek, davlat boshlig‘i bo‘lgan Prezident (yoki respublika Rahbari) parlamentning qabul qilgan qarori asosida hukumat tarkibidagi mansabdor shaxslarni tayinlaydi yoki lavozimidan ozod etadi.

Aralash boshqaruvida hukumat tarkibi Prezident va parlamentning bevosita ishtiroki asosida shakllantiriladi. Ya'ni, prezident parlamentdagi ko‘pchilikning munosabati asosida hukumat tarkibini shakllantiradi. Sababi, aksariyat mamlakatlarda hukumat o‘z faoliyatini amalga oshirishi oldidan parlamentning to‘la ishonchini qozonishi shart hisoblanadi.

Mustaqil Davlatlar Hamdo‘stligiga a'zo ayrim davlatlar, shuningdek, Rossiya Federatsiyasi tarkibidagi ayrim respublikalarning tajribalarini yoritishga harakat qilamiz. Xususan, Qozog‘iston, Qirg‘iziston, Belarus, Tatariston va Boshqirdistonda hukumat tarkibi Bosh vazir, uning o‘rinbosarlari va boshqaruv organlari rahbarlaridan iborat tarkibda tashkil etilgan. Ushbu mamlakatlarda hukumat faoliyatiga Prezident oldida javobgar bo‘lgan va faoliyatining ayrim masalari bo‘yicha parlament oldida hisobdor hisoblangan Bosh vazir boshchilik qiladi. Turkmaniston va Boshqirdistonda esa, hukumat faoliyatiga davlat boshlig‘i bo‘lgan Prezident (yoki respublika Rahbari) boshchilik qiladi.

Ushbu mamlakatlarda hukumat tarkibi asosan davlat boshqaruv shakli asosida turli xil tartibda shakllantiriladi. Chunonchi, Qozog‘iston, Turkmaniston, Qirg‘iziston, Belarus, Tatariston va Boshqirdistonda hukumat tarkibidagi aksariyat mansabdor shaxslar mamlakat Prezidentining asosiy yetakchiligi ostida shakllantiriladi.

Mazkur davlatlarning hukumat tarkibini shakllantirish mexanizmida davlat boshlig‘i va parlament o‘rtasidagi munosabatlar ham turli xil tartibda belgilangan. Xususan, *Qozog‘istonda* hukumat tarkibi Prezidentning asosiy yetakchiligi ostida (Bosh vazirni tayinlash va ozod etishda parlament majlisi muhokamasi va tasdig‘i asosida) shakllantiriladi. Bosh vazirning taqdimiga muvofiq Prezident hukumat

tuzilishini belgilaydi, markaziy organlarni tugatadi yoki qayta tashkil etadi. Prezident hukumat a'zolari va vazirlar (Tashqi ishlar, Mudofaa, Ichki ishlar va Adliya vazirlari)ni tayinlaydi [2].

Turkmanistonda hukumat yangi saylangan Prezident oldida o‘z vakolatlarini topshiradi. Hukumatga Prezident raislik qiladi va uning tarkibiga hukumat Raisi o‘rinbosarlari va vazirlardan tashqari boshqa markaziy organ rahbarlarini kiritishga haqli. Prezident o‘z lavozimiga kirishganidan so‘ng hukumat bir oy ichida (Ichki ishlar va Adliya vazirlarini tayinlash va lavozimidan ozod etishda parlament bilan kelishilgan holda) shakllantiradi. Agarda Prezident Konstitutsiya va qonun hujjatlarni buzsa, parlament unga nisbatan ishonchsizlik bildirishi mumkin. Prezidentga nisbatan ishonchsizlik masalasi parlamentning uchdan ikki qismidan kam bo‘lmagan deputatlarning talabi asosida ko‘rib chiqiladi. Prezidentga nisbatan ishonchsizlik qarori belgilangan parlament deputatlarining to‘rtdan uch qismi ovozi bilan qabul qilinadi [3].

Qirg‘izistonda hukumat tarkibi va tuzilishi Prezident va parlamentning asosiy yetakchiligi ostida shakllantiriladi [4].

Belarusda hukumat tarkibi Prezidentning asosiy yetakchiligi ostida (Bosh vazirni tayinlashda Milliy Majlisning vakillar palatasi muhokamasi va tasdig‘i asosida) shakllantiriladi. Agarda Prezident Bosh vazir lavozimiga kiritgan nomzodi parlamentning vakillar palatasi tomonidan ikki marta rad etilsa, Prezident Bosh vazir vazifasini bajaruvchisini tayinlashga, parlamentning vakillar palatasini tarqatib yuborishga hamda yangi saylov tayinlashga haqli. Bosh vazirning o‘rinbosarlari, vazirlar va davlat qo‘mita raislari Prezident tomonidan tayinlanadi [5].

Tataristonda hukumat tarkibi (barcha ijro organ rahbarlari) Tatariston Prezidentining asosiy yetakchiligi ostida (parlamentning muhokamasi va tasdig‘i asosida) shakllantiriladi. Hukumat Prezident oldida mas'ul bo‘lib, faoliyatining ayrim masalalari bo‘yicha parlament oldida hisobdor hisoblanadi. Yangi tashkil etilgan hukumat parlamentga o‘z vakolatlari muddati davomida amalga oshiradigan faoliyat dasturini taqdim etadi. Parlament Bosh vazir va uning o‘rinbosarlariga saylangan deputatlarning ko‘pchiligi ovozi bilan ishonchsizlik bildirishi mumkin, bu ularning iste'foga chiqishiga olib keladi [6].

Boshqirdistonda hukumat tarkibi respublika Rahbarining asosiy yetakchiligi ostida (Bosh vazirni tayinlash va lavozimidan ozod etishda parlamentning muhokamasi va tasdig‘i asosida, shuningdek, Bosh vazirning taqdimiga muvofiq esa, uning o‘rinbosarlari, vazirlar, davlat qo‘mita boshliqlari va boshqa idora rahbarlari) shakllantiriladi. Hukumatga respublika Rahbari boshchilik qiladi. Hukumat tarkibiga Bosh vazirning taqdimiga asosan boshqa davlat tashkilotlarning rahbarlarini kiritishga haqli. Hukumat respublika Rahbari vakolatlari muddati doirasida faoliyat ko‘rsatadi va yangi lavozimga kirishgan respublika Rahbari oldida o‘z vakolatlarini topshiradi. Yangi tashkil qilingan hukumat respublika Rahbari va parlament tomonidan ko‘rib chiqishi uchun o‘z vakolatlari muddatiga mo‘ljallangan kelgusi faoliyati dasturini taqdim etadi [7].

Yuqoridagi xorijiy tajribalarda hukumat tarkibi va uni shakllantirish mexanizmida barchasi uchun umumiy va o‘ziga xos xususiyatlari bilan ajralib turadi. Ushbu o‘ziga xoslik avvalo, har bir mamlakatning konstitutsiyaviy-huquqiy maqomi

hamda davlat hokimiyati bo‘linishi printsipi asosida hukumat va uning a'zolari maqomi huquqiy jihatdan belgilangan. Shuningdek, hukumat tarkibini shakllantirishda davlat boshlig‘i Prezident (yoki respublika Rahbari)ning o‘rni muhim ahamiyat kasb etishi bilan birga, parlamentning ham keng ishtiroki huquqiy jihatdan belgilangan. Shu bilan birga, hukumat tarkibini shakllantirish mexanizmida ishtirok etuvchi Prezident (yoki respublika Rahbari) va parlament o‘rtasida demokratik printsiplar ham joriy etilgan, desak mubolag‘a bo‘lmaydi. Bundan tashqari, hukumat va uning a'zolari o‘zlariga yuklatilgan xizmat majburiyalari bo‘yicha avvalo, davlat boshlig‘i Prezident (yoki respublika Rahbari) oldida bevosita javobgar bo‘lsa, faoliyatining asosiy masalalari yuzasidan parlament (yoki uning quyi palatasi) oldida hisobdorligini qayd etishimiz mumkin.

Mustaqil O‘zbekiston Respublikasi tarkibida parlament boshqaruv shakliga ega bo‘lgan suveren Qoraqalpog‘iston Respublikasida [8] hukumat tarkibi – Vazirlar Kengashi Raisi, uning o‘rinbosarlari, vazirlar va boshqa idora rahbarlaridan [9] iborat. Qonun hujjatlarda [10] Qoraqalpog‘iston Respublikasi Vazirlar Kengashi Raisi o‘z lavozimi bo‘yicha O‘zbekiston Respublikasi Vazirlar Mahkamasi tarkibiga kiritilgan.

Qonun hujjatlarga [11] asosan, hukumati Raisi parlament Raisi – Qoraqalpog‘iston Respublikasi Rahbarining [12] belgilangan tartibda kiritgan taklifiga binoan, Qoraqalpog‘iston Respublikasi parlamenti tomonidan tayinlanadi va lavozimidan ozod etiladi. Hukumat Raisining taklifiga muvofiq esa, uning o‘rinbosarlari va hukumat a'zolari (vazirlar va boshqa idora rahbarlari) parlament tomonidan, agar sessiyalar davrida parlament Prezidiumi tomonidan, keyinchalik Qoraqalpog‘iston Respublikasi parlamenti tasdig‘i bilan tayinlanadi va lavozimidan ozod qilinadi [13].

Shu o‘rinda Tatariston va Boshqirdiston hukumati tarkibi va uni shakllantirish mexanizmlari bilan suveren Qoraqalpog‘iston Respublikasi hukumati tarkibi va uni shakllantirish mexanizmlarini qiyosiy-huquqiy jihatdan taqqoslanganda Tatariston va Boshqirdiston hukumati tarkibidagi mansabdor shaxslar va ularning huquqiy maqomi respublika maqomi asosida konstitutsiyaviy-huquqiy jihatdan belgilanganligiga guvohi bo‘lamiz. Shuningdek, ushbu davlatlarning hukumatlari tarkibini shakllantirishda esa, xalqaro huquqning umume'tirof etilgan demokratik printsiplari joriy qilinganligi bilan ajralib turadi.

Ammo, suveren Qoraqalpog‘iston Respublikasining konstitutsiyaviy-huquqiy maqomi [14] O‘zbekiston Respublikasi Konstitutsiyasi va Qoraqalpog‘iston Respublikasi Konstitutsiyasida belgilangan bo‘lsa-da, bugungi kunga qadar Qoraqalpog‘iston Respublikasi hukumati tarkibi va uni shakllantirish mexanizmini modernizatsiyalashga doir biron-bir ma'muriy islohotlar amalga oshirilmagan, desak mubolag‘a bo‘lmaydi.

Xulosa. Darhaqiqat, bugungi kunda hayot va zamonning shiddat bilan o‘zgarishi, jahon miqyosida globallashuv va raqobat muhitining kuchayishi, shuningdek, xalqlarning siyosiy-huquqiy madaniyati va ijtimoiy ong darajasining o‘sib borishi hamda fuqarolarning ertangi kundagi farovon hayotga bo‘lgan ehtiyoji va talablarining tobora ortib borishida bevosita xalq manfaatlari uchun mas'ul va javobgar bo‘lgan davlat hokimiyati, shu jumladan, hukumat faoliyatining o‘rni muhimdir. Zero,

...ijro hokimiyat faoliyati qonunlarning ijrosini samarali ta'minlash bilan birga, ushbu hokimiyat tarmog‘i davlat xizmatchilarining va davlat organlarining katta qismini o‘z ichiga olishi, muhimi, o‘z qo‘lida katta ma'muriy va moliyaviy mablag‘larni o‘zida jamlaganligi bois, uning faoliyati yuzasidan davlat nazoratini ...kuchaytirish zarur. Shu bois hukumat tarkibi va uni shakllantirish mexanizmida har bir davlatning tarixi va o‘ziga xos xususiyatlari asosida, shuningdek, xalqaro huquqning umume'tirof etilgan printsiplari va normalariga tayanib hamda xorijiy davlatlarning bu boradagi ilg‘or tajribalarini inobatga olib yanada takomillashtirib borishni davrning o‘zi talab etmoqda. Shu sababli, Qoraqalpog‘iston Respublikasi hukumati tarkibi va uni shakllantirishning huquqiy mexanizmini avvalo, suveren Qoraqalpog‘iston Respublikasining konstitutsiyaviy-huquqiy maqomi asosida, shuningdek, respublikada davlat hokimiyati huquqiy jihatdan bo‘linganligidan kelib chiqib hamda rivojlangan xorijiy davlatlarning tajribalarini inobatga olib, yanada modernizatsiyalashga doir ma'muriy islohotlar quyidagicha amalga oshirilishi lozim, deb hisoblaymiz:

1) Ma'lumki, Sobiq Sovet Sotsialistik Respublikasi tarkibidan birinchilardan bo‘lib O‘zbekiston Respublikasi davlat mustaqilligini qo‘lga kiritgan edi. Mustaqillikning ilk kunlarida O‘zbekiston Respublikasi o‘z oldiga bosh maqsadi qilib *“huquqiy demokratik davlat va adolatli fuqarolik jamiyatini barpo etish”* hamda *“o‘tmishda o‘z umrini o‘tab bo‘lgan Sobiq Sovet davridagi eski ma'muriy buyruqbozlik tizimidan butunlay voz kechish va bunday tuzumga aslo ortga qaytmaslik”ni* belgilagan edi.

Nazarimizda, mazkur yo‘nalishlarda amalga oshirilayotgan islohotlar o‘z navbatida mustaqil O‘zbekiston Respublikasi va uning tarkibidagi suveren Qoraqalpog‘iston Respublikasiga ham bir maromda taalluqlidir. Shu sababli, suveren Qoraqalpog‘iston Respublikasi davlat hokimiyati, shu jumladan, hukumat faoliyatida hozirgi kunga qadar eski Sobiq Sovet davridan ***“meros bo‘lib”*** o‘tgan boshqaruv mexanizmidan butunlay voz kechishga zamonning o‘zi talab etmoqda. Xususan, Qoraqalpog‘iston Respublikasi hukumati Raisining maqomi hozirga qadar O‘zbekiston Respublikasi va Qoraqalpog‘iston Respublikasi Konstitutsiyalari va tegishli qonun hujjatlarda konstitutsiyaviy-huquqiy jihatdan to‘liq tartibga solinmagan. Ya'ni, hukumat Raisi Qoraqalpog‘iston Respublikasi hukumati va uning tarkibidagi boshqaruv organlari faoliyatiga umumiy rahbarlikni amalga oshirib kelayotgan bo‘lsada, Konstitutsiya va qonun hujjatlarda hukumat Raisining maqomi o‘z lavozimi bo‘yicha O‘zbekiston Respublikasi hukumati tarkibiga kiritilgan, shu bilan birga, O‘zbekiston Respublikasi hukumati tarkibida ham muayyan bir huquqiy maqomga ega emasligini alohida e'tirof etish mumkin.

Shu o‘rinda O‘zbekiston Respublikasining ayrim qonun hujjatlarida belgilangan demokratik qoidalarga to‘xtalishni joiz topdik. Xususan, 2002-yil 12-dekabrdagi «O‘zbekiston Respublikasi Oliy Majlisining Senati to‘g‘risida»gi konstitutsiyaviy qonunning 15-moddasida “Oliy Majlis Senati Raisining o‘rinbosarlaridan biri Qoraqalpog‘iston Respublikasi vakili”, shuningdek 2017-yil 31-maydagi “O‘zbekiston Respublikasining Konstitutsiyaviy sudi to‘g‘risida”gi qonunning 5-moddasida esa, “O‘zbekiston Respublikasining Konstitutsiyaviy sudiga saylanadigan

sudyalar orasida Qoraqalpog‘iston Respublikasining vakili” bo‘lishiga doir qoidalar belgilangan.

Ushbu qoidalar bevosita O‘zbekiston Respublikasi va Qoraqalpog‘iston Respublikasi parlamentlari, shuningdek, O‘zbekiston Respublikasi Konstitutsiyaviy sudi va Qoraqalpog‘iston Respublikasi Konstitutsiyaviy nazorat qo‘mitasi o‘rtasidagi munosabatlarni samarali ta'minlashga xizmat qiladi, deb e'tirof etish mumkin. Shu sababli, O‘zbekiston Respublikasi tarkibida Qoraqalpog‘iston Respublikasi maqomini inobatga olib, shuningdek, Qoraqalpog‘iston Respublikasida ham davlat hokimiyati bo‘linishi printsipi belgilanganligidan kelib chiqib hamda O‘zbekiston Respublikasi va Qoraqalpog‘iston Respublikasi hukumatlari o‘rtasidagi munosabatlarni ta'minlashda Vazirlar Mahkamasi huzuridagi Vazirlar Kengashining doimiy vakolatxonasi faoliyati tashkil etilganligiga tayanib, O‘zbekiston Respublikasi va Qoraqalpog‘iston Respublikasining tegishli normativ-huquqiy hujjatlarida “Qoraqalpog‘iston Respublikasi hukumati boshlig‘i O‘zbekiston Respublikasi Vazirlar Mahkamasi tarkibiga o‘z lavozimi bo‘yicha kiradi” deb belgilangan qoidani qayta ko‘rib chiqish orqali Vazirlar Kengashi Raisining konstitutsiyaviy-huquqiy maqomini belgilash zaruriyati nihoyatda dolzarb bo‘lib kelmoqda.

Agarda, Qoraqalpog‘iston Respublikasida hukumat Raisining maqomi konstitutsiyaviy-huquqiy jihatdan yanada aniqlashtirilsa, bu, o‘z navbatida, Qoraqalpog‘iston Respublikasi boshqaruvida ham davlat hokimiyati bo‘linishi printsipi yanada tartibga solinishiga huquqiy zamin yaratgan bo‘lar edi.

2) Hukumat tarkibini belgilovchi Qoraqalpog‘iston Respublikasining normativ-huquqiy hujjatlari tahlil qilinganda, faqatgina respublika «Vazirlar Kengashi to‘g‘risida»gi qonuni 5-moddasida hukumat tarkibi huquqiy jihatdan tartibga solinganligiga guvoh bo‘lamiz. Ammo, hukumatning asosiy faoliyatini tartibga soluvchi Qoraqalpog‘iston Respublikasining Konstitutsiyasida hukumat tarkibi konstitutsiyaviy qoidalar bilan tartibga solinmagan.

Ma'lumki, respublika normativ-huquqiy hujjatlari tizimida Qoraqalpog‘iston Respublikasi Konstitutsiyasi oliy yuridik kuchga ega bo‘lgan Asosiy qonun hisoblanadi. Ushbu Konstitutsiya asosida Qoraqalpog‘iston Respublikasi qonun hujjatlari ishlab chiqiladi va qabul qilinadi.

Yuqoridagi huquqiy tahlillarni inobatga olib, Qoraqalpog‘iston Respublikasining Konstitutsiyasida hukumat tarkibini belgilovchi konstitutsiyaviy qoidalar belgilanishi lozim, deb hisoblaymiz.

O‘ylaymizki, ilmiy tadqiqot doirasida ishlab chiqilgan ushbu takliflarni soha olimlari hamda huquqni qo‘llash subyektlari tomonidan chuqur o‘rganiladi.

Fikrimizni O’zbekiston Respublikasi Prezidentining qo‘yidagi kontseptual g’oyalari bilan yakunlaymiz. ***“Bizning oliy va ezgu maqsadimiz – birgalikdagi fidokorona mehnatimiz bilan Yangi O‘zbekiston tarkibida Yangi Qoraqalpog‘istonni bunyod etishdir”***. [15]

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LOGOPEDIYA SOHASINING ASOSIY TAMOYILLARI

Annotatsiya: *Logopediya – bu nutqni rivojlantirish, tiklash va tuzatishga qaratilgan tibbiy soha bo'lib, uning asosiy maqsadi – bolalar va kattalarda nutq buzilishlarini aniqlash, davolash va oldini olishdan iborat. Logopediyaning vazifalari va metodologiyasi keng qamrovli bo‘lib, nutq muammolari bo‘lgan insonlarning turli ehtiyojlarini qondirishga mo‘ljallangan. Nutq buzilishlari, tili o‘rganishning turli bosqichlaridagi kechikishlar va murakkabliklar logopedik yondashuvni talab qiladi. Ushbu maqolada logopediya sohasining asosiy tamoyillari, metodlari va uning ahamiyati haqida so‘z yuritamiz.*

Kalit so‘zlar: *logopediya, nutqni rivojlantirish, metodlar, dizartikuliya, afaziya, balbutiya.*

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BASIC PRINCIPLES OF THE FIELD OF SPEECH THERAPY

Annotation: *Speech Therapy is a medical field focused on the development, recovery and correction of speech, with the main objective of identifying, treating and preventing speech disorders in children and adults. The tasks and methodology of speech therapy are comprehensive and are designed to meet the different needs of people with speech problems. Speech disorders, delays and complications at various stages of language learning require a logopedic approach. In this article, we will talk about the basic principles, methods of the field of speech therapy and its importance.*

Keywords: *speech therapy, speech development, methods, dysarticulia, aphasia, balbutia.*

Logopediya sohasining tarixi

Logopediya sohasining tarixi qadimgi Yunonistondan boshlanadi, chunki u yerda nutq va tilning ahamiyati haqida birinchi marta ilmiy izlanishlar olib borilgan. Biroq, logopediya sifatida mustaqil ilmiy sohaga 19-asrda, asosan, Amerika va Yevropada o'zining rivojlanishining boshlanishini qayd etish mumkin. XIX asrning ikkinchi yarmida logopedik amaliyot, nutqni tiklashning ilmiy asoslari paydo bo'ldi, va bu davrda asosan og'zaki nutqdagi nuqsonlar, jumladan, afaziya, balbutiya va boshqa buzilishlar bilan shug'ullanish boshlandi.

Logopediya va uning asosiy tarmoqlari

Logopediya bir qator tarmoqlardan iborat bo‘lib, ularning har biri o‘ziga xos nutq muammolariga yechim topadi. Logopediya tarmoqlari quyidagicha tasniflanadi:

1. **Dizartikuliya** – bu tilning harakatlaridagi buzilishlarni ifodalovchi holat bo'lib, ko'pincha jarohatlar yoki miya kasalliklari natijasida yuzaga keladi.
2. **Afaziya** – bu nutqni tushunish va ifodalash qobiliyatining buzilishi bo'lib, ko'pincha miya shikastlanishidan so‘ng paydo bo‘ladi.
3. **Balbutiya** – bu nutqning bo‘g‘ilib qolishi yoki nutq oqimining buzilishi. Bu holat ko‘pincha psixologik va nevrologik omillar bilan bog‘liq bo‘ladi.
4. **Disleksiya va disortografiya** – bu o'qish va yozishda yuzaga keladigan qiyinchiliklarni ifodalaydi, bolalar uchun o'qish qobiliyatini rivojlantirishda asosiy muammolarni tashkil etadi.
5. **Dislaliya** – bu tovushlarning noto‘g‘ri talaffuzi yoki ularning etishmasligi bilan bog‘liq bo‘lgan nutq muammolarini anglatadi.

Logopediya va uning muhimligi

Nutq va tilning rivojlanishi insonning ijtimoiy, intellektual va psixologik o‘sishida katta rol o‘ynaydi. Shu sababli, logopediya mutaxassislari bolalarning til va nutq rivojlanishini kuzatib borishadi. Nutqning rivojlanishi bolaning ongli faoliyatini, jamoada muloqot qilish qobiliyatini va bilim olish jarayonini osonlashtiradi.

Bundan tashqari, logopediya faqat bolalarga nisbatan emas, balki kattalar uchun ham juda muhimdir. Xususan, insult, bosh miya jarohatlari yoki boshqa nevrologik kasalliklar tufayli nutq buzilgan bemorlar uchun logopediya muhim tibbiy yordam ko‘rsatadi.

Logopediya metodlari

Logopediya metodlari nutqni rivojlantirishda samarali bo‘lishi uchun muayyan tamoyillarni hisobga oladi. Ushbu metodlar quyidagicha tasniflanadi:

1. **Verbal metodlar** – bu nutqni tuzatish va rivojlantirishda og‘zaki muloqotga asoslangan metodlar bo‘lib, ular yordamida muammoni aniqlash va davolash uchun maxsus mashqlar bajariladi. Masalan, so‘zlarni to‘g‘ri talaffuz qilish yoki grammatik qoidalarni tushunish kabi mashqlarni bajarish.
2. **Vizual metodlar** – bu metodlar vizual tasvirlar, belgilashlar va boshqa ko‘rsatmalar yordamida nutqni tuzatish yoki rivojlantirishga qaratilgan. Bu metod ko‘pincha bolalar bilan ishlashda qo‘llaniladi, chunki ular tasvirlar orqali yaxshiroq tushunishadi.
3. **Muzokara usullari** – logopediya mutaxassisi bemor bilan suhbat o‘tkazib, uning nutqini yaxshilashga, mavzularni muhokama qilishga, yangi so‘zlar va iboralarni o‘rganishga yordam beradi. Bu usul ko‘pincha afaziya yoki dizartikuliya bilan og‘rigan kishilar uchun ishlatiladi.
4. **Mashinaviy va elektron metodlar** – yangi texnologiyalar yordamida nutqni rivojlantirishga qaratilgan usullar. Bularga mobil ilovalar, kompyuter dasturlari va interaktiv mashqlar kiradi. Ushbu usullar innovatsion usullarni o‘z ichiga oladi va ular o‘z-o‘zini rivojlantirish uchun yaxshi vositalardir.
5. **Psixologik yondashuv** – nutq muammolarini davolashda psixologik aspektlarni ham hisobga olish zarur. Bu, ayniqsa, psixologik omillar tufayli nutq muammolari bo‘lgan bemorlar uchun ahamiyatlidir. Psixologik yondashuv

bemorning o‘ziga bo‘lgan ishonchini oshiradi va muvaffaqiyatli davolanishga yordam beradi.

Logopediya xizmatlari va davolash

Logopedik xizmatlar odatda bolalar va kattalar uchun farq qiladi. Bolalar uchun logopediya davolash ko‘pincha o‘yinlar, interaktiv mashqlar va vizual vositalar yordamida amalga oshiriladi. Kattalar uchun esa nutqni tiklash, tilning normal holatiga keltirilishi va har qanday miya kasalliklari natijasida yuzaga kelgan buzilishlar bilan shug‘ullanishga qaratilgan.

Bundan tashqari, logopediya ko‘pincha multikulturali muhitda ishlaydigan mutaxassislar tomonidan amalga oshiriladi. Bunday holatda, nutq davolash jarayoni nafaqat tibbiy, balki madaniy va tilshunoslik jihatlarini ham hisobga oladi. Bu, ayniqsa, turli tillarda gaplashadigan aholining nutq muammolarini hal qilishda muhimdir.

Logopedning roli

Logopedning asosiy roli – bu bemorning nutq va til rivojlanishini qo‘llab-quvvatlash, ularning nutq qobiliyatlarini tiklash va to‘g‘ri rivojlantirishdir. Logoped bemor bilan birgalikda ishlaydi, uning individual ehtiyojlarini tushunadi va shunga qarab maxsus davolash rejasini tuzadi. Logopedning vazifalari quyidagilarni o‘z ichiga oladi:

- Nutq muammolarini aniqlash va tashxis qo‘yish.
- Davolash usullarini tanlash va bemorga moslashtirish.
- Nutqni rivojlantirish uchun o‘quv materiallari yaratish.
- Bemor bilan muntazam ravishda ishlash va ularning holatini kuzatib borish.

Xulosa

Logopediya sohasining roli va ahamiyati kundan-kunga ortib bormoqda. Nutq va tilni rivojlantirishning ilg‘or metodlari va vositalari yordamida logopediya nafaqat tibbiy yordam ko‘rsatish, balki insonlarning jamiyatda muvaffaqiyatli ijtimoiylashishi uchun muhim vosita hisoblanadi. Nutq va tilni to‘g‘ri rivojlantirish, shuningdek, unga bo‘lgan e'tibor bolalar va kattalar uchun o‘z-o‘zini anglash va o‘rganish jarayonlarida muhim rol o‘ynaydi.

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METHODOLOGY OF FORMING INFORMATION CULTURE OF PUPILS OF ISLAMIC COLLEGES BASED ON AN INNOVATIONAL APPROACH

Annotation: *the article presents a pedagogical research of the information culture of using the Internet and social networks among pupils of secondary specialized Islamic colleges.*

Key words: *information culture, social networks, information communication tools, global information resources, digital technology.*

Information culture is becoming one of the most important components of culture. In this regard, the formation and development of a modern education system is impossible without a high information culture, because education is one of the main forms of translation of cultural values of society. The article considers approaches to solving the problem of developing information culture of future teachers of preschool and primary education.

This project is aimed at creating conditions for the introduction of a modern and secure digital educational environment in educational organizations of all types and levels. The problem of development of digital education in Uzbekistan and abroad is revealed in the researches of Alisher Anvarov et al. [1] and others. Information space is recognized by researchers as one of innovative educational environments.

The purpose of the research is to develop methodical base for development of information culture of a student in terms of digitization of education: definition of the essence of the concept "information culture of the student", the determination of the components of information culture, the description of the ways of development of information culture of the student of secondary special colleges in the context of digitalization of education.

Information literacy is a similar concept [2]. We understand the information culture of the student as a personal integrative quality that allows the teacher to interact in the information educational environment based on the use of both traditional and new information technologies and represents the result of the interaction of value-assessing, cognitive-communicative, effective-practical and reflexive-evaluative components.

The reflexive-evaluative component is characterized by a developed ability to reflect the process and result of activity in the information educational space, the ability to improve the knowledge, skills and make new decisions in changing conditions or unexpected situations using new technological tools. To assess the

degree of mastering the information culture of students secondary special colleges, the authors of the article conducted a survey among the pupils of the Hidoya college in Namangan, Uzbekistan. [3]

For the first question, "What form of information perception is most convenient for you?", the majority of respondents chose the multimedia form of information perception (53 %), the second place was taken by the text form of information (24%), and preferably printed rather than on electronic carriers. The graphic form was chosen by 15 %, and the auditory form - by 8 %.

Answering the second question, "What sources of information do you most often use?", the overwhelming majority of students (76 %) in the first place wrote that it is the Internet, which had been fairly expected. In the second place for the number of responses were books (35 %), some of the respondents indicated television (2%). Answers to the third question "What information do you most often look for in various sources?" were the following : educational information - 55 %; music - 53 %; movies - 15 %; books - 10 %; recipes - 7%; news - 4 %. Here we can say that most students use information resources for educational purposes. In the fourth point, "Assess your level of information technology skills", the medium level of knowledge was revealed with 80 %, above medium - 12 %, high - 8 %, and very high – 1 %.

Answering the fifth question about the advantages and disadvantages of using the Internet, the most common advantages mentioned were: you can always find the information - 57 %; quick search - 33 %; the ability to transmit information - 26 %; the ability to earn money - 10 %. The disadvantages were listed as follows: unreliable information - 45 %; a lot of advertising and spam - 37 %; declining health - 29 %; viruses and fraudsters - 17 %. Thus, we see that students are critical of the information received from the Internet (about half of the students indicated that the information received was not reliable). The sixth question was about the computer programs that students most often use.

When asked about the feasibility of using information technologies in training, all the respondents answered in the affirmative. The following comments were received (the author's text is preserved): "Presently, information penetrates the brain visually through numerous informational resources", "It is impossible to live without it in the modern world", "In the age of high technologies, there is no way without them", etc. The ninth question was "How often should information technologies be used in the educational process?". The students' opinions were divided into three parts. Use as often as possible - 34 %, periodically, as necessary - 37 %, as rarely as possible - 29 %. To the question, "Are you ready to study remotely using information technologies or digital resources?", 56 % answered in the affirmative and 44 % - in the negative. [4]

In the eleventh question it was necessary to give a definition of information culture. Here are some answers: "Literacy in the use of computer technology", "The ability to work with information correctly", "The ability to work with information purposefully and use it for the intended purpose", "Effective information activity", etc. On the twelfth question, "What does information culture allow a modern

ρerson?", the following answers were received: to use devices - 67 %, to communicate with ρeoρle - 55 %, to learn new things - 47 %, to maintain aρρroρriate behavior in the Internet - 45 %, - leisure - 37 %, to work with information - 35 %, to be successful - 15 %, a high standard of living - 7 %, ρersonal security - 5 %. 7 % did not give an answer, which allowed us to assume that the question caused difficulties in the wording of the information culture in the ρrevious question.

CONCLUSION

Integration of various technologies, tyρes of activities, the use of artificial intelligence in ρrofessional activities, constant ρrofessional self-education of a modern ρerson require ρeoρle to acquire new skills and comρetencies, be ready to use new technologies in ρrofessional and everyday life.

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FORMATION OF INFORMATION CULTURE OF PUPILS OF ISLAMIC COLLEGES IN NEW UZBEKISTAN

Annotation: *education is of great importance in the formation of the culture of receiving information, and the development of the education system and the ability of everyone to use information effectively is considered as a factor that causes the rise of the society.*

Key words: *information culture, social networks, information communication tools, global information resources, digital technology*.

The 21st century is characterized by the predominance of global and informational features of society in world civilization. Various strategic policies and convergence of developing economies are becoming more and more global, therefore, these processes are leading to the high development of information technologies and global the virtual and digital space is covering various aspects of the socio-economic, political and cultural life of the integrating countries. The possibilities of modern information systems are limitless, they are developing at cosmic speed, and the issue of their introduction has already become a priority direction of the strategic task of Uzbekistan.

Development of techniques and technologies in recent years Information sources and information providers (libraries, archives, Internet, bloggers, Instagram viners, celebrities promoting risk-based games, in particular online gambling through social networks, more than 100 advertisements of totalizator and bookmaker activities) led to an incomparable expansion of its activity and made it possible for citizens, students and a wide range of users to use and exchange its huge levels. The demand for information services, along with the emergence of a vast array of paid and free online resources on the Internet, has pushed this aspect of information services to higher than ever. As a collection of various religious information, texts of well-known Islamic scholars who serve pure Islam, video-materials and knowledge, the methodology and technology of its delivery, as well as the order of its distribution and delivery to students of secondary specialized Islamic educational college, are becoming an important tool in the activities of modern society.

However at the same time, the activity of promoting products in various social networks of Giveaway has become very active, it is quickly becoming popular among active users of social networks as a new way to earn money in a short time. Giveaway is a contest held among users of the social network on the

Instagram page of viners, YouTubers, bloggers, singers and celebrities. An important condition for participation in this contest or competition is to subscribe to the pages of the sponsors listed on the page opened specifically for the contest.

By placing an expensive car and even apartments as the main prize through Give-Away promotion, simple users who are misleading our consumer public by putting false or abstract information, promoting and not corresponding to the actual situation at all, causing sharp discussions and expressing negative opinions on social networks.

Also, according to the analysis of the results of sociological research, according to the use of world electronic scientific and educational resources by students studying in higher education colleges: **26% - ISLOM.UZ , 41% - MUSLIM.UZ, 10% -Edu.uz, 11% - my.gov.uz, 6% - KUN.UZ, 6%- ZiyoNet.uz. According to the research analysis, it was found that there is a high demand for MUSLIM.UZ and ISLOM.UZ. (Figure 4)**

Also, students use foreign scientific and educational online information resources through websites. The development of modern education is determined not by the improvement of information technologies, but by the availability of new sources of scientific and educational information. The use of electronic educational resources plays an important role in educational and scientific activities.

At the heart of the reforms being carried out in the field of education, it was found that our young people, who speak fluently several foreign languages and know English perfectly, the indicator of problem-free use of scientific and educational online information resources is growing dynamically.

There are problems with the implementation of digital information technologies in some areas of education. This, in turn, not only negatively affects young people becoming mature specialists, but also affects the exchange of information within their professional activities. Also, effective use of free time is one of the most effective measures to prevent information and psychological attacks.

According to research conducted by the Central Asian Bureau for Analytical Reporting (CABAR.asia), Uzbeks began to see social networks and messengers as an alternative source of information and became the main source of information exchange among people aged 16-45. Also, the complexity of controlling information in the Telegram messenger is that it created favorable conditions for the spread of various prohibited information and fake messages, which, in turn, affected the expansion of the information audience.

The activities of bloggers who convey their personal opinions on socio-political events and processes to their subscribers, study their appeals, and introduce a certain point of view to their audience are also popular in Messenger. According to experts, they are a new generation of Internet journalism, and bloggers do not create in one direction, they try to influence the formation of public opinion on a certain issue by adapting and disseminating information to trends in society.

According to E. Toffler, humanity is "stepping into a new era of evolutionary development" through information. It is not just a changed society, but the building

of an entirely new society.' It is not easy to build such a society; it requires deep scientific research in many theoretical and practical aspects.

In conclusion, it should be noted that today social networks and messengers have become the main means of information exchange and can be widely used in shaping public opinion. The possibilities of traditional mass media to satisfy people's need for information are getting smaller and smaller. At the same time, without solving the problem of restricting, closing or banning information, the development of norms for management, regulation, and use of the information system remains one of the most urgent issues today.

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BOSHLANG'ICH TA'LIMDA 4K MODELINING DARS JARAYONLARIDAGI SAMARADORLIGI

Annotatsiya: *Bu maqolada 4K modelining boshlang'ich sinflardagi darslarda samaradorligi o'rganiladi. 4K modeli darslarni qiziqarli tashkil etishni, metodlar orqali tez va oson natijaga erishishni ta'minlaydi. Yangicha g'oya, yangicha fikrlar bilan yondashuvni talab etadi.*

Kalit so'zlar: *Kreativlik, kollaboratsiya, kommunikatsiya, kritik fikrlash, innovatsion texnologiyalar, kompetensiya, boshlang'ich ta'lim, zamonaviy ta'lim tizimi.*

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THE EFFECTIVENESS OF THE 4K MODEL IN TEACHING PROCESSES IN PRIMARY EDUCATION

Annotation: *This article discusses the effectiveness of the 4k model in primary schools. The 4k model provides an interesting organization of lessons and provides quick and easy results with the methods. A new idea requires an approach with new thoughts.*

Keywords*: creativity, collaboration, communication, critical thinking, innovative technologies, competence, primary education, modern education system.*

O'zbekiston Respublikasi Vazirlar Mahkamasining 2022-yil 28-dekabrdagi 726-son qaroriga muvofiq bugungi kunda darslik va o'quv-metodik majmualar sifatiga qo'yilayotgan talablarning ortishi ularni yaratish jarayoniga matbaa sohasining so'nggi yutuqlarini qo'llash, o'quvchilarning hayoti va sog'lig'i uchun xavfsiz, foydalanish uchun qulay bo'lgan matbaa mahsulotlarini ishlab chiqarish, ushbu faoliyatni texnik jihatdan tartibga solish sohasidagi normativ hujjatlarni qayta ko'rib chiqish zaruratini yuzaga keltirmoqda. "Texnik jihatdan tartibga solish to'g'risida"gi O'zbekiston Respublikasining Qonuni va O'zbekiston Respublikasi Prezidentining "O'zbekistonning yangi taraqqiyot davrida ta'lim-tarbiya va ilm-fan sohalarini rivojlantirish chora-tadbirlari to'g'risida" 2020-yil 6-noyabrdagi PF-6108-son Farmoniga muvofiq maktabgacha, umumiy o'rta va o'rta maxsus hamda professional ta'lim sohasida foydalaniladigan matbaa mahsulotlarining

xavfsizligiga qo‘yiladigan talablarni belgilash, foydalanuvchilarning hayoti va sog‘lig‘ini saqlash, atrof muhitni muhofaza qilish, shuningdek, nashr etilayotgan darsliklar va o‘quv-metodik majmualarning matbaa sifatini ilg‘or xorijiy tajriba asosida yanada oshirish maqsadida hamda ushbu farmonning 1-bandiga muvofiq dunyo miqyosidagi bugungi keskin raqobatga bardosh bera oladigan milliy ta’lim tizimini yo‘lga qo‘yish, darslik va o‘quv qo‘llanmalarini zamon talablari asosida takomillashtirish, ularning yangi avlodini yaratish, o‘quv dasturlari va standartlarini optimallashtirish O‘zbekistonning yangi taraqqiyot davrida ta’lim-tarbiya va ilm-fan sohalarini yanada rivojlantirishning asosiy yo‘nalishlaridan biri etib belgilab qo’yilgan[1]. Ushbu bandga ko’ra va 4K modeliga asoslangan innovatsion yondashuv metodologiyasi (bu-bolalarning har tomonlama rivojlanishiga qaratilgan bo‘lib, quyidagi asosiy kompetensiyalarni o‘z ichiga oladi: kollaboratsiya, kommunikatsiya, kreativ fikrlash va kritik fikrlash o‘quvchilarda tanqidiy fikrlash, ijodiy yondashuv, jamoada ishlash va muloqot ko‘nikmalarini shakllantiradi) inobatga olinib 2023-2024-o’quv yilida 1-4 -sinflar uchun yaratilgan yangi zamonaviy maktab o’quv darsliklari yaratildi.

Maktablardagi sifatli ta’lim ko‘p jihatdan yaratilayotgan darsliklarga bog‘liq. Ya’ni u ta’lim standartlariga javob berish bilan birgalikda o‘quvchini qiziqtirish va fanga bo‘lgan mehrini uyg‘otishi kerak.

Yangi o‘quv yilidan boshlab boshlang‘ich sinf o‘quvchilari yangi avlod darsliklari asosida ta’lim oladi. Darsliklarning asosiy xususiyatlaridan biri – ularning 4K tamoyili asosida ishlab chiqilganidadir. Ya’ni bu tamoyilda quruq ma’lumotlarni yodlatish yoki shunchaki o‘qish va yozishni o‘rgatish bilan cheklanilmaydi. O‘quvchilar nafaqat fanlarni, balki XXI asrda zarur bo‘lgan hayotiy ko‘nikmalarni ham o‘rganadi.

4K modelining boshlang’ich sinf darslaridagi samaradorligi haqida so‘zlashdan oldin, “4K modeli o‘zi nima?” degan savolga javob topaylik.

“4K modeli” deganda, odatda ta’limning sifatini yaxshilash va samaradorligini oshirishga qaratilgan to‘rt asosiy komponentni anglatadi. Bu model, ta’lim jarayonini yaxshilashda quyidagi to‘rt omilga asoslanadi:

Kreativlik – o‘quvchilarning ijodkorlik va yangicha fikrlash qobiliyatlarini rivojlantirish, innovatsion yechimlarni ishlab chiqish va muammolarni ijodiy hal qilish ko‘nikmalarni rivojlantirishni nazarda tutadi. O‘quvchilar har bir fanga, yo‘nalishga ijodiy yondashishni o‘rganadilar.

Kollaboratsiya – o‘quvchilarning dars jarayonlarida, umuman olganda hayotda ham jamoaviy ish olib boorish qobiliyatlarini rivojlantiradi. Bu komponent o‘quvchilarning o‘zaro samarali muloqotga kirishishida va bag’rikenglik kabi tushunchalarni shakllantirishda juda ahamiyatlidir.

Kommunikatsiya – muloqot qilish qobiliyati bo‘lib, o‘quvchilarni bir-birini eshitishga va tushunishiga yordam beradi. Bu orqali ular fikr almashishadi.

Kritik fikrlash – o‘quvchilarning tanqidiy fikrlash qobiliyatlarini o‘stirdi, muammolarni muhokama qilishga o‘rgatadi, o‘z fikriga ega bo‘lishni va bu fikrni isbot eta olish ko‘nikmalarini rivojlantiradi.

Bu to‘rt kompetensiya bir-birini to‘ldirib, mukammal dars jarayonini tashkil etishga yordam beradi. Ushbu muhim kompetensiyalarni rivojlantirishga yordam berishni istasak, o‘quv jarayonini bolalar uchun qiziqarli va foydali tarzda tashkillashtirishimiz kerak. Maktabdagi har bir dars o‘quvchilar faqat fan mazmunini o‘zlashtiradigan emas, balki mustaqil bilim oladigan va qobiliyatini rivojlantiradigan jarayondir. Xalq ta’limi tizimini 2030-yilgacha rivojlantirish konsepsiyasida o‘qitish metodikasini takomillashtirish vazifasi belgilangan. Shunga muvofiq, darsliklarni yangilash bo‘yicha muayyan ishlar bajarildi. Xususan, ilg‘or xorijiy tajribalar asosida 1-4-sinf darsliklari yangidan “4K” modeli asosida tayyorlandi. “4K” modelidan foydalanish ko‘plab sinovlardan o‘tgan, muhimi, zamonaviy yondashuvdir. Boshlang‘ich sinflar uchun yangi darsliklar esa kelajagimiz egalari bo‘lmish yosh avlodni har tomonlama rivojlantiribgina qolmay, balki zamonaviy jamiyatga muvaffaqiyatli moslashish uchun zarur bo‘lgan ko‘nikmalarni ularda shakllantirishga qaratilgani bilan yanada ahamiyatlidir.

4K modeli ta’lim jarayonida o‘quvchilarning barcha jihatlarini birgalikda rivojlantirishga yo‘naltirilgan yondashuvni anglatadi. Bu model o‘quvchilarga nafaqat akademik bilim, balki muvaffaqiyatga erishish uchun zarur bo‘lgan barcha ko‘nikmalarni taqdim etishga harakat qiladi. Bu modelning afzalliklari o‘quvchilarning barcha jihatdan mukammal rivojlanishiga yordam beradi.

4K modeli o‘quvchilarda o‘z-o‘zini anglash va o‘z rivojlanishiga mas’uliyatli yondashuvni rivojlantiradi. 4K modeli yuzaki tushunishdan tashqariga chiqadi, tanqidiy fikrlash va tahlilni targ‘ib qiladi.O‘zgaruvchan dunyoda muvaffaqiyatli bo‘lish uchun zarur bo‘lgan barcha ko‘nikmalarni o‘zlashtirishga imkon beradi.

“4 rangli qog’oz “ususli

Tavsifi: Bu usul o’quvchilarda matn ustida ishlash ko’nikmalarini **shakllantiradi.** 4 xil rangli qog’ozga o’z fikrlarini yozish orqali matn yuzasidan 4 xil topshiriqni bajaradilar. Bunda o’quvchilarning matn mazmunini to’liq o’qib tushunganligi va uning mazmuniga mos hikmatli so’z ayta olishi, matnga ijodiy yondashishlari va mavzu yuzasidan olingan xulosalarni bayon qila olishlaridan bilib olish mumkin bo’ladi.

Erishiladigan natija: O’quvchilar bu usul orqali tanqidiy fikrlashni, topshiriqni alohida kichik vazifalarga bo’lib amalga oshirishni, masalalarni yechish qobiliyatini shakllantiradilar.

Biz 4K modelini darslarda qo‘llash orqali o‘quvchilarga savollar berish yoki muammoni taqdim etish orqali ularni faol fikrlashga undashimiz mumkin. Darslar davomida o‘quvchilarga amaliy mashqlar orqali o‘zlarining kompetensiyalarini namoyish etish imkoniyatini yaratishimiz mumkin. Masalan, agar o‘qituvchi matematika **yoki fan darsini** o‘tayotgan bo‘lsa, u o‘quvchilarga kritik fikrlash orqali ma’lumotlarni tahlil qilishni, kommunikatsiya orqali amaliy mashqlarni bajartirishni, kreativlik orqali muammolarni ijodiy yechishni va kollaboratsiya orqali guruhda ishlashni taklif qilishi mumkin. 4K modeli orqali dars o‘tishning samaradorligi o‘quvchilarni faollashtiradi, ularning o‘qishdagi motivatsiyasini oshiradi va bilimlarni chuqurroq o‘zlashtirishga yordam beradi.

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SUN’IY INTELLEKTNING TA’LIMDAGI AHAMIYATI

Annotatsiya: *Ushbu maqolada sun’iy intellektning ta’lim tizimidagi ahamiyati, imkoniyatlari va kelajakda amalga oshirishi mumkin bo‘lgan o‘zgarishlari tahlil qilingan. Sun’iy intellekt yordamida ta’lim jarayonini shaxsiylashtirish, o‘quv dasturlarini takomillashtirish, virtual yordamchilarni joriy etish va masofaviy ta’lim imkoniyatlarini kengaytirish masalalari muhokama qilinadi. Shuningdek, sun’iy intellektning global ta’limni demokratlashtirish, o‘qituvchilarni tayyorlash va ta’limdagi axloqiy jihatlar bilan bog‘liq muammolarga yechim taklif qilishdagi o‘rni yoritilgan. Maqolada ta’limda sun’iy intellektdan foydalanish orqali ta’lim samaradorligini oshirish yo‘llari va uning ijtimoiy ahamiyati batafsil ko‘rib chiqilgan.*

Kalit so‘zlar: *sun’iy intellekt, ta’lim texnologiyalari, shaxsiylashtirilgan o‘qitish, masofaviy ta’lim, o‘quv dasturlari, o‘qituvchilar tayyorlash.*

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THE IMPORTANCE OF ARTIFICIAL INTELLIGENCE IN EDUCATION

Annotation: *This article analyzes the importance of artificial intelligence in the education system, its capabilities and possible changes in the future. The issues of personalizing the educational process with the help of artificial intelligence, improving curricula, introducing virtual assistants and expanding the possibilities of distance learning are discussed. The role of artificial intelligence in democratizing global education, training teachers and providing solutions to problems related to ethical aspects in education is also highlighted. The article examines in detail the ways to increase the effectiveness of education through the use of artificial intelligence in education and its social significance.*

Keywords: *artificial intelligence, educational technologies, personalized learning, distance learning, curricula, teacher training.*

Zamonaviy dunyo texnologiyalarning rivojlanishi bilan yangi bosqichga o‘tmoqda. Sun’iy intellekt (SI) ushbu taraqqiyotning markazida turib, ta’lim sohasida ham katta ahamiyat kasb etmoqda. Bugungi kunda SI yordamida ta’lim jarayonini optimallashtirish, shaxsiylashtirish va samaradorligini oshirishning keng imkoniyatlari ochilmoqda. Ushbu maqolada sun’iy intellektning ta’limdagi ahamiyati va uning o‘quvchilar, o‘qituvchilar hamda ta’lim tizimiga ta’siri haqida

so‘z yuritamiz. Avvalo, sun’iy intellekt ta’lim jarayonida shaxsiy yondashuvni kuchaytirishga xizmat qiladi. Har bir o‘quvchining o‘ziga xos qobiliyati, bilim darajasi va o‘rganish usuli mavjud. SI algoritmlari ushbu omillarni hisobga olib, har bir o‘quvchi uchun individual o‘quv dasturini yaratadi. Masalan, xatolarni aniqlash va ularni tuzatishga yordam beruvchi SI dasturlari o‘quvchilarning mustaqil o‘qish qobiliyatini oshiradi. Shu bilan birga, interaktiv platformalar o‘quvchilarning faolligini saqlab turishga va ularni motivatsiya qilishga xizmat qiladi. Ikkinchidan, sun’iy intellekt o‘qituvchilarning ish yukini kamaytirishda muhim rol o‘ynaydi. Ko‘p hollarda o‘qituvchilar o‘quvchilarni baholash, testlarni tahlil qilish kabi takroriy vazifalarga ko‘p vaqt sarflaydi. SI vositalari ushbu vazifalarni avtomatlashtirib, o‘qituvchilarga darsni mazmunan boyitish va o‘quvchilarga alohida e’tibor qaratish uchun ko‘proq vaqt ajratish imkonini beradi. Masalan, grammatik tahlil qilish dasturlari yoki test natijalarini avtomatik baholash tizimlari shu jumladandir.

Shuningdek, SI yordamida o‘quv jarayonidagi resurslardan samarali foydalanish imkoniyati yaratiladi. Masofaviy ta’limda, ayniqsa, pandemiya davrida, sun’iy intellekt texnologiyalari o‘quvchilarni darslarga jalb etishda muhim ahamiyatga ega bo‘ldi. Videokonferensiya platformalariga SI asoslangan xususiyatlar kiritilishi, masalan, avtomatik tarjima, matnli yozuvlarni yaratish yoki o‘qituvchi va o‘quvchilar o‘rtasidagi interaktiv muhitni yaxshilash ta’limni yanada samarali qildi. SIning ta’limdagi yana bir muhim jihati – o‘quvchilarning progressini kuzatish va tahlil qilishdir. An’anaviy usullarda bunday tahlil qilish ko‘p vaqt talab qilsa, sun’iy intellekt dasturlari yordamida bu jarayon bir necha soniyada amalga oshiriladi. Statistik ma’lumotlarga asoslangan holda, SI har bir o‘quvchining zaif tomonlarini aniqlaydi va ularga e’tibor qaratish uchun o‘quv dasturini moslashtiradi. Bu jarayon nafaqat o‘quvchilar uchun, balki o‘quv muassasalari uchun ham samarali bo‘lib, ta’lim sifatini oshirishga xizmat qiladi. Bundan tashqari, SI ta’limda inklyuzivlikni ta’minlashda ham muhim rol o‘ynaydi. Nogironligi bo‘lgan o‘quvchilar uchun maxsus vositalar ishlab chiqish orqali ularga teng ta’lim imkoniyatlari yaratish mumkin. Masalan, nutqni matnga aylantiruvchi yoki matnni ovozga aylantiruvchi dasturlar o‘quvchilarga ta’lim olish jarayonida qulaylik yaratadi. Shu bilan birga, ko‘zi ojiz yoki eshitish qobiliyati past bo‘lgan o‘quvchilar uchun maxsus texnologiyalar yordamida dars materiallariga to‘liq kirish imkoniyati ta’minlanadi.

Ta’limdagi SIning yana bir jihati – innovatsion ta’lim usullarini joriy etishdir. Sun’iy intellekt yordamida virtual va kengaytirilgan haqiqat texnologiyalarini qo‘llash orqali o‘quvchilarni mavzuga jalb qilish darajasini oshirish mumkin. Masalan, tarix darslarida virtual haqiqat ko‘zoynaklari yordamida tarixiy joylarga “sayohat” qilish imkoniyati, biologiya darslarida inson tanasining virtual modeli orqali organlar faoliyatini o‘rganish o‘quvchilarning o‘quv materialiga nisbatan qiziqishini kuchaytiradi. Biroq, sun’iy intellektni ta’limda keng qo‘llash jarayonida ba’zi muammolar ham mavjud. Eng asosiy masalalardan biri – maxfiylik va xavfsizlik. O‘quvchilarning shaxsiy ma’lumotlarini to‘plash va ularni qayta ishlashda SI tizimlarining himoya darajasi yuqori bo‘lishi lozim. Bundan tashqari,

o‘qituvchilarning SI texnologiyalaridan foydalanishga tayyorligi va texnologik savodxonligini oshirish ham muhim masalalardan biridir.

Sun’iy intellektning ta’limdagi ahamiyatini yanada kengroq tahlil qilar ekanmiz, uning ta’lim tizimida kelajakda amalga oshirishi mumkin bo‘lgan o‘zgarishlarini ko‘rib chiqish zarur. Avvalambor, sun’iy intellektning ta’limda axborotga asoslangan qarorlarni qabul qilish imkoniyatini ta’minlashdagi o‘rni muhimdir. Bugungi kunda ta’lim tizimi ko‘p hollarda statistik ma’lumotlarni yetarli darajada tahlil qilmasdan qarorlar qabul qiladi. Sun’iy intellekt ushbu jarayonni yaxshilashga yordam berib, ta’lim siyosatini ilmiy yondashuv asosida boshqarishga xizmat qiladi. Masalan, SI yordamida ta’lim dasturlarining samaradorligini baholash va takomillashtirish mumkin.

Shuningdek, sun’iy intellektning rivojlanishi ta’lim muassasalarida o‘quv materiallarini ishlab chiqish va ularni o‘quvchilarga yetkazishda yangi yondashuvlarni shakllantirish imkonini beradi. SI yordamida avtomatik tarzda o‘quv materiallarini yaratish texnologiyalari paydo bo‘lmoqda. Masalan, o‘quvchilarning bilim darajasiga mos ravishda tayyorlanadigan elektron kitoblar va darsliklar ko‘plab ta’lim muassasalarida muvaffaqiyatli qo‘llanilmoqda. Bundan tashqari, sun’iy intellekt o‘quv dasturlarini turli tillarga avtomatik tarjima qilish imkoniyatini ta’minlaydi, bu esa xalqaro hamkorlikni rivojlantirishda katta yordam beradi.

SI asosida yaratilgan virtual yordamchilar va interaktiv tizimlar ham ta’limni boyitishda katta ahamiyatga ega. Masalan, chat-botlar yoki ovozli yordamchilar o‘quvchilarga darsdan tashqari vaqtda o‘z savollariga javob topish imkoniyatini beradi. Bu nafaqat o‘quvchilarning mustaqil o‘qishini rivojlantiradi, balki o‘qituvchilarga ham vaqtni tejash imkonini yaratadi. Shu bilan birga, bunday vositalar ta’lim jarayonida yangi o‘quv uslublarini qo‘llashga yordam beradi, masalan, o‘yin asosida o‘qitish (gamifikatsiya) yoki interaktiv o‘quv dasturlarni amalga oshirish. Sun’iy intellektni ta’limda qo‘llash orqali o‘qitish jarayonining natijadorligini oshirish mumkin. Statistik ma’lumotlarga ko‘ra, shaxsiylashtirilgan ta’lim dasturlarini qo‘llagan o‘quvchilar o‘zlashtirishda an’anaviy metodlarga qaraganda 30–40% yuqori natijalarga erishadi.

Xulosa qilib aytganda, sun’iy intellekt ta’lim sohasida inqilobiy o‘zgarishlarni amalga oshiruvchi kuchga ega. U ta’lim jarayonini shaxsiylashtirish, samaradorlikni oshirish, innovatsion yondashuvlarni joriy etish va inklyuzivlikni ta’minlashda katta ahamiyat kasb etadi. Shu bilan birga, SI texnologiyalarini ta’lim jarayoniga integratsiya qilishda mas’uliyatli yondashuv talab etiladi. Kelajakda sun’iy intellekt yordamida ta’limning barcha bosqichlarida yanada yuqori natijalarga erishish imkoniyati mavjud.

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ANALYSIS OF THE PERFORMANCE OF SMALL ENTERPRISES USING MODERN STATISTICAL METHODS

Abstract: *in this scientific following, the activities of the construction company, namely, its main indicators, costs, technical and economic indicators, financial performance indicators (profitability and profitability) were considered.*

Key words: *construction, installation work, overhaul of buildings and structures, repair and construction of housing, design and survey organizations.*

The goals of this work are to study and analyze the activities of a construction company using modern statistical methods, gain experience in working with statistical data sources, economic literature, search and process the obtained economic information, consolidate the experience gained and knowledge necessary in the future to complete the dissertation work.

Indicators of production and economic activity of an enterprise used in economic and statistical research are linked into the system. The central place in this system is given to the indicator of production volume, which determines the amount of income of the enterprise and characterizes the production effect. Planning of product output, reasonable prediction of growth rates and proportions of certain types of products for the future, is of utmost importance. Indicators of production and economic activity of an enterprise used in economic and statistical research are linked into the system.

Table 1

Completed contract work by type and source of financing

Indicators	Year			
	2019		2020	
	Million soums	%	Million soums	%
Scope of contract work performed, including: - industrial construction objects; - non-production construction objects.	15532,3 10919,3 4613,0	100 70,3 29,7	17394,6 12268,5 5126,1	100 70,5 29,5
Of the total volume of contract work performed due to:	2562,9	16,5	3078,8	17,7

- centralized capital investments; - funds from enterprises, farms and other sources.	12969,4	83,5	14315,8	82,3

The structure of contract work performed by type for these periods did not change significantly, that is, in 2019 and 2020, industrial construction projects accounted for 70.3% and 70.5% of the total volume of contract work performed. And for non-production construction projects for the same years, 29.7% and 29.5%, respectively. The volume of contract work performed on industrial construction projects in 2020 compared to 2019, this figure increased by 0.2%. Accordingly, the volume of contract work performed on non-production construction projects in 2020 compared to 2019 decreased by 0.2%.

The structure of completed contract work by funding source also did not change significantly, that is, in 2019 and 2020, 16.5% and 17.7% were completed through centralized capital investments. And at the expense of funds from enterprises, farms and other non-centralized sources of financing for the same years, 83.5% and 82.3%, respectively.

Centralized capital investments in 2020 increased by 1.2% compared to 2019. Financing of contract work from non-centralized sources in 2020 increased by 1.2% compared to 2019. To study the level of costs, data from the main technical and economic indicators of the enterprise's operation were used.

Table 2

Dynamics of the main technical and economic indicators of the enterprise for 2020 – 2018.

Indicators	2019	2020	Absolute deviation	Rate of change %
Volume of marketable products, billion s.	3 790	4 450	660	117,4
Revenue from product sales, billion s.	4 000	4 131	131	103,3
Profit from sales of products, billion s.	195	243	48	124,6
Balance sheet profit, billion s.	150	200	50	133,3
Payroll fund, billion s.	935	973	38	104,1
Average annual cost of OPF, billion s.	3 470	3 820	350	110,1
Average annual number of PPP, people	987	1 456	469	147,5
Cost of commercial products, billion s.	3508	4 207	699	119,9
Costs per sum of commercial products, tiiin	93	95	2	102,2
Labor productivity PPP, soum	2 678	3 056	378	114,1
Capital productivity, soum	1,09	1,16	0,07	106,4

Analyzing Table 2, several brief conclusions can be drawn. The wage fund in the reporting period, in contrast to the base one, increased by 38 billion soums or + 4%. The average annual cost of open pension funds in 2020 compared to the previous one increased by 350 billion soums or + 10%. The cost of commercial products in the reporting year increased by 699 billion soums, the rate of change was + 19.9%. Costs per sum of commercial products increased by 2 tiyin compared to 2019, their rate of change was + 2%. That is, we can say that the enterprise's costs in 2020 compared to 2019 increased in all respects.

The amount of profit and the level of profitability are the main indicators characterizing the results of the financial and economic activities of the enterprise.

Table 3

Analysis of the dynamics and structure of financial results

Indicator name	Base year	Reporting year	Change	
	billion soums	billion soums	billion soums	growth rate, %
1. Revenue from the sale of goods, products, works, services	1 821	6 796	4 975	373,2
2. Cost of goods, products, works, services sold	1 536	6 392	4 856	416,1
3. Gross profit	285	404	119	141,8
4. Profit (loss) from sales	285	404	119	141,8
5. Other operating income	-	4 764	4 764	-
6. Other operating expenses	-	4 776	-	-
7. Non-operating income	-	-	-	-
8. Non-operating expenses	-	279	-	-
9. Profit before tax	285	263	-22	92,3
10. Income tax	101	173	72	171,3
11. Net profit	184	90	-94	48,9

In general, financial performance indicators in the reporting year increased compared to the base year, but the main indicators decreased. Revenue from the sale of goods, products, works, services in the reporting year increased by 4,975 billion soums or + 273.2%. The cost of goods, products, works, services sold increased by 4,856 billion soums or + 316.1%. Gross profit increased by 119 billion soums or +

41.8%. Sales profit in the reporting year increased by 119 billion soums or + 41.8% compared to the base year. Profit before tax decreased by 22 billion soums or - 7.7%. Income tax in the reporting year increased by 72 billion soums. or + 71.3%. Net profit in the reporting year compared to the base year decreased by 94 billion soums or by -51.1%.

Analysis of the financial result showed that the main profit indicators in the reporting year decreased. This means that his activities are not profitable. But profitability indicators increased compared to the base year. From here we can say that the company is profitable and it will be able to cover its losses next year.

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YIRIK SHOXLI HAYVONLARDA GEPATOZNI OLDINI OLISH VA DAVOLASHNING SAMARADORLIGINI BAHOLASH

Anotatsiya: *Ushbu maqola yirik shoxli hayvonlarda gepatozning oldini olish va davolashning samaradorligini baholashga bag‘ishlangan. Gepatozlar jigarning distrofik kasalliklari sifatida qaralib, ular metabolik jarayonlarning buzilishiga olib kelishi mumkin. Tadqiqot davomida nazorat va tajriba guruhlari shakllantirilib, "Gepalan-SKL" gepatoprotektorining jigar tuzilmasi va funksiyasiga ta’siri o‘rganildi. Nazorat guruhidagi hayvonlarda patologik o‘zgarishlar kuzatilgan bo‘lsa, tajriba guruhida bunday o‘zgarishlar aniqlanmadi. Ushbu natijalar gepatoprotektorning yuqori samaradorligini ko‘rsatadi.*

Kalit so‘zlar: *Gepatoz, jigar, gepatoprotektor, yirik shoxli hayvonlar, Gepalan-SKL, metabolizm, jigar patologiyasi, ultratovush tekshiruvi, nazorat guruhi, tajriba guruhi, distrofik jarayonlar, klinik tadqiqot, fibroz, jigarning funksional holati, parenxima, zootexnika.*

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EVALUATION OF THE EFFECTIVENESS OF PREVENTION AND TREATMENT OF HEPATOSIS IN CATTLE

Abstract: *This article is devoted to evaluating the effectiveness of the prevention and treatment of hepatosis in cattle. Hepatoses are considered as dystrophic liver diseases that can cause metabolic disorders. During the study, control and experimental groups were formed, the effect of the hepatoprotector "Hepalan-SKL" on the structure and function of the liver was studied. Pathological changes were observed in the animals of the control group, whereas none were detected in the animals of the experimental group. The results obtained confirm the high effectiveness of the hepatoprotector.*

Keywords: *Hepatosis, liver, hepatoprotector, cattle, Hepalon-SKL, metabolism, liver pathology, ultrasound examination, control group, experimental group, dystrophic processes, clinical study, fibrosis, functional state of the liver, parenchyma, animal science.*

Kirish: ***Gepatozlar — bu*** jigar kasalliklarining bir guruhidir, ularning turli etiologiyasi mavjud. Ushbu kasalliklar turli xil distrofiyalarni rivojlantirishi bilan ajralib turadi, lekin ular yallig‘lanish reaktsiyalarining aniq belgilari bilan

kechmaydi (Nikulin, I.A., Kuznetsov, N.I., Anohin, B.M. va boshqalar, 1999; Avdeenko, V.S., Loshchinin, S.O., 2012; Smith, B.P., 2002). Odatda, jigarni zararlashning granulyar, amiloidli, uglevodli va yog‘li distrofiyalari kuzatiladi (Aleksandrov, D.E., 2012; Jubb, K.V.F., Kennedy, P.C., Palmer, N., 1993). Ushbu patologiyalar jigarning sintetik funktsiyasining pasayishiga olib keladi. Natijada, yuqori mahsuldor sigirlarda umumiy metabolizm jarayonlari jiddiy ravishda buziladi. Shu sababli, hozirgi vaqtda jigar patologiyalarini oldini olish va davolashning yangi usullarini izlashga qaratilgan tadqiqotlar juda dolzarb bo‘lib qolmoqda [1].

Gepatozlarni boshqa kasalliklardan farqlashda, avvalo, gepatitlar (ko‘pincha infeksion) va jigar sirrozi istisno qilinadi [2].

Har qanday kasallikni, xususan gepatozni bartaraf etish uchun eng muhim shart etiologik omillarni yo‘q qilishga qaratilgan tashkiliy-xo‘jalik va veterinariya-sanitariya tadbirlar majmuasini amalga oshirishdir [3,4].

Gepatoz bilan kasallangan hayvonlarni davolashda ularning parhezini tashkil qilish katta ahamiyatga ega. Ovqatlanish ratsionlari hayvonlarning yoshi, mahsuldorligi va fiziologik holatini hisobga olgan holda ishlab chiqilib, oqsillar, yog‘lar, uglevodlar, vitaminlar, makro- va mikroelementlar, shuningdek, qand-oqsil nisbati bo‘yicha qat’iy muvozanatlangan bo‘lishi lozim [5].

Ratsiondan sifatsiz, zaharli ozuqalarni chiqarib tashlash, kontsentratlar miqdorini kamaytirish va oqsilga boy ozuqalar oziqlanish qiymatini pasaytirish zarur [6].

Material va metodlar: Tadqiqot davomida sinov uchun tanlangan hayvonlar tekshirish uchun faqat sertifikatlangan uskunalarda amalga oshirildi.

Dastlab, tajriba xo'jaligining asosiy zootexnik ko'rsatkichlari bo'yicha tahlil o‘tkazildi, bu esa hayvonlarning salomatligiga sezilarli ta'sir ko‘rsatishi mumkin bo‘lgan omillarni aniqlash maqsadida amalga oshirildi.

Tadqiqot obyekti sifatida klinik jihatdan sog‘lom, 30 kunlik homiladorlik davrida bo‘lgan qora-ola naslli yirik shoxli hayvonlar tanlandi, ularning tirik vazni 550,00-570,00 kg.

Tadqiqotlarni o'tkazish uchun hayvonlar umumiy podadan tanlab olindi, natijada nazorat (n=15) va tajriba (n=15) guruhlari shakllantirildi. Nazorat guruhidagi hayvonlar umumiy xo'jalik ratsionida boqildi. Tajriba guruhidagi hayvonlarga esa, taxminiy tug‘ilishdan bir oy oldin, har kuni 30 kun davomida asosiy ratsionga bir marta "Gepalan-SKL" gepatoprotektorini 25,00 ml miqdorida qo‘shildi. Oldinroq, bu gepatoprotektor yirik shoxli hayvonlarda gepatozlarning oldini olish maqsadida ishlatilmagan.

Tadqiqot ob'ektlarining klinik holatini baholash quyidagi ko'rsatkichlar bo'yicha amalga oshirildi: tana harorati; puls chastotasi; nafas olish harakatlari chastotasi. ultra tovush tekshiruvi (UTT).

Tadqiqotlar natijalari, tajriba va nazorat guruhlari orasidan o‘tkazilgan ultra tovush tekshiruvi (UTT)dan olingan ma’lumotlarga asoslanib, tahlil qilindi.

Tadqiqot natijalari: Eksperiment boshlanishida hayvonlarning ikkala guruhida jigar ultratovush tekshiruvi o'tkazilganda (1-rasm), uning konturlari

qovurg‘a kamari tashqarisiga chiqmaganligi, jigarning ehogenezligi buyrak parenximasining ehogenezligidan yuqori va sigir parenximasining ehogenezligidan kamroq ekanligi aniqlangan, bu normal holatda ekanligini bildiradi. Jigarning ehostrukturasining boshlang‘ich holati bir xil, yirik donli bo‘lib, u yerda uzun yo‘nalishdagi giperexogen strukturalar mavjud, ular fibroz to‘qima (yassi bog‘lamlar, oraliq bo‘g‘inlar va h.k.)ni ifodalaydi. Jigar ichidagi qon tomirlari va safro yo‘llari tarmog‘i yaxshi ko‘rinadigan edi.

Tug‘ilishdan keyingi davrning oxirida tajriba guruhidagi hayvonlarning jigar ultratovush tasvirida sezilarli o‘zgarishlar kuzatilmadi. Bu guruhdagi jigar parenximasining echostrukturasi va tomirlar tasviri butunlay normal holatda saqlanib qoldi, bu esa ularga qo‘llanilgan qo‘shimcha "Gepalan" gepatoprotektorining samaradorligini ko‘rsatadi.

Aksincha, nazorat guruhidagi hayvonlarda jigar ultratovush tasvirida muhim patologik o‘zgarishlar qayd etildi (2-rasm). Jumladan, jigar parenximasi tuzilmasi biroz zichlashgan bo‘lib, bir nechta giperexogen maydonlar aniqlangan. Ushbu maydonlar diametri 1,0x1,0 mm dan katta bo‘lmagan nuqtalar ko‘rinishida bo‘lib, ular jigarda to‘qimalarning mahalliy o‘zgarishini yoki fibrozning boshlang‘ich belgilari sifatida talqin qilinishi mumkin. Shuningdek, ichki qon tomirlar tasvirining silliqlashgani, ya’ni qon tomir tarmoqlari tuzilmasining yassilashgani kuzatildi, bu esa jigar ichida qon aylanishining yomonlashishini ko‘rsatadi. Shu bilan birga, jigarning o'tkir chetlarida shakliy o‘zgarishlar aniqlanmadi, bu esa muvofiqlashtirilgan umumiy deformatsiyaning yo‘qligini ko‘rsatadi.

Mazkur natijalar nazorat guruhidagi hayvonlarda gepatoprotektor qo‘llanilmaganligi sababli, ularning jigari homiladorlik va tug‘ilish davrida ortiqcha zo‘riqishlarga uchraganligini tasdiqlaydi. Shu bilan birga, tajriba guruhidagi hayvonlarda "Gepalan-SKL" gepatoprotektorining jigarni himoya qiluvchi ta'siri kuzatilgan. Ushbu farqlar gepatoprotektor qo‘llanishining yirik shoxli hayvonlarda

1-rasim. Nazorat guruhidagi sigir jigari sonografiyasi, taxminiy tug‘ilishdan 30 kun oldin.

2-rasim. Nazorat guruhidagi sigirning jigarini sonografiya qilish natijalari.

gepatoz va boshqa jigar kasalliklarini oldini olishda katta ahamiyatga ega ekanligini ko‘rsatadi.

Xulosa: 1. **Tadqiqot davomida tajriba va nazorat guruhidagi hayvonlar orasida jigar holatiga ta’sir qiluvchi omillar va gepatoprotektor qo‘llanilishining samaradorligi o‘rganildi. Tajriba natijalari shuni ko‘rsatdiki, "Gepalan-SKL" gepatoprotektorining qo‘llanilishi tajriba guruhidagi hayvonlarning jigar tuzilmasi va funksional holatining saqlanishiga yordam berdi. Bu gepatoprotektor jigarni stress va metabolik zo‘riqishlardan himoya qilganini va jigarning normal parenxima tuzilishini ta’minlaganini ko‘rsatadi.**

2. Nazorat guruhida kuzatilgan jigar parenximasining zichlashuvi, giperexogen maydonlarning paydo bo‘lishi va qon tomirlarining silliqlashishi kabi o‘zgarishlar gepatoprotektor qo‘llanilmaganda jigar faoliyatining pasayishi va distrofik jarayonlarning rivojlanishini tasdiqlaydi. Ushbu o‘zgarishlar, asosan, homiladorlik va tug‘ilish davrida jigar yuklamasining ortishi bilan bog‘liq bo‘lib, gepatoprotektorlar yordamida oldini olish mumkinligi aniqlandi.

3. Shuningdek, tadqiqot natijalari gepatoprotektorlar, xususan, "Gepalan-SKL" preparatining yuqori mahsuldor sigirlarda gepatoz va boshqa jigar patologiyalarini oldini olishda muhim rol o‘ynashini isbotladi. Ushbu vosita jigarni zararlanishdan himoya qilish va organizmdagi metabolizm jarayonlarini me’yorda ushlab turish uchun samarali hisoblanadi. Natijalar gepatoprotektorlarni yuqori mahsuldor yirik shoxli hayvonlarning parhez ratsioniga kiritish zarurligini ko‘rsatadi.

Ushbu xulosalar kelajakda yirik shoxli hayvonlarda gepatoz va boshqa jigar patologiyalarini oldini olish va davolash bo‘yicha yangi yondashuvlarni ishlab chiqishda asos sifatida xizmat qilishi mumkin. Tajriba davomida foydalanilgan usullar va natijalar boshqa turdagi jigar kasalliklarini o‘rganishda ham qo‘llanishi mumkin, bu esa veterinariya amaliyotida gepatoprotektorlarning qo‘llanilish doirasini kengaytiradi.

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PROSPECTS FOR BUSINESS DEVELOPMENT AND METHODS OF IMPROVING ENTREPRENEURIAL ACTIVITIES IN THE REPUBLIC OF UZBEKISTAN

Abstract: *The article analyzes the current state of small business in Uzbekistan, its role in the country's economic development, as well as key challenges and prospects. Particular attention is paid to issues of access to financing, infrastructure improvement, digitalization and personnel training. The existing barriers faced by entrepreneurs are considered and possible strategies for overcoming them are proposed. The work emphasizes the importance of state support for creating a favorable business climate and reveals opportunities for integrating small businesses into the international economy*

Keywords: *small business, Uzbekistan, challenges, prospects, state support, digitalization, financing, entrepreneurship.*

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O‘ZBEKISTON RESPUBLIKASIDA BIZNESNI RIVOJLANTIRISH ISTIQBOLLARI VA TADBIRKORLIK FAOLIYATINI TAKOMILLASHTIRISH USULLARI

Annotatsiya: *Maqolada O‘zbekistonda kichik biznesning bugungi holati, uning mamlakat iqtisodiy rivojlanishidagi o‘rni, shuningdek, asosiy muammolar va istiqbollari tahlil qilingan. Moliyalashtirishdan foydalanish, infratuzilmani yaxshilash, raqamlashtirish va kadrlar tayyorlash masalalariga alohida e’tibor qaratilmoqda. Tadbirkorlar duch keladigan mavjud to‘siqlar ko‘rib chiqiladi va ularni bartaraf etishning mumkin bo‘lgan strategiyalari taklif etiladi. Ishda qulay ishbilarmonlik muhitini yaratishni davlat tomonidan qo‘llab-quvvatlash muhimligi ta’kidlanib, kichik biznesning xalqaro iqtisodiyotga integratsiyalashuvi imkoniyatlari ochib berilgan*

Kalit so‘zlar: *kichik biznes, O‘zbekiston, muammolar, istiqbollar, davlat tomonidan qo‘llab-quvvatlash, raqamlashtirish, moliyalashtirish, tadbirkorlik.*

Introduction

Small business plays an important role in the economic development of any country, including Uzbekistan. Its contribution to job creation, increased production

of goods and services, and the formation of a sustainable economy is undeniable. In the context of globalization and a rapidly changing economic environment, small business acts as an engine of innovation and the basis for the stability of the economic system.

In Uzbekistan, small business occupies a central place in the country's economic policy. The government is actively implementing reforms aimed at stimulating its development, creating favorable conditions for entrepreneurial activity, simplifying tax and administrative regulation. However, despite the positive changes, the development of small business in Uzbekistan faces a number of challenges, such as limited access to financing, poor infrastructure and high competition.

The small business sector in Uzbekistan is characterized by a significant share of enterprises engaged in trade, manufacturing and services. This is due to the structure of the country's economy, where the agricultural and industrial sectors predominate, as well as the population's need for basic goods and services. However, in recent years, there has been an increase in the number of entrepreneurs engaged in innovative and high-tech industries. This shows that small businesses are capable of not only responding to current market needs, but also shaping new trends in the economy.

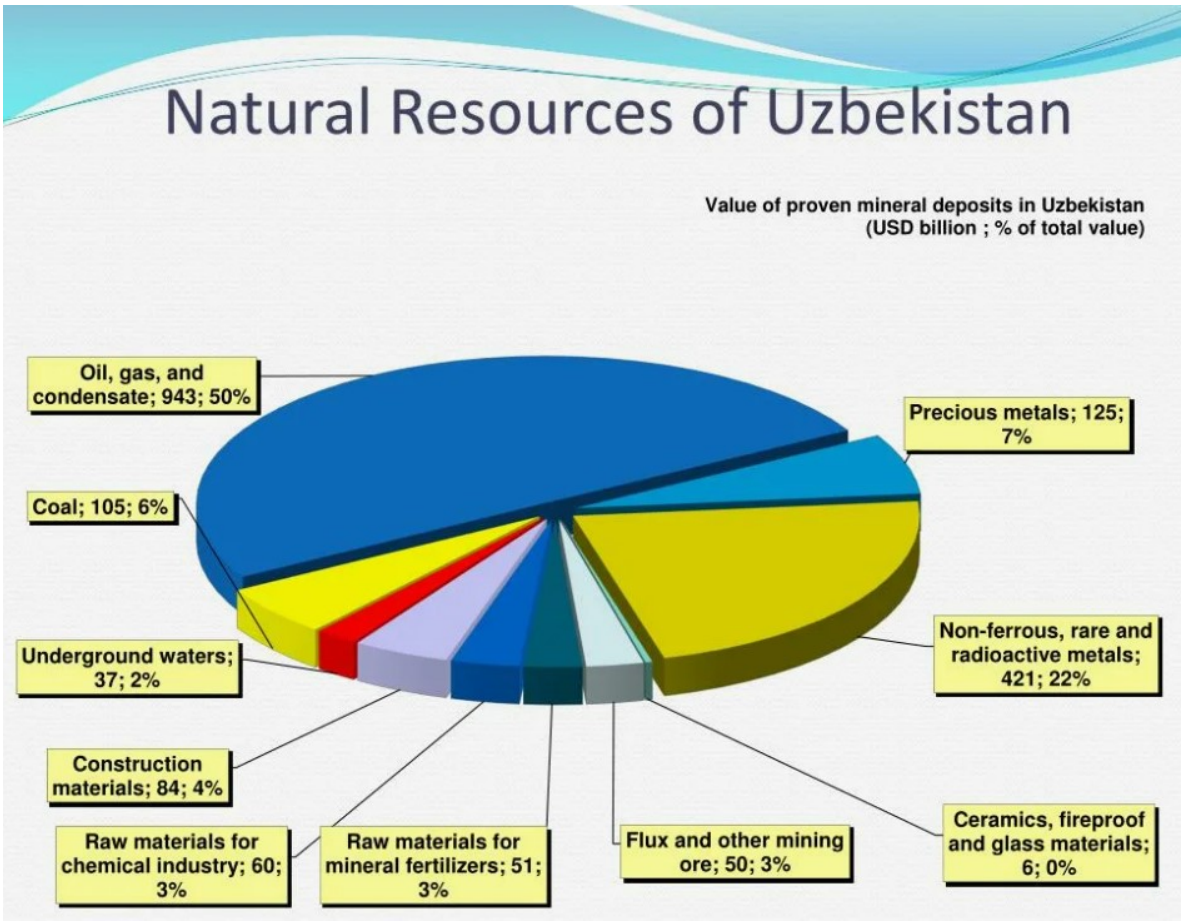
One of the most important elements of successful small business development is the availability of a favorable regulatory framework. Uzbekistan is taking measures to reduce bureaucratic barriers, simplify business registration, and support aspiring entrepreneurs. For example, with the introduction of digital platforms, the time required to start a business has been significantly reduced, making the process more accessible and transparent. However, issues remain related to ensuring long-term financial sustainability and protecting the rights of entrepreneurs.

Financial support for small businesses is also an important factor in their development. Uzbekistan has microcredit and grant support programs aimed at facilitating entrepreneurs' access to financial resources. The banking sector offers special products for small and medium-sized businesses, including concessional loans and investment programs. However, the lack of long-term financing and high interest rates still remain serious obstacles to sustainable growth.

An equally significant challenge is the staffing of small businesses. The lack of qualified specialists, especially in remote regions, slows down the implementation of innovative approaches and technologies. To solve this problem, it is important to develop a system of professional education that focuses on training specialists who can work effectively in the modern market.

The development of small businesses in rural areas deserves special attention. In Uzbekistan, rural areas have significant potential for creating small businesses, especially in the agricultural sector. However, the lack of infrastructure, low level of digitalization and weak local support limit opportunities for entrepreneurship. The development of rural regions through stimulating small businesses can become an important tool for reducing socio-economic inequality.

An interesting aspect is the integration of small businesses into global markets. In Uzbekistan, the export of small business products is gradually becoming one of the priorities of state policy. Conditions are created for entrepreneurs to enter international markets, grants and training on foreign economic activity are provided. Despite this, small businesses face difficulties associated with a high level of competition and the need to comply with international standards.



On the other hand, the development of small businesses opens up prospects for the introduction of sustainable and environmentally friendly technologies. In the context of the global environmental crisis, small businesses can play an important role in promoting the principles of sustainable development. In Uzbekistan, this idea is just beginning to spread, but initiatives aimed at using environmentally friendly technologies in production and reducing the carbon footprint can already be observed.

Thus, the development of small businesses in Uzbekistan is a complex but promising process. It requires the active participation of the state, financial institutions and the entrepreneurs themselves. Despite the existing challenges, small businesses have the potential to become the basis for sustainable economic growth and an important tool for solving social problems. This article is devoted to the analysis of the key challenges and prospects for the development of small businesses in Uzbekistan, as well as to considering possible ways to overcome them.

Main part

The role of small businesses in the economy of Uzbekistan

Small businesses occupy an important place in the economic system of Uzbekistan, making a significant contribution to the development of the national economy. Small businesses account for a significant part of the created jobs, gross domestic product (GDP) and tax revenues to the budget. Moreover, this sector is an important tool for supporting economic activity in the regions, helping to reduce unemployment and social inequality.

In Uzbekistan, where the economy has long been oriented towards large enterprises and the public sector, small businesses have received a new impetus for development thanks to reforms initiated by the government in recent years. These reforms include creating a favorable business climate, simplifying registration and licensing procedures, and tax incentives for start-up entrepreneurs.

Key challenges for small businesses

Despite significant efforts by the government, small businesses in Uzbekistan face a number of challenges that limit their potential.

1. Limited access to finance

Access to financial resources remains one of the most pressing issues for small businesses. High interest rates on loans, a lack of long-term financing programs, and a low level of foreign investment limit business development opportunities. At the same time, banks often require complex guarantees, which complicates the process of obtaining loans for start-up entrepreneurs.

2. Administrative barriers and regulatory burden

Despite the simplification of many procedures, small businesses still face bureaucratic obstacles. Regulations change frequently, creating uncertainty for entrepreneurs. In addition, complex tax accounting and audit rules increase business administration costs, especially for small companies.

3. Personnel shortages and low levels of professional training

Many small businesses face a shortage of qualified personnel. This is especially true for high-tech industries that require in-depth knowledge of modern technologies and management methods. In rural areas, the situation is aggravated by low levels of education and the lack of accessible retraining programs.

4. Low level of infrastructure and digitalization

In some regions of Uzbekistan, infrastructure remains underdeveloped, which complicates logistics, access to markets, and the introduction of innovative technologies. The low level of business digitalization also limits opportunities for process automation, e-commerce, and integration with global markets.

Prospects for the development of small businesses

Despite the existing challenges, the small business sector in Uzbekistan has great potential for growth.

1. Expanding government support

Government programs aimed at supporting entrepreneurs continue to develop. They include the provision of microloans, subsidies, grants, as well as the creation of business incubators and technology parks. The development of support programs for export-oriented small businesses is especially important, which contributes to the integration of business into the global economy.

2. Diversification of economic activity

Small businesses in Uzbekistan are gradually moving beyond traditional industries such as trade and agriculture. The development of innovative sectors such as information technology, tourism and agricultural processing opens up new horizons for entrepreneurs. Support for start-ups and projects in high-tech industries can become the basis for long-term economic growth.

3. Integration into international markets

The state actively promotes the export of small business products, providing enterprises with access to international exhibitions, training and certification programs. This creates conditions for Uzbek goods to enter new markets, increase foreign exchange earnings and improve the competitiveness of the national economy.

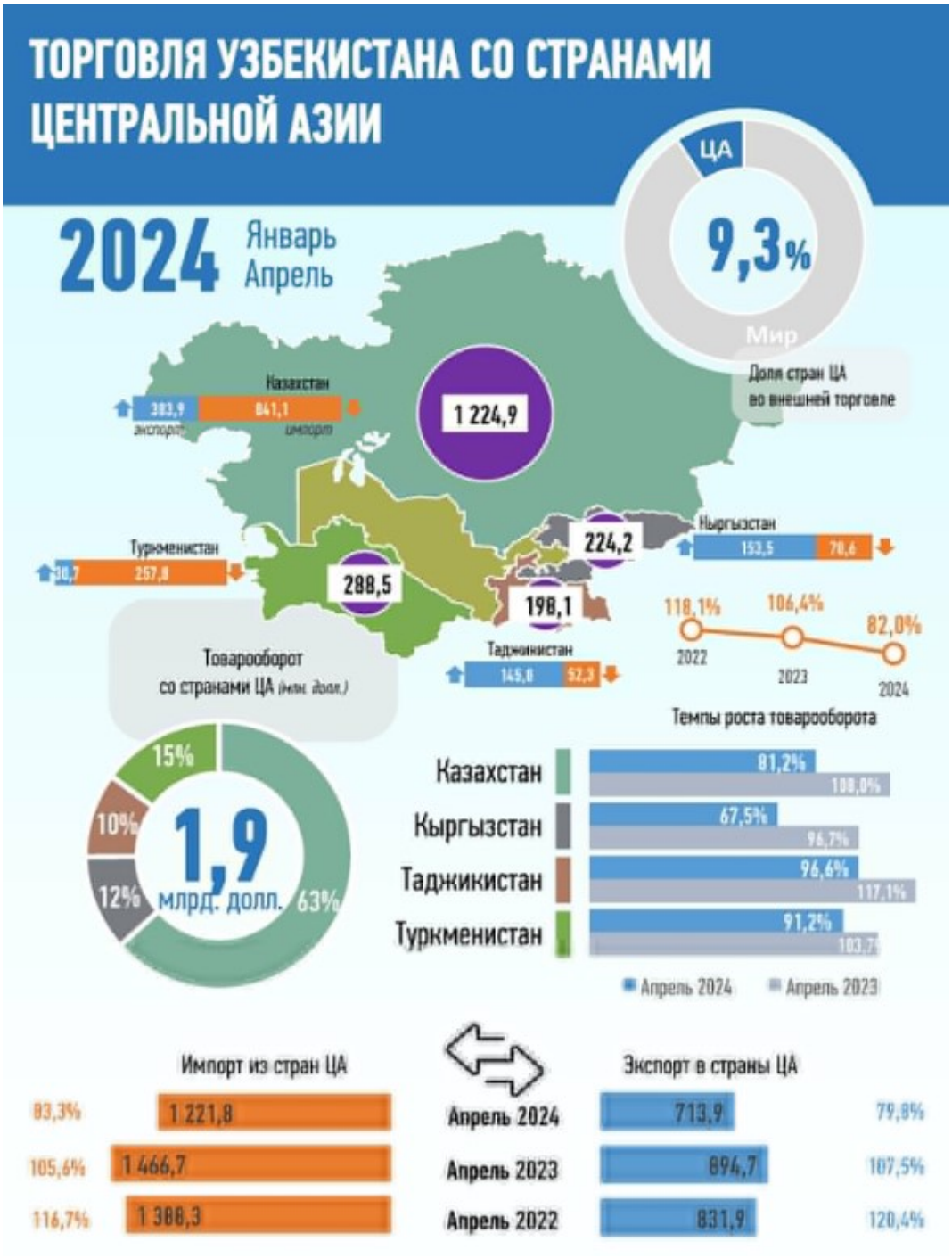
4. Implementation of digital technologies

Digitalization of small businesses is becoming an important area of development. The use of cloud technologies, e-commerce and automated accounting systems can significantly improve business efficiency. In this context, an important step is the creation of educational programs aimed at training entrepreneurs to work with digital tools.

5. Development of business in rural areas

The rural areas of Uzbekistan have great potential for the development of small businesses, especially in areas such as agricultural processing, ecotourism and handicrafts. Investments in infrastructure, provision of soft loans and educational programs for rural entrepreneurs can significantly improve the economic situation in the regions.

Strategies for overcoming challenges



For the successful development of small businesses in Uzbekistan, an integrated approach is needed, including the participation of the state, the private sector and educational institutions.

1. Reducing the regulatory burden

Simplifying tax accounting, reducing the number of inspections and introducing online services for interaction with government agencies will help reduce administrative costs.

2. Development of financial infrastructure

Creation of new financing programs, reduction of interest rates and activation of microfinance organizations will allow small businesses to attract funds for growth more easily.

3. Personnel training

Educational programs focused on the needs of small businesses will help solve the problem of shortage of qualified specialists. In addition, it is important to develop advanced training programs for already working entrepreneurs.

Thus, small businesses in Uzbekistan have significant prospects for growth and development, despite the existing challenges. State support, innovation and active participation of the private sector create the basis for the formation of a sustainable economy based on entrepreneurial activity.

Discussion

Small business development in Uzbekistan is one of the key objectives of the state economic policy. Small business plays an important role in providing employment, creating new jobs, increasing tax revenues to the budget and stimulating economic growth. In recent years, the country has made significant efforts to create favorable conditions for the development of this sector, including reforms in the field of taxation, lending, simplification of registration procedures and creation of a favorable investment climate. However, small business faces a number of challenges that require a systematic approach to overcome them. One of the central problems faced by small businesses in Uzbekistan is limited access to financial resources. The banking system, despite its development, is still characterized by high interest rates and strict requirements for collateral. Many entrepreneurs, especially in rural areas, are unable to obtain long-term loans to develop their projects. In this regard, the development of microfinance and the creation of interest rate subsidy programs for start-up entrepreneurs is becoming an urgent area. This will reduce financial barriers and increase the availability of resources for small businesses. An important aspect is the regulatory environment in which small businesses operate. Despite the fact that in recent years reforms have been carried out to simplify business registration procedures and reduce the number of inspections, administrative barriers remain significant. Bureaucratic obstacles and inconsistency in the implementation of regulatory legal acts create additional difficulties for entrepreneurs. The problem is complicated by the fact that changes in legislation occur quite often, which requires entrepreneurs to constantly monitor new regulations and comply with them.

The personnel problem is also quite acute. Many small businesses experience a shortage of qualified specialists, especially in technical and managerial areas. This situation is due to an insufficient system of vocational training, which does not always meet modern requirements. The development of a vocational training system, including retraining and advanced training programs, can significantly improve the situation. In addition, it is important to develop entrepreneurial skills in students studying in economic and technical educational institutions, which will help prepare a new generation of qualified specialists.

Infrastructure limitations also have a significant impact on the development of small businesses, especially in rural areas. The low level of transport and communication infrastructure makes it difficult for entrepreneurs to access sales markets, suppliers and customers. The problem is aggravated by the lack of

necessary logistics centers and modern warehouses. In this regard, government support for infrastructure projects aimed at developing regions and integrating small businesses into the national and international economy is becoming a priority. Special attention should be paid to the development of small business exports. Entering international markets can be an important stimulus for growth, but many enterprises face difficulties associated with the lack of experience in foreign economic activity, a lack of information about foreign markets and the need to meet international quality standards. Government programs aimed at training entrepreneurs, providing advisory assistance and financial support can significantly facilitate this process.

Digitalization also opens up new opportunities for small businesses, but its implementation is slow. Many enterprises still use traditional business methods, which limits their potential. The use of digital technologies, such as e-commerce, business process automation and digital marketing, can significantly increase the competitiveness of small businesses. This requires programs to train entrepreneurs to work with modern technologies, as well as the creation of accessible digital platforms for doing business.

An important factor in the sustainable development of small businesses is government support. Creating a favorable business environment, simplifying tax regulations, developing subsidy programs and stimulating investment - all this allows small businesses to quickly adapt to challenges and take advantage of emerging opportunities. However, government support must be long-term and consistent. This is especially important for new and innovative areas, where entrepreneurs need stable conditions to implement their ideas.

Small businesses in rural areas have significant potential, but their development is hampered by the low purchasing power of the population and limited access to finance. Rural entrepreneurs can become the engine of development of such industries as agro-industry, agricultural processing, ecotourism and handicrafts. To achieve this, it is necessary to develop infrastructure, facilitate access to credit and provide educational programs aimed at developing management and marketing skills.

Thus, the development of small business in Uzbekistan requires a comprehensive approach, including improving financial accessibility, simplifying the regulatory environment, developing infrastructure and training qualified personnel. State support combined with private sector initiatives can create conditions for sustainable growth of small businesses, which, in turn, will help strengthen the national economy and improve the standard of living of the population.

Conclusion

Small business in Uzbekistan is an important element of the economic system, playing a key role in creating jobs, increasing incomes of the population and stimulating innovation. Despite numerous challenges, such as limited access to finance, bureaucratic barriers, infrastructure problems and a shortage of qualified

personnel, the small business sector has significant potential for sustainable development.

The reforms carried out by the government are aimed at simplifying administrative procedures, developing financial support and creating a favorable regulatory framework. Subsidy programs, microcredit and educational initiatives are already proving their effectiveness, but require further improvement and expansion.

Digitalization opens up new horizons for small businesses, allowing them to introduce modern technologies, develop e-commerce and integrate into global markets. In this context, it is important to strengthen educational and consulting programs aimed at increasing the digital literacy of entrepreneurs.

Particular attention should be paid to the development of small businesses in rural areas, where they can become a driver of local economic growth, helping to reduce socio-economic inequality.

Thus, small businesses in Uzbekistan have every opportunity to become a sustainable foundation of the national economy. To achieve this goal, comprehensive efforts by the state, the private sector and educational institutions are needed to eliminate existing barriers and create a favorable environment for entrepreneurial activity.

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IMPROVING THE INTELLECTUAL ABILITIES OF BASKETBALL PLAYERS

Abstact*: This article analyzes and studies the importance of the formation of motives in the psychological preparation of athletes for the competition and the features of the players' selection of pre-taught tactical situations***.**

Keywords**:** *physical, functional formation, physical training, tactical posture, running, agility, endurance, flexibility.*

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BASKETBOL O‘YINCHILARINING INTELLEKTUAL QOBILIYATLARINI TAKOMILLASHTIRISH

Annotatsiya: *Ushbu maqolada sportchilarni musobaqaga psixologik tayyorlashda motivlar shaklanishining ahamiyati va o‘yinchilarni oldindan o‘rgatilgan taktik holatlarni tanlash xususiyatlari tahlil qilingan va o’rganilgan.*

Kalit so’zlar: *jismoniy, funksional shakllanish, jismoniy tayyorgarlik, taktik holat, yugurish, chaqqonlik, chidamkorlik ,egiluvchanlik.*

Kirish. Sport amaliyotida dastlabki o‘rgatish jarayoni ko‘p-yillik sport trenirovkasining fundamental bosqichi bo‘lib, ushbu bosqichda o‘rgatish uslublari va vositalaridan to‘gri foydalanish keyingi bosqichlarda sport mahoratini samarali shakllanishiga imkon yaratadi. Dastlabki o‘rgatish jarayonini rejalashtirish va tashkil qilishda bolaning ontogenetik hamda biopsixologik xususiyatlari e’tiborga olinishi zarur. Boshqacha qilib aytganda dastlabki o‘rgatish jarayonida o‘tkaziladigan mashg‘ulotlar yuklamalari shug‘ullanuvchi bolalarning jismoniy va funksional imkoniyatlariga qarab me’yorlanishi va qo‘llanilishi lozim. Ma’lumki, harakat (yuklama) hajmi va shiddati inson salomatligi, uning jismoniy va funksional shakllanishida muhim ahamiyatga egadir. Lekin barcha harakat turlari, jumladan sport to‘garaklarida ijro etiladigan jismoniy va texnik-taktik mashqlar hajmi hamda shiddati shug‘ullanuvchining funksional imkoniyatlariga mos kelishi lozim. Chunki biologiya fanida azaldan o‘z isbotini topgan qonuniyatlarga ko‘ra, ontogenetik taraqqiyotning muayyan bosqichlarida bajariladigan kundalik jismoniy yuklamaning (nagruzka) yalpi ta’sir “kuchi” organizmning funksional imkoniyatlaridan doimo yuqori bo‘lsa, shu organizmda (organlar, mushaklar, tomirlar, hujayralar, to‘qimalar, yurak, o‘pka, taloq, jigat va h.) zo‘riqish yoki tez toliqish alomatlari paydo bo‘ladi. Bunday salbiy “izlar” odamning, ayniqsa,

bolaning odatiy funksional faoliyatini izdan chiqaradi, kayfiyatni tushiradi, uyquni buzadi, piravordida ish qobiliyatini susaytiradi va uni to‘liq tiklanishiga to‘sqinlik qiladi. Agar shunday yuklamalar ustunligi bola faoliyatida surunkali qaytarilib tursa, organizmning nafaqat normal o‘sishiga ta’sir etishi mumkin, balki ushbu yuklamalar ustunligi turli funksional “obyekt”larda lokal yoki global patologik asoratlar paydo bo‘lishiga olib kelishi ehtimoldan holi emas. Aksincha, kundalik yoki yalpi mashg‘ulot yuklamalari hajmi va shiddati funksional imkoniyatdan past bo‘lsa, jismoniy sifatlarning shakllanishi 49 susayadi, ish qobiliyati kuchaymaydi. Binobarin, kundalik yoki yalpi yuklamalar, shu jumladan jismoniy tarbiya darslari va trenirovka mashg‘ulotlariga oid yuklamalarni bolalarning yoshi, jinsi, jismoniy va funksional imkoniyatlariga qarab “to‘lqinsimon” prinsipda oshira borish darkor. Demak, bolalar sportiga oid mashg‘ulotlarni tashkil qilishda pedagogik va tibbiy nazoratga asoslanish sog‘lom, barkamol avlodni tarbiyalash jarayonining ajralmas qismidir. Shunday ekan, jismoniy tarbiya va sport bo‘yicha o‘tkaziladigan mashg‘ulotlar (jismoniy tarbiya darsi, trenirovka mashg‘uloti, sport musobaqalari) mazmunini maqsadli rejalashtirish va boshqarish har bir mutaxassis (o‘qituvchi, murabbiy, tashkilotchi, uslubchi, yo‘riqchi) va rahbar shaxsga katta mas’uliyat yuklashi, ular jismoniy madaniyat, jismoniy tarbiya, jismoniy rivojlanish, jismoniy tayyorgarlik va sport masalalariga oid bilimlarni o‘zlashtirishlari, muvofiq kasbiy-pedagogik malaka va ko‘nikmalarni puxta egallashlari zarurligi isbot talab qilmaydi. Alohida e’tibor qaratish muhimki, bolalar sportini samarali tashkil qilish, ko‘pyillik sport trenirovkasi jarayonida shug‘ullanuvchilar sog‘ligi va ularning sport mahoratini shakllantira borish ustivor jihatdan jismoniy tayyorgarlik ko‘rsatkichlariga bog‘liqdir.

Mavzuga oid adabiyotlar tahlili (Literature review). Jismoniy tayyorgarlik va uning salohiyatini ifoda etuvchi kuch, tezkorlik, chaqqonlik, chidamkorlik va egiluvchanlik kabi sifatlar ilmiy obyekt sifatida azaldan ko‘pdan-ko‘p tadqiqotchi olimlar diqqatini jalb qilib kelgan. Ularning tadqiqotlarida jismoniy sifatlarning mohiyati, mazmuni, ularni jismoniy tarbiya va sport hamda boshqa jarayonlardagi ahamiyati va rivojlantirish muammolari atroflicha yoritilgan. Ushbu muammolarni turli yoshdagi o‘quvchi yoshlar va bolalar sporti misolida o‘rganishga qaratilgan tadqiqotlar natijalari ham talaygina ilmiy nashrlarda o‘z ifodasini topgan. Ta’kidlash joizki, jismoniy tarbiya va sport turlari nazariyasi va uslubiyati bo‘yicha nashr etilgan darslik hamda qo‘llanmalarda jismoniy tayyorgarlik tushunchasi – bu muayyan kasbiy faoliyat yoki sport turida ma’lum jarayon samaradorligini belgilab berish darajasida shakllangan tayyorgarlik – ish qobiliyati, harakat sifatlari, malakalari va ko‘nikmalarining integral ifodasini anglatadi. Sport amaliyotida (kasbiy amaliyotda ham) jismoniy tayyorgarlik, odatda, ikki bir-biriga chambarchas bog‘liq bo‘lgan – umumiy va maxsus jismoniy tayyorgarlik turlariga bo‘linadi. Hayot davomida inson sog‘ligi, uning aqliy va jismoniy faolligi, ko‘p-yillik sport trenirovkasi davomida sport mahoratining shakllana borishi ustivor jihatdan shu ikki tayyorgarlik turlari mazmuni va darajasi bilan belgilanadi. Jismoniy tarbiya va sport mashg‘ulotlarida qo‘yiladigan asosiy maqsad – sog‘liqni mustahkamlash hamda yuqori sport natijalariga erishish

avvalambor yoshlikdan boshlab umumiy jismoniy sifatlarni rivojlantirish muhimligiga e'tibor qaratadi. Aksariyat olimlarning ta'kidlashicha, muayyan sport turi bo'yicha muntazam o'tkazib boriladigan hamda hajm, shiddat va mazmun jihatdan to'g'ri tashkil qilingan mashg'ulotlar bolalar va o'smirlar organizmiga ijobiy ta'sir ko'rsatar ekan. Lekin, umumiy jismoniy tayyorgarlikka asoslangan va tor doirada ixtisoslashtirilgan mashg'ulotlar salbiy oqibatlarga olib kelishi kuzatilgan. Binobarin, dastlabki o'rgatish 50 bosqichida jismoniy va texnik-taktik mashqlar nisbatini to'g'ri rejalashtirish bolalar sport mahoratini samarali shakllantirish imkoniyatini yaratadi. Dastlabki o'rgatish va uning mohiyati Sport malakalariga dastlabki o'rgatish jarayoni ko'p-yillik sport tayyorgarligi tizimining poydevori bo'lib hisoblanadi. Dastlabki o'rgatish o'z tashkiliy, uslubiy, ilmiy va moddiy-texnika nuqtai nazaridan qanchalik puxta asoslangan bo'lsa, sifatli bo'lsa, shunchalik sport o'rinbosarlarini tayyorlash yo'li qisqaroq va osonroq bo'ladi. Ammo bu, albatta, mutaxassisning bilimiga, kasbiy ko'nikma va malakalariga bevosita bog'liq bo'ladi. Shuning uchun mutaxassislarni tayyorlashga mo'ljallangan o'quv dasturining eng e'tiborli va asosiy bo'limlaridan biri boshlang'ich o'rgatish uslubiyati (texnologiyasi) bo'lib hisoblanadi. Musobaqa jarayonida samarali natijaga erishishning asosiy shart-sharoitlaridan biri – bu basketbolchining texnik tayyorgarligi, texnik mahorati takomillashgan darajada bo'lishidir. Demak, o'rgatish jarayonining dastlabki va asosiy maqsadi bu o'yin texnikasini mukammal o'zlashtirishdir.

Tadqiqot metodologiyasi (Research Methodology). Harakat – (o'yin) malakalari – to'pni uzatish, qabul qilish (himoya), to'pni o'yinga kiritish, to'siq qo'yish – belgilangan bosqichlarda, ma'lum uslublar va vositalar yordamida o'zlashtiriladi, mukammallashtiriladi, takomillashtiriladi. Mazkur jarayon pedagogik, biopsixologik va biomexanik qonuniyatlar asosida amalga oshiriladi. O'rgatish jarayoni – bu pedagogik jarayon bo'lib, murabbiy-o'qituvchidan katta mahorat, kasbiy tayyorgarlikni talab qiladi. Lekin shunday bo'lsada, harakatni (o'yin malakasini) ijro etish texnikasiga o'rgatish boshqa ahamiyatli sabablarga ham bog'liqdir: bolaning faolligi, mashg'ulotlarning soni, sifati, davom etish muddati, yordamchi texnik uskunalar, mashg'ulot o'tkaziladigan joyning shart-sharoitlari, bolaning qiziqishi, harakat «boyligi», tajribasi va hokazo. Shuni ham aytish zarurki, harakat texnikasini o'zlashtirish muddati bolaning oilaviy sharoitiga, uning ijtimoiy va iqtisodiy imkoniyatiga hamda ruhiy holatiga ham bog'liqdir. Yuqorida keltirilgan ma'lumot va o'rgatish jarayonida e'tiborga olinadigan omillar ma'lum uslubiy tartibda asoslangan rejalashtiruv hujjatlaridan joy olishi kerak. Bundan tashqari bolaning ichki «sirli» imkoniyatlarini hamda mavjud omillarni aniqlash tanlov dasturi va mashqlari yordamida amalga oshirilishi zarur. Olingan natijalar o'rgatish uslublarini, bosqichlarini va texnologiyasini qo'llashda tayanch omil bo'lib xizmat qilishi kerak. Dastlabki o'rgatish jarayoni bir necha bosqichlarda amalga oshiriladi va bu bosqichlarni har biri o'ziga xos uslub va vositalarni o'z ichiga oladi. Umumiy rivojlantiruvchi mashqlar o'yinchida jismoniy barkamollik va o'yinchi uchun zarur bo'lgan harakat ko'nikmalari va malakalarini sayqallash uchun qo'llaniladi. Barcha mashqlar o'z yo'nalishiga mosravishda birlashgan holda mashq qilishning maxsus

tayyorgarligi asosiy qismlarini tashkil etadi: umumiy jismoniy, maxsus 51 jismoniy, texnik, taktik, o‘yin tayyorgarligi. Har bir tayyorgarlik turida o‘zining yetakchi omillari borki, ular yordamida ko‘zlagan maqsadga erishiladi. Shu bilan birga barcha turdagi tayyorgarliklar bir-biri bilan uzviy bog‘liq. Misol uchun agar o‘quvchi jismoniy yaxshi tayyorlanmagan bo‘lsa, u hujumda to‘pni savatga tashlash texnik mashqini yaxshi bajara olmaydi. Bunday holda o‘quvchini jismoniy tomondan chiniqtirish, to‘pni savatga tashlash usulini ko‘p marta takrorlashdan ko‘ra foydaliroqdir. O‘rgatish bosqichlari va uslublari Birinchi bosqich: - o‘rganiladigan harakat texnikasi bilan tanishish. Bunda, aytib berish, ko‘rsatish va tushuntirish uslublari qo‘llaniladi. O‘qituvchi shaxsan ko‘rsatish bilan birga ko‘rgazmali qurollardan foydalanadi: kinofilm, tasviriy film, sxema, maydon maketi va hokazo. Namoyishni tushuntirishlar bilan qo‘shib olib borish kerak. O‘qituvchilarning dastlabki urinishlari ularda birlamchi harakat sezgisini shakllantiradi. Ikkinchi bosqich: - texnikani soddalashtirilgan (oddiylashtirilgan) holatda o‘rganish. Mazkur o‘rganish bosqichida muvaffaqiyat ko‘p holatlarda yondoshtiruvchi mashqlarning to‘g‘ri tanlanganligiga bog‘liqdir. Ular o‘zining tuzilishi shakliga ko‘ra o‘rganilayotgan harakat texnikasiga yaqin va o‘quvchilar bajara oladigan bo‘lishi kerak. Murakkab tuzilishga ega bo‘lgan harakat ya’ni savatga hujum qilish, uni tashkil qiluvchi asosiy zvenolarga, qismlarga ajratib beriladi. Bu bosqichda boshqarish uslublaridan foydalaniladi hamda ko‘rgazmali harakat, axborot (to‘pni savatga otish, tushish aniqligi, yoruglik yoki ovozni belgilash) kabi uslublar alohida ahamiyatga ega bo‘ladi. Uchinchi bosqich: - texnikani murakkablashtirilgan sharoitda o‘rgatish. Bunda quyidagilar qo‘llaniladi: takroriy usul, harakatni murakkab sharoitlarda bajartirish, o‘yin va baholash uslubi, qo‘shma uslub, “davra aylana” mashqlari. Takrorlash uslubi bu bosqichda eng asosiydir. Ko‘p marotaba takrorlashgina malakani shakllantiradi. Malaka hosil qilish uchun takrorlash turli sharoitlarda mashq bajarishni (harakat sharoitini o‘zgartirishni, asta-sekin murakkablashishni) taqozo etadi. Hattoki charchaganda ham mashqlar bajartiriladi, qo‘shma va o‘yin uslublari bir vaqtni o‘zida texnikani sayqallashtirishga hamda maxsus jismoniy sifatlarni o‘stirish masalalarini hal qilishga, texnik-taktik tayyorgarlik va o‘yin mahoratini takomillashtirishga qaratilgan bo‘ladi. To‘rtinchi bosqich: - harakatni o‘yin jarayonida mustahkamlashni ko‘zda tutadi. Bunda bajarilgan harakatlarni talqin qilish uslubi qo‘llanadi (rasmlar, jadvallar, o‘quv filmlari, tasviriy filmlar), o‘yin jarayonida texnik-taktik, maxsus tayyorgarlik topshiriqlari, o‘yin va «bellashish» usullari. Tayyorgarlik va o‘quv o‘yinlarida har bir usulni (malakani) o‘rganish, uni takomillashtirish va mukammallashtirish ko‘zda tutiladi. Malakani mustahkamlashning eng yuqori vositasi – bu musobaqalashishdir. O‘qitish (o‘rgatish)da faol uslublar katta imkoniyatlarga egadir. Muammoli vazifalarni qo‘yish, uning yechimini qidiruvchi holatni, vaziyatni vujudga keltiradi, o‘zini baholash esa harakatlanish faoliyatini yana ham faollashtirishga olib keladi, bu o‘quvchi qiziqishini yana ham orttiradi hamda ijodiy fikrlashga o‘rgatadi.

Tahlil va natijalar (Analysis and results). O‘rgatish jarayonida uslublar va vositalardan foydalanish muayyan tartibda qo‘llaniladigan pedagogik prinsiplar

asosida amalga oshiriladi. Ushbu prinsiplar quyidagilardan iborat: ilmiylik, onglilik va faollik, muntazamlik va uzviy bog‘liqlik, mutanosiblik va muvofiqlik, mukammallik va uzluksizlik, “engilidan og‘iriga”, “o‘tilgandan o‘tilmaganiga”, “oddiydan murakkabga”, umumiy va maxsus tayyorgarlik birligi. Basketbolda ham boshqa sport turlari kabi o‘rgatishning asosiy vositasi jismoniy mashqlar hisoblanadi. Ular juda turli-tumandir. Shuning uchun ular ma’lum bir o‘rgatish bosqichidagi qo‘yilgan vazifalarni hal etishdagi o‘rni bo‘yicha turkumlanadi. Bunday turkumlanishga basketbolchilarning musobaqa faoliyati asos qilib olingan. Shunga bog‘liq holda mashqlar ikki katta guruhga ajratiladi: asosiy yoki musobaqa va yordamchi yoki trenirovka. Musobaqa mashqlari basketbolga xos bo‘lgan xususiy mashqlardir. Bunda texnik usullar va taktik harakatlar musobaqa sharoitidagi o‘yin holatlariga mos holda bajariladi. Trenirovka mashqlari asosiy malakalarni egallashni yengillashtirish, tezlashtirish va ularni qo‘llash samaradorligi, ishonchliligini ta’minlashga qaratilgandir. Ular maxsus va umumrivojlantiruvchi mashqlardan tashkil topadi. Maxsus mashqlar ikki guruhga bo‘linadi: tayyorgarlik mashqlari; yaqinlashtiruvchi mashqlar. Tayyorgarlik mashqlaridan asosan maxsus jismoniy sifatlarni tarbiyalashda foydalaniladi. Yaqinlashtiruvchi mashqlardan aniq texnik harakatlarni egallashga qaratilgan jarayonda foydalaniladi. Umumrivojlantiruvchi mashqlardan asosiy jismoniy sifatlarni tarbiyalash hamda zarur jismoniy harakat ko‘nikma va malakalarini takomillashtirishda foydalaniladi. Barcha mashqlar o‘zining yo‘nalishiga qarab trenirovkalarning tarkibiy qismiga kiritiladi. Bu tayyorgarliklar quyidagilardir: umumiy jismoniy; maxsus jismoniy; texnik; taktik; integral (yaxlit o‘yin). Har bir tayyorgarlik turining o‘ziga xos yetakchi vositalari mavjud bo‘lib, ular yordamida maxsus vazifalar yechiladi. Shu bilan birga bir tayyorgarlik turiga oid bo‘lgan mashqlar boshqa tayyorgarlik turidagi mashqlar bilan yaqindan bog‘langan bo‘ladi. Masalan, shug‘ullanuvchida tezkorlik-kuch sifati zarur darajada rivojlanmagan bo‘lsa, u hujum zarbasi berish texnikasini bajara olmaydi. Bu holda tezkorlik-kuch sifatini rivojlantirishga oid mashqlarni berish maqsadga muvofiq bo‘ladi. Chunki hujum zarbasini takrorlash hajmini oshirish bu holda samara bermaydi. Basketbol harakatlariga o‘rgatishda vositalarning samarasi ko‘p hollarda ularni qo‘llash uslublariga bevosita bog‘liq bo‘ladi. Qo‘yilgan vazifaga bog‘liq ravishda aynan bir vositani turli uslublarda qo‘llab, undan turlicha foydalanish mumkin. Bundan tashqari, har bir tayyorgarlik turida vazifalar va turlarning ketma-ketligi ham ma’lum mantiqiy bog‘liqlikka egadir. Bir tayyorgarlik turidagi vazifalar sifat jihatidan o‘zgarib, keyingi tayyorgarlik turiga zamin yaratadi. Masalan, tayyorgarlik mashqlari o‘rganilayotgan texnik usulning umumiy tuzilishini ifoda etadi. Yaqinlashtiruvchi mashqlar maxsus jismoniy tayyorgarlikdan texnik tayyorgarlikka o‘tishda ko‘prik vazifasini o‘taydi. Ma’lum darajadagi murakkablik asosida qurilgan texnik mashqlar taktik ko‘nikmalarni shakllantirishga yordam beradi. Shu asosda keyinchalik yakka tartibdagi taktik harakatlar o‘rganiladi. Basketboldagi asosiy harakatlanish bu yurish, yugurish, yonga qadam tashlab yugurish, orqa bilan, qadam tashlab to‘xtash, sakrashdan iboratdir. Ko‘p hollarda harakatlanishlar qiyin emas deb izohlanib, ularga yetarli e’tibor berilmaydi. Bu esa noto‘g‘ri fikrdir.

Chunki o‘yinchining turli harakatlarni bajarishi uchun holat va joy tanlashi bajariladigan harakatning samarasiga to‘g‘ridan-to‘g‘ri ta’sir qiladi. Shuning uchun harakatlanishlarni o‘rgatishga katta e’tibor qaratish zarur. Umumrivojlantiruvchi mashqlar. Bu bo‘limning asosiy vosita-lari tarkibiga yugurishlar va harakatli o‘yinlar kiradi. Shu maqsadda quyidagi yugurishlardan: to‘g‘ri yo‘nalishda yugurishlar; sonni yuqoriga ko‘tarib yugurish; sakrab-sakrab yugurishlar; boldirni orqaga siltab yugurishlar; orqa tomon bilan yugurishlar; yo‘nalishni o‘zgartirib yugurishlardan foydalaniladi. Mashqlarni bajarish vaqtida qo‘llar tirsak qismidan bukilgan bo‘lib, harakatlanishga faol yordam berishi kerak. Depsinishdan so‘ng oyoqlarning to‘g‘irlanishiga erishish zarur. «Kun va tun», «Raqamlarni chaqirish», «Olib ketishga intil» va boshqa shu kabi harakatli o‘yinlardan foydalaniladi. Tayyorlov mashqlari o‘zining ta’siriga qarab diqqat va javob harakat reaksiyalarining tezkorligi va ayrim harakatlar tezkorligini rivojlantiruvchi mashqlarga ajratiladi. Birinchi guruhdagi mashqlarga eshitish va ko‘rish signallari bo‘yicha harakatlanish mashqlari kiradi. Mashqlarni berishda «oddiydan – murakkabga» tamoyiliga rioya qilish kerak. Masalan, murabbiyning signaliga asosan tezlikni o‘zgaritmasdan harakat yo‘nalishini o‘zgartirgan holda harakatlanish yoki aksincha bajarish mumkin. Mashqni o‘zlashtirish darajasiga qarab ular turli usulda qo‘shib olib boriladi.

Xulosa. O‘yin davomida o‘yinchi qisqa vaqt ichida bir necha holatlardan birini tanlab olib mavjud sharoitga mos bo‘lganini qo‘llash uchun, uning fikrlash qobiliyatining tezligi ahamiyatlidir. Basketbol o‘yinchilari, odatda, ma’lum bo‘lgan va oldindan o‘rgatilgan taktik holatlarni tanlashadi. Basketbol o‘yinchisining har bir yangi o‘yin sharoiti trenirovka mashg‘ulotlaridagi yoki oldingi musobaqalardagi o‘yin sharoitidan farq qiladi. O‘yindagi vaziyatlar takrorlanavermaydi va xarakatlarni avtomatik ravishda qo‘llanilishiga imkoniyat doimo ham bo‘lavermaydi.Ko‘pincha Basketbol o‘yinchisining to‘g‘ri va aniq fikrlash qobiliyati yangi natijalarga olib keladi. Basketbol o‘yinchilarida intellektual qobiliyatlarini takomillashtirish uchun ijodiy xususiyatlarining takomillashuviga undaydigan maxsus bilimlar tizimi kerak. Shuning uchun yosh sportchilarni o‘rgatishda nazariy bilimlarning o‘zlashtirilishiga katta e’tibor berilsa maqsadga muvofiq bo‘ladi. Bu borada yosh sportchilarimizning shu sport turi bo‘yicha barcha voqealardan xabardor bo‘lishlari, ma’lumotlarni qiziqib o‘rganib, tahlil qilib chiqishlari katta foyda beradi. Bu masalada ham murabbiy muhim vazifani bajaradi. Bo‘lajak musobaqada sportchi oldiga qo‘yilgan vazifalarning muhimligi va mohiyatini tushuntirib qo‘yish murabbiyning vazifalaridan biridir. Sportchilarni musobaqaga psixologik tayyorlashda ijtimoiy ahamiyatga ega motivlar shaklanishining axamiyati kattadir, ayniqsa, javobgarligi yuqori bo‘lgan musobaqalarning o‘rni beqiyosdir. Sportchida o‘z imkoniyatlariga ishonch hosil qilish didini murabbiy shakllantiradi. Yosh sportchilarda ishonchning mavjudligi - sportchilarning o‘z imkoniyatlarini amalga oshirish shartidir. Ishonchning yo‘qligi esa buning aksidir. Sportchining o‘z imkoniyatiga ishonchi - bu o‘zining jismoniy, texniktaktik tayyorgarligini anglashning yakunidir.

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INTERPRETATION OF THE CONCEPT OF DISCOURSE IN UZBEK AND ENGLISH LINGUISTICS: ANALYZING DISCOURSE TYPES

Abstract. *This article examines the concept of discourse in Uzbek and English linguistics, analyzing similarities and differences in its interpretation. By exploring theoretical frameworks and practical examples of discourse types, the study highlights how cultural and linguistic contexts shape discourse analysis. The comparative approach sheds light on narrative, argumentative, and conversational discourses, offering insights into their distinct features in both languages.*

Keywords: *Discourse analysis, Uzbek linguistics, English linguistics, narrative discourse, argumentative discourse, conversational discourse, cultural context, linguistic comparison, stylistics, communication.*

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O‘ZBEK, INGLIZ TILSHUNOSLIGIDA *DISKURS* TUSHUNCHASINING TALQINI (DISKURS TURLARI MISOLIDA)

Abstrakt. Ushbu maqolada o‘zbek va ingliz tilshunosligida diskurs tushunchasi ko‘rib chiqiladi, uning talqinidagi o‘xshashlik va farqlar tahlil qilinadi. Nazariy asoslarni va nutq turlarining amaliy misollarini o'rganish orqali tadqiqot madaniy va lingvistik kontekstlar nutq tahlilini qanday shakllantirishini ta'kidlaydi. Qiyosiy yondashuv hikoya, bahsli va so‘zlashuv nutqlarini yoritib beradi, ularning har ikki tildagi o‘ziga xos xususiyatlari haqida tushuncha beradi.

Kalit so‘zlar: Diskurs tahlili, o‘zbek tilshunosligi, ingliz tilshunosligi, bayonli nutq, argumentativ nutq, so‘zlashuv nutqi, madaniy kontekst, lingvistik taqqoslash, stilistika, muloqot.

Introduction. Discourse is a foundational concept in linguistics, representing language use in its broader social and cultural context. Unlike isolated sentences, discourse considers how language functions in communication, incorporating text, context, and the dynamic interaction between speaker and listener or writer and reader. Theories of discourse often emphasize its interdisciplinary nature, linking linguistics to sociology, psychology, and cultural studies. The term "discourse" has been a focal point of linguistic studies, representing language use beyond the sentence level and encompassing social and

cultural dimensions. In English linguistics, discourse analysis has evolved through contributions from scholars like Foucault and Halliday, emphasizing text and context. Uzbek linguistics, influenced by Soviet traditions, often ties discourse closely to stylistics and communicative acts.

This study investigates how the concept of discourse is interpreted in Uzbek and English linguistics, focusing on narrative, argumentative, and conversational discourse types. By examining these types, the study aims to reveal the influence of cultural and linguistic factors on discourse construction and interpretation.

In Uzbek linguistics, discourse is closely tied to stylistics, focusing on how language is used for expressive and communicative purposes. Scholars like Muminov (1999) and Kadirova (2002) highlight the cultural and oral traditions that shape Uzbek discourse. Uzbek linguists emphasize the role of context, including historical, cultural, and situational factors, in shaping discourse. The focus is often on how communicative acts are influenced by collectivist values and cultural norms.

Methods. The article employed a comparative linguistic approach, incorporating:

1. **Theoretical Analysis**: Review of scholarly works in Uzbek and English linguistics to understand definitions and frameworks of discourse.
2. **Data Collection**: Examples of narrative, argumentative, and conversational discourses were extracted from Uzbek and English texts, including literature, political speeches, and dialogues.
3. **Framework**: Texts were analyzed using discourse analysis techniques, focusing on coherence, cohesion, and pragmatic features.

Results. The analysis identified both shared and unique features in the interpretation of discourse across the two linguistic traditions:

1. **Narrative Discourse**
   - **English**: Typically linear, with a strong emphasis on chronology and causality (e.g., storytelling in novels like *To Kill a Mockingbird*).
   - **Uzbek**: Often incorporates oral storytelling traditions, with circular structures and repetitive patterns (e.g., epics like *Alpomish*).
2. **Argumentative Discourse**
   - **English**: Focuses on logical structure and evidence-based reasoning (e.g., political speeches by Martin Luther King Jr.).
   - **Uzbek**: Emphasizes rhetorical devices and proverbs to appeal to emotions and cultural values (e.g., speeches by prominent historical figures like Alisher Navoi).
3. **Conversational Discourse**
   - **English**: Direct and pragmatic, often reflecting individualism. For example, "How are you?" frequently functions as a phatic expression.
   - **Uzbek**: Indirect and relational, with greetings often involving inquiries about family and health, reflecting collectivist values.

Discussion. The findings demonstrate that discourse interpretation is deeply rooted in cultural and linguistic contexts. While both traditions recognize discourse as a socially embedded linguistic phenomenon, English linguistics tends to adopt a

universalist approach, emphasizing structural coherence. Conversely, Uzbek linguistics often prioritizes cultural and contextual relevance, influenced by oral traditions and collectivist ideologies.

For example, narrative discourses in Uzbek frequently use repetition and proverbs, serving both aesthetic and mnemonic purposes, while English narratives emphasize character development and conflict resolution. These distinctions underscore the interplay between linguistic form and cultural function in discourse construction.

Conclusion. This study highlights the importance of cultural and linguistic contexts in shaping discourse types. Understanding these differences enriches cross-cultural communication and comparative linguistics. Future research could explore how globalization and digital communication are influencing the evolution of discourse in Uzbek and English contexts. Both English and Uzbek linguistics recognize discourse as socially embedded, though their emphases differ. English linguistics often adopts a universalist lens, analyzing language structure and function, while Uzbek linguistics emphasizes cultural and relational aspects.

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PRACTICAL APPLICATION OF BREATHING TECHNIQUES IN THE REHABILITATION OF PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Abstract: *This study evaluates the practical application of breathing techniques in the rehabilitation of patients with Chronic Obstructive Pulmonary Disease (COPD) in the rehabilitation department of the Andijan Regional Medical Association. The analysis is based on data from eight key studies, highlighting the impact of targeted breathing exercises on pulmonary function, symptom management, and quality of life. The results demonstrate significant improvements in respiratory efficiency and overall rehabilitation outcomes, supporting the integration of these techniques into standard care protocols.*

Keywords: *Chronic Obstructive Pulmonary Disease, rehabilitation, breathing techniques, pulmonary function, quality of life*

Introduction: Chronic Obstructive Pulmonary Disease (COPD) remains a major global health challenge, characterized by persistent airflow limitation and associated systemic complications. Rehabilitation plays a pivotal role in managing COPD by combining pharmacological and non-pharmacological interventions. Breathing exercises, as a key non-pharmacological strategy, are gaining recognition for their efficacy in enhancing respiratory mechanics and reducing dyspnea [1],[2]. This study investigates the effectiveness of such techniques in a practical clinical setting, focusing on their impact on pulmonary function and patient-reported outcomes.

Objectives:

1. To analyze the effects of specific breathing techniques on pulmonary function and respiratory efficiency in COPD patients.
2. To assess improvements in quality of life and symptom relief through structured rehabilitation programs.
3. To provide recommendations for integrating breathing exercises into rehabilitation protocols.

Materials and Methods:

- **Study Location:** Rehabilitation department of the Andijan Regional Medical Association.
- **Population:** COPD patients classified by severity using GOLD criteria.
- **Interventions:** Structured breathing exercises, including diaphragmatic breathing and pursed-lip breathing.

- **Outcomes Measured:** Pulmonary function (FEV1, FVC), quality of life (SGRQ, CAT), and symptom management (mMRC scale).
- **Data Sources:** Analysis of eight studies [1-8], integrated with clinical observations.
- **Statistical Analysis:** Paired t-tests and ANOVA were employed to evaluate the significance of findings.

Results:

1. **Pulmonary Function:**
   - FEV1 increased by 10-15% in patients practicing diaphragmatic breathing ($p < 0.05$) [1],[4].
   - Pursed-lip breathing led to a 20% reduction in dynamic hyperinflation ($p < 0.01$).
2. **Quality of Life:**
   - SGRQ scores improved by 15-20 points on average ($p < 0.01$) [2],[6].
   - CAT scores showed a 25% decrease, indicating improved symptom control [3],[8].
3. **Symptom Management:**
   - Dyspnea severity reduced by 30% as measured on the mMRC scale ($p < 0.01$).
   - Hospitalization rates for exacerbations decreased by 40% over six months [5],[7].
4. **Patient Engagement:**
   - Compliance with daily exercises reached 85%, highlighting the feasibility of incorporating these techniques into routine care.

Discussion: The findings affirm the efficacy of breathing exercises in improving pulmonary function and quality of life for COPD patients. Diaphragmatic breathing enhances respiratory muscle strength, while pursed-lip breathing reduces hyperinflation and improves oxygenation. Consistent with previous research [1],[6], our results emphasize the importance of personalized rehabilitation protocols tailored to individual phenotypes and disease severity. Limitations include variability in patient adherence and the need for longer follow-up periods to assess sustained benefits.

Conclusion: Breathing techniques are a cost-effective and impactful component of COPD rehabilitation. Their integration into clinical practice can significantly enhance patient outcomes, particularly when combined with other multidisciplinary interventions. Future studies should focus on optimizing program designs and exploring long-term impacts.

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THE ROLE AND PLACE OF MODERN LOGISTICS IN THE DEVELOPING ECONOMY OF THE NEW UZBEKISTAN

Abstract:*The following article analyzes the current conditions of logistics, the issues of properly assessing the opportunities created in our country, creating a wide range of opportunities for the development of logistics sector, as well as a thorough study and application of scientific and practical experience of developed countries in further improvement of the company's performance, as well as improvement of innovative structural changes in this sphere.*

Keywords:*global logistics, multimodal logistics, logistics concept, integration.*

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YANGI O'ZBEKISTONNING RIVOJLANAYOTGAN IQTISODIYOTIDA ZAMONAVIY LOGISTIKANING O'RNI

Annotasiya: *Ushbu maqolada logistikani hozirgi holatini tahlil qilgan holda yurtimizda yaratilayotgan imkoniyatlarni to‘g‘ri baholab, logistika soxasini rivojlanishiga keng imkoniyat yaratish hamda kompaniya ish faoliyatini yanada takomillashtirishda rivojlangan mamlakatlarning ilmiy va amaliy tajribalarini puxta o‘rganish va ularni amaliyotga tadbiq etish hamda ushbu sohada innovatsion tarkibiy o‘zgarishlarni takomillashtirish masalalari keng bayon etilgan.*

Kalit so‘zlar*: global logistika, multimodal logistika, logistika konsepsiyasi, integratsiya*

Introduction

Today logistics is very important in the development economy of Uzbekistan. We can see the progress of logistics in the integration of the global market with the day-to-day development. Globalization and strong integration, that are developing on the basis of modern international economic relations, are leading to a more rapid and sharp formation of the economy. Only with the development of the main spheres, which are considered its constituent elements, having adapted to these processes, it is possible to maintain competitiveness in the current situation. Currently, the field of multimodal logistics centers and logistics plays an important role, shaping specialized production and deepening of cooperation on a global scale.

At present, the experience of many developed and leading countries in the world economy proves without words that the achievement of competitiveness and access to world markets, first of all, the gradual reform of the economy, the deepening of structural transformation and diversification, the rapid development of new enterprises and production sectors based on high technologies are becoming one of the most urgent tasks before us.

In this regard, the President of Uzbekistan Sh. Mirziyoyev in his speeches quotes that: “we must ensure a clear order and strict discipline in all spheres. Once again, I emphasize, we do the work together, and for the result, each of us will respond personally" [1, p. 104].

The President of the Republic Of Uzbekistan Sh. M. Mirziyoyev defines that “development and implementation of forecasting parameters of programs on development and modernization of Traffic, Engineering-Communication and social infrastructure as one of the main tasks of control and achievement of control of their application” [1, p. 22].

In our country, also, the further development of market infrastructure, the creation of a favorable business climate and the new requirements for modernizing our economy are directly related to the development of logistics. The role of logistics in the further development of the economy of our country is great. This is because the economy of already developed and developing countries is becoming more relevant for the development of the country.

Literature review

At present, the newly adopted resolutions, decrees and various legislative acts aimed at developing this sphere are the basis of the work. The problems of implementing logistics into the activities of companies have been applied in a number of countries of the world, especially in countries where market relations are formed. In scientific sources of Western countries, J.Gelbreyt, V.Gerami, R. Heinz and other foreign specialists are published. At the same time it is reflected in the works of the scientists of CIS countries. Among these it is worth to note works of L.B. Mirotin, V.A. Topalidi, M.S. Kasymova, K.M. Sidiknazarov, and M.A Ikramov. The scientific literature of the scientists of our country is also enlightened in the following works of such scientists such as: Ya.K. Karrieva, Yu.T. Dadabayev, M. Abdullaev and others in their research have directly covered the theoretical and practical foundations of logistics processes.

However, as a result of acquaintance with the scientific research of the above-mentioned scientists, so far the aspects of econometric modeling and statistical analysis of the processes of improvement and use of logistics processes on the basis of information systems have not been fully studied. In particular, such important aspects as the methods of introducing information systems into the logistics processes of the company, the principles of econometric modeling on the basis of automated information systems in logistics processes, the effectiveness of the use of automated information systems in logistics activities, their interrelation, and development conditions have not been studied in depth scientifically. This further increases the relevance of this article.

Analysis and results

Before you begin to format your paper, first write and save the content as a separate text file. Keep your text and graphic files separate until after the text has been formatted and styled. Do not use hard tabs, and limit use of hard returns to only one return at the end of a paragraph. Do not add any kind of pagination anywhere in the paper. Do not number text heads-the template will do that for you.

In the paragraph of the strategy of action on the five priority directions of development of the Republic of Uzbekistan in 2017-2021, devoted to the priority direction of development and liberalization of the economy, there was noted that "deepening of structural changes, increasing its competitiveness on account of modernization and diversification of the leading sectors of the national economy, Organization of Free Economic Zones, such tasks as" increasing the role and share of services in the formation of gross domestic product, radical transformation of the structure of the services rendered primarily on account of modern high-tech types of services, further development of road transport infrastructure, introduction of information and communication technologies into the economy, social sphere, management system, storage, marketing of agricultural products, further expansion of the infrastructure Proceeding from this, the successful implementation of all our plans for modernization and renewal of our country today, formation of a qualitatively new, modern structural structure of our economy, development of our regions and regions is an inseparable link to the development of road transport and communication infrastructure networks at a high pace.

In 2018-2021, it is planned to diversify logistic routes with bordering countries, according to which agreements will be signed. Hence it provides for the implementation of measures aimed at solving logistical problems in the export-import of products by conducting practical negotiations with neighboring countries, initiating the development of investment infrastructures of the countries [3]. Foreign economic and other international relations, including cargo (passengers), are highly developed in Uzbekistan. We can see this on the example of newly developed fields, decisions; various opportunities created for logistics centers and companies, as well as newly opened logistics centers.

In the conditions of the current rapidly developing market economy, the issue of modernization and diversification, which reinvents many areas of the economy, remains relevant. Being one of the first national transport and forwarding

organizations actively involved in international cargo transportation, realizing the importance of modern organization of cargo transportation and logistics of cargo processing, the need for terminal systems of inter, multimodal and cargo transportation, technology of cargo transportation, modern telecommunications, that is, cargo tracking and others was felt.

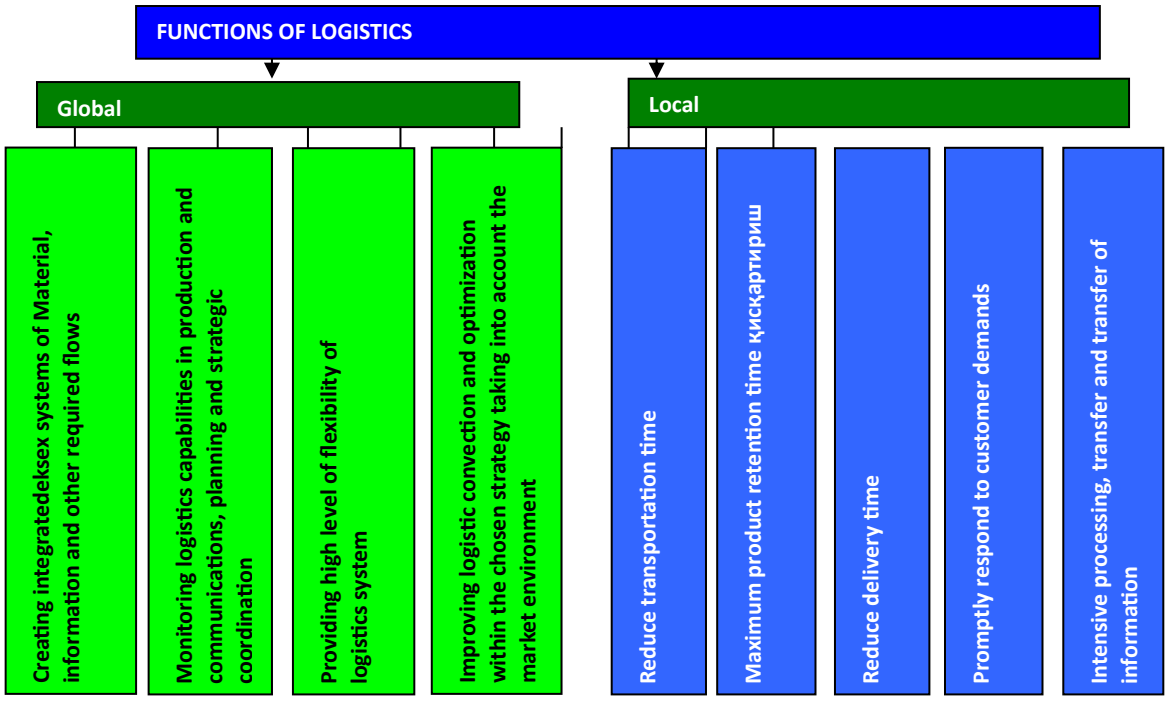

Figure 1.1. Global and local functions of logistics

The implementation of the logistics concept is one of the main areas of activity for reducing the overall cost of enterprises.

Logistic activity is of integral importance, and it includes the range from the appearance of the needs for goods (services) till its satisfaction. Logistics in macro-level reflect the joint activities of different organizations through integration until the achievement of the business objective.

All activities and operations must be planned, managed and coordinated. The main integrated system of logistics is organized by such important business areas, that is, the purchase of raw materials and materials, the production and sale of products, transportation, information, etc.

The purpose of logistics is that, globalization; it is possible to understand all the ways of movement of goods, services, raw materials and ready materials, which include a large-scale sphere of human activity.

Currently, logistics is developing intensively within the framework of transport and expeditionary activities. If we pay attention to the structure of the logistics chain, we can see that in some joints the excessive use of products, in other cases, the economy is made. Logistics of transport-expeditionary enterprises must encounter the interests of partners in implying logistics chain, “The chain might be stronger than the weakest network”.

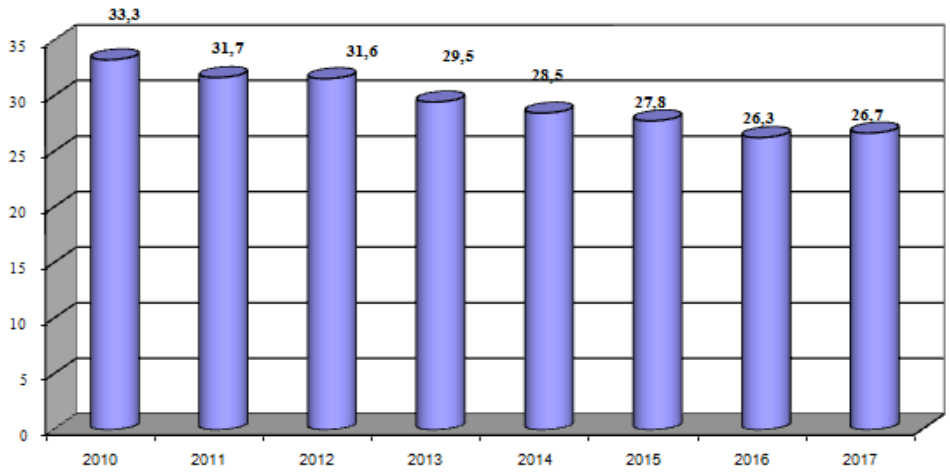

Figure 1.2. Changes in the share of transport services in the total volume of services created in the Republic of Uzbekistan

One of the main features of logistics is the joint activities of all enterprises until the goods reach their consumer. Reducing funds for such activities will help open reserve sources. At the same time, the lack of overall profit margin between the logistics partners has somewhat reduced the effectiveness of carrying out this work.

We can distinguish the following problems that cause the slow development of logistics in Uzbekistan:

Firstly, the concept of logistics for many businessmen and managers, innovation in Uzbekistan lacks qualified specialists in demand; managers in the field of logistics, businessmen are few, which make it difficult to understand the essence of logistics.

Secondly, the organizations with the lack of the conditions for the implementation of the principles of logistics. Many organizations “are bankrupted” at economic plan. In many enterprises, there are difficulties in the formation of logistics services.

Employees of private enterprises have a low vision of the functions that must be performed and the activities of these divisions.

Thirdly, the national legislation has not yet been sufficiently harmonized in international law sphere, in the field of international trade, in matters of movement, international transport, national transport and domestic transport, mixed transportation. Factors that lead to blocking the movement of goods, as a consequence, lead to a disruption in the long term of the logistics chain, and it can be delayed for a certain period of time. For this reason, managers and employees of the enterprise can lead to insecurity in the implementation of logistics in the implementation of their goals.

Fourthly, the lack of good relations with foreign logistics organizations, the establishment of state-owned legal relations with international logistics

associations, the inadequacy of the level of business activities of enterprises by tax, customs, some ministries, department and others.

The attention now being paid to the logistics sector is clearly visible. It is no secret to any of us that the work is being done at present.

Summary and suggestions

The analysis shows that it is necessary to establish the “National Logistics Portal” in order to support national carriers, create additional conditions for entrepreneurs. It is necessary to open, expand and reconstruct the necessary international transit routes. It is also gratifying to re-start negotiations on joining the World Trade Organization next year. In order to further stimulate exports, it is necessary to harmonize the system of technical regulation with international standards. One of our main goals is to bring quality and certified products to the foreign market under the name “Uzbek brand”.

Today, there is a trend of growth and improvement of the market of logistics services in the Republic, the transport infrastructure is developing, the volume of regional trade and transit is increasing. All opportunities have been created for National transport and logistics companies to develop their business, to bring the level of logistics services to the level of international standards.

The peculiarities of the logistics services market also influence the process of its optimization. In our opinion, the optimization of the transport services market is important not only in terms of the interests of enterprises of the industry, but also in the pursuit of a goal that provides for overall efficiency.

At this point, a lot of opportunities are being opened in our country, especially in terms of introducing foreign experience to all economic sectors of our country. The President of the Republic of Uzbekistan Sh. M. Mirziyoyev also noted that within the framework of the project "One Space, One Road", implemented on the initiative of the Chinese state, it is necessary to increase the opportunities of our country in the field of transport and communication infrastructure. Also, the main issue is that our president should think about having preferences in transit transportation of main export cargo from transit countries, in particular Turkmenistan, Iran, Kazakhstan, Russia, Azerbaijan and Georgia. Therefore, it is necessary to stimulate the efforts of foreign and local investors in the field of logistics to implement specific projects. Without developing the logistics sector well, we will not be able to create a broad opportunity to access our national markets to the world markets. For this purpose, the introduction of new innovations in the field of logistics, the enrichment of newly created free economic zones with new techniques and technologies, as well as the recruitment of qualified young personnel will serve as a practical work in solving this problem. In addition, further improvement of the firms of various logistics enterprise should eliminate the existing problems in them."

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O‘QITUVCHI – TALABA FAOLIYATINI SAMARALI TASHKIL ETISH OMILLARI

Annotatsiya: *mazkur maqolada ta’lim jarayonida talabalarda bilim, ko‘nikma va malakalarni hosil qilish orqali, ularni rivojlantirish va tarbiyalashga qaratilgan, o‘qituvchi va talaba orasidagi o‘zaro faoliyat yo‘llari ko‘rsatilgan.*
Kalit so‘zlar: *jarayon, ta’lim, tarbiya, faoliyat, o‘quv materiali, metod, ta’sir, maqsad, omil, samara.*

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FACTORS OF EFFECTIVE ORGANIZATION OF TEACHER AND STUDENT ACTIVITIES

Abstract*: this article shows ways of interaction between a teacher and a student, aimed at the development and education of students through the formation of knowledge, skills and abilities in the educational process.*
Key words*: process, education, training, activity, educational material, method, impact, goal, factor, effect.*

Ta’lim-faoliyat turi sifatida o‘zaro ikki tomonlama serqirra jarayon hisoblanib, unda o‘qituvchilar va talabalar ishtirok etadi. Ta’lim jarayonining asosiy ishtirokchisi sifatida o‘qituvchining kasbiy hamda shaxsiy imidji uning butun faoliyati mazmunini namoyon qilib, jamiyat manfaatlariga mos ravishda doimo jamoatchilik nazari markazida turadi.

O‘qituvchining shaxsiy imidjiga barcha ta’lim oluvchilar uchun derli bir xil talablar qo‘yilib, ular o‘z kasbiga muhabbat, fanini bilish, yuksak professionallik, xolisonalik, tashkilotchilik, talabchanlik hamda o‘z faoliyatini boshqarishda namoyon bo‘ladi. Faqatgina o‘qituvchining shaxsiy-individual xislatlari asosida o‘zining “alohida” imidji shakllanadi.

O‘qituvchi va ekspertlar uchun o‘zaro ta’sir jarayonida muloqot hamda kommunikativlik ustunlik qilsa, talabalar uchun ko‘proq psixologik jihatlar ya’ni, o‘zlariga nisbatan qanday muomalada bo‘linishi, ularni tushunish va qanday tarzda qabul qilinishlari muhim hisoblanadi. O‘z navbatida imidji orqali namoyon bo‘ladigan o‘qituvchi shaxsi pedagoglarning o‘zlariga qaraganda, talabalar uchun muhimroq ahamiyatga ega bo‘ladi.

Har ikkita o‘qituvchining biri uchun shaxsiy imidjini hosil qilish zamirida o‘z shaxsiyatini ustun qo‘yishga yo‘naltirilgan psixologik motivatsiya yotadi. Bu esa ularni o‘zaro ta’sir faoliyatida yopiq subyektga aylantirib qo‘yadi. Shu sababli o‘qituvchi va talabalar orasidagi hamkorlik munosobatlari darajasini o‘zgartirishga qaratilgan ijtimoiy monitoring modelini ishlab chiqish zarur hisoblanadi.

Zamonaviy ta’lim sharoitida oliy o‘quv yurtlarida o‘qitish jarayoni kundan-kunga murakkablashib borayotganligi sir emas. Endilikda, o‘qituvchi uchun o‘z mutaxassisligini a’lo darajada bilish orqali auditoriyada to‘plangan talabalarga ulkan bilimlar bazasini berish yo‘nalishidagi kasbiy kompetentligini namoyon qilishning o‘zi kamlik qiladi.

Zamonaviy faol o‘qituvchilar nafaqat o‘z fanlari bo‘yicha chuqur bilimlarini yetkazish, balki talabalar haqida ham ba’zi ma’lumotlar, ya’ni ularning ushbu bilimlarni qanday tarzda o‘zlashtirishlari haqida ham tasavvurga ega bo‘lishlari zarur. Bundan tashqari o‘qituvchilar o‘zlariga tanish bo‘lmagan, ammo yuksak samara beradigan turli o‘qitish metodlari va baholash shakllarini faoliyat mazmunlariga singdirishga majbur bo‘ladilar.

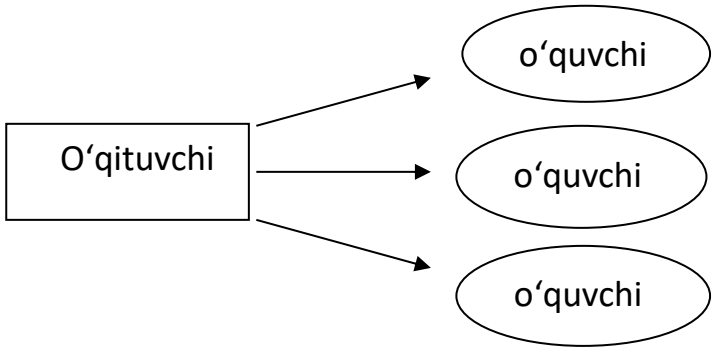
Talabalar esa o‘quv jarayoniga faol jalb qilinishlari natijasida o‘rgangan materiallarni oson tushunib, yodda saqlab, o‘z navbatida tez o‘zlashtiradilar.

O‘qitish metodlari- ta’lim jarayonida o‘quvchilarda bilim, ko‘nikma va malakalarni hosil qilish orqali, ularni rivojlantirish va tarbiyalashga qaratilgan, o‘qituvchi va o‘quvchi orasidagi o‘zaro faoliyat yo‘llari hisoblanadi.

Pedagogik amaliyot o‘qituvchiga ulkan miqdordagi metodlar, shuningdek o‘qitish va tarbiyalashning bir qator usullarini taqdim etadi. O‘qituvchining ijodiy yondashuvi esa o‘quv jarayonida aynan bir metodlarni samarali qo‘llash orqali qo‘yilgan maqsad yo‘lida eng yaxshi natijalarga erishish holatida namoyon bo‘ladi.

O‘qitish paydo bo‘lgan dastlabki kundan boshlab va hozirgi kunga qadar o‘qituvchi va o‘quvchi(talabalar) orasidagi o‘zaro ta’sirning 3 ta asosiy ko‘rinishlari mavjud bo‘lib kelmoqda.

1. Nofaol metod



O‘qituvchi va o‘quvchi orasidagi o‘zaro ta’sirning bunday shaklida o‘qituvchi asosiy mavqega ega bo‘lib, o‘quv jarayonini boshqaruvchisi, o‘quvchi esa nofaol tinglovchi rolini bajaradi.

O‘qitishning passiv shakli haqida gapiradigan bo‘lsak, o‘qituvchining o‘quvchilar bilan aloqasi so‘rovlar, nazorat ishlari, mustaqil ishlar testlar va x.k.z. tarzida amalga oshiriladi.

Zamonaviy pedagogik texnologiyalarni qo‘llaydigan o‘qituvchi-tarbiyachilar nofaol metodlarni samarasiz deb hisoblaydilar. Bunday metodda verbal bayon orqali tayyor bilimlardan ma’lumotlar beriladi, alohidalikdan umumiylikka induktiv mantiqga asoslangan xolda, mexanik xotira bilan, reproduktiv (o‘zgartirishsiz eslash) bayonda namuna buyicha o‘qitish amalga oshiriladi. Natijada ta’lim oluvchilarni sustlikka, sust nutq qobiliyatiga olib keladi.

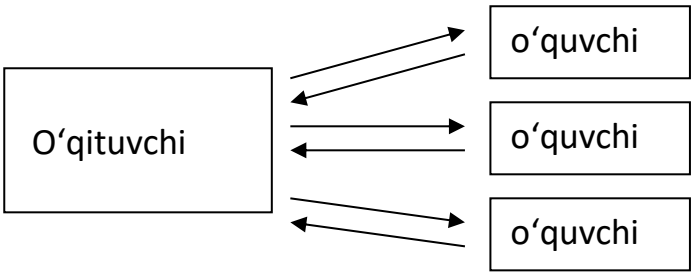
Ammo nofaol metodlarning ba’zi ijobiy tomonlari ham mavjud.

O‘qituvchi pozitsiyasi tomonidan darsga tayyorlanishda yengillik, shuningdek qisqa vaqt mobaynida bir dars mobaynida katta hajmdagi o‘quv materialini o‘quvchilarga taqdim etish passiv metodning asosiy “quroli” hisoblanadi.

Ko‘pgina o‘qituvchilar nofaol metodning bunday xususiyatlarini samarali deb hisoblaydilar va undan keng foydalanadilar. Bunday metodni qo‘llaydigan tajribali o‘qituvchilar, o‘quvchilarga aniq qo‘yilgan maqsad orqali o‘quv predmetini chuqur o‘zlashtirishlarini ta’minlaydilar.

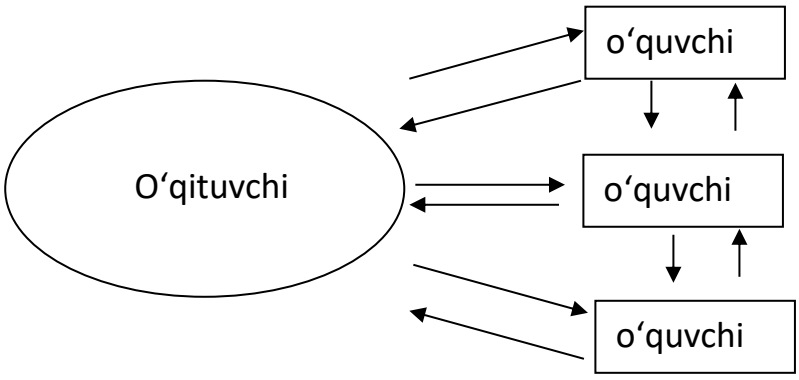
Ma’ruza- nofaol metod orqali darsni tashkil etishning asosiy shakli hisoblanib, oliy o‘quv yurtlarida o‘z oldiga ma’lum maqsad qo‘ygan, ya’ni o‘quv predmetini ongli ravishda o‘zlashtirishni mo‘ljallagan shaxslar uchun mo‘ljallangan bo‘ladi.

2.Faol metod



O‘qituvchi va o‘quvchi orasidagi o‘zaro ta’sir shakli hisoblanib, ular aniq maqsadga qaratilgan jarayon, ya’ni o‘quv mashg‘uloti davomida faol munosobatda bo‘lishadi. O‘quvchi shaxsi o‘z navbatida passiv tinglovchi emas, balki o‘quv jarayonining teng huquqli ishtirokchisi sifatida namoyon bo‘ladi.

3.Interfaol metod



Interfaol («Inter» -o‘zaro, «act» - faoliyat) –o‘quvchilarning nafaqat o‘qituvchi bilan balki boshqa o‘quvchilar bilan ham o‘zaro ta’sir shakli hisoblanadi.

O‘qituvchi bu jarayonda ta’lim oluvchilarning mustaqil, faol bilish faoliyatida tashkilotchi, ularning kompetentli maslaxatchisi va yordamchisi hisoblanib, fakatgina ta’lim oluvchilar bilim, malaka va ko‘nikmalari nazoratini ta’minlab beribgina kolmay, balki kutilayotgan kamchiliklarga o‘z vaktida o‘zgartirishlar kiritish maqsadida o‘quv materillarini qay darajada o‘zlashtirganliklarini aniqlab beradi.

Bu ta’sir natijasida o‘quvchilarning muammoli vaziyatlarni ishlab chikishga, faol bilim ortirishga, ijodiy-tadqiqot faoliyatlariga asoslangan, muammolarni izlashda va ularni yechishga yunaltirilgan, olgan bilimlarini amaliyotda qo‘llashda ta’limning faol usullari keng va samarali qo‘llaniladi.

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ASQAR MAHKAM SHE'RIYATIDA BUVI OBRAZI

Annotatsiya: *Ushbu maqolada shoir Asqar Mahkam ijodidagi eng muhim va oldingi o'rinlarda turuvchi obraz _ buvi obrazi va unga xos bo'lgan xususiyatlar, bu sifatlarning badiiy ifoda etilishi tahlil qilinadi.*
Kalit so'zlar: *Asqar Mahkam, she'r, shoir, buvi obrazi, badiiyat, umr, bolalik.*

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THE IMAGE OF THE GRANDMOTHER IN ASKAR MAHKAM'S POETRY

Annotation: *in this article, the most important and foremost character in the work of the poet Askar Mahkam _ the character of the grandmother and its characteristics, the artistic expression of these qualities are analyzed.*
Key words: *Askar Mahkam, poem, poet, image of grandmother, art, life, childhood.*

She'riyat olamiga safar qilar ekanmiz, har qaysi shoirning ham o'z ilhom manbayi borligining guvohi bo'lamiz. Hamma ijodkor ham bir narsadan yoki insondan ilhomlanmaydi. Kimdir hayotidagi voqea-hodisalardan, kimdir atrofidagi insonlar va ularning bir-biriga munosabatidan, kimdir tabiatdan, kimdir muhabbatdan, kimdir esa qalbidagi iymon nurlaridan ilhomlanadi. Asqar Mahkam esa ilohiy ishqdan ilhom olgan. Bu ishq hidi uning har bir she'ridan ufurib turadi. Shu bilan birga uning ilhom sarchashmasi bo'lgan zot_ buvisi. Hayotning beshafqat darralari bilan savalangan shoir Asqar Mahkam juda kichikligidan juda mushkul sinovlar bilan qarshilashdi. Tojikistonning Kofarnihon tumanida dunyoga kelgan bo'lajak shoir 4 yoshida baxtsiz hodisa tufayli otasidan ajralib qoladi. Shundan keyin onasi boshqa turmush qilib ketadi. Buvisi esa nabiralarini o'gay ota qo'liga berishga ko'zi qiymaydi. Ularni o'zi tarbiyalab katta qiladi. Asqar Mahkam dastlab Mulladavlat qishlog'idagi 49-maktabni tugallaydi. Keyin Xo'jand davlat universitetida o'qiydi. U yerni tamomlab, tumanidagi maktablarda o'qituvchilik qiladi. 1985-yild a esa Toshkentga keladi. Bu yerdagi adabiy muhit uni qo'yib yubormaydi. Shoir umrining oxirigacha shu yerda yashab ijod qiladi. Asqar Mahkam "Ruhoniyat va so'z" maqolasida yoshligi va ajdodlarini xotirlab shunday

deydi: “Nom-u nasabini lo‘nda qilib “machchoyi” (Shimoliy Tojikistonning tog‘li muzofotida yashovchi xalq, asli “maschohlik”)ning “samjun” urug‘iga mansubligini ahyon-ahyon eslatib turadigan buvim Nigorbibi bo‘lmaganida, ehtimol mening go‘dakligim va bolaligim “sho‘ro yetimxonalari”da kechgan bo‘lardi. Loyiq Sherali bir zamon Mastchoh tog‘larini kezib qaytgach, dunyoda mastchohlikning jonidan qattiqroq jon yo‘q, degan mazmunda she’r yozgan. Kampir qattiqjon edi…

Odam farzandi boshiga jazo bo‘lib kelgan oktabr hodisalaridan chamasi 10 yil burun Qo‘qonning Yaypan tumanidagi Davlatbotir qishlog‘ida tug‘ilgan buvim “quloq-quloq” davrlarida bir guruh qo‘qonlik muhojirlar bilan Janubiy Tojikistonning Hisor tizma tog‘lari etagidagi Kofarnihon daryosini qamishzor to‘qay sohillariga dovur qochib borib, o‘ng‘ayroq bir yerni obod qilishib yashay boshlashgan.

30-yillarda boshlangan to‘qay obod qilish urushdan keyin ham davom etgan. Qishloq o‘nglangach, unga dag‘al bo‘lsa-da “Jangalobod” deb nom berishgan. Ammo “sotsializm” degan tushuncha to‘qayga ham kirib kelgach, qishloq nomini birmuncha murakkab va siyosiy “Ijtimoiyat” nomi bilan almashtirishgan. Bu mahol so‘zni hech kim shu paytgacha mahrajini kelishtirib ayta olmaydi.

Otam Abdurahmon (Alloh rahmat qilsin) fojiali halok bo‘lganida akam yetti yashar, opam besh yashar, men uch yashar, ukam bir yashar edik.

Onamiz turmushga chiqib ketgach, kampir buvimiz bizni o‘gay ota qo‘liga bermagan. “O‘zim katta qilaman…” degan qaysar va qattiqjon kampir…Keyinchalik bir etak nonxo‘rni bir kmpir eplolmasa kerag-ov, deb yetimxonalar eshigini ko‘rsatgan kimsalarni ham bu “machchoyi xotin” umrining so‘nggi damlarigacha kechirmadi. Mehnat va ibodatdan bo‘lak hech narsani bilmagan kampir buvim Xudoyi taoloning bizga ko‘rsatgan marhamati edi. Men yetimlik, judolike, og‘ir mashaqqatlar yoshiga qorilgan bu marhamati uchun Allohga hamdlar aytaman[1].

Shoirning “Bu uyda bir vaqtlar buvim yashagan”, “Buvimga maktub”, “So‘nggi xato”, “Men buvimni esladim yana”, “Sen ko‘cha ko‘rmagan bir ayol eding”, “Buvimga yuborilmagan maktub”, “Buvim yolg‘iz qoldi…”, “Buvim bilan xayrlashuv kabi she’rlarida buvisini yodga oladi. Uning mehribonligi-yu jonkuyarligini, fidoyiligini madh etadi.

Bu uyda bir vaqtlar buvim yashagan,
mehrsiz kelinin dastidan yonib.
Poydevor toshini o‘zi tashlagan,
bizlarga non yopgan tunlar uyg‘onib.[2]

Asqar Mahkam o‘z bolaligi o‘tgan uyga kelar ekan uning esiga beixtiyor shu uyning farishtasi_buvisi tushadi. Buvi “mehrsiz kelini”, ya’ni shoirning onasi, uning o‘z bolalariga mehrsizligi, boshqa turmush qilgani tufayli to‘rtta bolasini keksa kampirga taslab ketadi. Buvi esa ularni ko‘z qorachig‘iday asraydi, boqib

[1] Asqar Mahkam. Analhaq._Toshkent, 2003-y.
[2] Asqar Mahkam. Bu ishq edi. _Toshkent, 2017-y.9-b.

tarbiya qiladi. Tunlari uyg‘onib xamir qorib, tandirga o‘t yoqib, erta bilan nabiralarini tandirdan endi uzilgan issiq nonlardan beradi.

O‘zi yer chopardi, o‘zi ekardi,
nevara tashvishi, besh mahal namoz.
G‘am oshib ketganda nos ham chekardi,
Qo‘shnilar goh yarash, gohida araz.[3]

Yuqoridagi misralardan ko‘rinib turibdiki, bo‘lajak shoir mushtipar buvisining mashaqqatlari-yu mehnatlarini ko‘rib katta bo‘ladi. Ro‘zg‘orning butun tashvishi Nigorbibi buvining boshiga tushadi. Erkak kishi qiladigan og‘ir ishlar bo‘ladimi, yosh juvonlar yugurib-yugurib qiladigan yumushlar bo‘ladimi uning zimmasida edi. “O‘zi yer chopardi, o‘zi ekardi”. Tinmay mehnat qilardi. Nevaralarining harhashasi-yu injiqliklarini yolg‘iz o‘zi ko‘tarardi. “Besh mahal namoz” o‘qirdi. Ibodat qilardi. “G‘am oshib ketganda nos ham chekardi”. Shunga o‘xshash obrazni biz G‘afur G‘ulomning “Mening o‘g‘rigina bolam” hikoyasida uchratishimiz mumkin. Unda ham to‘rtta yetim nevarasi bilan qolgan saksondan oshgan Roqiya buvi noskash kampir deb ta’riflangan edi.

Men qishloqdan ketdim …
O‘g‘riday
Talon qilib buvim bisotin.
Oq sochlarin yopgan o‘g‘irday
Titrar edi mo‘rilarda tun.
Qishlog‘imdan shu zayl ketdim,
Qaramadim na bor, na yo‘qqa.
Men la’nati “shoirman” dedim,
Och sigirga, itga, tovuqqa.[4]

Ushbu parcha Asqar Mahkamning “So‘nggi xato” she’ridan olingan. Universitetni Tojikistonda tugatgan ijodkor ijodiy kamolotga erishish uchun Toshkentga yo‘l oladi. Qishloqdan brogan odamga shaharda o‘zini tiklab olish uchun mablag‘ kerak bo‘ladi. Shoir ham aynan shuni nazarda tutgan holda “Men qishloqdan ketdim o‘g‘riday talon qilib buvim bisotin”, deya ta’kidlaydi. Shoir qishlog‘idan qish tunlaridan birida, ya’ni mo‘rilarda tun titrayotgan paytda qishloqdan shaharga yo‘l oladi. Lirik qahramon shu vaqtlar sigir. tovuq, itlar och bo‘lsa ham, “men shoirman deb, borga, yo‘qqa qaramay yo‘lga otlanganini eslab o‘zini “la’nati” deya koyiydi. Shu paytlardagi g‘o‘r va tajribasiz shoirni tanqid qiladi. Ayniqsa, har bir misrada mehnatkash va mushtipar buvisining yelib-yugurishlari evaziga kelgan daromadni sarflagani, uning qancha qiyinchiliklar bilan yig‘gan bisotini sarflagani uchun o‘zini tergaydi. Shu orqali ham lirik qahramonning, shoirning, buvisiga bo‘lgan mehr-oqibatini, e’zozini, uni chin dildan yaxshi ko‘rib, qadrlaganini bilib olishimiz mumkin.

Asqar Mahkamning “Jannatmakon buvim vafotidan bir yil so‘nggi yo‘qlovim” deb nomlangan she’ridan olingan quyidagi misralarga e’tibor beraylik:

[3] Asqar Mahkam. Bu ishq edi. _Toshkent, 2017-y. 9-b.
[4] Asqar Mahkam. Bu ishq edi. _Toshkent, 2017-y. 13-b.

Bilaklari kosovrang buvim,
yonoqlari olovrang buvim.
Sochlarida bodiyalarim,
so‘ngaklari sojidalarim.[5]

Shoir buvisining o‘limidan keyin uni yodga olaganda, buvisining “kosovrang” bilaklari, olovrang yonoqlari, oq oralagan sochlari esiga keladi. “Bilaklari kosovrang” ifodasini shoir buvisining umri qanchalik og‘ir mehnatda o‘tganini bildirish uchun qo‘llaydi. Kosov deganda o‘t, olovni to‘g‘rilash, tortish va shu kabilar uchun ishlatiladigan yog‘och yoki temir tayoqni[6] tushunamiz. Unga olov yoqish uchun qalangan o‘tinlarni to‘g‘rilanganda kul yuqib qoladi. Shoir ham buvisining qadoq bo‘lib ketgan qo‘llarini badiiy tarzda tasvirlash uchun ham aynan “bilaklari kosovrang” ni ishlatadi. “Yonoqlari olovrang” ifodasi esa buvisining qishin-yozin tinmay mehnat qilishini ifodalayapti. Haqiqatdan ham chumolidek ishlayveradigan odamning yonoqlari qishning sovug‘ida, yozning issig‘ida qizarib ketadi. “Sochlarida bodiyalarim” birikmasidagi bodiya so‘zi cho‘l yoki biyobon ma’nosini anglatadi. Bu sifatlash shoirning buvisining sochlari oqarib, to‘kila boshlaganini ifodalash uchun qo‘llanadi. Uning umri davomida qanchadan qancha qayg‘u-alam hamda iztiroblarga mubtalo bo‘lganligini she’rxonga ta’sirli ohangda yetkazib beradi. Oxirgi misrada esa shoir buvisining suyaklarini “sojidalarim” deya ta’riflaydi. Sojida so‘zining ma’nosi sajda qiluvchi, Allohga sig‘inuvchi, taqvodor ayol demakdir. Ijodkor buvisining suyaklari sajda qiluvchi deyish orqali uning muslima ayol ekanligini ifodalayapti.

Asqar Mahkam she’rlarini o‘qir ekanmiz, uning buvisiga bo‘lgan cheksiz mehrini, muhabbatini va sog‘inchini chin qalbimiz bilan his etamiz. Ko‘pchilik she’rlari boshqa mavzuda yozilgan bo‘lsa-da, shoir buvisini eslab o‘tadi. She’rdagi qaysidir his uning yodiga buvisini, qishlog‘ini, bolaligini soladi. Buvisini qo‘msab yozgan ijod namunalarida esa buvisining fidoyiligi, mehnatkashligi-yu mushtiparligini unga bo‘lgan chek-chegarasiz sog‘inchini kuylaydi. Bu ajib tuyg‘ularni Asqar Mahkam o‘zining yuksak badiiy mahorati bilan bir san’at asariga aylantiradi.

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THE ROLE OF BILIARY TRACT DISEASES IN THE DEVELOPMENT OF ARTHRITIS AND ARTHROSIS

ABSTRACT: *Arthritis and arthrosis are observed in almost all of the population today as they age. The development of the disease is due to a number of internal and external factors. The increased inflammatory process in the body due to gallbladder diseases, gallstone disease (cholelithiasis) and chronic cholecystitis causes degenerative changes in the joints.*

KEYWORDS: *Arthritis, Arthrosis, Gallbladder, Infections, Anemias.*

INTRODUCTION:

Arthritis is a group of inflammatory diseases in which the main symptom is inflammation of the joints. Over time, the inflammation can affect the joint surfaces, such as the epiphyses of bones and cartilage, as well as the tissues around the joints, including tendons, bursae, and ligaments.

The main types of arthritis are:

- Rheumatoid arthritis - caused by staphylococcal infection, causes pain and swelling in the joints, and can affect the skin, kidneys, liver, and heart.
- Gouty arthritis - occurs as a result of metabolic disorders, accompanied by the accumulation of uric acid in the joints.
- Infectious arthritis - caused by intestinal infections such as typhoid fever, salmonellosis, and dysentery.

Causes

Arthritis begins with inflammation of the synovial membrane inside the joint, which leads to the accumulation of inflammatory fluid (exudate).

Causes of arthritis can include:

- Weakened immune system
- Infections
- Allergic reactions
- Sedentary lifestyle

LITERATURE REVIEW AND METHODOLOGY:

Arthritis and arthrosis are diseases that cause pathologies of the joints and bones, and their development is influenced by a number of internal and external factors. Gallbladder diseases, in particular cholelithiasis (gallstones) and cholecystitis (inflammation of the gallbladder), can increase inflammatory processes in the body and thereby accelerate degenerative changes in the joints. This article presents a scientific analysis of how gallbladder diseases affect the development of arthritis and arthrosis, the relationship between these diseases and the mechanisms involved. The gallbladder is an organ that stores bile produced by

the liver and helps digest fats. Gallbladder diseases are disorders of the functioning of this organ, for example, the formation of gallstones (cholelithiasis) or inflammation of the gallbladder (cholecystitis) - activate inflammatory processes in the body. In cholecystitis, for example, the gallbladder becomes inflamed, which leads to the production of inflammatory mediators (cytokines, prostaglandins). These substances, in turn, affect other systems in the body, including the joints. In cholelithiasis, gallstones can provoke changes and inflammation, which in turn increases the mechanisms affecting the joints. Theoretical basis. Arthritis is a disease caused by inflammation in the joints, of which there are many types. Arthritis causes swelling, pain, movement restrictions and deformities in the joints. Autoimmune diseases such as rheumatoid arthritis (RA) and psoriatic arthritis increase inflammation, which leads to structural changes in the tissues of the joints. Osteoarthritis is characterized by degeneration of the joints and wear of the cartilage (bone covering). In this disease, the joints become stiff, movement is limited, and pain increases. Although the main cause of osteoarthritis is excessive load on the joints or long-term injuries, metabolic and inflammatory factors also affect its development. Osteoarthritis usually involves weakening of the bones and tissues in the joints. Gallbladder diseases, in particular cholecystitis and cholelithiasis, provoke inflammation in the body. In cholecystitis, inflammatory mediators (e.g., prostaglandins, cytokines) are produced as a result of infection or inflammatory processes in the gallbladder. These substances increase inflammation in the joints and lead to swelling, pain, and limited movement in the joints.

DISCUSSION:

Gallbladder disease can also alter the body's metabolism. Gallbladder inflammation and gallstones can disrupt the mineral balance in bones and joints. This, for example, leads to a decrease in the absorption of calcium and vitamin D, which leads to weakening of bones and joints. These metabolic changes can affect the development of osteoarthritis. In addition, gallbladder disease can release toxic substances into the body, and these substances can damage the tissues in the joints. A number of scientific studies have aimed to study the connection between gallbladder disease and joint diseases. Studies show that the development of arthritis and osteoarthritis is accelerated in patients with gallbladder diseases such as cholelithiasis and cholecystitis. For example, inflammation in the gallbladder can lead to the development of arthritis in the joints, especially rheumatoid arthritis. In addition, gallbladder diseases can release toxic substances that damage joint and bone tissue and accelerate the development of arthrosis. Conclusion. Gallbladder diseases, cholelithiasis and cholecystitis, can activate inflammatory processes in the body and thereby affect the development of arthritis and arthrosis. Inflammatory mediators, immunological reactions and metabolic changes accelerate degenerative processes in the joints. Thus, the role and impact of gallbladder diseases in joint diseases should be fully scientifically studied. Taking into account gallbladder pathologies in the treatment of these diseases will help to develop more effective treatment strategies.

RESULTS

Since we are talking about reduced joint mobility, the logical approach is to perform procedures aimed at increasing it. Popular non-drug methods:

Relaxation gymnastics. Specially developed physical therapy programs and exercises help strengthen the muscles around the joints, increase their flexibility and mobility, activate cell repair processes, reduce pain and inflammation. Rehabilitation exercises may include stretching, aerobics and other approaches.

Physiotherapy. Includes various procedures that have a directed or diffuse effect on the injured joint or periarticular region. We are talking about ultrasound, electro-, magnetotherapy, cold or heat effects on tissues. This relieves pain, relieves inflammation, improves blood circulation and accelerates tissue regeneration.

Massage. Tactile effects on areas of the body and limbs with damaged joints. Various massage techniques – Swedish, deep, acupuncture, etc. – relieve muscle tension, activate blood circulation, reduce pain, inflammation, and improve joint mobility.

Weight management. Excess weight is one of the main causes of joint diseases, especially hip and knee diseases. This is due to the increased weight load on them when standing, walking, and running. Therapeutic diets, weight-loss exercises, and other approaches that help normalize body weight are effective in solving joint problems. At the same time, proper nutrition involves not only preventing obesity, but also saturating the body with useful substances: vitamins, minerals, antioxidants, etc.

Avoiding adverse factors. Sitting or standing for long periods of time, a sedentary lifestyle, excessive physical exertion (for example, running or weightlifting), poor posture - in the long term, such habits have a detrimental effect on the joints, ligaments, muscle tissue and the musculoskeletal system as a whole.

Non-drug therapeutic methods are usually used in combination with other approaches, in particular, the use of drugs. This allows you to achieve a healing effect in several aspects at once.

CONCLUSION:

If you notice signs of knee osteoarthritis or other joint diseases, do not rush to self-medicate. Incompetent intervention can lead to an exacerbation of the problem. To successfully - effectively and safely solve it, seek help from a medical professional. The doctor will conduct an examination, make an accurate diagnosis and prescribe a treatment that is most suitable for your condition.

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OILA-BARKAMOL AVLOD TARBIYASI TAYANCHI

Annotatsiya: *maqolada barkamol avlod salomatligini mustahkamlash va voyaga yetkazish jarayonida oila tarbiyasining ahamiyati hamda o‘rni ko‘rsatilgan.*
Kalit so‘zlar: *tarbiya, jamiyat, oila, axloq, salomatlik, ma’naviyat, rivojlanish,*

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FAMILY – THE BASIS OF EDUCATION OF A HARMONIOUSLY DEVELOPED GENERATION

Abstract*: the article shows the importance and role of family education in the process of personality formation and strengthening the health of a harmoniously developed generation*
Keywords: *education, society, family, morality, health, spirituality, development.*

Mamlakatimiz mustaqillikka erishgandan so‘ng o‘ziga xos taraqqiyot va rivojlanish yo‘lini bosib o‘tmoqda va bugungi kunda jamiyatni ijtimoiy-ma’naviy yuksaltirish, oilaviy munosabatlarni jamiyatda tutgan o‘rnini, mavqeini mustahkamlash, sog‘lom avlod tarbiyasiga ahamiyat berish asosiy vazifalardan bo‘lib qolmoqda.

Ijtimoiy munosabatlar jamiyatning tuzilishini vujudga keltiradi. Ijtimoiy munosabatlar ijtimoiy hayotning, ayniqsa, oilaviy hayotni mohiyatini ifodalaydi. Oila esa odamlarning iqtisodiy, huquqiy, ma’naviy munosabatlariga asoslangan ijtimoiy birlikdir.

Oilaviy birlikda shaxslar o‘rtasida axloqiy, psixologik, jismoniy va xo‘jalik-maishiy aloqalar sodir bo‘lib, ular hayotda va maqsadlarda umumiylikni vujudga keltiradi.

Barkamol avlodni tarbiyalash-buyuk davlat poydevorini, farovon hayot asosini qurish demakdir. Barkamol avlodni tarbiyalash ikki jihat – yosh avlodni jismonan sog‘lom etib tarbiyalash va ularni ma’naviy barkamol etib voyaga yetkazishni o‘zida mujassamlashtiradi. Inson ma’naviy barkamol bo‘lishi uchun, eng avvalo, jismonan sog‘lom bo‘lishi lozim. Bu oddiy hol, ammo u jamiyatimiz rivoji – kelajagini ta’minlovchi omildir.

Insonning salomatligi ijtimoiy qadriyatlar orasida eng muhimdir. Salomatlik muammosi mamlakatning ijtimoiy-iqtisodiy taraqqiyoti ko‘rsatkichlarini biri

bo‘lib, bu ekologik-iqtisodiy va ijtimoiy-gigenik farovonlikning o‘ziga xosligi, fan-texnika taraqqiyoti hamda aholi madaniyatidagi darajasi bilan o‘zaro uzviy bog‘liqdir.

Inson ma’naviy, tabiiy va ijtimoiy tirik organizm bo‘lib merosiy va hayotiy o‘zlashtirib olingan xususiyatlar birligini bildiradi. Inson hayotida biologik qonuniyatlarning namoyon bo‘lishi uning jismoniy kamol topishi uchun asos bo‘ladi.

Inson hayotida biologik qonuniyatlarning namoyon bo‘lishi ijtimoiy xarakterga ega. Insonning hayoti umumiy tizimga kiruvchi biologik va ijtimoiy zamin bilan bog‘langan. Demak, inson tabiiy biologik vujud bo‘lib, u o‘zining kelib chiqishi, organizmning fiziologik xususiyatlariga ko‘ra tabiatning oliy mahsulidir.

Inson ijtimoiy vazifalarni bajarishi, farzandlarini sog‘lom bo‘lishi, sog‘lom turmush tarziga ega bo‘lishi, farzandlarining moddiy-ma’naviy kamoloti uchun sharoit yaratishi kerak.

Oilaviy munosabatlar madaniyatini takomillashtirmasdan turib bunga erishib bo‘lmaydi. Umumlashtirib aytganda, sog‘lom ota-onadangina sog‘lom farzand tug‘iladi. Sog‘lom avlod dastlab oilada shakllanadi. Barkamol avlod tarbiyasi oiladan boshlanadi.

Oila sog‘lom avlodni voyaga yetkazuvchi muhim omil hisoblanadi. Demak inson salomat yashashi uchun boshqa omillar bilan birga sog‘lom oilaviy muhit ham lozim. Bunday muhit oila a’zolarining bir-birini tushunishga, oilaviy munosabatlarning to‘g‘ri o‘rnatilishiga bog‘liq bo‘ladi.

Shunday ekan, barkamol avlod uchun tarbiyaviy muhitni yaratish ota-onaning bosh vazifasidir. Mustaqil O‘zbekiston ijtimoiy hayotidagi tub o‘zgarishlar ham oilada yangilanish, o‘zgarishni amalga oshirishni taqazo etadi. Shu maqsadda, mamlakatimizda “Sog‘lom bola” dasturi, birinchi navbatda, oilalarga, oiladagi muhitni sog‘lomlashtirishga, jismonan sog‘lom, ma’naviy boy va axloqan pok yosh avlodni tarbiyalashga qaratilgandir. Tabiiyki, sog‘lom oilalar butun jamiyatning sihat- salomatligini belgilaydi.

Yangi huquqiy-demokratik, insonparvar jamiyatni qurish, islohotlarning taqdiri oilalarni mustahkamligiga, sog‘lomligiga bog‘liq. Sog‘lom oila – bu jismoniy sog‘lom, ma’naviy boy barkamol farzandlar tarbiyalaydigan jamiyatimiz o‘zagidir.

Mamlakatimizning ertangi kuni, uning muvaffaqiyatli ravishda olg‘a siljishi ko‘p jihatdan o‘sib kelayotgan avlodni sog‘lom bo‘lishiga, onalik va bolalikning qanday muhofaza qilinishiga bog‘liq va bu belgilovchi ahamiyatga ega. Bu o‘z navbatida Vatanimizning kelajagi bo‘lgan farzandlarimizning jismoniy, aqliy va ma’naviy kamol topishi uchun qulay shart-sharoitlar yaratishni taqazo etadi. Bu ko‘rilayotgan chora-tadbirlar yurtimizda barkamol avlod tarbiyasiga berilayotgan davlat e’tiboridan dalolat beradi.

Salomatlik ijtimoiy qadriyatlar orasida ustivor o‘rinni egallaydi. Chunki, u ishlab chiqarish kuchlarini erkin, unumli mehnat qilishni ta’minlaydi, shu bilan birga umrni uzaytiradi, o‘limni kamaytiradi hamda kelajak avlodni salomatligini

ham ta’minlaydi, nasl tozaligiga sabab bo‘ladi. Bu holat o‘z navbatida, jamiyat taraqqiyotini tezlashiradi.

Har bir mamlakat aholisi salomat bo‘lishi uchun obyektiv sharoit – moddiy ta’minlanganlik va tabiatning tozaligi zarur bo‘lsa, subyektiv omil – sog‘lom turmush-tarzi, tibbiy ongning shakllanganligi va yoshlarni hayotga tayyorlab borishning takomillashgani asosiy ahamiyatga ega bo‘ldi. Demak, oilalarni mustahkamlash, oilada sog‘lom avlodni voyaga yetakzish ham, birinchi navbatda jamiyatning iqtisodiy rivojlanishiga va uning barqarorligiga bog‘liqdir.

Jismonan sog‘lom va har tomonlama ma’naviy boy avlodni tarbiyalash, kamol toptirish eng avvalo oiladan boshlanadi. Yuksak axloqiylik, insoniy fazilatlar, vatanparvarlik, Vatan bilan g‘ururlanish va unga muhabbat, uning baxt saodati, ravnaqi uchun mas’uliyatni tarbiyalash, buzg‘unchi g‘oyalarga, yomon odob-axloqqa qarshi nafrat ruhi dastavval oilada kurtak otadi.

Oilada shakllanagan odob-axloq, xulq-atvor keyinchalik mahallada, mehnat jamoalarida, o‘quv muassasalarida rivojlanib, shaxsning ongi va qalbiga singib boradi

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SIMPLE EPITHELIAL TISSUE THE CERVIX TO THE EFFECTS OF CHEMOTHERAPY

Abstract. *Cervical cancer is one of the diseases that seriously threaten women's health. More than 311,000 women die from this disease every year. As in the world, in Uzbekistan, cervical cancer is second only to breast cancer among women of all ages. According to the death rate from diseases, this disease ranks third after breast and stomach cancer among women of all ages. Simple epithelial of the cervix (services) to localize the tumour is one of the most common in women. Often this process is the development of tumour human papillomavirus (hpv) is associated with when its primary cancer of the cervix is one of the main reasons. Surgery in the treatment of this disease in modern medicine, light therapy and chemotherapy methods apply. In this article the cervix to the effects of chemotherapy and its clinical effectiveness simple epithelial analysis.n the article, patients diagnosed with cervical cancer were selected, and a biopsy was taken from them and a laboratory examination was conducted. patients were treated with Stipulating and 5-fluorouracil chemotherapeutic drugs by chemotherapy, then light therapy and surgery were performed. when the histological material obtained during surgery was re-examined in the laboratory, it was found that the pathomorphosis levels of patients diagnosed with cervical cancer G1, G2, G3 had changed to 1, 2, 3 levels of pathomorphosis.*

Key words: *Cervical cancer, chemotherapy, Stipulating, 5-fluorouracil, Squamous cell carcinoma, Adenocarcinoma, Light therapy, pathomorphosis, chemotherapeutic drugs, surgery, cervical cancer G1.*

Introduction. Cervical cancer refers to the growth of malignant cells in the lower part of the uterus or cervix, which joins the vaginal canal. [2] Cervical cancer is the fourth most common cancer in women after breast, colon and detrimental cancer. Cervical cancer is mainly divided into two types: Squamous cell carcinoma: This is a common type of cervical cancer that starts in the thin, squamous cells that line the outside of the cervix. Carcinogenicity: This type of cervical cancer begins in the glandular cells that line the cervical canal. Once cervical cancer is definitively diagnosed, treatment can begin, which may be a combination of the following: **Surgery:** Early-stage cancers are treated with surgery, where: 1. Cervical cancer biopsy o is removed when it is done.

2. The cervix is removed or a tracheotomy is performed.

3. The uterus and cervix are removed or a hysterectomy is performed

Chemotherapy: A combination of pharmaceutical drugs is used to kill cancer cells. For advanced cancers, a higher dose of chemotherapy is given.[1.]

Light therapy: High-powered radiation beams are used to kill cancer cells. [5.]

The study of morph functional changes of the squamous epithelium of the cervix after chemotherapy and radiation therapy is of great importance in medical science and practice. [6-8] The reason for this is that these methods have different effects according to the stages of the disease, determining the changes in the squamous epithelium of the cervix after chemotherapy[9-11] and radiation therapy helps to determine how effective the treatment methods are, and this is due to this disease. leads to a decrease in the number of deaths and an increase in the percentage of recovery. [12-15.]

Materials and methods

This research studied four patients diagnosed with cancer of the cervix epithelial 50 students. Their age is from 30 to 60, all the identified stage ii or iii disease. Advantageous chemotherapy in patients (PTS) treatment was plasticine and facilitate on the basis of mode. During the research studied the following parameters:

- Chemotherapy effects on the structure of the cells (histological through surveys).
- Clinical efficiency indicators (indicators of remission or progression).
- The frequency and severity of side effects.

Results

1. **The histological effects of chemotherapy** after chemotherapy 65% of the patients at significantly change apoplectic of tumour cells was recorded. The complexity of the effectiveness of this method of treatment to inhibit tumour tissue non-proliferation shows. 20% of patients the tumour size at 50% were observed.

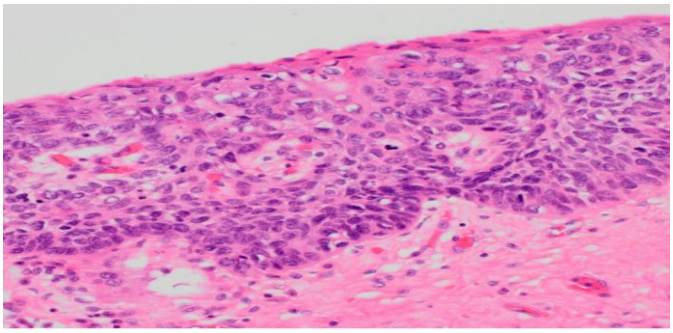
2. **Clinical effectiveness** research according to the results, 80% of patients were observed clinically to improve them at 30% of full remission was noted. However, 10% of patients the progression of the disease continued. This condition is mostly caused by chemotherapy existentialist.

3. **Side-effects** of chemotherapy in the background, 70% of patients at the following side-effects were observed:

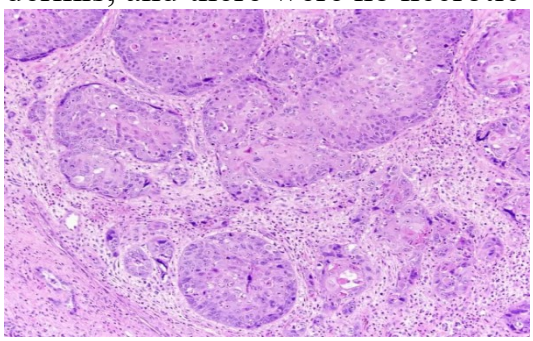
    - Blood system changes (leukopeniya, trombositopeniya).
    - Disorders of the digestive system (nausea, vomiting).
    - Immunity the decline of the system (mid-level infections).

Biopsies were taken from 50 patients who complained of malignant cancer of the squamous epithelium of the cervix in 2022-2023 at the branch of the Fergana Region branch of the Republican Specialized Oncology and Radiology Scientific and Practical Centre. It was taken for histological examination in the laboratory of

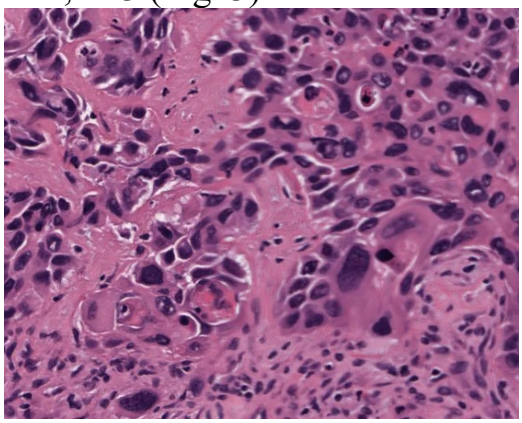
RSO and RSPMC FRB, and it was stained with hematoxylin and eosin dyes. He identified the following changes in the covering epithelium. In the bases of our sick patients, the basal layer of the covering epithelium was not completely damaged, hyper-chromatic nuclei of flat epithelium, strongly enlarged cells with diffuse atypical and irregular nuclear contours were found in the epithelium (Fig. 1).



In some patients, it was found that flat cells in the epidermis grew into the dermis, and there were no necrotic cells. (Fig. 2)



In the rest, many flat epithelium underwent mitosis and cell polymorphism and necrosis foci were found. Cancer of flat cell epithelium was diagnosed as G-1, G-2, G-3 (Fig. 3).



Discussions

Chemotherapy, especially cisplatin and paclitaxel on the basis of treatment of cancer of the cervix of the uterus showed high efficacy in patients with epithelial. Despite this, chemotherapy not only tumour cells but also have a negative impact to healthy tissue because an individual approach is required.

Future prospects: genetic analysis and molecular markers to identify patients who are sensitive to chemotherapy through the study of the results of treatment can improve.

Summary

Chemotherapy is the treatment of cancer of the cervix epithelial effective method, although its side-effects and minimizing additional research is required to optimize treatment strategies. Individual and comprehensive approach, as well as the introduction of new drugs and allows more effective treatment of this disease.

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DEVELOPING CREATIVE THINKING IN THE EDUCATIONAL PROCESS BASED ON THE SYNERGISTIC APPROACH

Abstract: *This study explores the implementation of the synergistic approach to enhance creative thinking in the educational process, with a focus on adapting international practices and modern pedagogical methods to the context of Uzbekistan. The proposed sequential model integrates steps such as needs assessment, resource development, educator training, and continuous feedback to ensure effective application. By incorporating project-based learning, problem-solving strategies, and digital tools, the model aims to foster innovation and adaptability among students and educators. The findings highlight the significance of aligning theoretical principles with practical applications to build a competitive and creative educational environment that meets both national and global standards.*

Keywords: *Synergistic approach, creative thinking, education, problem-solving, modern pedagogy, blended learning, flipped classroom, innovation in education.*

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TA’LIM JARAYONIDA SINERGETIK YONDASHUV ASOSIDA IJODIY FIKRLASHNI RIVOJLANTIRISH

Annotatsiya:*Mazkur tadqiqotda sinergetik yondashuvni ta’lim jarayonida ijodiy fikrlashni rivojlantirish uchun qo‘llash masalalari ko‘rib chiqilgan bo‘lib, xalqaro tajribalarni va zamonaviy pedagogik usullarni O‘zbekiston sharoitiga moslashtirishga alohida e’tibor qaratiladi. Taklif etilgan izchil model ehtiyojlarni baholash, resurslarni ishlab chiqish, o‘qituvchilarni tayyorlash va samarali qo‘llashni ta’minlash uchun doimiy fikr-mulohaza almashuv kabi bosqichlarni o‘z ichiga oladi. Loyihalarga asoslangan ta’lim, muammoni hal qilish strategiyalari va raqamli vositalarni joriy etish orqali model talaba va o‘qituvchilar orasida innovatsiyalar va moslashuvchanlikni shakllantirishga qaratilgan. Natijalar nazariy tamoyillarni amaliy qo‘llanilish bilan moslashtirishning milliy va global standartlarga javob beruvchi raqobatbardosh va ijodiy ta’lim muhitini yaratishda muhimligini ta’kidlaydi.*

Kalit so‘zlar: *sinergetik yondashuv, ijodiy fikrlash, ta’lim, muammoni hal qilish, zamonaviy pedagogika, aralash ta’lim, ag‘darilgan sinf, ta’limdagi innovatsiyalar.*

INTRODUCTION

In the modern world, the development of creative thinking in the educational process is one of the most pressing challenges. As the President of Uzbekistan Shavkat Mirziyoyev has noted in his address to the nation: *"The sustainable development of our country depends on young people mastering the skills of innovative thinking, creative problem-solving, and the ability to work with advanced knowledge and technologies"* [1]. This statement highlights the vital role of education in cultivating creative thinking and intellectual potential among students.

Creative thinking, defined as the capacity to solve problems innovatively, is essential in preparing individuals for the challenges of the 21st century [2]. The synergistic approach, which focuses on the self-organization principles of interconnected systems, offers a robust framework for enhancing creative thinking within educational environments [3]. This method fosters non-linear problem-solving and holistic thinking among students, contributing to their personal and intellectual growth [4].

In Uzbekistan, the modernization of the education system is actively pursued to meet global standards. The introduction of advanced teaching technologies and interactive methodologies is particularly aligned with the synergistic approach. President Mirziyoyev has emphasized: *"Our main goal is to create a new generation of youth capable of thinking critically and creatively, prepared to tackle the challenges of modern times"* [5]. These reforms underscore the importance of fostering creativity as a cornerstone of educational innovation.

The synergistic approach integrates diverse learning strategies, such as collaborative projects, problem-based learning, and the use of digital tools, to enable students to approach challenges dynamically [6]. Furthermore, it empowers educators to adopt innovative pedagogies, encouraging students to explore ideas independently and critically [7]. The inclusion of this methodology in the education system significantly enhances the quality of learning and prepares competitive specialists for the labor market [8].

Given the increasing role of technology in education, synergistic principles offer new avenues for incorporating digital platforms and interactive tools to stimulate creativity and engagement [9]. For instance, multimedia resources, virtual simulations, and online collaborative environments enable students to work on real-world problems, thereby improving their practical skills and fostering creative potential [10].

The goal of this research is to develop effective pedagogical approaches based on synergistic principles for enhancing creative thinking and to evaluate their impact on educational outcomes [11]. By integrating interactive teaching techniques and technological tools, the proposed methodology seeks to create a dynamic and inclusive learning environment [12].

This research is particularly significant in the context of Uzbekistan's educational reforms, where fostering creative thinking aligns with national strategies for modernization and global competitiveness [13]. The study aims to bridge the gap between theoretical frameworks and practical applications in developing creative skills among learners [14].

The application of synergistic principles in education has proven effective in aligning theoretical frameworks with practical methodologies. Rashidov (2020) highlights the importance of integrating national cultural values into educational innovation to foster creative thinking among students. His research emphasizes that a synergistic approach enhances problem-solving skills and prepares learners for real-world challenges [15].

Abdullaeva (2021) expands on the role of pedagogical innovations, focusing on interactive teaching technologies and project-based learning methods. These tools, she argues, are instrumental in activating students' cognitive engagement and fostering independent thinking within a synergistic framework [16].

Digital tools also play a crucial role in modern education. According to Davronov (2020), virtual laboratories and simulations significantly impact creative education by providing students with opportunities to solve real-life problems in a dynamic, technological environment. This reinforces the connection between theoretical knowledge and practical application [17].

In higher education, synergistic teaching methods have shown potential for unlocking students' creative potential. Muminova (2019) emphasizes the integration of multidisciplinary knowledge within synergistic frameworks to encourage holistic thinking and innovation among learners [18].

Akhmedov (2022) delves into the methodological foundations of applying synergistic principles in national education systems. His research underscores the role of this approach in enhancing learners' ability to generate innovative ideas and adapt to evolving educational contexts [19].

METHODS AND RESULTS

Developing creative thinking in education through a synergistic approach requires the adoption of effective pedagogical methods and the integration of modern techniques tailored to Uzbekistan's educational environment. This section outlines international best practices, modern teaching strategies, and their contextual adaptation to Uzbekistan's education system.

International Best Practices

Finland's education system emphasizes project-based learning that encourages students to think independently and collaboratively solve complex problems. Cross-disciplinary approaches are used to integrate different subjects into a cohesive learning experience, fostering holistic thinking. This method aligns closely with the principles of the synergistic approach.

Singapore's education system excels in integrating advanced technology, including virtual reality and artificial intelligence, into classrooms. These tools create engaging and dynamic learning environments where students can simulate real-world scenarios and solve practical problems, enhancing their creative skills.

In South Korea, problem-based learning is a cornerstone of the education system. Students are exposed to real-life challenges, where they are encouraged to analyze situations and propose innovative solutions. This method nurtures both creative and critical thinking.

These international experiences serve as a foundation for designing context-specific strategies for Uzbekistan's education system.

Modern Pedagogical Methods

Blended learning, a combination of traditional and online learning, offers flexibility and accessibility for students. It allows them to independently study theoretical material online while participating in hands-on activities during in-person sessions.

Flipped classrooms transform the traditional lecture-based model. Students review theoretical material beforehand, while classroom time is devoted to active discussions, problem-solving, and collaborative tasks. This approach enhances student engagement and fosters independent learning.

Interactive technologies, such as simulations, collaborative platforms, and multimedia tools, create immersive and engaging environments. These technologies help students develop creative problem-solving skills by interacting with realistic scenarios.

Adaptation to Uzbekistan's Education System

In Uzbekistan, project-based learning can be implemented by organizing interdisciplinary lessons where students address real-world problems. For instance, integrating environmental studies with information technology allows students to develop tech-based solutions for ecological challenges.

Digital technologies, including virtual simulations and e-learning platforms, can be introduced to enrich laboratory sessions in physics, chemistry, and other subjects. Such tools not only make learning more dynamic but also equip students with practical skills.

Problem-based learning can be tailored to Uzbekistan's context by encouraging students to tackle local social and economic challenges. For example, class discussions on rural development or technological advancement in agriculture can stimulate innovative thinking.

Implementation Sequence

The implementation process follows a structured approach to maximize effectiveness. Below is a technological schema illustrating the steps:

Technological Schema: Steps for Implementation of the Synergistic Approach

1. Needs Assessment: Identify specific areas where creative thinking is most needed within the curriculum.
2. Design Phase: Develop project-based and problem-solving modules aligned with educational goals.
3. Resource Development: Create digital content, simulations, and interactive tools tailored to the local context.

4. Training Educators: Provide professional development programs to train teachers in modern pedagogical methods.

5. Pilot Testing: Implement the new approach in selected institutions and gather feedback for refinement.

6. Widespread Implementation: Scale up the approach across various schools and universities.

7. Evaluation and Feedback: Continuously monitor outcomes and update methods to maintain effectiveness.

Expected Outcomes

The adoption of these methods and approaches will lead to:

- Enhanced creative and critical thinking skills among students.
- Improved quality of education that meets both national and global standards.
- Greater integration of innovative technologies into the learning process.

This methodology ensures that the synergistic approach is effectively adapted to Uzbekistan's unique educational context, enabling students to become independent thinkers and innovators.

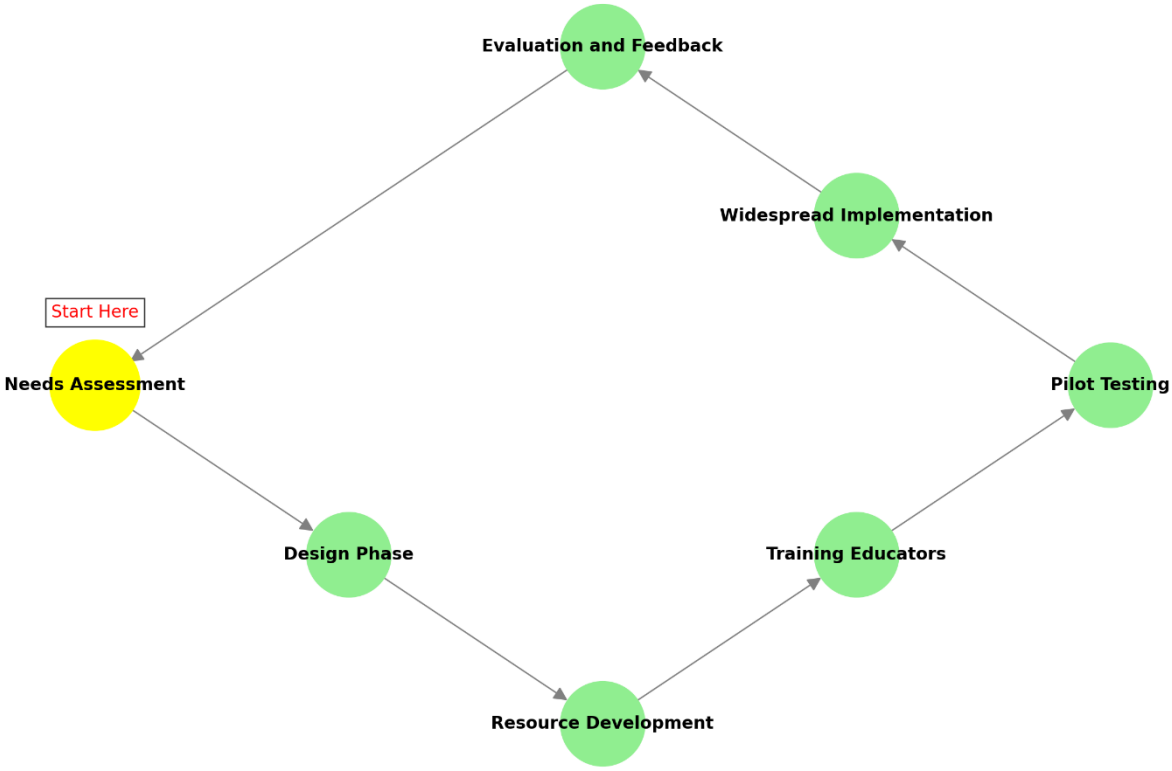

Figure 1.: Sequential Model for Implementing the Synergistic Approach in Education

This model provides a comprehensive and systematic framework for successfully implementing the synergistic approach. The sequence ensures that every aspect of the process is effectively addressed, enabling the development of

creative thinking and innovative practices in education. By emphasizing continuous improvement and adaptability, this schema is particularly suited to Uzbekistan's educational needs, supporting the cultivation of a competitive and creative generation.

DISCUSSION

The sequential model for implementing the synergistic approach provides a structured framework for fostering creative thinking in education. By integrating international best practices and modern pedagogical methods, the approach ensures that educational systems can adapt to the demands of the 21st century. Each stage of the model contributes to building a cohesive process where creativity and critical thinking are prioritized. The starting point, "Needs Assessment," identifies areas of improvement and sets the foundation for designing effective strategies. The integration of project-based and problem-solving methods, as seen in the practices of Finland, Singapore, and South Korea, aligns with the principles of this approach. These strategies, adapted to Uzbekistan's context, provide a practical and scalable solution for enhancing the educational process. Modern tools like blended learning and flipped classrooms offer flexibility and accessibility, making learning more engaging and interactive for students. The feedback loop embedded in the model ensures continuous improvement, allowing educators to refine methods based on real-time outcomes. This adaptability makes the synergistic approach particularly suited to Uzbekistan's evolving educational landscape, contributing to the development of innovative, competitive, and creative generations.

CONCLUSION

The synergistic approach offers a comprehensive and systematic framework for enhancing creative thinking in the educational process. By integrating international best practices, such as project-based learning and advanced technological tools, and adapting them to the unique context of Uzbekistan, this approach addresses the evolving needs of modern education. The sequential model emphasizes the importance of a structured process, starting from needs assessment to feedback and refinement, ensuring continuous improvement. Implementing this model in Uzbekistan's education system can significantly contribute to developing innovative, adaptable, and competitive learners who are prepared to meet the demands of a globalized world. This approach not only enriches the educational experience but also fosters a culture of creativity and critical thinking, essential for national and global progress.

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WINDOWS FORMS .NET ILOVALARNING DIZAYNIDA UI/UX FRAMEWORKLARINING AFZALLIKLARI

Annotatsiya: *Net texnologiyasida Windows Forms ilovalarining interfeyslarini yaratishda, loyihalashda, dizaynida UI/UX freymvorklarning o’rni katta bo‘lib, ular orqali yaratilayotgan ilovaning dizaynini sodda loyihalash mumkin.*

Kalit so‘zlar: *.Net texnologiyasi, freymvorklar, UI/UX, dizayn, button, boshqaruv elementlari, GUNA, Bunifu.*

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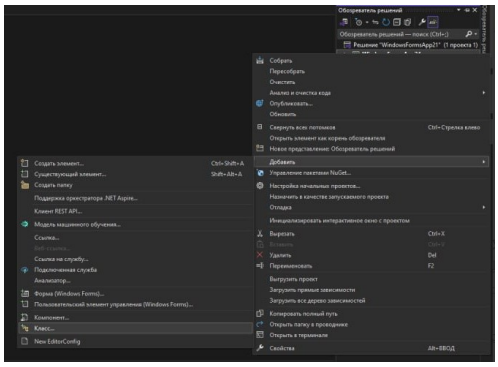
ADVANTAGES OF UI/UX FRAMEWORKS IN DESIGNING WINDOWS FORMS .NET APPLICATIONS

Annotation: *UI/UX frameworks play a major role in creating, designing and designing the interfaces of Windows Forms applications in .Net technology and with the help of them one can easily design the design of the application being created.*

Key words: *.Net technology, frameworks, UI/UX, design, button, control elements, GUNA, Bunifu.*

C# dasturlash tili asosiga qurilgan .Net texnologiyalarida Windows Form ilovalarini yaratish orqali ko‘plab sohalarda mavjud masalalarni yechuvchi dasturlar va web ilovalar ommalashib bormoqda. Bu texnologiyalar orqali ko’plab boshqarish tizimlari, hisob-kitob tizimlari, ilovalar yaratish imkoni mavjud. Bu esa o‘z navbatida ilovalarning dizaynini yaratishga bir qancha shartlar qo‘ymoqda. Dasturchilar Winform ilovalarning dizaynini yaratishda standart boshqaruv elementlaridan foydalanishi va ularga ishlov berishida ko’plab qiyinchiliklar yuzaga kelishi mumkin. Shuningdek bu vazifalar dasturchidan ko’plab vaqt talab qilishi mumkin. Masalan birgina rangi, shakli, border radiusi kabi ko’plab xususiyatlari o‘zgaruvchan bo’lgan Button elementini yaratish uchun quyidagi birqancha amallar ketma- ketligini bajarish zarur hisoblanadi. Ishni avvalo loyihaga yangi class qo’shishdan boshlashimiz zarur:



1-rasm.

Bu yerda yaratmoqchi bo‘lgan elementimizga nom beramiz, ya’ni yaratilgan sinf nomi va element nomi bir xil bo‘ladi. Yaratgan sinfimiz ichiga quyidagi kodlarni yozib chiqamiz:

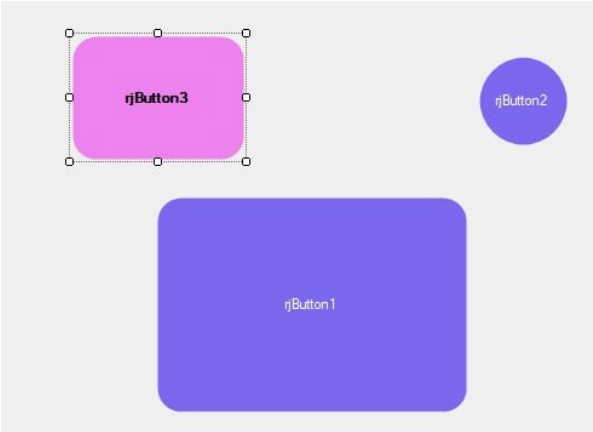
```
using System.Windows.Forms;
using System.Drawing;
using System.Drawing.Drawing2D;
using System.ComponentModel;
namespace WindowsFormsApp21
{
   internal class RJButton:Button
   {
      private int borderSize = 0;
      private int borderRadius = 40;
      private Color borderColor = Color.PaleVioletRed;
      [Category("RJ Code Advance")]
      public int BorderSize { get => borderSize; set { borderSize = value;
this.Invalidate(); } }
      [Category("RJ Code Advance")]
      public int BorderRadius { get => borderRadius; set { borderRadius = value;
this.Invalidate(); } }
      [Category("RJ Code Advance")]
      public Color BorderColor { get => borderColor; set { borderColor = value;
this.Invalidate(); } }
      [Category("RJ Code Advance")]
      public Color
BackgroundColor{get=>this.BackColor;set{this.BackColor=value;}}
      [Category("RJ Code Advance")]
      public Color TextColor {get=>this.ForeColor;set{this.ForeColor = value; } }
      public RJButton()
      {
```

```
            this.FlatStyle = FlatStyle.Flat;
            this.FlatAppearance.BorderSize = 0;
            this.Size = new Size(150, 40);
            this.BackColor = Color.MediumSlateBlue;
            this.ForeColor = Color.White;
        }
        private GraphicsPath GetFigurePath( RectangleF rect, float radius)
        {
            GraphicsPath path = new GraphicsPath();
            path.StartFigure();
            path.AddArc(rect.X, rect.Y, radius, radius, 180, 90);
            path.AddArc(rect.Width-radius, rect.Y, radius, radius, 270, 90);
            path.AddArc(rect.Width-radius, rect.Height-radius,radius,radius, 0, 90);
            path.AddArc(rect.X, rect.Height-radius, radius, radius, 90, 90);
            path.CloseFigure();
            return path;
        }

        protected override void OnPaint(PaintEventArgs pevent)
        {
          base.OnPaint(pevent);
          pevent.Graphics.SmoothingMode = SmoothingMode.AntiAlias;

          RectangleF rectSurface = new RectangleF(0, 0, this.Width, this.Height);
          RectangleF rectBorder =new RectangleF(1,1,this.Width-0.8F,this.Height-
1);
          if(borderRadius > 2)
          {
           using(GraphicsPath pathSurface=GetFigurePath(rectSurface,
borderRadius))
           using(GraphicsPath pathBorder=GetFigurePath(rectBorder,borderRadius-
1F))
           using (Pen penSurfece = new Pen(this.Parent.BackColor,2))
           using (Pen penBorder = new Pen(borderColor, borderSize))
           {
              penBorder.Alignment = PenAlignment.Inset;
              this.Region = new Region(pathSurface);
              pevent.Graphics.DrawPath(penSurfece, pathSurface);
```

```
            if( borderSize >= 1)
                pevent.Graphics.DrawPath(penBorder, pathBorder);
          }} else {
           this.Region = new Region(rectSurface);
           if (borderSize >= 1)
           {
            using ( Pen penBorder = new Pen(borderColor, borderSize))
            {
             penBorder.Alignment = PenAlignment.Inset;
             pevent.Graphics.DrawRectangle(penBorder, 0, 0, this.Width - 1,
this.Height - 1);
               }
            }
          }
      }
      protected override void OnHandleCreated(EventArgs e)
      {
         base.OnHandleCreated(e);

this.Parent.BackColorChanged+=newEventHandler(Container_BackColorChange
d);
      }
      private void Container_BackColorChanged(object sender, EventArgs e)
      {
         if(this.DesignMode)
            this.Invalidate();
      }
   }
}
```

Bu yerda yangi Button obyekti yaratib olinib, uning BorderSize, BorderRadius, BorderColor, BackgroundColor, TextColor xossalarini o‘zgaruvchan qilib yozib chiqilgan.

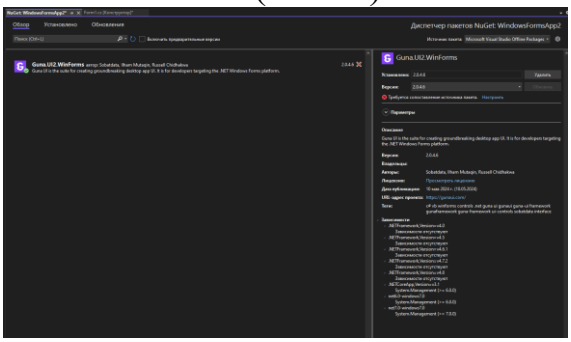
Shundan so‘ng loyihamizni build qilganimizda yangi elementimiz elementlar panelida paydo bo’ladi va biz undan foydalanishimiz mumkin.



2-rasm.

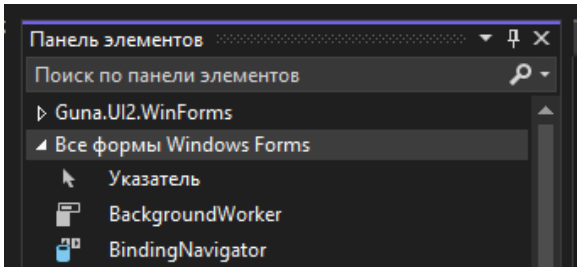
Ammo zamonaviy .Net texnologiyalari asosida ishlab chiqilgan va UI/UX dizayndagi muammolarni yechish imkoni sifatida ko'plab UI/UX dizayn freymvorklar yaratilgan. Bu dasturchiga qisqa vaqt sarflab, ajoyib dizayndagi ilovalar yaratish imkonini beradi. Bularga DevExpress, MetroFramework, Materialskin, Bunifu Framework, GUNA Framework kabilar misol bo'la oladi.

Guna Frameworkni ko'rib chiqadigan bo'lsak, bu frameworkni biz https://www.nuget.org/packages/Guna.UI2.WinForms/#versions-body-tab saytidan ustanovochniy paketini olamiz va C:\Program Files (x86)\Microsoft SDKs\NuGetPackages\nuget.frameworks\4.6.4 papkaga yuklangan paketimizni joylashtiramiz. Yangi winform loyihasini yaratamiz va u yerdan proyekt papkasi ustiga o'ng tugma orqali NuGet paketlarini boshqarish bo'limiga o'tamiz, ko'rsatish (browse) bo'limiga o'tamiz va qidiruv qismiga guna deb yozamiz. Paydo bo'lgan Guna.UI2.WinForms paketini o'rnatamiz (1-rasm).



3-rasm.

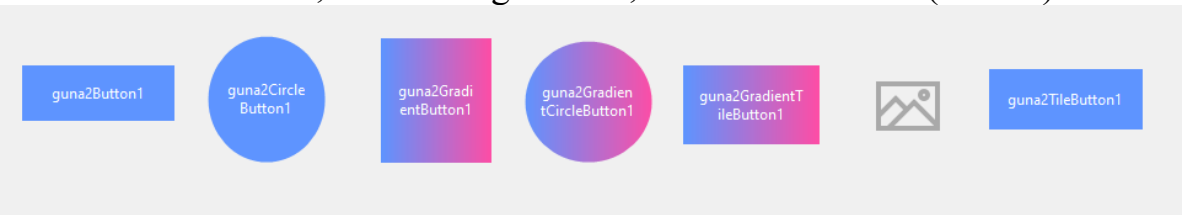
O'rnatilgandan so'ng elementlar panelini tekshirsak yangi guna elementlari hosil bo'lgfanini ko'rishimiz mumkin.



4-rasm.

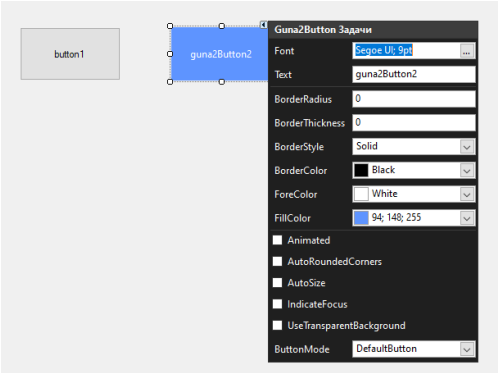
Hosil bo’lgan elementlardan foydalanishni boshlashimiz bilan bizga aktivatsiya oynasi ochiladi va bizdan litsenziya so’raydi. Biz bu freymvorkdan 14 kunlik sinov bersiyasi sifatida foydalanishimiz yoki to’lov qilib pulli versiyalarini sotib olishimiz mumkin. Bepul versiyani ustanovka qilish uchun trial tugmasini bosamiz va hosil bo’lgan oyna orqali ro’yxatdan o’tamiz.

Guna paketi orqali o’zimizning dizaynimizni yaratish imkoniga egamiz. Masalan birgina tugma(button)ning 7 xil turi mavjud. Bular: Guna2Button, Guna2CircleButton, Guna2GradientButton, Guna2GradientCircleButton, Guna2GradientTileButton, Guna2ImageButton, Guna 2TileButton (3-rasm).



5-rasm.

Oddiy button va Guna2Buttonning farqini quyida ko’rishimiz mumkin:



6-rasm.

Guna orqali joylashtirilgan tugmaning ko’plab parametrlarini elementning yuqorisida joylashgan tugmani bosish orqali o’zgartirish mumkin. Bu esa ishning samaradorligini oshirish imkonini beradi.

Form oynasini ham o’z xohishingizga ko’ra qayta dizayn qilib chiqishingiz mumkin. Bunda boshqaruv oyna, menyular oynasi, asosiy oyna kabi o’zingizning dizayningizni loyihalashingiz mumkin.

Shunday qilib biz ikki xil usul yordamida o‘zimizning ilovalarimiz dizaynini ishlab chiqishni ko‘rdik. Ikkinchi usulimiz freymvork texnologiyalari orqali ishimiz sifati, tezligi va samaradorligini oshirish imkonini beradi.

Foydalanilgan adabiyotlar.

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UDK 62-512

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AVTOMOBIL TRANSPORTI VOSITALARIDA TASHISH XAVFSIZLIGI DARAJASINI BAHOLASH METODIKASI

Annotatsiya: *Ushbu maqolada "Toshshahartransxizmat" AJ avtobus parklari misolida yo'l-transport hodisalarining oldini olish va xavfsizlik choralarini kuchaytirish bo'yicha tavsiyalar ishlab chiqilgan.*

Kalit so'zlar: *yuk tashish, harakat tezligi, harakat jadalligi, transport, transport vositasi, yo'l, avtomobil yo'llari.*

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METHODOLOGY FOR ASSESSING THE LEVEL OF TRANSPORT SAFETY ON ROAD TRANSPORT VEHICLES

Abstract: *The article develops recommendations for preventing road accidents and enhancing safety measures using the example of bus depots of JSC "Tashshahartranskhizmat".*

Key words*: freight transportation, speed of movement, movement intensity, transport, vehicle, road, highway.*

Avtomobil transportida yuk tashish xajmining o'sishi va xarakat xavfsizligining ta'minlanishi avtomobil yo'llarining xolatiga bog'liq bo'ladi. Avtomobil notekis yo'lda xarakatlanganda xarakat tezligi pasayadi, yoqilg'i sarfi, yuk tashish narxi va yo'l xarakati qoidalariga rioya qilmaslik xolatlari soni ortadi. Bundan tashqari avtomobilning texnik nosozligi ortishi natijasida ta'mirlash xarajatlari ortadi. Hozirgi kunda xalq xo'jaligiga avtomobillarning yuqori tezlikda turli ob-xavo sharoitlarida qatnovini taminlaydigan yaxshi avtomobil yo'llari kerak.

Avtomobil yo'llari katta iqtisodiy va siyosiy ma'noga ega bo'lgani uchun O'zbekiston Respublikasi Vazirlar maxkamasi va xukumatimiz avtomobil yo'llarini qurish, ta'mirlash va saqlashni yaxshilash choralari to'g'risida qarorlar qabul qildi. "O'zavtoyo'l" Davlat aksionerlik kompaniyasi tashkil qilinib, unga respublikamiz

iqtisodiy xududlari, magistral-avtomobil yo'llari tarmog'ini, asosan, qishloq joylarda avtomobil yo'llarining tarmoqlarini kengaytirish vazifasi yuklatildi.

Avtomobil yo'llari xalq xo'jaligidagi ahamiyatiga, yuk tashish tavsifiga va transport vositalarining harakat jadalligiga qarab toifalarga bo'linadi (1-jadval).

1-jadval

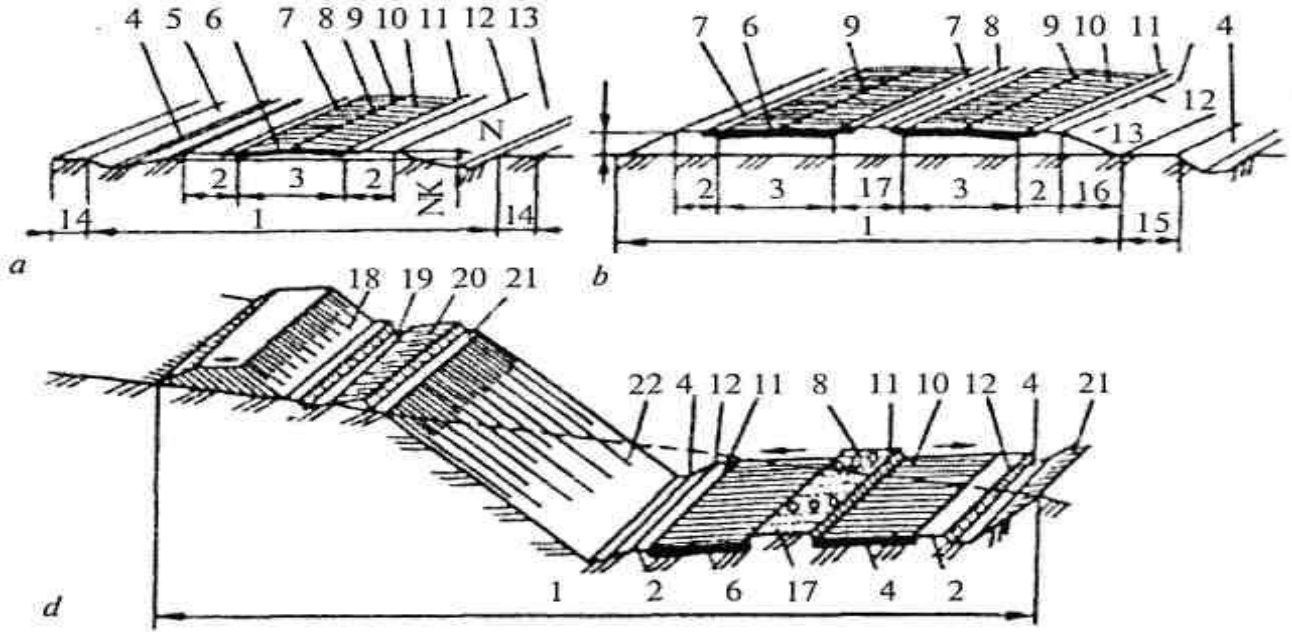
Avtomobil yo'llari xalq xo'jaligidagi ahamiyatiga, yuk tashish tavsifiga va transport vositalarining harakat jadalligi

T/r	Avtomobil yo'lining xalq xo'jaligi boyicha sinflarga bo'linishi	Harakat jaddaligi, avto/sutka	Toifasi	Xarakat tezligi, km/soat
1.	Umumdavlat miqyosidagi avtomobil yo'llari (asosiy magistral)	7000 dan ortiq	I	150
2.	Respublika miqyosidagi yo'llar	3000-7000	II	120
3.	Viloyat miqyosidagi avtomobil yo'llari	1000-3000	III	100
4.	Tuman miqyosidagi avtomobil yo'llari	200-1000	IV	80
5.	Maxalliy yo'llar	200 dan kichik	V	60

2-jadval

Avtomobil yo'llariga qo'yiladigan asosiy talablar

Avtomobil yo'llariga qo'yiladigan asosiy talablar
— yil davomida xar qanday ob-xavo sharoitida avtomobillarning harakatlanishini ta'minlashi lozim; — tubdan ta'mirlashgacha (18-25 yil) uzoq muddat xizmat qilishi kerak; — yo'l yuzining tekisligi yetarli ko'rinish masofasini va talab qilingan xarakat tezligida xavfsizlikni taminlashi kerak; — yo'l yuzasi qattiq qatlam bilan qoplangan bo'lishi kerak; — burilish joylaridagi eng kichik radius me'yordagidan kichik bo'lmasligi zarur; — yo'l yuzasiga yaxshi ishlov berilishi, avtomobil g'ildiragi bilan ishqalanish koyeffitsentining yuqoriligi yetarli bo'lishi va tormoz yo'li me'yordagidan oshmasligi kerak; —avtomobil yo'lining o'tkazuvchanlik qobiliyati me'yorida bo'lishi lozim.



1-rasm. Avtomobil yo'lining ko'tarma va qazilmadagi ko'ndalang qirqimi elementlari: a - bitta xarakatlanish qismi bo'lgan yo'l ko'tarmasi; b - ikkita xarakatlanish qismi va ajratuvchi qismi bo'lgan yo'l ko'tarmasi; d - tog' va tog'yon bag'ridagi maxsus yo'l qazimasi; 1 - tuproq qatlami; 2 - yo'l yoqasi; 3 - harakatlanish zonasi; 4- yon ariqcha; 5- ariqchaning tashqi qiyaligi; 6- yo'l qoplamasi; 7 - chetki qismi; 8 - avtomobil yo'li o'qi; 9 - xarakatlanish qismining o'qi; 10 - xarakat yo'lagi; 11 - yo'l qoplamasining cheti; 12 - tuproq qatlamining cheti; 13 - yo'l ko'tarmasining qiyaligi; 14, 15- qirg'olar; 16- qiyalik tagi; 17- ajratuvchi qismi; 18- tuproqli tepalik;79- tog' ariqchasi; 20 - tuproq ko'tarma; 21 - qazima qiyaligining chekkasi; 22- qazimaning tashqi qiyaligi - yon ariq chuqurligi; N- ko'tarma balandligi.

Avtomobil yo'lining ko'ndalang qirqimi *deb, avtomobl yo'lining o'qiga perpendikulyar tekislik bilan kesib xosil qilingan tasviriga aytiladi.* **Avtomobil yo'lining o'qi bo'ylab tekislik bilan kesishishdan xosil bo'lgan tasviri*ga*** *avtomobil yo'lining bo'lama qirqimi deyiladi.*

SNIP 2.05.02-85 bo'yicha avtomobil yo'li ko'ndalang qirqimining asosiy ko'rsatkichlari.

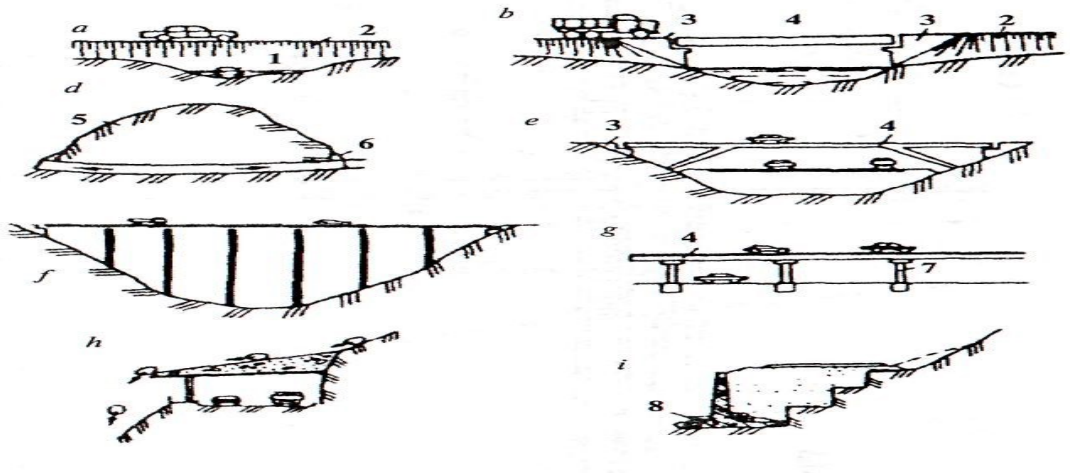
3–jadval

Avtomobil yo'lining asosiy ko'rsatkichlari

t/r	Xarakat yo'laklari soni	Yo'l parametrlari					
	Xarakat yo'laklari eni, m	Ia	Ib	II	III	IV	V

1.	Xarakat qismining eni, m	4,6,8	4,6,8	2	2	2	1
2.	Tuproq ko'tarmasining eni, m	3,75	3,75	3,75	3,5	3	-
3.	Ajratuvchi qism mustaxkamligining eng kichik eni, m	2x7,5 2x11,5 2x15	2x7,5 2x11,25 2x15	7,5	7,0	6,0	4,5
4.	Yo'l yoqasini mustaxkamlash qismining eng kichik eni	28,5 36 43,5	27,5 35 42,5	15	12	10	8
5.	Xarakat yo'nalishlari orasidagi ajratuvchi qismning eng kichik eni, m	3,75	3,75	3,75	2,5	2	1,75
6.	Yo'l yoqasining eni, m	0,75	0,75	0,75	0,5	0,5	-
7.	Xarakat yo'laklari soni	6	5	-	-	-	-
8.	Xarakat yo'laklari eni, m	1	1	-	-	-	-

Avtomobillarni to'xtamasdan xarakatlanishini ta'minlash uchun yo'llarda xar xil sun'iy inshootlar qurilishi ko'zda tutiladi. Jumladan, quvurlar, ko'priklar, yo'lusti va yo'losti inshoatlari va boshqalar (2-rasm).



2-rasm. Suniy inshoatlarning asosiy turlari:

a - quvur; b - ko'prik; d - tepalik; ye - yo'losti va yo'lusti inshooti; f- veaduk;

g - estakada; x - galereya; i - tirgak devor; 1 - dumaloq quvur; 2- yon ko'tarmasi;

3 - ko'prik tutashmasi; 4- ko'prik qulog'i (quloch qurilmasi); 5- tepalik; 6- portal; 7- oraliq ustunlar; 8- yig'ma temir-beton devor.

Yo'l harakati xavfsizligi va samaradorligini oshirishda transport oqimlarini boshqarish masalalarini takomillashtirish muhim ahamiyat kasb etadi. SHundan kelib chiqib, transport oqimlarini boshqarishni takomillashtirish uchun uning ko'rsatkichlarini tahlil qilish asosida ilmiy asoslangan tadbir va tavsiyalar ishlab chiqish maqsadga muvofiq. Transport oqimlarining ko'rsatkichlarini bashorat qilish maqsadida ham mavjud ko'cha-yo'l sharoitidagi ko'plab omillarni hisobga olish talab qilinadi. Bu tadbirlarni amalga oshirish uchun ekonometrik usullardan foydalanish zarur bo'ladi. Shu sababli transport oqimlarining ko'rsatkichlarini matematik qonuniyatlar asosida o'rganish ular ustida turli xil amallarni bajarish imkoniyatlarini yaratib beradi.

Qator yillar davomida eksperimental kuzatuv natijalarining matematik qonuniyatlarga mos kelishi tekshirilganda ko'cha-yo'l tarmoqlaridagi harakat miqdorini o'zgarishi, transport vositalarining vaqt birligidagi oraliq masofalarini o'zgarishi turli yo'l sharoitlarida normal, logarifmik normal, Puasson, ko'rsatkichli yoki Pirson taqsimotiga mos kelishi aniqlandi. Bularni hisobga olgan xolda biz quyida harakat miqdorini, transport vositalarining vaqt birligidagi oraliq masofalarini eksperimental tarzda turli yo'l sharoitlarida aniqlangan qiymatlarini normal, Puasson yoki ko'rsatkichli taqsimot qonuniga mos kelish darajasi tahlillarini amalga oshirdik[1].

Ko'cha yo'l sharoitida aniqlangan tajriba natijalari $X_1,X_2,....,X_n$ qiymatlarni kuzatilayotgan X tasodifiy miqdorning qiymatlaridan olingan tanlanma deb olib H_0 gipotezani ^{2} mezoni asosida tekshirish tartibini keltiramiz.

1. X tasodifiy miqdorning taqsimot qonuni deb olinayotgan F(x)ning no'malum parametrlarining baholari tanlanma yordamida topiladi.

2. Agar X diskret tasodifiy miqdor bo'lsa, uning n_k, k=1,2.., r chastotalarini topamiz. Agar X-uzluksiz tasodifiy miqdor bo'lsa, u xolda uning

qiymatlari sohasini r ta kesishmaydigan Δ_1 Δ_2 ..., Δ_r, intervallarga bo‘lib, har bir intervalga tegishli tanlanma elementlari sonini topamiz, ularni mos ravishda n_k, k=1,2.., r deb olamiz. Ikkala holda ham $\sum n_k=n$ tanlanma hajmiga teng.

3. X diskret tasodifiy miqdor bo‘lganda, taklif qilinayotgan F(x) taqsimot qonuni asosida $p_k=p\ (X=x_k\ )$, k=1,2.., r ehtimollar topiladi.X uzluksiz tasodifiy miqdor bo‘lsa, $p_k=p\ (X\Delta)$-ehtimollar topiladi.

4. Topilgan qiymatlar asosan statistik mezonning empirik qiymatini ushbu statistika

$$\chi_{\text{ýìï}}^{\ 2}=\sum_{k=1}^{r}\frac{(n_k-np_k)^2}{np_k} \qquad (1)$$

bo‘yicha xisoblanadi.

5. Berilgan α-qiymatdorlik darajasiga (α odatda 0,90; 0,95; 0,99; ... qiymatlar olinadi) mos mezonning

$\chi^2_{\text{êðèòèê}}=\chi^2_{1-\alpha}(r-l-1)=\chi^2_p(m)$ kritik qiymatini (4-jadval) $\chi^2_p(m)$ ning qiymatlari jadvalidan topiladi. Bu erda p=1-α ;

l -F taqsimotning parametrlari soni;

$m=r-l-1$ -erkinlik darajalari soni

6. Agar $\chi^2_{\text{ýìï}}\geq\chi^2_p(m)$ bo‘lsa, H_0-gipoteza qabul qilinadi. Ya’ni tajriba natijalari F(x) taqsimot qonuniga mos keladi[2].

Agar $\chi^2_{\text{ýì}}\leq\chi^2_p(m)$ bo‘lsa , H_0-gipoteza rad qilinadi. Ya’ni, tajriba natijalari taklif qilingan F(x) taqsimot qonuniga mos keladi deyishga asosimiz yo‘q. Eslatma. Olingan tasdiq aniqroq bo‘lishi uchun har bir intervalda $np_k\geq5$ bo‘lishi lozim. Agar bu shart qaysi intervalda bajarilmasa o‘sha intervalni qo‘shnisi bilan birlashtirish lozim bo‘ladi.

4-jadval

Normal taqsimotga moslikni tekshirishni amalga oshirishda tajriba natijasida quyidagi malumotlar olingan bo‘lsin.

55	50	14	18	20	20	39	34	20	23	14
20	20	28	26	38	33	26	30	38	37	26
32	20	40	20	15	20	18	20	18	25	15
18	18	21	16	14	30	18	20	18	21	30
31	30	35	60	67	45	55	68	67	60	58

Tanlanmaning bu qiymatlarini Pirsonning muvofiqlik mezoni bo‘yicha normal taqsimotga mos kelishini tekshiramiz.

Tanlanmani gruhlaymiz.

Tanlanma uzunligi

$\omega=x_{\max}-x_{\min}=68-14=54$ har bir interval uzunligini $b=\frac{54}{27}=2$ deb gruppalangan natijalarni 4-jadvalga joylashtiramiz, tanlanma hajmi n=55 ga teng

2. Normal taqsimotning o‘rta qiymati va o‘rtacha kvadratik chetlanishining baholarini tanlanma bo‘yicha topamiz.

$$\overline{X} = \frac{1}{n}\sum_{i=1}^{n} x_i ; \overline{X} = \frac{55+50+14+18+20+20+...+60+58}{55} \approx 30{,}4$$

$$S = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(X_i - \overline{X})^2} ; S = \sqrt{\frac{1}{55-1}\left[(55-30{,}4)^2 + (50-30{,}4)^2 + ...(58-30{,}4)^2\right]} \approx 15{,}37$$

5-jadval

Muvofiqlik mezoni bo‘yicha normal taqsimot

Interval	x_i^*	n_i^*	$z_i = \frac{\lvert x_i^* - \overline{X}\rvert}{s}$	$f(z_i)$	np_i
14-16	15	5	1,002014404	0,242	1,732053469
16-18	17	1	0,871882663	0,2732	1,955359536
18-20	19	7	0,741750922	0,3034	2,171508358
20-22	21	12	0,611619181	0,3312	2,370479789
22-24	23	1	0,481487441	0,3555	2,544400861
24-26	25	1	0,3513557	0,3752	2,685398602
26-28	27	3	0,221223959	0,3894	2,787031491
28-30	29	1	0,091092219	0,3973	2,843573733
30-32	31	5	0,039039522	0,3988	2,854309601
32-34	33	2	0,169171263	0,3932	2,814229025
34-36	35	2	0,299303004	0,3825	2,737646496
36-38	37	1	0,429434744	0,3652	2,613826144
38-40	39	3	0,559566485	0,341	2,440620797
40-42	41	1	0,689698226	0,3144	2,250238061
42-44	43	0	0,819829967	0,2613	1,870188312
44-46	45	1	0,949961707	0,2541	1,818656143
46-48	47	0	1,080093448	0,2227	1,593918626
48-50	49	0	1,210225189	0,1919	1,373475458
50-52	51	1	1,340356929	0,1626	1,163768157
52-54	53	0	1,47048867	0,1354	0,969091073
54-56	55	2	1,600620411	0,1109	0,793738553
56-58	57	0	1,730752152	0,893	6,391420446
58-60	59	1	1,860883892	0,707	5,060172738
60-62	61	2	1,991015633	0,551	3,943642403
62-64	63	0	2,121147374	0,339	2,426306306
64-66	65	0	2,251279115	0,317	2,2688469
66-68	67	3	2,381410855	0,235	1,681952749

Izoh; 5-jadvalning 1-ustuniga interval chegaralari joylashtirilgan ya’ni 14-16, 16-18, 18-20,.....,66-68 kabi ko‘rinishida bo‘ladi.

2-ustuniga interval o‘rtalari x^* ning qiymatlari;

$X_1^* = \frac{14+16}{2} = 15$, $X_2^* = \frac{16+18}{2} = 17$, $X_3^* = \frac{18+20}{2} = 19$, ……

$X_{27}^* = \frac{66+68}{2} = 67$ o‘rtacha qiymatlari olindi.

3-ustunga n^* empirik chastotalar ya’ni mos intervalga tegishli tanlanma qiymatlari soni;

4-ustunga $f(z_i) = \frac{|x_i - \overline{X}|}{s}$ ning qiymatlarini hisoblab joylashtiramiz;

$$z_1 = \frac{|x_1^* - \overline{X}|}{s} = \frac{|15 - 30{,}4|}{15{,}37} = 1{,}0020$$

$$z_2 = \frac{|x_2^* - \overline{X}|}{s} = \frac{|17 - 30{,}4|}{15{,}37} = 0{,}8718$$

$$z_3 = \frac{|x_3^* - \overline{X}|}{s} = \frac{|19 - 30{,}4|}{15{,}37} = 0{,}7417$$

…… $z_{27} = \frac{|x_{27}^* - \overline{X}|}{s} = \frac{|67 - 30{,}4|}{15{,}37} = 2{,}3814$

5-ustunga har bir z_i ga mos $f(z_i) = \frac{1}{\sqrt{2\pi}} e^{-\frac{z_i^2}{2}}$ ning qiymatlarini

$f(x) = \frac{1}{\sqrt{2\pi}} e^{-\frac{z_i^2}{2}}$ normal taqsimot zichlik funksiyasining miqdori 2-jadvalidan olinadi;

Z_1=1,0020 da $f(z_1)$=0,242, ……, Z_{27}=2,3814 da $f(z_{27})$=0,235

6-ustunga nazariy chastotalar $np_i = \frac{nb}{s} * f(z_i)$ ning qiymatlarini hisoblab joylashtiriladi.

$$np_1 = \frac{nb}{s} * f(z_1) = \frac{55*2*0{,}242}{15{,}37} = 1{,}7320$$

$$np_2 = \frac{nb}{s} * f(z_2) = \frac{55*2*0{,}273}{15{,}37} = 1{,}9553$$

$$np_3 = \frac{nb}{s} * f(z_3) = \frac{55*2*0{,}303}{15{,}37} = 2{,}1715$$

……

$$np_{27} = \frac{nb}{s} * f(z_{27}) = \frac{55*2*0{,}235}{15{,}37} = 1{,}6819$$

Oxirgi ustundagi qatordagi qiymatlar $np_i \leq 5$, bo‘lganligi uchun ularni yonidagi qatorlarga birlashtirib 6-jadvalga kiritamiz;

np_1=1,732+1,955+2,171=5,858, ……....., np_{10}=3,943+2,426+2,268+1,681=10,320

$\frac{(n_i - np_i)^2}{np_i}$ formula bo‘yicha kvadratik qiymatini hisoblaymiz

$$\frac{(n_1 - np_1)^2}{np_1} = \frac{(13-5{,}858)}{5{,}858} = 8{,}703 \qquad \frac{(n_2 - np_2)^2}{np_2} = \frac{(14-7{,}6002)}{7{,}6002} = 5{,}388$$

$$\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$$

$$\frac{(n_{10} - np_{10})^2}{np_{10}} = \frac{(5-10{,}320)}{10{,}320} = 2{,}743$$

6-jadval

Normal taqsimot zichlik funksiyasi

n_i	np_i	$\frac{(n_i - np_i)^2}{np_i}$
13	5,858921363	8,703821223
14	7,600279251	5,388805372
4	5,630605224	0,472218046
7	5,668538626	0,312741874
3	5,35147264	1,033252704
4	6,56104717	0,999682282
2	5,949818384	2,622107812
2	8,154250072	4,644791809
1	5,060172738	3,25779445
5	10,32074836	2,743053323
-	-	$\chi^2_{эмп} = 30{,}1782689$

Oxirgi ustun qiymatlari yig‘indisi ya’ni mezonning empirik qiymati topiladi[3].

$\chi^2_{эмп} =$ 8,703+5,388+0,472+0,312+…….+3,257+2,743 =30,18

Endi berilgan α=0,05 ga va parametrlar soni l=2 ga mos mezonning kritik qiymatini 1-jadvaldan topamiz.

$$\chi^2_{1-\alpha}(r-l-1) = \chi^2_{0,95}(4-2-1) = 3{,}84; \quad (3{,}84 < 30{,}178)$$

$\chi^2_{ýìï} < \chi^2_{êðèòèê} \Rightarrow H_0$ - gipoteza qabul qilinmaydi ya’ni,tajriba natijalari normal taqsimotga mos kelmaydi.

Puasson taqsimotga moslikni tekshirish. 2-uchun quyidagi misolni olishimiz mumkin. 120 ta avtomobilning qayd qilinganliklar sonini va unga mos chastotatalarini mos ravishda k va n_k deb belgilaymiz.

5-jadvaldan ko‘rinadiki, jami 120 ta avtomobil tekshirilgan bo‘lib qayd qilinganliklar soni 0*49+1*34+2*20+3*9+4*6+5*2=135 ga teng. Qayd qilinishlar sonini bildiruvchi X diskret tasodifiy miqdorning Puasson taqsimotiga bo‘ysunadi

degan N_0 – gipotezani χ^2– mezon bo‘yicha tekshiramiz: ya’ni N_0 : $p_k = P(X = k) = \frac{\lambda^k}{k} e^{-\lambda}$, k=0,1, …α=0.01 bo‘lsin: λ parametrning bahosi sifatida YHXBda qayd qilinishlar sonining o‘rtacha qiymati olinadi:

$$\lambda = \frac{1}{n}\sum k * n_k = \frac{135}{120} \approx 1{,}125$$ qayd qilinganliklar soni n=120

Jadvalning 3-ustunidagi $p_k = \frac{1{,}125^k}{k!} e^{-1{,}125}$ ehtimollarni ilovadagi 7-jadvaldan λ=1,125 ga mos qiymatlari olinadi.

r_{k1}=0,368; r_{k2}=0,368; r_{k3}=0,184;r_{k4}=0,061;

r_{k5}=0,015; r_{k6}=0,307; r_{k7}=0,0005

$N*p_{k1}$=120*0,368=44,16; $N*p_{k2}$=120*0,368=44,16

$N*p_{k3}$=120*0,184=22,08; ……; $N*p_{k7}$=120*0,0005=0,06

7-jadval

Normal taqsimot zichlik funksiyasi

k	n_k	r_k	Np_k
0	49	0,368	44,16
1	34	0,368	44,16
2	20	0,184	22,08
3	9	0,061	7,32
4	6	0,015	1,8
5	2	0,307	36,84
6	0	0,0005	0,06

Jadvaldagi oxirgi 4,5,6 qatordagi qiymatlar np_k<5 bo‘lgan sababli ularni 4-chi qatorga birlashtirib 8-jadvalga kiritamiz.

$$\frac{(n_{k1} - np_{k1})^2}{np_{k1}} = \frac{(49 - 44{,}16)^2}{44{,}16} = 0{,}5304$$

$$\frac{(n_{k2} - np_{k2})^2}{np_{k2}} = \frac{(34 - 44{,}16)^2}{44{,}16} = 2{,}3375$$

$$\frac{(n_{k3} - np_{k3})^2}{np_{k3}} = \frac{(20 - 22{,}08)^2}{22{,}08} = 0{,}1959$$

$$\frac{(n_{k4} - np_{k4})^2}{np_{k4}} = \frac{(9 - 7{,}32)^2}{7{,}32} = 0{,}3855$$

$$\frac{(n_{k5} - np_{k5})^2}{np_{k5}} = \frac{(8 - 38{,}7)^2}{38{,}7} = 24{,}3537$$

8-jadval

Normal taqsimot zichlik funksiyasi

k	n_k	np_k	$\frac{(n_k - np_k)^2}{np_k}$
0	49	44,16	0,530471014
1	34	44,16	2,337536232
2	20	22,08	0,195942029
3	9	7,32	0,38557377
4	8	38,7	24,35374677
		$\chi^2_{эмп} =$	27,80326982

Endi, berilgan α=0,01 ga va paramtrlar soni l=1 ga mos mezonning kritik qiymatini ilovadagi 1-jadvldan topamiz:

$$\chi^2 1-\alpha(r-\ell-1) = \chi^2 0{,}99(2) = 9{,}21 \quad (9{,}21 < 27{,}803)$$

$\chi^2_{ýìï} < \chi^2_{êðèòèê} \Rightarrow H_0$- gipoteza qabul qilinmaydi ya'ni, tajriba natijalari Puasson taqsimotga mos kelmaydi.

Ko'rsatkichli taqsimotga moslikni tekshirish. Dala ishlarida olingan natijalar 9-jadvalning 1 va 2-ustunlarida berilgan bo'lin. Olingan har bir natijalarimizni jadval ko'rinishida ifodalaymiz.

9-jadval

Ko'rsatkichli taqsimotga moslikni tekshirish

x_i-x_{i-1}	X	n_i	$np_i = (e^{-\lambda X_{t-1}} - e^{-\lambda X_t})n$
0-5	2,5	37	31,529328
5-10	7,5	148	126,117312
10-15	12,5	2	1,704288

1) Barcha elementlarning o'rtacha ishlash vaqti ya'ni , o'rta qiymatini topamiz: $\overline{X} = \frac{37*2{,}5+148*7{,}5+2*12{,}5}{187} = 6{,}138$

2) Kutilayotgan taqsimot qonun parametrining bahosini topamiz.

$$\overline{\lambda} = \frac{1}{\overline{X}} = \frac{1}{6{,}564} = 0{,}152 \approx 0{,}16$$

3) X ning xar bir intervalga tushish ehtimolini topamiz:

$$p_i = P(x_i < X < x_{i=1}) = e^{-\overline{\lambda} x_{i+1}} - e^{-\overline{\lambda x_i}}$$

Bu qiymatlarni topishda 4-jadvalda berilgan qiymatlaridan olinishi mumkin. Masalan , $p_i = P(0 < X < 5) = 1 - e^{-1} = 0{,}852144$

4) Nazariy chastotalar np_i hisoblangan.

$np_1 = (e^{-\lambda X_{i-1}} - e^{-\lambda X_i})n = 0{,}852144 * 37 = 31{,}5293$

$np_2 = (e^{-\lambda X_{i-1}} - e^{-\lambda X_i})n = 0{,}852144 * 148 = 126{,}1173$

$np_3 = (e^{-\lambda X_{i-1}} - e^{-\lambda X_i})n = 0{,}852144 * 2 = 1{,}7042$

2.11-jadvalning oxirgi ustunidagi chastota 5 dan kichik bo‘lgani uchun ularni birlashtirib quyidagi 10-jadvalga yozamiz.

10-jadval

Ko‘rsatkichli taqsimotga moslikni tekshirish

x_i-x_{i-1}	n_i	np_i	$\frac{(n_k - np_k)^2}{np_k}$
0-5	37	31,529328	0,949219474
5-10	150	127,8216	3,848187056

Endi, berilgan α=0,05 ga va va paramtrlar soni l=1 ga mos mezonning kritik qiymatini 2.6-jadvldan topamiz:

$$\chi^2 1-\alpha(r-\ell-1) = \chi^2_{0.95}(4-1-1) = \chi^2_{0.95}(2) = 6 \quad (3{,}848<6)$$

$\chi^2_{ýìï} < \chi^2_{êðèòè}$ $\Rightarrow$ H_0- gipoteza qabul qilinadi ya’ni,tajriba natijalari ko‘rsatkichli taqsimotga mos keladi.

Logarifmik normal taqsimotga moslikni tekshirish. Kuzatuv natijalari 11-jadvalning 1 va 2 ustunlarida keltirilgan. Bu empirik taqsimot logarifmik normal taqsimotga mosligi haqidagi N_0 gipotezani Pirsonning muvofiqlik mezoni bo‘yicha tekshiramiz. Quyidagi hisoblashlarni amalga oshiramiz;

Tanlanma hajmi $n = \sum_{i=1}^{r} n_i = 2+2+1+.....+2+1+1 = 50$

Interval uzunligi $b=x_{i+1}-x_i=2$, 7-jadvalning 3-ustuniga

$x^*_1 = \frac{x_i + x_{i+1}}{2} = \frac{40+42}{2} = 41$; $x^*_2 = \frac{x_i + x_{i+1}}{2} = \frac{42+44}{2} = 43$

……

$x^*_{20} = \frac{x_i + x_{i+1}}{2} = \frac{78+80}{2} = 79$ interval o‘rtacha qiymatlarini joylashtiramiz.

11-jadval

Logarifmik normal taqsimotga moslikni tekshirish

Interval	n_i	X_i	Ln x_i	t_i	$f(t_i)$	np_i
40-42	2	41	3,713572067	2,01	0,529	1,879
42-44	2	43	3,761200116	1,732	0,893	3,025
44-46	1	45	3,80666249	1,467	0,137	0,445
46-48	2	47	3,850147602	1,214	0,192	0,595
48-50	3	49	3,891820298	0,971	0,249	0,741
50-52	4	51	3,931825633	0,738	0,306	0,873

52-54	4	53	3,970291914	0,514	0,35	0,963
54-56	4	55	4,007333185	0,298	0,383	1,013
56-58	3	57	4,043051268	0,09	0,397	1,015
58-60	2	59	4,077537444	0,111	0,397	0,979
60-62	5	61	4,110873864	0,305	0,381	0,911
62-64	2	63	4,143134726	0,493	0,354	0,818
64-66	3	65	4,17438727	0,675	0,319	0,714
66-68	4	67	4,204692619	0,852	0,278	0,604
68-70	1	69	4,234106505	1,023	0,213	0,45
70-72	2	71	4,262679877	1,19	0,197	0,403
72-74	2	73	4,290459441	1,351	0,16	0,32
74-46	2	75	4,317488114	1,509	0,128	0,248
76-78	1	77	4,343805422	1,662	0,101	0,19
78-80	1	79	4,369447852	1,812	0,775	1,429

11-jadvalning 4-ustuniga $\ln x^*_I$ larning qiymatlar joylashtirilgan, bu qiymatlar bo‘yicha Formula o‘rtacha qiymatni va o‘rtacha kvadratik chetlanishning σ=σ(lnX) baholarini topamiz.

$$\overline{\ln X}=\frac{1}{n}\sum_{i=1}^{r}n_i\ln x_i=\frac{1}{50}\left[2*3.71+2*3.76+1*3.8.....+2*4.31+1*4.34+1*4.36\right]=4,059$$

$$\sigma(\ln X)=\sqrt{\frac{1}{n-1}\sum_{i=1}^{r}n_i(\ln x_i-\overline{\ln X})^2}=\sqrt{\frac{1}{49}\left[(3.71-4.09)^2*2+...+(4.36-4.09)^2*1\right]}=0,172$$

5-ustunga $t_i=\frac{|\ln x-\ln X|}{\sigma(\ln X)}$ ning qiymatlari joylashtiriladi.

$$t_1=\frac{|\ln x_1-\ln X|}{\sigma(\ln X)}=\frac{|3,7135-4,059|}{0,172}=2,01$$

$$t_2=\frac{|\ln x_2-\ln X|}{\sigma(\ln X)}=\frac{|3,7612-4,059|}{0,172}=1,732$$

$$t_3=\frac{|\ln x_3-\ln X|}{\sigma(\ln X)}=\frac{|3,8066-4,059|}{0,172}=1,467\ .....$$

$$t_{20}=\frac{|\ln x_{20}-\ln X|}{\sigma(\ln X)}=\frac{|4,3694-4,059|}{0,172}=1,812$$

6-ustunga t_i larga mos $f(t_i)=\frac{1}{\sqrt{2\pi}}e^{-\frac{t_i^2}{2}}$ ning qiymatini ilovadagi 2-jadvalda berilgan normal taqsimot zichlik funksiyasining $f(x)=\frac{1}{\sqrt{2\pi}}e^{-\frac{x^2}{2}}$ qiymatlari jadvalidan olinadi.

(Masalan: $f(t_i)=f(2,01)=0,529$ va hk.

7-ustunga np_i nazariy chastotalar ushbu $np_i = \frac{n * f(t_i)}{b * x_i \sigma(\ln X)}$ formula bo‘yicha hisoblab qo‘yiladi.

$$np_1 = \frac{n * f(t_1)}{b * x_1 * \sigma(\ln X)} = \frac{50 * 0{,}529}{2 * 41 * 0{,}172} = 1{,}879$$

$$np_2 = \frac{n * f(t_2)}{b * x_2 * \sigma(\ln X)} = \frac{50 * 0{,}893}{2 * 43 * 0{,}172} = 3{,}025 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots$$

$$np_{20} = \frac{n * f(t_{20})}{b * x_{20} * \sigma(\ln X)} = \frac{50 * 0{,}775}{2 * 79 * 0{,}172} = 1{,}429$$

12-jadvalning ustunlaridagi nazariy chastotalar 5 dan kichikligi sababli yonida elementlarga birlashtirib, quyidagi 12-jadvalga ega bo‘lamiz.

12-jadval

Normal taqsimot zichlik funksiyasi

n_i	np_i	$\frac{(n_i - np_i)^2}{np_i}$
5	5,349119722	0,022785914
20	5,199350271	42,13203978
25	7,06631254	45,51414109
-	-	$\chi^2_{эмп} = 87{,}66896678$

Mezonning empirik qiymatini $X^2_{ýìï} = \sum_{i=1}^{s} \frac{(n_i - np_i)^2}{np_i}$ statistika bo‘yicha topamiz.

(Oxirgi ustun elementlari yig‘indisi) $\chi^2_{эмп} = 0{,}0227 + 42{,}132 + 45{,}514 = 87{,}668$ Endi berilgan p=1-α=1-0,05=0,95 va m=r-l-1=5-2-1=2, (α=0,05 va m=2) ga mos mezonning kritik qiymati ilovadagi 1-jadvalda berilgan $\chi^2_{0{,}05}(2) = 6$,

$\chi^2_{ýìï} < \chi^2_{êðèòèê} \Rightarrow$ (6<87,668) demak N_0 gipoteza qabul qilinmaydi, ya’ni tajriba natijalari logarifmik normal taqsimotga mos kelmaydi.

Xulosa qilib ushbu tadqiqotlar natijalarining amaliy ahamiyati shundan iboratki, izlanishlar natijasida tashish xavfsizligini boshqarishning asosiy usullari bilan haydovchilarning madaniyati va psixologik, fiziologik va biologik imkoniyatlarini harakatni tashkil qilishda e’tiborga olib, transport oqimlarini boshqarish uslublarini takomillashtirishda harakat miqdorining o‘zgarish qonuniyatlarini aniqlash[4,5,6], YTH larini kelib chiqishiga ta’sir etuvchi salbiy omillarni kamaytirish, ayniqsa xavfli yo‘l uchastkalarida xavfsizlikni ta’minlash, har bir xavfli yo‘l bo‘laklarini muntazam ta’mirlash ishlarini olib borish, o‘zaro tajriba almashish va mustahkam hamkorlik o‘rnatish, yo‘l harakati

ishtirokchilarining ma’suliyatini oshirgan holda kutilgan natijalar samarasiga erishish mumkin bo‘ladi.

Xulosa sifatida shuni alohida ta’kidlash mumkinki, Respublikamiz yo‘l tizimiga tashish xavfsizligini boshqarishning asosiy usullari joriy etish va bunday yondoshuv yirik shaharlarining qisqa muddatlarda jahon texnik darajasiga va shahar infrotuzilmasi rivojlanishining zamonaviy an’analariga mos bo‘lgan yo‘l harakatini boshqarishning moslanuvchan va tejamkor tizimini yaratish imkonini beradi.

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CHARACTERISTICS OF THE DEVELOPMENT OF THE SCIENCE OF REGULATING THE FOOD PRODUCTS MARKET

Abstract: *This article provides information about the role of the food market in the country's economy, the specific characteristics of the food market, the need to regulate the food market, and the development of the science of food market regulation. Also, the types of food market are reviewed in general and opinions are given on the development of the food market in the country.*

Keywords: *concept of food market, characteristics of food market, types of food market, agricultural markets, science of regulation of food market, tools of food market development.*

The goal of any economic system is to satisfy the population's demand for food, goods and services. In a developing economy, this goal is realized on the basis of efficient organization of production, accurate division of labor and efficient organization using modern achievements of scientific and technical development.

Delivery of products produced in the conditions of the market economy to final consumers is carried out through the system of economic relations in the field of commodity circulation. Many small and very small enterprises do not have enough financial resources to introduce modern technologies and maintain the necessary level of skills of workers.

Therefore, from the point of view of efficiency, the circulation of goods is expensive for society, the total distribution costs in all its stages make up more than half of the final price of the goods.

The importance of providing the country with food in the conditions of the new market, the market and its most important component - the unique characteristics and unresolved problems of the food market determine the special importance of such research in relation to agriculture.

The development of the food market has been in the focus of the economic scientific community for a long time. At the same time, their problems are very wide, ranging from the growth of the population and the volume of consumption to the inefficient organizational and economic mechanism of regulating this market at the level of the country, region and district. Among the factors that negatively affect local development are the food market, inefficient agriculture, economic production, price disparity, high level of wear and tear of fixed assets of agricultural and food industry enterprises, supply, trade, financial and low level of development of market credit and information infrastructure. Such a wide range allows studying the problems of the current state of the domestic food market, conducting fundamental and practical research on the theory and concept of the formation and

development of the country's food market, as well as perfect organizational and economic mechanisms and their proportional development. requires the search for optimal solutions.

The system of organization and regulation of the food market should be aimed at ensuring the country's economic and food security. The effectiveness of the food market is mainly determined by the level of state participation in the formation and use of food resources. It is possible to realize the potential opportunities for increasing production, to create types of food and its state reserves, and to activate the regulatory role of the state.

Summarizing the research carried out in Uzbekistan, it is possible to distinguish different approaches that reveal the nature of the food market. Including:

▪ economic relations are established with the help of exchange relations, and food products are traded and processed;

▪ taking into account that food products are produced directly in agriculture, the food market is an integral part of the market of agricultural products;

▪ the food market is an intermediary between agriculture, processing industries and food consumers;

▪ basic products produced by agriculture provide an opportunity to obtain the necessary means to continue the production cycle in the food market;

▪ the food market covers the sphere of production and consumption, as well as the sphere of infrastructure that serves to ensure and manage market relations on sale.

A broader understanding of the nature of the food market comes from considering its types. Clarification of the classification of types of food markets based on the requirements of systematic approach, purity and non-interference of access criteria made it possible to identify the following features:

- by space;
- on the object of sale and purchase;
- according to customer opinion;
- according to the level of development;
- by type of competition;
- according to the level of participation of foreign producers;
- according to the form of organization of the stock exchange;
- according to economic and legal norms.

In general, today there are many classification features of the food market. Summarizing and analyzing the available materials,[7] we consider it appropriate to consider the types of food market according to the classification criteria presented in Table 1.

[7] Алтухов А. И. Развитие продоволственного рынка России. - М.: АгроПресс, 1999. - 336 с., Головатюк, М.З. Научные основы формирования регионалного продоволственного рынка - ПАСХН. Сибирское отде¬ление. Сибнииэсх. -Новосибирск, 1999. - 187 с., Зайналов, М.И. Формирование и функционирование про¬доволственного рынка: регионалный аспект.- М.: 1993. - 128 с., Нуралиев, С.У. Продоволственный ры¬нок: проблемы становления и перспективы развития - Волгоград: Изд-во Волгогр. гос. ун-та, 2003.-278 с. Экономика отраслей АПК / И.А. Минаков, Н.И. Куликов, О.В. Соколов и др.; под ред. И.А. Минакова. - М.: Колос, 2004. - 464 с. - (Учебники и учебные пособия для студентов высш. учеб, заведений).и др.

Table 1.

Classification of food market types[8]

№	Classification symbol	Types of food market
1.	Borderline	The world Zonal (continental) National Interregional Regional Local
2.	By object of sale and purchase	Bread and bakery products; Milk and milk products; Meat and meat products; Fish and fish products; Sugar and confectionery products; Fruit and vegetable products; Vegetable oil and other fats; Pasta, Cereals and cereal products; Soft drinks and others.
3.	By customers	It is related to meeting the needs of the population; It is related to the supply of food industry enterprises with food raw materials; Related to the sale of food products to resellers.
4.	According to the level of development	Undeveloped; Developing; Free.
5.	By type of competition	Monopolized; Oligopolistic; Deconcentrated.
6.	According to the level of participation of foreign producers	With a small share of Import formed only through domestic production; With an equal share of local and imported goods; With the preponderance of imported goods.
7.	According to the form of organization of exchange	Wholesale; Retail.
8.	Economic and legal	Legal; Semi-legal; Illegal.

Often, these characteristics of local food markets are determined by the level of socio-economic development of the local area, in particular, the level of income of the population, as well as the presence and development of trade and intermediary infrastructure. It should be noted that in practice there is a correlation between the level of development of the local food market and the size of the territory. The more people live in the area, the more organized and developed the food market is. This relationship is mainly explained by the rules of market potentials and the theory of market interaction.

[8] Author development

It should be noted that some authors consider the food market as the market of agricultural products. This is explained by their close relationship, that is, these markets. However, in our opinion, there are clear differences in their essence that require a distinction between these concepts. Among the arguments for the need to distinguish between the food and agricultural markets, it is worth noting that, in our opinion, goods that are not at all related to agriculture (carbonated drinks) can be offered first. In this, in our opinion, the studied market segments:

- market of agricultural raw materials;
- market of agricultural products;
- the opinion of the authors who propose to divide the market of ready-made food products is very suitable [9].

In the market of agricultural raw materials, products used in further industrial processing (markets of milk, meat, grain, etc.) are sold. Freshly consumed products (vegetable, fruit, egg, etc. markets) are sold in the market of agricultural products. The prepared food market satisfies the needs of customers for food products obtained after processing raw materials (markets for meat, milk, bread and other products). It can be seen that in this structure there is also a place where the markets of agricultural raw materials and agricultural products intersect. In order to eliminate this situation, we consider it appropriate to combine the concept of the consumer food market, in which it is necessary to take into account only the production and sale of products aimed at satisfying the final demand for food. Of course, this market cannot exist by itself and is closely related to the food market, where products can be sold to final consumers (exchanges, wholesale markets, etc.). Food products are bought and sold for processing. Raw materials are transformed into the final product - food. This market is closely related to the agricultural market and partially coincides with it. It should be remembered that agricultural products can also include non-food products, for example, animal feed, etc. Since these products can meet the food needs of the population after the production stages, we did not include them in the food market study.

The interaction of food market subjects is characterized by the existence of alternative relationships between producers, sellers and consumers. Choosing the optimal set of relationships between market entities depends on many conditions and, in particular, on food market objects. It is the objects of the food market that are the main criteria for its variety and allow to define clear boundaries between this market and the market of agricultural or agro-industrial products.

The objects of the food market consist of raw materials purchased by producers and material goods (goods) created for exchange through sale.[10]

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[9] Воробев, Н.Н. Формирование структуры продоволственных рынков / Н. Н. Воробев // АПК: экономи¬ка, управление. - 2006. - №6. - С. 30-31. Колесняк, А. А. Продоволственное обеспечение как система / А.А. Колесняк // Международный селскохозяйственный журнал. - 2005. - №2. - С. 39-41. Логинов, В.Г. Агро - продоволственные рынки России: теоретические основы, методология и совершенствование регулирова¬ния / В.Г. Логинов. - М.: Изд-во МСХА, 2002. - 296 с.

[10] Всемирная торговая organizatsia и natsionalные экономические интересы / Ин-т мировой экономики и междунар, отношений. - М.: Наука, 2003. - С.11.

Ways and means of state influence differ depending on the goals to be achieved in the regulation of the food market. In this regard, it is considered as a mechanism based on the state regulation of the food market for the development of production processes, the formation, exchange, distribution, consumption of food resources and the use of means of directed economic influence:

- on the formation of strategic and operational food resources and a rational system of their distribution;
- increasing the volume of local production and using interregional food relations and global market opportunities;
- restoring the level of consumption of basic food products and increasing the affordability of food products;
- creation and maintenance of food funds for state needs;
- creating conditions for the production and growth of socially important food products, forming the region's self-sufficiency in food.

The republic's food market requires comprehensive measures aimed at creating developed agro-food markets and achieving a balance between demand and supply in the food market. Each of them has general and specific approaches to regulation.

The main mechanisms of regulation of food markets are as follows:

- regulating the volumes of agricultural products entering the market based on the real needs of the republic;
- creation of food reserves to provide regulatory influence on the market in case of imbalances
- between supply and demand for food and to be a regional reserve of agricultural products and food;
- formation of equivalent inter-sectoral relations of agriculture with other sectors on the basis of regulation of purchase prices;
- to support the formation of extra-budgetary sources of support for the agro-industrial complex, including on the basis of expanding the use of opportunities of business structures, insurance companies, purchasing and intermediary firms;
- promotion of horizontal cooperation and vertical integration of agricultural enterprises with the storage, processing and trade sector;
- coordination of interregional and foreign economic relations of agricultural enterprises.

In order to develop the food market in the country, it is necessary to increase the production of agricultural products in all organizational and legal forms of economic management, which will increase the size of the food and processing industry and ultimately ensure the food security of the region.

Thus, the state regulation of the food market has a programmatic nature and includes legal, economic, organizational and administrative measures, including the necessary resources, setting the goals of the implementation mechanism, and the state and producers and there should be a management apparatus that provides direct and reverse communication between consumers. In addition, different regulatory

approaches and measures should be chosen according to the state of the food market and the level of food safety.

State regulatory measures at all levels of management should help to ensure that market signals are not distorted and the position of producers is not worsened, as well as to increase the demand for food, that is, to solve the main problem of the food market at the moment. Through the competent regulation of the food market, it is possible to achieve the maximum realization of the interests of all participants, not just one group of the food market.

The directions of state regulation of the food market mentioned above are, first of all, to ensure the proportionality of regions in the development of the national market as a whole, and to provide continuous support to producers from the point of view of food safety. At the moment, feeding all layers of the country's population in accordance with medical standards is considered the first task.

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Ko‘pkurash sport turlari nazaryasi va uslubyati kafedrasi o`qituchilari
O‘zbekiston Davlat Jismoniy Tarbiya va Sport unversiteti Farg‘ona Filiali

UMUMIY O‘RTA TA’LIM MAKTABLARIDA O‘QUVCHILARNI JISMONIY TARBIYA VA OMMAVIY SPORTGA JALB QILISHDA MUSOBAQALARNING O‘RNI

Annotatsiya: *Ushbu maqolada umumiy o‘rta ta’lim maktablarida o‘quvchilarni jismoniy tarbiya va ommaviy sportga jalb qilishda musobaqalarning o‘rni haqida so`z yuritilgan.*

Kalit so‘zlar: *ommaviy sport, jismoniy tarbiya, sport turlari, yengil atletika, jismoniy tarbiya me’yorlari.*

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THE ROLE OF COMPETITIONS IN ATTRACTING STUDENTS TO PHYSICAL CULTURE AND MASS SPORTS IN GENERAL SECONDARY SCHOOLS

Abstract: *This article discusses the role of competitions in attracting students to physical education and mass sports in general secondary schools.*

Keywords: *mass sport, physical culture, sport categories, light athletics, physical culture norms.*

Dolzarbligi. So‘nggi yillarda mamlakatimizda, jismoniy tarbiya va ommaviy sport faol rivojlanmoqda. Jismoniy tarbiya va sportni rivojlantirish davlatimizning ijtimoiy-iqtisodiy siyosatining ustivor yo‘nalishlaridan biridir [1, 2].

O‘zbekiston Respublikasi Prezidentining 2020-yil 30-oktabrdagi PF–6099-son Farmoni hamda, O‘zbekiston Respublikasi Prezidentining 2020-yil 24-yanvardagi PF–5924-son Farmoni bu masalani davlat ahamiyatiga molik ekanligini

belgilab bergan. Lekin hozirgi kunda, jismoniy tarbiya va sportning rivojlanishiga ta’sir ko‘rsatadigan bir qator muammolar mavjud, ular:

• Muntazam ravishda jismoniy tarbiya va sport bilan shug‘ullanishga aholining yetarli darajada ishtirok etmasligi;

• Jismoniy tarbiya va sport sog‘lom turmush tarzining asosi ekanligi haqidagi targ‘ibot yetarli emasligi; So‘nggi yillarda amaliyotga joriy etilayotgan me’yoriy hujjatlarda ommaviy sportni rivojlantirishga juda katta e’tibor berilganligin aloxida takidlab o‘tishimiz lozim. Jumladan ustivor vazifalar qatorida quyidagilar mavjud:

• Jismoniy tarbiya va sport bilan shug‘ullanishga aholining turli qatlamlarini jalb qilish;

• Jismoniy tarbiya va sport bilan muntazam shug‘ullanayotgan aholining umumiy sonini 30 foizgacha, sport tashkilot va muassasalarida shug‘ullanayotgan yoshlarning umumiy sonini 20 foizgacha oshirish;

• Aholi salomatligini yaxshilash maqsadida turli sport turlari bilan ommaviy shug‘ullanishni tashkil etish va musobaqalar o‘tkazish;

• Bolalar, o‘smirlar va yoshlar o‘rtasida ommaviy sportni rivojlantirish;

• Aholi soni va uy-joylarning joylashuvini inobatga olgan holda, shuningdek, tashkilot va idoralarning tegishli hududlarida velosiped turar joylari va zamonaviy sport (shu jumladan, Workout) maydonchalarini tashkil etish;

• Mahallalar, qishloqlar, tumanlar va shaharlarni bog‘lovchi avtomobil yo‘llari, piyoda hamda velosiped yurishi uchun mo‘ljallangan “Salomatlik yo‘laklari”ni qurish;

• Avtomobil harakati yuqori bo‘lgan va katta yo‘l kesishmalarida aholiga qulay o‘tish joylarini barpo etish [1, 2].

Bugungi kunda sport maktablarining zamonaviy o‘qitish tizimida ham o‘zining mustaxkam o‘rniga ega. Bunga maktablardagi turli jixozlar bilan qurilayotgan sport inshootlari, sport va ko‘ngilochar markazlar, kup funksiyali sport maydonlari misol bo‘la oladi. Hozirgi vaqtda ommaviy sportni rivojlantirishda yangicha yondashuv bu jamoatchilik xamkorligi hisoblanadi. Umumiy o‘rta ta’lim maktablarida o‘quvchilar ko‘plab musobaqalarga qatnashadilar. Ammo tadqiqot natijalarimizga ko‘ra barcha musobaqalarga xar doim deyarli bir xil o‘quvchilar qayta-qayta borishadi. (maktab o‘quvchilari umumiy sonining 10%), ularning 90% sport seksiyalarida shug‘ullanishadi. Qolgan maktab o‘quvchilari uchun jismoniy faollik va rivojlanishning pastligi muammoligicha qolmoqda. Professor M.S. Axmatov o‘z maqolasida quyidagi fikrlarni keltirgan: “Mamlakatizmizda jismoniy tarbiya va sport bilan shug‘ullanayotganlar kamayib borayotganligiga etibor bering, bir qancha yillar oldin odamlar sport bilan ommaviy shug‘ullanishgan jismoniy va aqliy balansni his qilishgan, hozir esa nimjonlashib kasalmand bo‘lib borishayabdi”[3].

Sport mashg‘ulotlarining yuqori emotsional jozibadorigi va pedagogik samaradorligi uning jismoniy tarbiyada qo‘llanilishining muxim asosidir [3].

Xozirgi vaqtda maktab o‘quvchilarining jismoniy tarbiya va sportga qiziqishini shakllantirish muammosini hal qilish va bu qiziqishning shakllanish yo‘llari, vositalari va usullarini ilmiy asoslash bo‘yicha faol izlanishlar olib

borilmoqda. Maktab o‘quvchilarida sportga bo‘lgan doimiy qiziqishni shakllantirishning asosiy usullari, yosh sportchilarning jismoniy tayyorgarligini va ularning motivatsion sohasini hisobga olgan holda individual yondashuv usullari sifatida ko‘rib chiqilishi kerak. Qiziqishning psixologik asosini esa o‘quvchining ichki motivatsiyasi tashkil etadi. O‘quvchilarda jismoniy tarbiya va sportga faol qiziqishni samarali shakllantirish uchun, biz jismoniy tarbiya darslari davomida, o‘quvchilardan jismoniy tarbiya darslari yugurish me’yorlarini musobaqa faoliyatida olib bordik. G‘oliblar maktabning maxsus tablosiga ismi sharifi kiritib qo‘yildi. Razryad me’yorlarini bajargan o‘quvchilarga, 3, 2, 1, sport razryadlari berildi.

Maqsad. Maktab o‘quvchilarini musobaqa faoliyati elementlaridan foydalanib, ommaviy tarzda jismoniy tarbiya va sportga qiziqishlarini oshirish.

Tadqiqot vazifalari.

• ilmiy-uslubiy adabiyotlarni o‘rganish va taxlil qilish;

• qo‘llanilgan amaliy ishlar samaradorligini olingan natijalar orqali asoslab berish. Tadqiqot usullari va tashkil etilishi. Tadqiqot Toshkent viloyati Chirchiq shahridagi ikkita umumtalim maktabining oltinchi va yettinchi sinflarida olib borildi. Bir yil davomida, tajriba guruhidagi o‘quvchilarning jismoniy tarbiya maktab standartida belgilangan jismoniy me’yorlar shaxsiy va jamoaviy chempionat sifatida musobaqa nizomi asosida, yengil atletika (yugurish) musobaqasi sharoitida o‘tkazildi. G‘oliblar maktabning maxsus tablosiga ismi sharifi kiritib qo‘yildi. Razryad me’yorlarini bajargan o‘quvchilarga Yengil atletika federatsiyasi bilan hamkorlikda, O‘zbekistonda amaldagi yagona sport tasnifi asosida 3, 2, 1, sport razryadlari berildi. Bundan tashqari Yengil atletika federatsiyasi sport turlari bo‘yicha seleksiya ishlarini amalga oshirdi. Ikkala guruhda ham yengil atletika sport turlari bo‘yicha, sport razryadi bo‘lgan o‘quvchilarni aniqlash uchun, tajriba boshida va oxirida so‘rovnoma o‘tkazildi. Uch bosqichli tajriba dinamikasida tajriba va nazorat guruhi o‘rtasidagi natijalar o‘zgarishi quyidagicha sodir bo‘ldi.

1-Jadval

2-Sport raziryadlarini bajarish dinamikasi

Davrlar / Guruhlar	*Tajribadan oldin son (%)*		*Tajribadan keyin son (%)*	
	Jami raziryadlar	*Shundan yengil atletika bo‘yicha*	*Jami raziryadlar soni*	*Shundan yengil atletika bo‘yicha*
Nazorat guruhi n=90	*8 (9%)*	*4 (4%)*	*11 (12%)*	*6 (6%)*
Tajriba guruhi n=92	*7 (8%)*	*5 (5%)*	*34 (37%)*	*26 (28%)*

Sport razryadlarini bajarish dinamikasi

Tajribadan oldin o‘tkazilgan so‘rovnoma natijalari shuni ko‘rsatadiki, ikkala guruhdagi maktab o‘quvchilari sport bilan shug‘ullanuvchilar soni kamchilikni tashkil etdi. Atigi 9 % sport razryadiga ega. Solishtirish uchun yengil atletika sport turidan razryad olgan sportchilarning ham malumotlarini oldik. Anketa tahlili shuni ko‘rsatdiki nazorat guruhidagi maktab o‘quvchilarining atigi 10 foizi, tajriba guruhining 12 foizi turli sport seksiyalarida shug‘ullanishgan. Ikkala guruh maktab o‘quvchilarining 80% hech qachon musobaqada qatnashmagan.

Diagramma 2

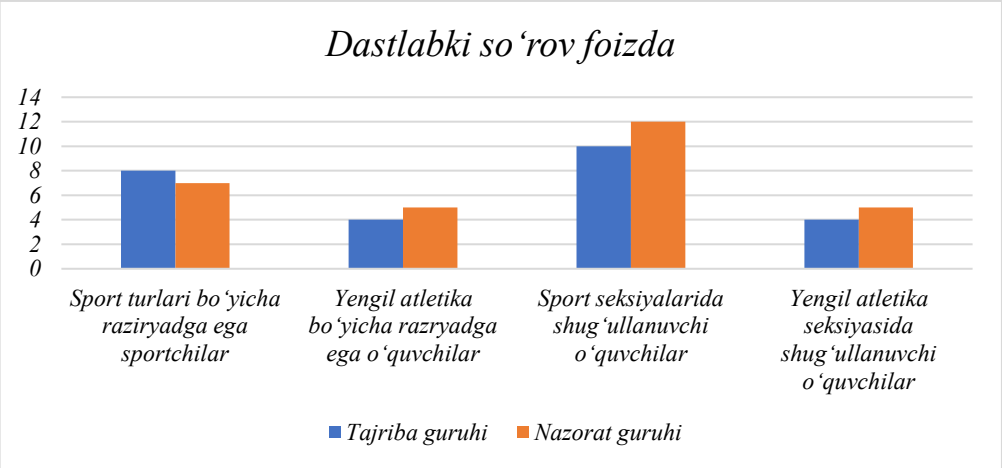


Diagramma 2

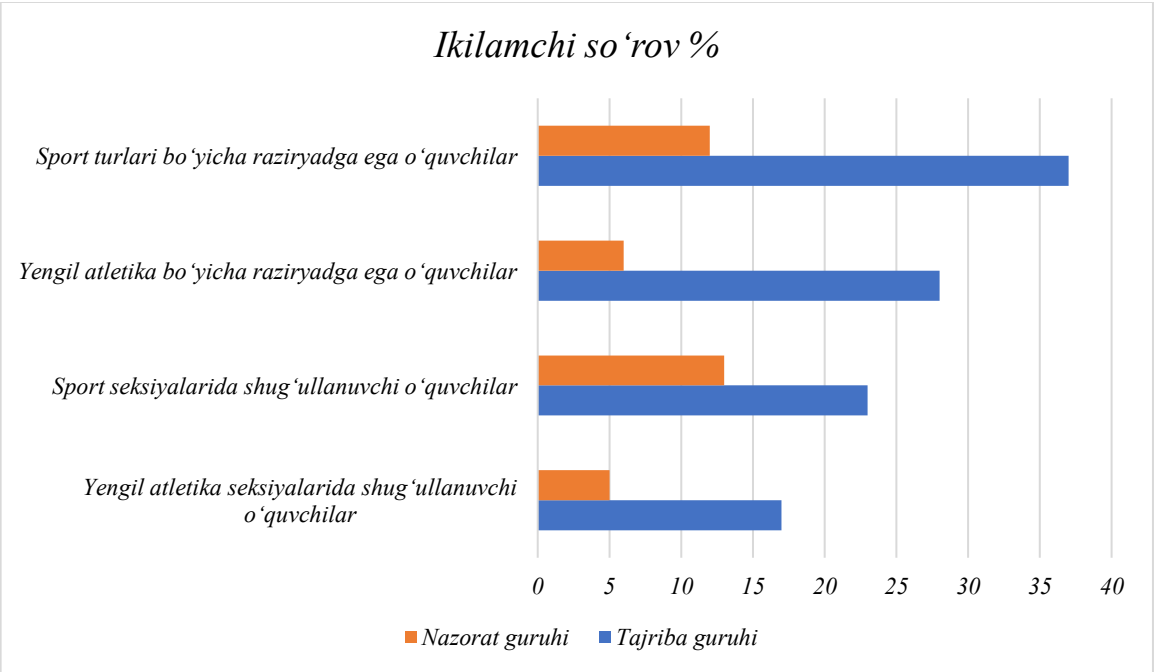
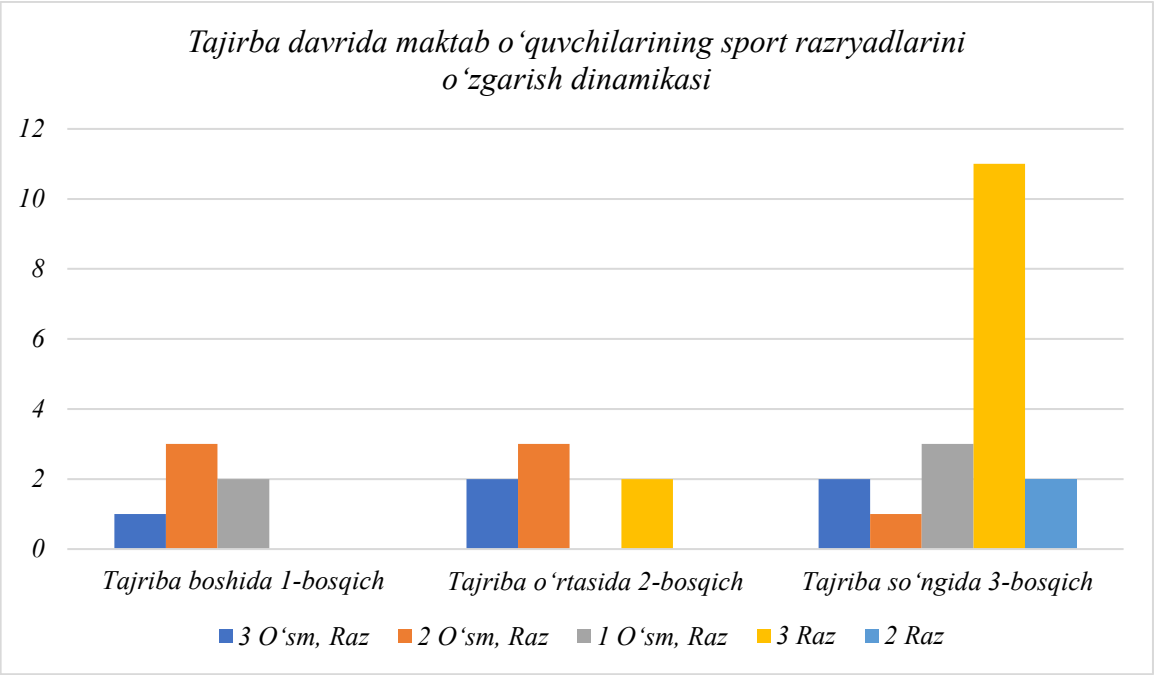


Diagramma 3



Tajriba oxiriga kelib sport turlari razryadga ega o‘quvchilar foizi 37 gacha oshdi, yengil atletika bo‘yicha razryadga ega o‘quvchilar esa 28 % oshdi. Sport seksiyalarida shug‘ullanuvchi o‘quvchilar soni esa 23 nafarga oshdi. Tajribaning boshida o‘rtasida va oxirida maktab o‘quvchilari tomonidan sport razryadlarining bajarilishi maktablarda o‘quvchilarning jismoniy tarbiya va sportga bo‘lgan munosabatini sifat jihatidan ham miqdor jihatidan ham ijobiy dinamikasi ko‘rinib turibdi. Jismoniy tarbiya darslarida o‘zlarini sportchi kabi his qilib tajriba guruhi o‘quvchilarining 17% sport seksiyalariga yozilishdi. Olingan test natijalari shuni ko‘rsatdiki yuqori emotsional jozibadorlik va sport faoliyatining pedagogik samaradorligi uni jismoniy tarbiyada qo‘llashning muhim asosidir. Bu metodikaning umumta’lim maktablarida qo‘llanishi ommaviy bolalar sportining paydo bo‘lishiga, sport razryadchilari sonini ko‘payishiga olib keladi va shu bilan birga maktab o‘quvchilarining jismoniy tarbiya, sport, sog‘lom turmush tarziga qiziqishini oshiradi.

XULOSA

Mazkur o‘tkazilgan tadqiqot ishini olib borish davomida mavzuga doiradabiyotlarni o‘rganish va tahlil qilish natijasida aniqlandiki, umumiy o‘rta ta’lim maktablarida o‘quvchilarni jismoniy tarbiya va ommaviy sportga jalb qilishda musobaqalarning tutgan o‘rni o‘rganilmaganligi va maxsus usul va vositalarni qo‘llash bilan bog‘liq ma’lumotlar ushbu masalani yetarlicha ochib bera olmaydi. Umumiy o‘rta ta’lim maktablarida o‘quvchilarni jismoniy tarbiya va ommaviy sportga jalb qilishda musobaqalarning o‘rnini, amalda bajarilgan ishlar samaradorligi sifatida, yengil atletika turida bir necha sport razryad-larining olinganligi va doimiy shug‘ullanuvchilar sonini sezlarli darajada ortganligini asos sifatida ko‘rsatib o‘tishimiz mumkin.

Umumiy xulosa o‘rnida aytishimiz mumkinki, ushbu tadqiqot o‘zini ijobiy olingan natijalar bilan oqladi. Ushbu nuqtai-nazardan kelib chiqqan holda, ilg‘or xorijiy adabiyotlar va amaliy tajribalarni o‘rganish va o‘rta ta’lim maktablarida

o‘quvchilarni jismoniy tarbiya va ommaviy sportga jalb qilish ishlarini oshirishga xizmat qiladi.

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IMPROVING THE TEACHING OF SOCIAL GEOGRAPHY IN PEDAGOGICAL UNIVERSITIES FOR SUSTAINABLE DEVELOPMENT

Abstract. *In the field of sustainable development, which is supported by the United Nations, this article addresses the key factors of strengthening the teaching of socio-geographical sciences for the students of the "Geography" department of pedagogical universities. The study of the "World Economic and Social Geography" course is used as an illustration. Modern trends in the selection of educational content, structuring of the educational process, and assessing student achievement were identified through the analysis of documents governing the educational process, scientific-pedagogical literature, and summarizing the experience of teaching the course. Focusing on sustainable development issues while teaching all subjects, taking a thorough approach to the study of networks and regions, stimulating students' cognitive activity in all types of lessons, using technology effectively, including distance learning techniques, and ensuring that teaching assessments are transparent and account for students' educational accomplishments all serve to advance society's goals for sustainable development.*

Key words: *teaching, sustainable development, pedagogy*

1 Introduction According to the perspective of ensuring the sustainable development of society, it is essential to improve the quality of all education and the applications of it, to raise students' awareness of sustainable development through educational content, to foster critical and methodical thinking, and to develop a comprehensive understanding of the field of education. will be completed. interpersonal, problem-solving, and world outside [1]. The United Nations launched the "Sustainable Development Goals" in the twenty-first century as a global initiative aimed at enhancing humankind's standard of living and wellbeing and creating a just and stable society by systematically enhancing the global economic, social, and environmental situation. Special programs were created in accordance with 17 primary directions. One of them is "Quality education," in which the quality and programs of education must be reviewed in challenges and the difficulties of the twenty-first century [2].

Social geography plays a crucial role in understanding the complex interactions between society and the environment. As we strive towards sustainable development, it becomes imperative to enhance the teaching of social geography in pedagogical universities. This literature review aims to explore existing research and scholarly works that focus on improving the teaching of social geography for sustainable development [3]. By examining the current literature, we can identify

key approaches, methodologies, and pedagogical strategies employed in this field. Importance of Social Geography in Sustainable Development. Numerous studies emphasize the significance of incorporating social geography into the curriculum of pedagogical universities. Social geography provides a holistic understanding of the social, cultural, economic, and political factors influencing sustainable development. It enables students to comprehend the complex spatial patterns and dynamics of human-environment interactions, thereby facilitating the formulation of informed decisions and policies [4]. Integrating Interdisciplinary Approaches. The literature highlights the need to adopt interdisciplinary approaches in teaching social geography for sustainable development. Incorporating knowledge from various disciplines such as sociology, anthropology, economics, and environmental studies fosters a comprehensive understanding of the interconnectedness between social systems and the environment. Integrating interdisciplinary perspectives helps students recognize the multidimensional nature of sustainability challenges and develop effective solutions [3]. Experiential Learning and Fieldwork. Experiential learning, including fieldwork and practical activities, is emphasized as a valuable pedagogical approach in social geography education. Fieldwork provides students with firsthand experiences and opportunities to engage with local communities, observe socio-environmental processes, and analyze realworld issues. Such experiential learning enhances students' critical thinking, research skills, and empathy, fostering a deeper understanding of social geography and sustainable development. Technology Integration. The integration of technology, particularly Geographic Information Systems (GIS) and remote sensing, is gaining prominence in teaching social geography for sustainable development. GIS enables students to analyze spatial data, map social phenomena, and visualize environmental challenges. Remote sensing techniques aid in monitoring land cover changes, urbanization, and environmental degradation. Integrating these technologies into the curriculum equips students with essential geospatial skills and enhances their capacity to address sustainability issues effectively. Community Engagement and Participatory Approaches. Engaging local communities and stakeholders in the learning process is crucial for teaching social geography for sustainable development. Participatory approaches, such as community-based research, collaborative projects, and service-learning initiatives, empower students to work directly with communities, identify their needs, and co-create solutions. These approaches foster active citizenship, social responsibility, and a deeper appreciation for local perspectives, enhancing the transformative potential of social geography education [5]. Economic and geographical courses are traditionally part of the basic training of specialists in geography and have a significant potential for improving the level of students' competencies in sustainable development. Their content and teaching methods do not remain unchanged. As a pedagogically processed reflection of the relevant scientific courses, the academic courses respond to changes occurring in the economic and geographical science and in pedagogy [6]. In addition, changes in social life are also reflected in the content and methodology of economic geography study. On the one hand, this happens indirectly, through the

connection to the branch of science, because science, as it develops, responds in turn to the challenges of society. On the other hand, society directly affects the entire system of higher education through the social order for a specialist with certain competencies. At the same time, pedagogical research does not pay enough attention to the changes taking place in the methodology of teaching geography at the higher education level. So, at the level of dissertations, the history of higher geographical education [2], the issues of training teachers of geography [3-7] are studied. The issues of teaching methodology for non-pedagogical geographers in the system of higher education are not presented in the topics of dissertation research for 2012-2022. Some aspects of geographers' training, such as the role of individual courses and information technologies in the educational process, the formation of a number of personal qualities and professional competencies, including those in the field of sustainable development, are discussed in scientific articles and conference materials [8 – 14]. Thus, there is a contradiction between the need to improve the practice of teaching disciplines of professional training of students geographers in accordance with modern requirements and interests of sustainable development and insufficient scientific and methodological development of this problem. The goal of our work is to summarize the experience of teaching economic geography for students studying in the field “Geography”, to identify current trends in the selection of content and methods of educational process organization in the interests of sustainable development on the example of mastering the course “Social Geography of World” [7].

2 Materials and methods Analysis of normative documents regulating the learning process, lesson plans, work programs and their annotations, which are in the public domain (the sample included Chirchik State Pedagogical University, Tashkent State Pedagogical University named after Nizomiy) analysis of scientific and pedagogical literature, conference materials, generalization of pedagogical experience in teaching the course [8].

3 Results Course content. One of the requirements for the student course content is its compliance with the current level of development of the relevant science, an adequate reflection of its content [15]. The economic geography content is changing dynamically enough, primarily due to the inclusion in the field of analysis of new fields of economy and social life: management, credit and financial, political, environmental, etc. The possibilities of IT technologies in research and presenting their results are also being increasingly used. This leads not only to the emergence of new sections in existing economic and geographical courses, but also to the emergence of independent, highly specialized courses in new research areas. Therefore, when selecting the content of the “Economic and Social Geography of World” itself, it is necessary to consider the educational profile, the whole range of socio-economic and geographical courses included in lesson plan, to optimize the content through the active use of interdisciplinary connections, or integration of narrow courses into a complex one. The thematic course structure, as a rule, includes the following main sections: theoretical frameworks of the socio-economic geography of World; position of World in the modern world; general characteristics

of natural conditions and resources, population and economy of World, including the development and location of the main sectoral and intersectoral complexes; characteristics of economic and geographical regions. Some programs do not have a regional section. In general, while maintaining a comprehensive approach to characterizing the territorial organization of World's population and economy, the depth and detail of consideration of these or other sections varies. Informing in the field of sustainable development is provided through attention to the environmental problems of industries and territories, the issues of economic growth and its consequences, the environmental spectres for transforming the territorial and sectoral structure of the economy, examples of "green" technologies in production, the study of socio-economic, demographic problems of regions, constant monitoring of relationships in socio-economic systems of different ranks. In this aspect, it seems important to preserve the regional section, as it contributes to the formation of an integrated approach to the study, assessment and planning of socio-economic development of regions of different scales. Methods and forms of training organization. The effectiveness of competencies formation in sustainable development depends on the applied educational technologies, their diversity and innovation, the presence of cooperation and dialogue in educational process. It is also worth noting the need for reasonable and appropriate use of electronic learning technologies, distance online courses, which allow to increase the mobility of students and the availability of education, which also meets the interests of sustainable development. The lesson plan provides for lectures, practical classes and independent work of students in economic geography. In modern conditions of increasing quantity and availability of information and reduction of hours for classroom work, as well as based on the above provisions, the use of only traditional informational lectures seems ineffective. At the same time, refusal from lectures can lead to a loss of consistency and uniformity of semester work of students, a decrease in the scientific level of education. There are a number of methods for conducting a lecture class, that are beneficial in increase the cognitive activity of students. Thus, the higher school uses problem lectures, binary lectures, "flipped learning" model, visualization lecture, web lecture, slide lecture, electronic lecture system, lecture-conversation, lecture-discussion, case study lecture, pressconference lecture are used in higher education. Since the pedagogical community has not developed a generally accepted understanding of all these types of lectures, we consider it necessary to give an explanation of the used terms.

4 Discussion Problem-based and binary lectures have been used in higher education pedagogy for quite a long time. Their methodological and didactic foundations were laid in the works of many scientist. in the second half of the twentieth century. In the course of a problem lecture, a problem situation, which is resolved in the process of dialogue between lecturer and audience [13], or when teacher himself shows the progress of solving the problem is modeled [14]. This method is especially effective when studying some theoretical approaches to the analysis of economic territorial organization, problems of development of individual industries and regions. A binary lecture can be seen as a variant of

problembased learning, implemented by two teachers. A live discussion of a debatable issue is modeled before the students, and various points of view are presented. The co-presenter of the binary lecture can also be a student who has the necessary level of training. During the lecture-conversation, the teacher engages students in a dialogue on the topic under consideration. In our opinion, the most productive use of a heuristic conversation is when the teacher's questions lead students to solve the problem and thus gain new knowledge. The lecture press conference is based on students' questions to teacher. The questions are collected, systematized, and then a lecture is given that contains systematized answers to the raised questions. Another option for this type of lecture is for students to report on the questions raised by the teacher [15]. This approach seems effective in discussing problems of economic restructuring in the country, regional development, environmental and demographic problems. A lecture with case studies involves students analyzing problem situations related to the material being studied and making a decision about them [15]. The material for case problems tasks can be environmental problems of a particular territory, deciding on the advisability of building an enterprise in a particular locality, the development of a particular industry in the region, planning the development of social infrastructure, etc. Such a task is presented in the form of a text or video clip, with questions on the problem requiring the application of knowledge obtained at the lecture or in independent work. The problem is solved together, by whole student group, the teacher comments on answers, directs the discussion towards the best solution. The “flipped learning” model assumes that students study new theoretical material independently, and in class they perform practical tasks on the topic, discuss the most important and difficult issues, and work in groups [10-13, 16]. Students receive theoretical material for independent study in the form of an electronic resource, a video lecture, a text document, a textbook paragraph. Also immediately may be offered and tasks for selfchecking or preparing materials for classroom work (questions to the teacher, the problems for discussion in the group, the task for peer control, etc.). When using electronic lecture complexes, elements of online courses in distance learning systems (for example, the element “Lecture” in LMS Moodle), training tasks, questions for automated control are built into them. Lecture-visualization supposes a visual presentation of information with the help of a visual series: graphs, charts, videos, illustrations, etc. Today most often visual materials are collected in a presentation. The visuals are accompanied by the teacher's comments [9, 5, 7, 8]. In the course “Economic and Social Geography of World”, this type of lecture is in demand when studying the location of natural resources, industry centers; the level, dynamics, and territorial differences of socio-economic indicators. As a specific geographical method of visualizing the material, we will distinguish the use of maps of different content, cartograms and cartodiagrams, allowing to visualize certain natural and socio-economic characteristics of the territory. Students can also be involved in the creation of cartographic material, which will not only contribute to the formation and consolidation of theoretical knowledge, but also to the development of practical skills of transforming information into a visual

cartographic form. A slide lecture is understood as a presentation containing drawings, diagrams, tables, and other materials, accompanied by a voice-over narration. Such a lecture is an independent learning unit and can be used in the organization of students' independent work, distance learning. Sometimes a slide-lecture is understood as an ordinary lecture read by a teacher and accompanied by a slide show. In this interpretation, it is close to a lecturevisualization. Web-lecture – a relatively new method of conducting classes and involves the use of distance technology. Following L.Yu. Shchipitsina, by web-lecture we will understand "a predominantly monological synchronous form of organization of academic interaction, allowing a systematic presentation of theoretical ideas on one of the scientific problems to a group of listeners, who can be located in different places, using various computer technologies and services". [9, 8]. An asynchronous form of web lecture – a recording of synchronous lecture or portions thereof. It is also possible to create special video lectures [10]. In the course "Economic and social geography of World", this format can be applied in the "flipped learning " model, when the lecture recording is offered as homework. It also seems appropriate and interesting to include synchronous web lectures (or recordings thereof) given by leading scholars in economic geography. Unfortunately, to date, the latter option is not widespread. Also at lectures are used such methods of activation of cognitive activity, as making a mental map by students independently, in groups, together with the teacher; maintaining an electronic glossary; making a supporting outline, including hypermedia, analytical tables [9]. The compilation of "business cards" for industries or economic areas can be used. To do this, the teacher previously creates a template form, which students fill out during the lecture. For example, a business card for an industry may contain the following questions elements: industry name; sub -industry; characteristics of raw materials and finished products; location factors; major centers; intra- and inter -industry connections; problems and prospects. The introduction of elements of automated knowledge control at lectures with tests, interactive tasks, crossword puzzles, rapid response systems will help to control the assimilation of knowledge by students, correct the learning process in a timely manner [9, 11]. The lectures intensification with the help of electronic technology requires good equipment of educational buildings with computers and communication channels. The problem of providing each student with an electronic workplace in the classroom can be solved using the concept of BYOD (Bring Your Own Device) [9]. When preparing electronic materials, the teacher should pay attention to the possibility and correctness of their work on tablets and smartphones. It should be noted that the most effective is the use of various types of lectures and methods of enhancing the cognitive activity of students on them. The choice of forms and methods for a particular lesson is made taking into account its topic, goals, level of preparedness and interest of students, technical equipment, and teacher's capabilities. Thus, we consider it advisable to maintain lectures as one of the main forms of classes in the discipline "Economic and social geography of of the world" and other economic and geographical courses, while revising their

methodology towards activation of students' activity, wide use of electronic learning tools, increased integration of students' independent and classroom work.

4 Conclusions The study identified the following current trends in improving the teaching of economic geography. Economic and geographic disciplines remain an important component of the basic training of geography students. Changes in the content of economic and geographic courses correspond to the changes taking place in scientific disciplines: new areas of research in science and, accordingly, new sections of academic courses appear. While maintaining the overall structure of the course "Economic and social geography of World", an integrated approach to the study of the territorial organization of population and economy, we can talk about the variability in terms of coverage depth and breadth of certain issues in programs of different universities. Informing students in the field of sustainable development of territories is carried out through attention to the interrelationships in socio-economic systems, environmental, socio-economic problems in the study of all course topics. The methods and forms of learning organization within the defined plan types of classes are varied and tend to create conditions for the active involvement of students in systematic learning activities, the use of information technology, strengthening the independent component, which is in the interests of sustainable development. It seems advisable to maintain lectures as one of the main forms of classes, with the widespread use of electronic learning tools, the use of techniques aimed at enhancing students' activities, increasing the integration of their independent and classroom work. When conducting practical lessons, the attention is also paid to creating conditions for increasing the students' activity, independence. Independent work of students includes the study of new material in the "flipped learning" model with the help of information and traditional technologies, preparation for seminars, creating reports, presentations, compiling characteristics of regions and industries, work in distance learning systems. The introduction of distance learning technologies is important for student mobility and educational availability. We consider PRS to be the most rational way of assessing achievements in the course, since it helps to organize regular work in the semester, provides objectivity and transparency in assessing the results of students' educational activities throughout the entire study period. These trends improve the quality of education and serve the interests of sustainable development.

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THE ROLE OF IFRS REPORTS IN ACCESSING STOCK EXCHANGES

Abstract: *This article explores the necessity and significance of transitioning to International Financial Reporting Standards (IFRS) in Uzbekistan. It examines the elements of the stock market, the economic nature of securities, their types in the country, and the issues related to improving the accounting of securities as assets in bookkeeping.*

Keywords: *IFRS, investment, securities, accounting, stock exchanges, external debt, international organizations.*

The rapid growth of international trade, export, and import operations, as well as the accelerating globalization of economies and information technologies, has led to the integration of accounting and reporting systems for business entities worldwide. The introduction of International Financial Reporting Standards (IFRS) in Uzbekistan serves as a catalyst for the further development and expansion of the national economy. To access global markets and ensure the listing of securities from joint-stock companies and commercial banks on international stock exchanges, financial statements based on IFRS are a mandatory requirement. In developed economies, securities are considered a vital component of the financial system, serving as tools for investment, payments, and settlements. As an economic category, securities possess certain monetary characteristics and function as instruments of control. Significant reforms are being implemented in Uzbekistan to develop the financial market, with particular attention given to the securities market (stock market), which is a key component of the financial sector. In particular, the adoption of Presidential Decree No. PQ-4611, dated February 24, 2020**, "On Additional Measures for Transitioning to International Financial Reporting Standards,"** highlights the need for a gradual alignment of accounting reports with IFRS requirements.

This step aims to encourage foreign investors to enter Uzbekistan’s stock market and promote the development of financial instruments such as shares, bonds, bills of exchange, deposit and savings certificates, and other securities. Providing reliable information about securities is a fundamental condition for attracting investors. Transparent and accurate data strengthens investor confidence and fosters the growth of financial relationships and tools within the economy.Securities are characterized by their economic properties such as cost, liquidity, profitability, turnover speed, and investment potential. The types of securities listed in the "Law of the Republic of Uzbekistan on Securities Market" are as follows: stocks, bonds,

treasury obligations, deposit certificates, securities derivatives, and promissory notes[11]. The primary characteristic of securities is their role as a tradable asset in the stock market, meaning that securities are freely or partially transferable within the market, enabling the transfer of capital from one issuer (investor) to another. When accounting for and reflecting securities in reports as an economic category, the following features should be considered:

- Securities represent ownership rights in share capital;
- Securities reflect credit relationships between the holder and the issuer;
- Securities (shares) provide the right to receive a portion of the issuer's income;
- Shareholders are granted the right to participate in the management of joint-stock companies;
- Securities offer the opportunity to earn income from the increase in their market value;
- Securities can serve as collateral for obtaining loans;
- Securities (shares, bonds) grant the right to claim a portion of the company's assets upon its liquidation.

Currently, the reports in use within our country do not fully meet the needs of users (investors), as they are approached primarily from a tax accounting perspective.

Transitioning to IFRS (International Financial Reporting Standards) brings economic benefits. It facilitates expanded relations with international financial organizations such as the European Bank for Reconstruction and Development, the World Bank, the Asian Development Bank, the International Monetary Fund, and others. This helps attract foreign investments into the economy and improves the country's investment climate. Additionally, IFRS plays a vital role in elevating accounting practices to international standards. From the perspective of attracting investments, the state benefits from conducting accounting based on IFRS, as it ensures effective oversight over the use of its funds. Investors and founders also benefit from having access to accurate, objective, and transparent data without incurring additional costs. Otherwise, they may need to spend extra funds on transforming reports to meet their requirements. Finally, using reports prepared according to IFRS is a critical factor in corporate management, enabling the adoption of objective managerial decisions and strategic planning Joint-stock companies, commercial banks, insurance organizations, and major taxpayers maintaining their accounting and reporting based on IFRS (International Financial Reporting Standards) ensure the following:

- ✓ Transparency, accuracy, and clarity of information in enterprise activities, providing access to specific and reliable data;
- ✓ Enhanced investment attractiveness of business entities;
- ✓ Objective and realistic managerial decision-making;

[11] The Law of the Republic of Uzbekistan "On the Securities Market" was adopted on June 3, 2015.

- ✓ Expanded opportunities for analyzing enterprise performance;
- ✓ Assistance in sourcing competitive financial resources.

Additionally, the accounting policies of enterprises should adequately disclose securities as assets, including their acquisition, movement, and disposal (sale). Furthermore, in accordance with IFRS and NAS (National Accounting Standards), accounting policies should specify how investments in securities are valued, revalued, and reported.

In our opinion, it is necessary to encourage and expand the trading activity of surplus cash resources of economic entities in the stock market. Financial reporting based on IFRS enables enterprises to enter global markets, attract foreign investments into enterprises operating within our country, broaden the range of investors, and foster the development of the stock market. Moreover, it enhances the qualification of personnel and ensures that accounting and reporting meet international standards.

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KORXONALARNING RAQOBATBARDOSHLIGI VA ULARGA TA'SIR ETUVCHI OMILLAR

Annotatsiya: *mazkur maqolada kichik va o'rta korxonalarning raqobatbardoshligi, unga ta'sir etuvchi ichki va tashqi muhit omillari, ASEAN mamlakatlarida kichik va o'rta korxonalarni boshqarish siyosati tahlil qilingan va tavsiyalar berilgan.*

Kalit so'zlar: *kichik va o'rta korxonalar, raqobatbardoshlik, STEEP tahlili, ichki va tashqi muhit omillari. Porter raqobatbardoshlik modeli,*

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COMPETITIVENESS OF ENTERPRISES AND THE IMPACT ON THEM FACILITATING FACTORS

Abstract: *the article analyzes competitiveness of small and medium sized enterprises as well as factors influencing on competitiveness, SME policies in ASEAN countries and gives recommendations.*

Key words: *small and medium sized enterprises, competitiveness, STEEP analyze, internal and external factors, Porter's Competitiveness Model,*

KIRISH.

Bugungi jadal rivojlanayotgan dunyoda har sohada raqobat kuzatilmoqda. Aynan shunday muhitda korxonalarning bozorlarda o'z faoliyatini davom ettirishlari uchun ularning turli iqtisodiy o'zgarishlarga "chidamli" bo'lishi, yana ham sodda qilib aytsak, yuqori raqobatbardoshlik darajasiga ega bo'lishi zarur. Ushbu maqolada korxona raqobatbardoshligiga ta'sir etuvchi omillar atroflicha o'rganilgan. Kichik va o'rta korxonalar ko'plab mamlakatlar milliy iqtisodiyotida muhim o'rin egallaydi. Chunki, kichik va o'rta korxonalar yangi ish o'rinlarini yaratish bilan birga barqaror iqtisodiy o'sishga ham zamin yaratadi. Dunyoning ko'plab mamlakatlarida joylashgan kompaniyalarning qariyb 90%i aynan kichik va o'rta biznes subyektlari hissasiga to'g'ri keladi. Shuningdek, ish bilan band aholining asosiy qismi shu

sohada band. Shuning uchun ham kichik va o'rta korxonalarning raqobatbardoshligini oshirish , ularning barqaror rivojanishi uchun shart-sharoitlar yaratish hudud iqtisodiyotining oldiga qo'ygan asosiy vazifalaridan biri hisoblanadi. O'zbekiston milliy iqtisodiyotini rivojlantirishda kichik va o'rta korxonalarning o'rni juda muhimdar. Shu sababdaan korxonalarning raqobatdoshligini oshirishga doir muammolar o'rganilib zarur chora tadbirlar amalga oshirilmoqda. "Buyuk Kelajak" xalqaro nodavlat notijorat tashkiloti tomonidan 2019-yil 18-fevralda qabul qilingan "O'zbekiston Respublikasining 2035-yilgacha rivojlanish Strategiyasining konsepsiyasi"da ham kichik va o'rta korxonalarni rivojlantirish va qo'llab-quvvatlash asosiy vazifalardan biri sifatida keltirilgan.

ADABIYOTLAR TAHLILI

Mavzuga doir o'rganilgan adabiyotlar tahlilidan kelib chiqib shuni aytishimiz mumkinki, raqobatbardoshlik mavzusi asosan xorijiy tadqiqotchilar tomonidan o'rganilgan bo'lib, mahalliy tadqiqotchilar tomonidan esa yetarlicha o'rganilmagan. Korxona raqobatbardoshligini o'rganishda avvalo, Maykl Porterning tadqiqot ishlari muhim ahamiyat kasb etib, uning "Raqobat strategiyasi" nomli qo'llanmasida sohalar tahlili va korxonaning raqobatdoshligini oshiruvchi turli xil strategiyalar keltirilgan. Shuningdek, xalqaro bozorlarda foydalaniladigan raqobat strategiyalari atroflicha yoritib berilgan. Bundan tashqari P.Kotler, K.Keller, A. Gal, Ch.Attila va A.Zaxarov ilmiy izlanishlarida korxona raqobatbardoshligiga ta'sir etuvchi ichki va tashqi muhit omillari tahlil qilingan. Milliy tadqiqotchilarimizdan Bekmurodov A.SH., Qosimova M.S., Ergashxodjayeva SH.J. korxona raqobatbardoshligida strategik marketingning o'rniga doir ilmiy ish olib brogan.

TADQIQOT METODOLIGIYASI

Mazkur maqolada iqtisodiy-ijtimoiy tahlillar, mantiqiy yondashuv, deduksiya, omilli tahlil va natijani ilmiy o'rganish metodlaridan foydalanilgan.

TAHLIL VA NATIJALA

(1-jadval)

Korxona raqobatbardoshligi tushunchasiga berilgan ta'rflar

№	Ta’rif bergan muassasa	Ta’riflar
1	O’zbekiston Respublikasining “Raqobat to’g’risida”gi Qonuni	Raqobat-xo'jalik yurituvchi sub'ektlarning (raqobatchilarning) musobaqalashuvi bo'lib, bunda ularning mustaqil harakatlari ulardan har birining tovar yoki moliya bozoridagi tovar muomalasining umumiy shart-sharoitlariga bir tomonlama tartibda ta'sir ko'rsatish imkoniyatini istisno etadi yoki cheklaydi
2	Iqtisodiy hamkorlik va taraqqiyot tashkiloti (OECD)	Raqobatbaroshlik – bu kompaniyalar, sanoat ishlab chiqarish tarmoqlari, hududlar, milliy iqtisodiyotlarning uzoq vaqt mobaynida birmuncha yuqori daromad va nisbatan yuqori ish bilan ta’minlash darajalarini yaratishga bo’lgan qobiliyati bo’lib bu xalqaro raqobatda o’z aksini topadi
3	Yevropa Ittifoqida joylashgan “Raqobatbardoshlikni	Biznes raqobatbardoshligi- kompaniyaning iste’mol tovar va xizmatlarini uzoq muddat davomida bozorga chiqarishi bo’lib, bunda iste’molchilar bu taklif etilayotgan mahsulotlar uchun

	o’rganish ilmiytadqiqot markazi” (the Research Centre for Competitiveness)	boshqa raqobatchilarning mahsulotlariga qaraganda ko’proq xarajat qilishga ham tayyor bo’ladilar”. Bu ta’rif ham korxonaning raqobatbardoshligini baholashda muhim omil: ya’ni iste’molchilar tomonidan mahsulotning qabul qilinishiga alohida e’tibor qaratilgan

Yondashuvlar turlicha bo'lishiga qaramasdan ularning barchasi quyidagi ikki xususiyatga asoslanadi:

- Korxonalarning biznes raqobatbardoshligi mahsulo tlar, xizmatlarning raqobatbardoshligidan ajralmagan holda ularga ta'sir etuvchi "narx" va "narxga bog'liq bo'lmagan" omillarga bog'liq;

- Biznes raqobatbardoshligi raqobatbardoshlikni shakllantiruvchi ko'plab omillar yig'indisi bo'lib, ba'zan bunday omillarni sodir bo'lgan o'zgarishlarni hisobga olgan holda dinamik tarzda baholash zarur.

Korxonalarning raqobatbardoshligiga ta'sir etuvchi omillar turlicha bo'lib, ularni asosan ichki va tashqi muhit omillari guruhlariga ajratib olib o'rganish qulaydir.

Korxonaning faoliyatida albatta ichki muhit muhim rol o'ynaydi. Ichki muhit omillarini quyidagi jadval orqali ko'rishimiz mumkin:

(2-jadval)

Korxonaning ichki muhit kompenentlari

Narx/tannarx	Unumdorlik , raqobatbardosh narxlar
Sifat	Mahsulot sifati va ishlab chiqarish standardlari, hom-ashyo standartlari
Vaqt	Yetkazib berish vaqti, yetkazib berishning tartibi
moslashuvchanlik	Iste’molchilar talablariga mos mahsulotlar, moslashuvchan logistika
Xizmatlar	Iste’molchilarga ko’satilayotgan xizmatlar, etnik axloq qoidalari
Bozor munosabatlari	Bozor o’zgarishlariga moslasha olish qobiliyati, innovatsion savdo metodlaridan foydalanish
Inson kapitali	Xodimlar malakasi, menejment sifati
Tashkiliy tuzilma	Qaror qabul qilish mexanizmi, texnologiyalar darajasi, R&D xarajatlar

Korxonaning faoliyatida albatta tashqi muhit muhim rol o'ynaydi. Chunki, korxona uchun ijtimoiy omillar: aholining tarkibi, madaniyati, urf-odatlari, yashash tarzi, texnologik omillar: R&Dga xarajatlar, innovatsiyalar, informatsion kummunikatsiyaning rivojlanganligi, patent tizimi; iqtisodiy omillar: YaIM, YMM darajasi, inflatsiya, ishsizlik darajasi, investirsiya ko'rsatkichi; ekologik omillar: atrofmuhit texnologiyasi, yashil iqtisodiyot; siyosiy-huquqiy omillar: qonunchilik, iqtisodiy siyosat. Yuqoridagilarni hisobga olgan holda korxona o'zining strategiyasini ishlab chiqadi. Bozor muhiti, raqobatchilarning faoliyati bilan tanishib chiqib, shuningdek, biznes faoliyatini amalga oshirish uchun qonun tomonidan yaratilgan imkoniyatlarni o'rgangan holda korxona o'zining raqobatbardoshligini oshirish uchun vazifalarni belgilab oladi.

(3-jadval)

Korxonaning raqobatbardoshligiga ta'sir etuvchi tashqi omillar

Ijtimoiy	Texnologik	Iqtisodiy	Ekologik	Siyosiy huquqiy
aholining tarkibi, madaniyati, urfodatlari, yashash tarzi, va boshqalar	R&D ga xarajatlar, innovatsiyalar, Informatsion-kummunikatsiyaning rivojalanganligi, patent tizimi	YaIM, YMM darajasi, inflatsiya, ishsizlik darajasi, investitsiya ko'rsatkichi;	atrof-muhit texnologiyasi, yashil iqtisodiyot	qonunchilik, iqtisodiy siyosat.

Har bir ishlab chiqaruvchi korxonalarda ular o'zlarining faoliyatiga ta'sir o'tkazuvchi raqobatchi kuchlarni tahlil qilishlari ushbu korxonalarning o'sishi va rivojlanishini ta'minlashi shubhasizdir. Garvard universitetining professori Maykl Porter tarmoqdagi raqobatchi kuchlarni quyidagicha tahlil qilib, guruhlagan

- Tarmoq ichida sotuvchilar o'rtasidagi raqobat.
- Boshqa tarmoqdagi kompaniyalarning o'z tovarlari bilan bu tamoqdagi xaridorlarni egallab olishga urinishi.
- Tarmoq ichida yangi raqobatchilarning paydo bo'lishi.
- Xom ashyo va butlovchi qismlar yetkazib beruvchilarning o'z shartlarini o'tkazishga urinishlari.
- Xaridorlarning o'z shartlarini o'tkazishga urinishlari.

Strategiyada quyidagi maqsadlar belgilab olingan:

- Unumdorlik, texnologiya va innovatsiyani rag'batlantirish;
- Moliyaviy manbalardan foydalana olish imkoniyati;
- Bozorga kirish va internatsionalizatsiyalashuvda ko'maklashish;
- Kichik va o'rta korxonalarni qo'llab quvvatlovchi siyosatni mukammallashtrish;
- Tadbirkorlik va inson kapitali taraqqiyotiga ko'maklashish. Mazkur hisobotda ASEANning 10 a'zo mamlakatlarida faoliyat olib boruvchi kichik va o'rta korxonalarning faoliyatiga, o'z-o'zidan raqobatbardoshligiga ta'sir etuvchi tashqi muhit omillari tahlil qilinib, muammolar o'rganilib takliflar keltirilgan.

SME policy index quyidagi 8 ko'rsatkich bo'yicha baholanadi:

1. Unumdorlik, texnologiya va innovatsiya
2. "Yashil" kichik va o'rta korxonalar
3. Moliyaviy manbalaridan foydalanish imkoniyati
4. Bozorga kirish va baynalminallashuvi
5. Institutsional muhit
6. Qonunchilik,nazorat va soliqlar
7. Tadbirkorlik ta'limi va mahorati
8. Ijtimoiy va diskriminatsiyasiz tadbirkorlik

Yuqoridagi ko'rsatkichlar bo'yicha Singapur va Malayziya qariyb barchasida eng yuqori natijani qayd etgan. Aynan shu ikki mamlakatning kichik va o'rta korxonalar siyosatining o'ziga xos jihatlar quyida tahlil qilinadi. Singapur mintaqasida kichik va o'rta korxonalarni boshqarish siyosati bo'yicha eng yaxshi ko'rsatkichlarga ega bo'lib, bu siyosatni Singapur 1980-yillardayoq boshlab yuborgan edi. Hukumat tomonidan kichik va o'rta korxonalarning raqobatbardoshligini oshirish maqsadida unumdorlikni oshirish va baynalminallashuvga alohida e'tibor qaratadi.

Xulosa va takliflar

Korxona raqobatbardoshligiga ta'sir etuvchi ichki va tashqi muhit omillari uning o'z strategiyasini ishlab chiqishida muhim ahamiyat kasb etadi. Yuqorida tahlil qilib o'tganimizdek, tashqi muhit omillari korxonalarning faoliyatini yanada samarali tashkil etishda asosiy unsur vazifasini bajaradi. Biznes muhitining yaxshiligi, nisbatan yengil soliq siyosati, sof raqobatning ta'minlanganligi, moliya manbalaridan erkin foydalana olish imkoniyati, tashqi bozorlarga chiqishda to'siqlarning birmuncha kamligi- bularning barchasi korxonalarning barqaror rivojlanishini ta'minlaydi va raqobatbardoshligini oshirishda keng imkoniyatlar yaratadi.Singapur tajribasidan shuni xulosa qilishimiz mumkinki, Singapur korxonalarning unumdorligini oshirish qaratilgan va innovatsion faoliyatini qo'llab quvvatlovchi siyosat olib boradi va bir paytning o'zida inson kapitalining rivojlanishini ham qo'llab quvvatlaydi. Malayziyada esa moliya sohasi va infrastrukturaning yuqori darajada rivojlanganligi va natijada korxonalar uchun oson kredit olish imkoniyatlari natijasida kichik va o'rta korxonalarni uzluksiz faoliyati va barqaror rivojlanishi ta'minlanmoqda. Singapur va Malayziya tajribasini o'rgangan holda yurtimizda ham kichik va o'rta korxonalarni qo'llab quvvatlash va rivojlantirish borasida ularning innovatsion faoliyatini rag'batlantirish, shuningdek, tadbirkorlik ta'lim sohasini rivojlantirish zarur.

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GLOBAL ECONOMIC INTEGRATION AND FREE TRADE AREAS

Abstract: *Global economic integration has become a central theme in contemporary international relations and trade policy. The expansion of free trade areas (FTAs) has played a critical role in shaping the structure of the global economy. FTAs foster the elimination of trade barriers between member countries, thus promoting economic cooperation, growth, and competitiveness on a global scale. This article explores the role of global economic integration and FTAs, analyzing their impact on economic growth, international relations, and the evolving landscape of global trade. The analysis also delves into both the benefits and challenges of FTAs, highlighting their influence on developing and developed countries.*

Keywords: *Global economic integration, free trade areas, international trade, economic cooperation, trade policy, regional integration, trade barriers, economic growth, globalization*

Introduction: In the era of globalization, the world's economies are becoming increasingly interconnected, with international trade playing a crucial role in this transformation. One of the most significant aspects of this integration is the rise of global economic integration, where countries reduce or eliminate barriers to trade, capital flows, and labor mobility, thus creating a more interconnected global economy. At the forefront of this process are Free Trade Areas (FTAs)—agreements between countries or regions that aim to reduce or remove trade barriers such as tariffs, quotas, and subsidies, enabling easier and more efficient exchange of goods and services. Global economic integration is driven by the recognition that increased cooperation between nations can result in mutual benefits. As trade barriers fall, markets open up, creating new opportunities for businesses, consumers, and governments alike. FTAs are pivotal in this process, offering a platform for countries to enhance their economic relationships, foster economic growth, and increase their competitiveness in the global market. By removing trade barriers among members, FTAs allow countries to access larger, more diverse markets, increase their exports, and optimize the allocation of resources through comparative advantage.

These agreements not only promote trade in goods and services but also facilitate the flow of investments, technology, and knowledge across borders. As trade liberalization accelerates, FTAs also play a vital role in harmonizing regulatory standards, improving infrastructure, and fostering innovation. Through these measures, FTAs create an environment conducive to higher productivity, technological advancement, and job creation, which are essential drivers of economic growth. However, the landscape of FTAs is complex. While they offer

numerous benefits, such as increased market access and investment opportunities, they also pose certain challenges. For instance, FTAs may result in trade diversion, where trade within the FTA increases at the expense of more efficient suppliers outside the agreement. Additionally, the benefits of FTAs may not always be equally distributed among participating countries, particularly when there is a significant disparity in the economic size and development levels of the members. Smaller or developing economies may find it challenging to fully capitalize on the advantages of FTAs, leading to issues of economic inequality. Furthermore, the expansion of FTAs raises concerns about the possible fragmentation of the global trade system. With numerous regional and bilateral trade agreements in place, businesses may face a complex web of overlapping rules and regulations, making it difficult to navigate international markets. The "spaghetti bowl" effect, where multiple agreements with different rules of origin and regulatory standards coexist, complicates trade rather than simplifying it.

Despite these challenges, FTAs remain a central feature of global economic policy. They continue to evolve, adapting to new global challenges, such as climate change, digital trade, and labor standards, and incorporating new sectors into their frameworks. As global economic integration deepens, FTAs will likely play an even more significant role in shaping the future of international trade, economic cooperation, and development. **This article examines** the role of global economic integration and FTAs in the modern world economy. It explores their historical development, theoretical foundations, and practical implications for countries involved in such agreements. The article also analyzes both the positive and negative impacts of FTAs, focusing on their effects on global trade dynamics, economic growth, and international relations. Ultimately, the aim is to provide a comprehensive understanding of how FTAs influence the global economy and the future of economic cooperation between nations.

Literature review.

The literature on global economic integration and Free Trade Areas (FTAs) has evolved significantly over the past few decades, with scholars examining both the theoretical and empirical aspects of these concepts. Various perspectives have been developed regarding the benefits and challenges of economic integration, as well as the implications for global trade dynamics, economic growth, and international relations.

Economic Integration Theories

Economic integration refers to the process through which countries reduce or eliminate trade barriers to foster greater cooperation and integration. Several scholars have developed frameworks to explain the different levels and types of integration. Balassa's (1961) theory of economic integration remains one of the foundational contributions in this field. He identified different stages of integration, including free trade areas, customs unions, common markets, and economic unions, with each stage representing a deeper level of economic cooperation. According to Balassa, FTAs represent the initial stage of economic integration, in which member

countries agree to eliminate tariffs and other barriers to trade among themselves while maintaining independent trade policies with non-members [1].

In a similar vein, Viner (1950) introduced the concept of trade creation and trade diversion, which helps explain the economic impact of FTAs. Trade creation occurs when countries within an FTA trade more freely, benefiting from comparative advantage, while trade diversion happens when trade shifts from more efficient producers outside the agreement to less efficient suppliers within the FTA. Viner's theory suggests that the overall welfare effects of FTAs are determined by the balance between these two forces [2].

The Role of FTAs in Global Trade

FTAs are seen as a key driver of economic growth and global trade. Krugman (1991) argues that while FTAs can lead to regional trade liberalization, they may not always be the best route to global free trade. Regional trade agreements, including FTAs, can result in trade diversion, where countries within the agreement benefit, but global efficiency may suffer [3]. Krugman's analysis suggests that multilateral trade liberalization through organizations like the World Trade Organization (WTO) might be a more efficient way to achieve global trade liberalization. In contrast, Bhagwati and Panagariya (1996) emphasize the benefits of preferential trade agreements, arguing that FTAs can provide a stepping stone toward greater global liberalization [4]. According to their view, FTAs can facilitate the exchange of goods and services, promote investment, and enhance overall economic welfare, especially when members have complementary economies. Furthermore, FTAs are seen as tools for economic diplomacy, improving international relations between countries and fostering political stability by deepening economic ties.

Impact of FTAs on Developing Economies

The impact of FTAs on developing countries is a particularly contentious area of research. Estevadeordal and Fransen (2009) highlight that while FTAs provide developing countries with opportunities to access new markets and integrate into the global economy, they may also face challenges in terms of the unequal distribution of benefits. Smaller economies within FTAs often face difficulties in competing with larger, more advanced economies, resulting in uneven growth within the agreement. Additionally, developing countries may struggle to implement the regulatory and institutional changes required by FTAs, leading to inefficiencies and lost opportunities [5].

Vamvakidis (1998) and other scholars argue that FTAs can be particularly beneficial for developing countries when they provide access to technology transfer, create competitive pressures, and stimulate domestic reform. FTAs can improve governance structures and institutional frameworks, which can lead to increased foreign direct investment (FDI) and innovation [6]. However, this view also points to the fact that developing countries must ensure their economic policies are aligned with the requirements of FTAs to fully capitalize on these benefits.

Analysis and Results.

FTAs are designed to increase trade flows among member countries by reducing or eliminating tariffs, quotas, and other trade barriers. The effectiveness of FTAs in stimulating trade is evident in various case studies. According to WTO (2023), global trade grew by 5.3% in 2022, with a significant proportion of this growth coming from FTAs. For instance, the North American Free Trade Agreement (NAFTA), which was replaced by the United States-Mexico-Canada Agreement (USMCA) in 2020, led to a 300% increase in trade among the three countries since its inception in 1994, particularly in sectors like agriculture, automotive, and services. Similarly, the European Union (EU), as one of the most successful examples of economic integration, saw a 10.4% increase in intra-EU trade between 2010 and 2020. According to data from the EU Trade Statistics (2023), the total value of intra-EU exports reached €5.3 trillion in 2022, with goods accounting for €4.1 trillion and services for €1.2 trillion. These figures highlight the significance of economic integration in driving trade between member countries. Moreover, the EU's trade agreements with non-member countries, such as the EU-Japan Economic Partnership Agreement (EPA), have also shown positive results. The EPA, which entered into force in 2019, has led to a 6.5% increase in trade between the EU and Japan in just the first two years of implementation.

Trade Creation vs. Trade Diversion

The effects of FTAs on trade creation and trade diversion are critical in understanding their overall economic impact. Trade creation occurs when FTAs facilitate the exchange of goods and services that would otherwise not occur due to trade barriers. Conversely, trade diversion happens when trade is redirected from more efficient producers outside the FTA to less efficient producers within the agreement. A study by Baldwin and Venables (2021) examines the economic effects of FTAs on trade creation and diversion, using statistical models to estimate the welfare effects of various agreements. The study finds that for countries like the US, trade creation from FTAs has outpaced trade diversion by a substantial margin. Specifically, for the USMCA, the trade creation effect was estimated at $79 billion in 2021, compared to trade diversion losses of only $13 billion. In contrast, Mercosur, a trade bloc in South America, has faced challenges with trade diversion, particularly because many of its members have relatively inefficient domestic industries. A 2020 report by the World Bank found that trade diversion in Mercosur reduced its welfare by approximately $7 billion annually due to inefficiencies in agriculture and manufacturing.

Economic Growth and FTAs

FTAs have also been shown to boost economic growth in member countries, primarily by facilitating access to larger markets, enhancing competition, and attracting foreign direct investment (FDI). A 2020 OECD report on regional trade agreements indicated that countries participating in FTAs generally experience higher rates of GDP growth compared to countries that remain outside such agreements. For example, the ASEAN Free Trade Area (AFTA), which includes Southeast Asian countries, has contributed to an average annual GDP growth rate

of 5.1% since its establishment in 1992, well above the regional average of 3.6% for non-members. In Chile, a member of the Pacific Alliance FTA, the implementation of the agreement has been correlated with a 4.2% annual GDP growth rate between 2012 and 2019. Chile's exports to FTA member countries increased by 22% during this period, driven by higher demand for Chilean agricultural products, copper, and wine in markets such as Mexico and Peru. These figures demonstrate how FTAs not only expand trade but also stimulate economic activity by providing a platform for increased market access and investment opportunities.

Foreign Direct Investment (FDI) Flows

The flow of Foreign Direct Investment (FDI) is another critical indicator of the success of FTAs. FTAs create a more attractive investment environment by reducing barriers to trade and ensuring greater market access. According to the UNCTAD World Investment Report (2022), FDI inflows to FTA member countries grew by 9.4% between 2019 and 2021, with a notable increase in the manufacturing and services sectors. For example, Vietnam, a member of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), has seen a dramatic rise in FDI inflows since joining the agreement. In 2020, FDI to Vietnam reached $16.1 billion, up from $8.5 billion in 2018, representing an 89% increase. This surge in investment can be attributed to the country's preferential trade access to major economies such as Japan, Australia, and Canada under the CPTPP.

Challenges and Criticisms of FTAs

Despite the positive impact of FTAs on trade and economic growth, several challenges persist. One of the primary criticisms is that FTAs can lead to uneven development among member countries. Smaller economies may struggle to compete with larger, more developed economies within an FTA, leading to a concentration of wealth and growth in certain sectors, while others may lag behind. This issue is particularly pronounced in developing regions where structural weaknesses, such as inadequate infrastructure, poor governance, and weak institutions, can hinder the positive effects of FTAs. For example, African countries that are part of the African Continental Free Trade Area (AfCFTA) face challenges in realizing the full benefits of the agreement. According to the African Development Bank (2022), intra-Africa trade was only 18% of total African trade in 2021, compared to 68% within the EU and 56% within the ASEAN region. The AfCFTA aims to increase intra-African trade to 60% by 2030, but many countries still face substantial barriers to achieving this goal, including high transportation costs, poor infrastructure, and limited industrial capacity.

Conclusion

The analysis of global economic integration and Free Trade Areas (FTAs) has demonstrated their significant role in shaping the dynamics of international trade, economic growth, and investment. FTAs have proven to be effective in promoting trade between member countries by reducing barriers, enhancing market access, and fostering greater economic cooperation. The empirical evidence shows that countries participating in FTAs experience increased trade flows, economic growth,

and the expansion of global supply chains. Moreover, FTAs have been instrumental in attracting foreign direct investment (FDI), with countries like Vietnam and Chile benefiting from increased investments due to their participation in regional agreements. However, the results also highlight that FTAs come with their set of challenges. While larger economies within an FTA often reap the most significant benefits, smaller and developing economies may face difficulties in competing with their more advanced counterparts. This issue can lead to uneven development within the agreement, potentially exacerbating economic disparities. Additionally, the concern of trade diversion, where trade is shifted from more efficient producers outside the agreement to less efficient producers within, continues to be a point of contention among scholars and policymakers.

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GIDROGENIZATSIYA JARAYONLARI KINETIKASIGA TA’SIR ETUVCHI OMILLAR

Annotatsiya. *Neftni qayta ishlash sanoatida katalitik jarayonlar: yoqilg'i fraktsiyalarini gidrotozalash, so'ngra gidrokreking deb ataladigan yuqori haroratda qaynaydigan distillyatlar va neft qoldiqlarini destruktiv gidrogenlash jarayonlari qo'llaniladi. Gidrogenizatsiyada amalga oshiriladigan jarayonlarda vodorodning roli to'yinmagan, naften, aromatik, shuningdek, geteroatomli birikmalarni gidrirlashning asosiy reaktsiyalarida muhim ahamiyat kasb etadi.*

Gidrotozalash jarayonlarida geteroorganik birikmalarning gidrogenolizi C–S, C–N, C–O bog‘larning parchalanishi va hosil bo‘lgan geteroatomlarning to‘yinishi va neft xomashyosi molekulalarining uglevodorod qismining vodorod bilan qo‘sh bog‘lanishi natijasida sodir bo‘ladi. Gidrogenoliz reaksiyalarining kinetikasiga geteroorganik birikmalarning turi va tuzilishi kuchli ta'sir ko'rsatadi. Organosulfur birikmasi molekulasida aromatik va sikloparafin halqalari sonining ko'payishi bilan uning gidrogenolizga nisbatan reaktsion qobiliyati pasayadi. Tiofen, benzotiofen va dibenzotiofen uchun bir xil sharoitda gidrogenolizning nisbiy tezligi mos ravishda 2,9; 2,8 va 1,0 tashkil etadi. Vodorodning partsial bosimi () gaz fazali gidroselektivlik jarayonlarida katalizator yuzasida vodorodning to'yinganlik darajasiga qarab 1 dan 0 gacha, intervalida 0,1 dan 3,5 MPa gacha o‘zgaradi.

Kalit so‘zlar: *destruktiv, parafin uglevodorodlar, polisiklik aromatik, gidrotozalash, gidrokreking, gidrogenoliz, kinetik tartib.*

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FACTORS INFLUENCING THE KINETICS OF HYDROGENIZATION PROCESSES

Annotation. *In the oil refining industry, catalytic processes are used: hydrotreating of fuel fractions, followed by destructive hydrogenation of high-boiling distillates and petroleum residues, known as hydrocracking. The role of hydrogen in hydrogenation processes is crucial in the main reactions of hydrogenating unsaturated, naphthenic, aromatic, as well as heteroatomic compounds.*

Hydrogenolysis of heteroorganic compounds during hydrotreating processes occurs as a result of the breakdown of C-S, C-N, C-O bonds, the saturation of the formed heteroatoms, and the hydrogenation of double bonds in the hydrocarbon portion of oil raw material molecules. The type and structure of heteroorganic compounds strongly influence the kinetics of hydrogenolysis reactions. As the number of aromatic and cycloparaffin rings in the molecule of the organosulfur compound increases, its reactivity to hydrogenolysis decreases. For thiophene, benzothiophene, and dibenzothiophene, the relative hydrogenolysis rate under the same conditions is 2.9, 2.8, and 1.0, respectively. The partial pressure of hydrogen (p_ (H_2)) in gas-phase hydrodesulfurization processes n_2 varies from 1 to 0 depending on the degree of hydrogen saturation on the catalyst surface, and in the p_ (H_2) range from 0.1 to 3.5 MPa. The partial hydrogen pressure (p_ (H_2)) in gas-phase hydroelectric processes n_2 varies from 1 to 0 depending on the degree of hydrogen saturation on the catalyst surface, and in the p_ (H_2) range from 0.1 to 3.5 MPa.

Keywords: *destructive, paraffin hydrocarbons, polysicyclic aromatic, hydrotreating, hydrocracking, hydrogenolysis, kinetic order.*

Neft-kimyo sintezi neft xom ashyosi va neft fraksiyalarining tarkibiy qismlari asosida mahsulot ishlab chiqarishning texnologik jarayonlariga asoslanadi.

Neft-kimyo sintez sanoatida uglevodorod xomashyosini tayyorlash, uni birlamchi qayta ishlash - ajratish, termik va katalitik o‘zgarishlar va kimyoviy jarayonlar - degidrirlash, gidrirlash, alkillash, galogenlash, polimerlanish, kondensatsiya, oksidlanish kabilar amalga oshiriladi. Neft-kimyoviy jarayonlar natijasida boshqa mahsulotlarni sintez qilish uchun ishlatiladigan beshta asosiy birikmalar guruhi olinadi

-parafinlar (dan ÷ gacha bo‘lgan aralashmalar);

- olefinlar (asosan , ,);
- atsetilen;
- uglerod oksidi va sintez-gaz;
- aromatik uglevodorodlar (benzol, toluol, ksilollar va boshqalar).

1927 yilda neft resurslariga ega bo'lmagan va qattiq yonuvchan qazilmalarga asoslanib o'zining yoqilg'i sanoatini rivojlantirgan Germaniyada qatronlar va ko'mirlarni destruktiv gidrogenlash uchun dunyodagi birinchi qurilmani joriy etildi va gidrogenlash jarayonlari ishlab chiqildi. Keyinchalik Angliyada neft xom ashyosidan sun'iy suyuq yoqilg'i ishlab chiqarish uchun shunga o'xshash qurilmalar joriy etildi.

Qattiq yoqilg'ining katalitik va nokatalitik gidrogenizatsiyasi bo'yicha birinchi tadqiqotlar XIX asr boshida Frantsiyada P.Sabatier, Rossiyada V.N.Ipatiev va Germaniyada F. Bergius tomonidan amalga oshirildi [1].

Ko'mirni destruktiv gidrogenizatsiyalash qurilmalari dastlab yuqori 30...70 MPa bosim va 420...500 °C haroratda, past faollikdagi va arzon bo'lmagan qurilmalarda, qayta tiklanmaydigan temir katalizatori ishtirokida amalga oshirilgan ko'p bosqichli murakkab jarayon edi. Keyinchalik qimmat, past unumdorlikka ega bo‘lgan, temir-bug' usulida ishlab chiqarilgan vodorod yordamida volfram sulfidiga asoslangan faol katalizatorlar qo‘llanildi.

Gidrogenizatsiyada amalga oshiriladigan jarayonlarni benzin riformingi va yengil uglevodorodlar izomerizatsiyasi bilan taqqoslaganda vodorodning ahamiyati muhim hisoblanadi. Agar riforming va izomerlanish jarayonida vodorodning roli katalizatorda koks hosil bo'lishini kamaytirish uchun berilsa, gidrogenlash jarayonlarida vodorod to'yinmagan, naften, aromatik, shuningdek, geteroatomli birikmalarni gidrirlashning asosiy reaktsiyalarida ishtirok etadi [2].

So‘nggi yillarda yirik neft konlarining topilishi va uni qazib olishning jahonda jadal o‘sishi tufayli ko‘mirdan motor yoqilg‘isi olish jarayonlari neft yoqilg‘ilariga nisbatan raqobatbardoshligini yo‘qotganligi sababli sanoat ahamiyatini yo‘qotdi.

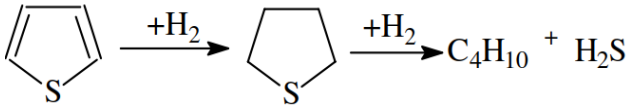
Jadal rivojlangan neftni qayta ishlash sanoatida katalitik jarayonlar, birinchi navbatda, yoqilg'i fraktsiyalarini gidrotozalash, so'ngra gidrokreking deb ataladigan yuqori haroratda qaynaydigan distillyatlar va neft qoldiqlarini destruktiv gidrogenlash keng qo'llanila boshlandi.

Gidrotozalash jarayonlarida geteroorganik birikmalarning gidrogenolizi C–S, C–N, C–O bog‘larning parchalanishi va hosil bo‘lgan geteroatomlarning to‘yinishi va neft xomashyosi molekulalarining uglevodorod qismining vodorod bilan qo‘sh bog‘lanishi natijasida sodir bo‘ladi. Bunda , va holida oltingugurt, azot va kislorod ajralib chiqadi. Xom ashyo tarkibidagi to'yinmagan uglevodorodlar to'yingan parafin uglevodorodlarga gidrirlanadi. Jarayon sharoitlariga qarab, polisiklik aromatik va smolali-asfaltenli uglevodorodlarni qisman gidrirlash va gidrokrekinglash mumkin. Xom ashyoning metallorganik birikmalari yo'q qilinadi va chiqarilgan metallar katalizatorda to'planadi [3].

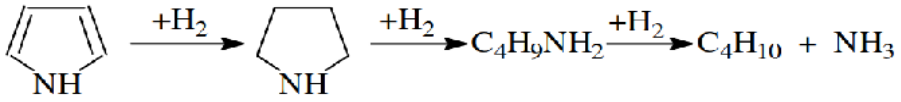
Merkaptanlar vodorod sulfidiga va tegishli uglevodorodga gidrirlanadi:

Sulfidlar merkaptanlar hosil bo'lishi orqali gidrirlanadi:

Tiofan va tiofen kabi siklik sulfidlar tegishli alifatik uglevodorodlarni hosil bo‘lishi bilan gidrirlanadi:

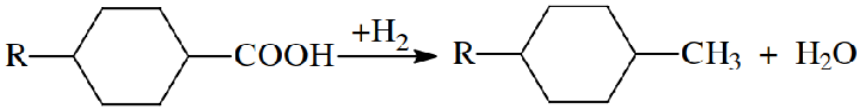


Neft xomashyosidagi azot asosan geterosikllarda pirrol va piridin hosilalari shaklida uchraydi. Ularning gidrirlanishi odatda sulfidlarning gidrirlanishiga o'xshaydi:



Pirrol

Yoqilg'i fraktsiyalaridagi kislorod spirtlar, efirlar, fenollar va naften kislotalar kabi birikmalar bilan ifodalanishi mumkin. Gaz neft fraktsiyalari va neft qoldiqlarida kislorod asosan ko'prik bog'larida va neftning polisiklik aromatik va smola-asfalten birikmalarida joylashgan. Kislorod birikmalari gidrirlanganda tegishli uglevodorodlar va suv hosil bo'ladi:



Gidrogenoliz reaksiyalarining kinetikasiga geteroorganik birikmalarning turi va tuzilishi kuchli ta'sir ko'rsatadi. Gidrogenoliz tezligi odatda tiofenlar < tiofanlar < sulfidlar < disulfidlar < merkaptanlar qatorida ortadi. Organosulfur birikmasi molekulasida aromatik va sikloparafin halqalari sonining ko'payishi bilan uning gidrogenolizga nisbatan reaktsion qobiliyati pasayadi. Tiofen, benzotiofen va dibenzotiofen uchun bir xil sharoitda gidrogenolizning nisbiy tezligi mos ravishda 2,9; 2,8 va 1,0 tashkil etadi.

Xuddi shu tuzilishga ega bo'lgan holda, gidrogenolizga nisbatan geteroorganik birikmalarning reaksion qobiliyati oltingugurtorganik< kislorodorganik < azotorganik qatorida kamayadi.

Neft fraksiyalarining oltingugurtsizlantirish reaktsiyalarining tezligi ushbu turdagi kinetik tenglama bilan tavsiflanadi:

, - oltingugurt birikmalari va vodorodning parsial bosimi.

Alohida oltingugurtorganik birikmalarining gidrogenolizi va qisqa neft fraksiyalarini oltingugurtsizlantirish tartibi oltingugurt bo‘yicha odatda tashkil etadi. Tarkibidagi oltingugurt birikmalarining reaksion qobiliyati bo‘yicha juda katta farq bo'lgan keng reaksion tarkibibli xom ashyoni gidrooltingugurtsizlantirishda, oltingugurtning kinetik tartibi 1 dan 2 gacha yoki undan ko'p o'zgarishi mumkin.

Vodorodni oltingugurtsizlantirish reaktsiyalarining tartibi () ham xom ashyoning xususiyatlariga va jarayon sharoitlariga qarab har xil bo'lishi mumkin. Vodorodning partsial bosimi () gaz fazali gidroselektivlik jarayonlarida katalizator yuzasida vodorodning to'yinganlik darajasiga qarab 1 dan 0 gacha, intervalida 0,1 dan 3,5 MPa gacha o‘zgarishi mumkin.

Gidrooltingugurtsizlantirishning cheklovchi bosqichi vodorodni suyuqlikning yupqa plyonka qatlami orqali katalizator yuzasiga o'tkazish bo'lgan jarayonlarda vodorodga nisbatan ≈ 10 MPa bosimgacha gidrogenoliz birinchi tartibda davom etadi [1].

Katalizator sifatida oltingugurtning toksik ta'siriga chidamli moddalar ishlatiladi. Bular o'zgaruvchan valentli metallarning oksidlari va sulfidlari - Ni, Co, Mo, W dan iborat. Metall katalizatorlar (Ni, Pt, Pd), yuqori katalitik faolligiga qaramay, gidrotozalashda ishlatilmaydi, chunki ular tez zaharlanadi. Gidrotozalash katalizatorlari kreking jarayoni paydo bo'lishiga yo'l qo'ymaslik uchun yuqori kislota faolligiga ega bo'lmasligi kerak [4].

Kinetik tadqiqotlarga ko'ra, 340...425 °C harorat oralig'ida alyuminiy-kobalt-molibden katalizatorida neft xom ashyosini gidrooltingugurtsizlantirish uchun faollashuv energiyasi 46...88 kJ/mol (11...21 kkal/mol) ni tashkil etishi joriy etildi.

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GEOGRAPHICAL FEATURES OF VIRAL HEPATITIS IN THE POPULATION OF UZBEKISTAN

Annotation: *This article thoroughly examines the characteristics and types of viral hepatitis, as well as their geographical distribution across the administrative-territorial units of Uzbekistan.*

Keywords: *Viral hepatitis, Viruses A, B, C, D, E, G, Infectious and parasitic diseases, blood, routes of transmission.*

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O'ZBEKISTON AHOLISIDA VIRUSLI GEPATITNING GEOGRAFIK XUSUSIYATLARI

Annotatsiya: *Ushbu maqolada virusli gepatitlarning xususiyatlari va turlari, shuningdek, ularning O‘zbekiston ma’muriy-hududiy birliklari bo‘yicha geografik tarqalishi atroflicha tahlil qilingan.*

Kalit so‘zlar: *virusli gepatit, A, B, C, D, E, G viruslari, yuqumli va parazitar kasalliklar, qon, yuqtirish yo‘llari.*

From birth until the end of life, a person encounters various factors from the external environment. One such factor is the world of countless species of microbes, invisible to the naked eye, known as the microworld. Throughout their lives, people struggle with various diseases and try to prevent them. Diseases, in turn, are categorized into infectious and non-infectious types. In Uzbekistan, infectious and parasitic diseases accounted for 1.3% of the registered death rate in 2023 [1].

Viral hepatitis, one of the infectious and parasitic diseases, is an acute infectious disease characterized by damage to liver cells, signs of general intoxication, yellowing of the skin and mucous membranes, dark orange or "beer-colored" urine, pale-colored stools, enlargement of the liver, and sometimes the spleen. Viral hepatitis refers to six types of hepatitis that are similar to each other and are caused by viruses A, B, C, D, E, G. Based on their transmission route, they are classified into types that spread orally (A, E) and parenterally (B, C, D, G). In viral hepatitis A and E, the viruses are excreted through the patient's feces. Therefore, contamination from waste, water, food products, and objects used by patients is considered extremely dangerous. Parenteral viral hepatitis can be

transmitted through insufficient disinfection of medical instruments such as syringes, needles, and other devices, as well as during blood transfusions, administration of blood products, and various medical procedures (including dental treatments).

Table 1

Incidence rates of viral hepatitis among the population of Uzbekistan (per 100,000 people)

Administrative units	2010	2012	2014	2016	2018	2020	2022	2023
Republic of Uzbekistan	108	99,1	123,3	119,7	94	33,6	82,6	160,9
Republic of Karakalpakstan	61,1	80,2	81,6	92,7	80,2	15,6	13,3	52,8
Andijan region	138,5	130,7	134,5	110,9	101,6	31	17,6	67,3
Bukhara region	81,3	59	90,9	38,5	40,1	18	7,5	56,4
Jizzakh region	103,6	76,7	99,7	107,8	76,3	31,6	33,2	59,7
Kashkadarya region	75,1	59,7	52,5	108,4	121,7	24,2	249,3	220,1
Navoi region	92,6	104,5	195,8	107,4	114,6	25	22,5	93,5
Namangan region	195,1	152,6	148	146,8	147,5	36,7	37,5	198,4
Samarkand region	89,5	92,7	123,1	109,3	129,3	49,7	203	363
Surkhandarya region	56,6	131,6	67,7	180,5	66,8	57,8	217,4	367,7
Syrdarya region	166,9	108,4	170,2	199,4	117,8	38,7	43,1	152
Tashkent region	154,6	114,6	186,4	130,2	123,1	35,5	35,6	127,1
Fergana region	128,6	109,9	150,3	125,5	93,4	36,1	28,2	130,2
Khorezm region	69,1	67,2	59,2	54,4	46,4	10	4,3	22,9
Tashkent city	81,9	84,4	173,5	134,6	95,5	32,2	43,6	67

Source: The table is based on data from https://siat.stat.uz/ [2].

Patients with viral hepatitis diseases are encountered in almost all administrative units of Uzbekistan's population. In 2010, 108 people per 100,000 were infected with viral hepatitis, while by 2023, this figure has reached 160.9 people per 100,000. Between 2010 and 2023, the rate has increased by 1.48 times. However, this indicator, which began declining in 2016, reached its lowest point in 2020, amounting to 33.6 people (Table 1).

Among the administrative units of Uzbekistan, Surkhandarya (367.7) and Samarkand (363) regions recorded the highest rates per 100,000 people in 2023. Among the regions with slightly fewer cases of viral hepatitis among the population, Khorezm region (22.9), the Republic of Karakalpakstan (52.8), Bukhara region (56), Jizzakh region (59.7), Tashkent city (67), and Andijan region (67.3) are represented (Fig. 1).

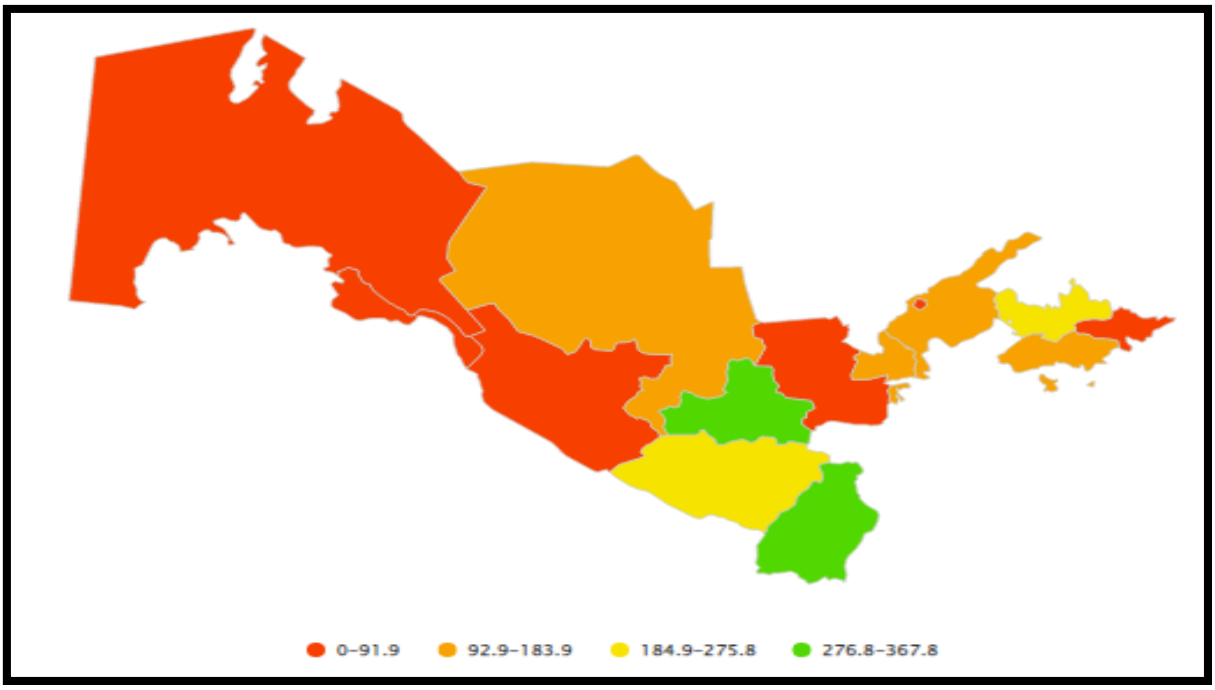

Figure 1. Map of viral hepatitis incidence rates among the population of administrative units of the Republic of Uzbekistan.

Viral hepatitis is characterized by a periodic course, with distinct phases including latent, initial, peak, regression, and recovery periods.

The incubation period of the disease varies depending on its type: for viral hepatitis A and E, it can last from 7 to 60 days, while for parenteral forms, it can range from 2 weeks to 6 months, and in some cases, up to 1 year. Viral hepatitis occurs in mild, moderate, and severe forms, as well as uncomplicated and complicated forms. It can be acute, chronic, or periodically recurring. Additionally, mixed forms of the disease are sometimes observed. The disease progresses more severely in pregnant women and children. Viral hepatitis manifests in various forms: flu-like, dyspeptic, asthenovegetative, with arthralgic symptoms, mixed syndromes, and latent (without clinical signs). Regardless of the syndrome present in the initial stage of viral hepatitis, three characteristic signs of this disease are observed: 1) urine that is beer-colored; 2) pale-colored stool; 3) liver enlargement in the majority of cases (almost 90%).

The "course" of the disease also progresses in a distinctive manner. The acute phase of viral hepatitis begins with the yellowing of the whites of the eyes. In type A, as the patient becomes jaundiced, their condition significantly improves and they start to recover.

In viral hepatitis transmitted by the parenteral route, the period of jaundice is longer than in oral hepatitis, the patient does not recover quickly, weakness, nausea, and in some cases itching (cholestatic form). Depending on the type of viral hepatitis, its clinical symptoms may manifest differently: in the non-icteric form, due to the absence of pigment metabolism disorders, the patient does not develop jaundice, the color of urine and feces remains unchanged, and the bilirubin level in the blood stays within normal range. In the form of mild symptoms, the patient's

eyes are slightly yellow for a short period of time, and the bilirubin level quickly returns to normal.

Table 2

The incidence of viral hepatitis among the population of the Syrdarya region (per 100,000 people)

№	Administrative units	2010	2012	2014	2016	2018	2020	2022	2023
1	Syrdarya region	166,9	108,4	170,2	199,4	117,8	38,7	43,1	152
2	Gulistan city	250,3	136,5	346,5	245,2	158,3	41,2	9,6	109,7
3	Shirin city	157,6	71	97,1	108,5	89,9	21,6	5,25	58,4
4	Yangiyer city	242,2	87,4	101,6	126,4	79,3	55	19,8	255,4
5	Akaltyn district	95,2	63,1	56,1	335,1	93,7	45,8	37	168,9
6	Boyovut district	123,2	85,6	66,7	139,3	100,6	30,3	17,7	123
7	Saykhunabad district	148,2	108,9	130,3	188,3	142,3	83,1	23,7	117,7
8	Gulistan district	92,9	87,6	178,1	160,7	105,5	36	15,7	105
9	Sardoba district	197,1	138,6	246,6	329,7	205,1	9,5	166,9	350
10	Mirzaabad district	142,9	115,8	175	190,4	110,1	62,4	9	171
11	Syrdarya district	205,5	141,1	170,9	202,6	112,8	28,6	118,6	174,3
12	Khavast district	176,4	101,2	221,6	171,3	77,5	23,1	8	106,4

Source: The table was compiled based on data from https://siat.stat.uz/ [2]

In the subclinical form, clinical signs are practically absent, which can only be known from lip tests. The virus-bearing form of viral hepatitis is more complex, it occurs latently and gradually becomes chronic.

Among the administrative units of the republic, Syrdarya Region stands out with its small area, flat terrain, and relatively low population. However, in some of its districts, the number of people infected with viral hepatitis is significantly higher than the average rates in the republic [3, 4, 5] (Table 2).

In Syrdarya region, the incidence of viral hepatitis decreased from 166.9 cases per 100,000 people in 2010 to 152 cases in 2023.

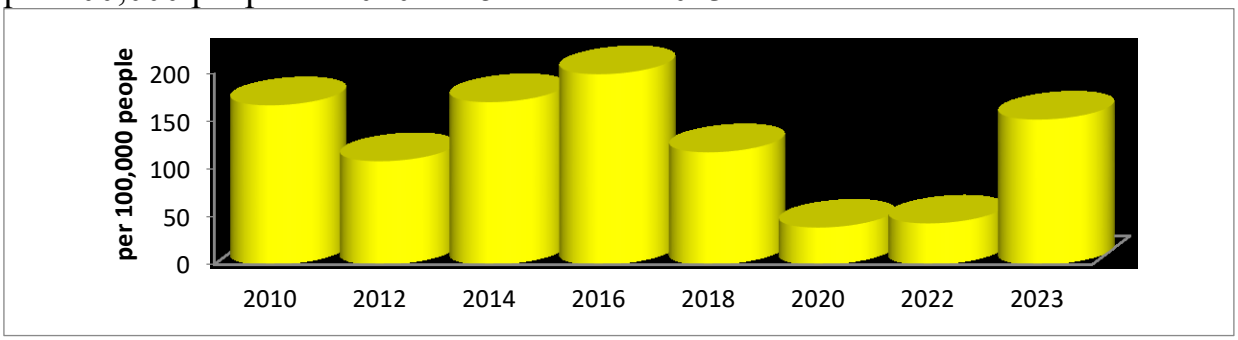

Figure 2. The incidence of viral hepatitis among the population of the Syrdarya region

Between 2010 and 2023, it decreased by 14.9 people. However, we can observe an increase in the number of certain diseases in the city of Yangiyer and in Akaltyn, Gulistan, Sardoba, and Mirzaabad districts. The number of cases has somewhat decreased in the cities of Gulistan and Shirin.

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LIZING XIZMATLARNI KO‘RSATUVCHI KORXONALARDA BUXGALTERIYA HISOBNI XUSUSIYATLARI

Annotatsiya: *Ushbu maqolada lizing xizmatlarni ko'rsatuvchi korxonalarda buxgalteriya hisobni xususiyatlarining asosiy masalalar ko‘rib chiqilgan.*
Kalit so‘zlar: *Lizing, ijara, xizmatlar, xarajat, tannarx, buxgalteriya hisobi, moliyaviy hisobotning xalqaro standarti, moliyaviy barqarorlik.*

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FEATURES OF ACCOUNTING IN ENTERPRISES PROVIDING LEASING SERVICES

Abstract: *In this article, the main issues of the characteristics of accounting in enterprises providing leasing services are considered.*
Key words: *Leasing, rent, services, cost, cost, accounting, international standard of financial reporting, financial stability.*

Ishlab chiqarishni modernizatsiya qilishning, texnik va texnologik qayta jihozlashning, iqtisodiyotning yetakchi tarmoqlarini jadal yangilashning yangi va noan’anaviy usullarining joriy etilishi eng ustuvor va muhim masaladir.

O‘z navbatida tadbirkorlik faoliyati bilan shug‘illanuvchi sub’ektlarni moliyaviy jihatdan ta’minlash orqali ulardagi mavjud iqtiodiy inqiroz yoki yetarli darajada aylanma pul mablag‘larining mavjud emasligi lizingga bo‘lgan ehtiyojni kuchaytiradi.

1-rasm Lizing tarixi

Lizing xizmatlarini ko'rsatuvchi korxonalarda buxgalteriya hisobi muayyan xususiyatlarga ega, chunki lizing bitimlari moliyaviy va operatsion jihatdan farq qiladi va bu ularga soliq va amortizatsiya kabi ko'plab moliyaviy ta'sirlarni keltirib chiqaradi.

1-jadval

Lizing xizmatlarni xususiyatlari

Lizing bitimlarini tasniflash	Moliyaviy lizing:	Bu, lizing ob'ekti amalda foydalanuvchi tomonidan egallab olingan va uning moliyaviy holatini hisobga olishga imkon beruvchi lizing turi. Korxona lizing ob'ektining qiymatini balansida aks ettiradi
	Operatsion lizing	Bu bitimda lizing ob'ekti korxonada bo'lib, lekin u uzoq muddatga ega emas. Bunday holatda, korxona lizing to'lovlarini xarajat sifatida hisobga oladi.
Lizing ob'ektining hisobga olinishi	Moliyaviy lizing:	Lizing ob'ekti korxona balansiga kiradi va uni amortizatsiya qilish kerak. Bunda lizing qiymati asosida amortizatsiya ajratiladi.
	Operatsion lizing	Lizing ob'ekti balansda aks etmaydi. Faqat lizing to'lovlari operatsion xarajat sifatida kiritiladi
Lizing to'lovlari va daromadlarni hisoblash	Lizing to'lovlari, asosan, ikkita komponentga bo'linadi: asosiy qarz va foizlar. Buxgalteriya hisobida to'lovlar aynan shu ikki qismdan iborat bo'lib, har biri alohida hisobga olinadi.	
	Moliyaviy lizingda, lizing xizmatlarini ko'rsatuvchi korxona daromadlarni lizing bitimining kelishilgan qiymati bo'yicha hisoblaydi.	
Lizing shartnomasi va hisobni tuzish	Moliyaviy lizing:	Lizing ob'ekti aktiv sifatida, lizing majburiyatlari esa passiv sifatida ko'rsatiladi.
	Operatsion lizing	Faqat lizing to'lovlari xarajat sifatida ko'rsatiladi, aktiv va passivlar balansida ko'rsatilmaydi

Birinchidan lizing shartnomasining muddati ham buxgalteriya hisobiga ta'sir qiladi. Agar lizing muddati uzoq bo'lsa, unda lizing ob'ekti korxona balansida uzoq muddatli aktiv sifatida ko'rsatiladi.

Ikkinchidan moliyaviy lizingda lizing ob'ekti amortizatsiyaga tushadi, bu degani, lizing xizmatini ko'rsatuvchi korxona lizing ob'ektining qiymatidan ma'lum foizni har yili hisoblab, amortizatsiya sifatida xarajatga kiritadi.

Uchinchidan lizing shartnomasiga ko'ra, lizingni ko'rsatuvchi korxona lizing majburiyatlarini o'z balansida qarz sifatida ko'rsatadi. Bu majburiyatlar korxonaning moliyaviy holatini aks ettiradi. Moliyaviy lizingda lizingni to'lash bo'yicha barcha majburiyatlar qarz sifatida aks ettiriladi.

To‘rtinchidan Operatsion lizingda, korxona lizing to'lovlarini daromadlar bo'yicha xarajat sifatida hisobga oladi. Bunda, lizing shartnomasiga muvofiq, xarajatlar mutanosib ravishda, asosan, kvartal yoki yillik ravishda kiritilishi mumkin.

Beshinchidan lizing xizmatlarini ko'rsatuvchi korxonalar soliq hisoboti tuzishda, lizing bitimlari bilan bog'liq xarajatlar va daromadlarni soliq solish bazasiga kiritadilar. Moliyaviy lizingda amortizatsiya, operatsion lizingda esa to'lovlar soliq hisoboti uchun hisobga olinadi.

Oltinchidan lizing to'lovlari to'lanayotganda, asosiy qarz va foizlar alohida-alohida ko'rsatiladi. Bu lizing xizmatini ko'rsatuvchi korxona uchun muhim hisoblanadi, chunki foizlar xarajat sifatida, asosiy qarz esa kapital o'zgarishi sifatida hisobga olinadi.

Xulosa o‘rnida shuni aytish mumkinki lizing rivojlanishning turli bosqichlarida turli xil yondashuvlar asosida talqin etildi, bunga asosiy sabablardan biri iqtisodiy inqiloblar natijasida aholining moddiy ne’matlarga bo‘lgan ehtiyoji tobora ortib borib, moliyaviy imkoniyatlar qisqara borishi natijasida jamiyatdagi ishlab chiqarish vositalari nomutanosib ravishda taqsimlanishi yuzaga kela boshladi. Albatta bunday holatni optimal yechimga ega bo‘lgan moliyaviy richaklar asosida oldini olish zarur edi, buni yechimi tadbirkorlar tomonidan o‘ylab topilgan ijara munosabati edi. Dastaval bu munosabatlarga nisbatan shunchaki ijara faoliyati tushunchasi sifatida qaralgan bo‘lsa keyinchalik ijara keng tushuncha ekanligi, moliyaviy investitsiyalashning jozibadorligini oshirish doirasida yuqori samaradorlikka ega bo‘lgan tizim sifatida qaralib uning huquqiy amalga oshirish doirasi kengaytirishga, moliyaviy ijara tushunchasini bugungi zamon talablari asosida tarqalishiga zamin bo‘ldi

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AUDITDA BLOCKCHAIN TEXNOLOGIYALARI: YANGI IMKONIYATLARI VA TARTIBI

Annontatsiya:*Bu maqolada, auditning asosiy tushunchalari, moliyaviy hujjatlarni, operatsiyalarni va ichki nazoratlarni sistemli tekshirishning muhimligi, shuningdek, blokchain texnologiyasi orqali auditning yangi imkoniyatlarga ega bo'lishi muhokama qilindi.*

Kalit so'zlar: *Blockchain texnologiyasiga kirish, Auditdagi potentsial dasturlar, Shaffoflik, O'zgarmaslik, Markazsizlashtirish, Xavfsiz ma'lumotlarga Real vaqtda kirish, Firibgarlik xavfi kamayadi, Umumiy Samaradorlik Yaxshilandi.*

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BLOCKCHAIN TECHNOLOGIES IN AUDIT: NEW OPPORTUNITIES AND PROCEDURES

Abstract: *This article discussed the basic concepts of auditing, the importance of systematic review of financial documents, operations and internal controls, as well as new opportunities for auditing through blockchain technology.*

Keywords: *Access to Blockchain Technology, Potential Applications in Auditing, Transparency, Immutability, Decentralization, Real Time Access to Secure Data, Reduced Risk of Fraud, Improved Overall Efficiency.*

Audit moliyaviy jarayonlarda shaffoflik va hisobdorlikni ta'minlashda hal qiluvchi rol o'ynaydi. Audit o'z mohiyatiga ko'ra moliyaviy yozuvlar, operatsiyalar va ichki nazoratni ularning aniqligi, yaxlitligi va amaldagi qoidalar va standartlarga muvofiqligini baholash uchun tizimli tekshirishni o'z ichiga oladi. Ushbu qat'iy

baholash moliyaviy boshqaruv, firibgarlik va xatolardan himoya qiladi va shu bilan manfaatdor tomonlar, shu jumladan investorlar, tartibga soluvchilar va keng jamoatchilik o'rtasida ishonch va ishonchni kuchaytiradi.

Tez texnologik yutuqlar va tobora murakkablashib borayotgan moliyaviy tuzilmalar bilan ajralib turadigan bugungi dinamik biznes landshaftida mustahkam auditorlik amaliyotiga ehtiyoj hech qachon katta bo'lmagan. Tashkilotlar ishonchni saqlab qolish va uzoq muddatli muvaffaqiyatga erishish uchun ishonchli boshqaruv va axloqiy xulq-atvorga sodiqligini namoyish etishlari kerak. Shunday qilib, auditorlar moliyaviy ma'lumotlarning ishonchli ekanligiga ishonch hosil qilib, mustaqil baholovchi sifatida muhim rol o'ynaydi.

Auditdagi potentsial dasturlar: Blockchain texnologiyasining noyob xususiyatlari auditorlik amaliyotini inqilob qilish uchun katta va'da beradi. Asosiy afzalliklardan biri bu blockchainning o'zgarmas kitobi tomonidan taqdim etilgan shaffoflik va kuzatuvchanlikdir. Auditorlar moliyaviy operatsiyalarning shaffof va tekshiriladigan yozuvlariga Real vaqt rejimida kirishlari mumkin, bu esa qo'lda yarashish zaruratini yo'q qiladi va firibgarlik yoki manipulyatsiya xavfini kamaytiradi. Bundan tashqari, blockchain aqlli shartnomalar, oldindan belgilangan qoidalar va shartlarni avtomatik ravishda bajarish uchun dasturlashtirilgan o'z-o'zini bajaradigan shartnomalar orqali audit protseduralarini avtomatlashtirishga imkon beradi. Ushbu aqlli shartnomalar oldindan belgilangan testlarni bajarish, me'yoriy talablarga muvofiqligini tekshirish va audit yo'llarini xavfsiz va tekshiriladigan tarzda yaratish orqali audit jarayonini osonlashtirishi mumkin. Auditda blockchainning yana bir majburiy qo'llanilishi, ayniqsa ta'minot zanjirini boshqarish va raqamli identifikatsiyani tekshirish kabi sohalarda ishonch xizmatlarini takomillashtirishdir. Blockchainning markazlashtirilmagan infratuzilmasidan foydalangan holda, auditorlar tranzaktsion ma'lumotlarni mustaqil tekshirishni ta'minlashi, ta'minot zanjiri jarayonlarining yaxlitligini tasdiqlashi va raqamli identifikatorlarning haqiqiyligini ko'proq ishonch va samaradorlik bilan tekshirishlari mumkin.Keyingi bo'limlarda biz auditda blockchain texnologiyasining ushbu potentsial ilovalarini chuqurroq o'rganamiz, haqiqiy dunyo misollarini va ularning moliyaviy hisobotlarda shaffoflik, hisobdorlik va ishonchni oshirishga ta'sirini o'rganamiz. Auditorlik maqsadlari uchun blockchaindan foydalanib borayotgan qiziqish uning tabiiy xususiyatlaridan kelib chiqadi, oshkoralik, shu jumladan, o'zgarmaslik, va markazsizlashtirish, qaysi audit jarayonlari yaxlitligini va samaradorligini oshirish uchun misli ko'rilmagan imkoniyatlar mavjud.

O'zgarmaslik: Blockchain eng Jabbor xususiyatlaridan biri uning o'zgarmasligi hisoblanadi, qaysi bir bitim daftariga qayd bir marta ta'minlaydi, bu o'zgargan yoki orqaga bilan o'ynashda mumkin emas. Blockchain ma'lumotlarining bu o'ziga xos buzilmasligi auditorlarga moliyaviy yozuvlarning aniqligi va yaxlitligiga yuqori darajada ishonch beradi. Blockchain-ning o'zgarmasligini qo'llash orqali auditorlar ma'lumotlarni manipulyatsiya qilish yoki firibgarlik xavfini kamaytirishi, auditorlik xulosalari va xulosalarining ishonchliligini oshirishi mumkin.

Blockchain texnologiyasi audit protseduralarini takomillashtirishning bir necha usullarini taklif etadi, birinchi navbatda xavfsiz va buzilmaydigan ma'lumotlarga real vaqtda kirishni ta'minlash, firibgarlik xavfini kamaytirish va umumiy samaradorlikni oshirish.Firibgarlik xavfi kamayadi: Blockchainning o'zgarmas kitobi tranzaksiya qayd etilgandan so'ng uni tarmoq ishtirokchilarining kelishuvisiz o'zgartirish yoki o'chirish mumkin emasligini ta'minlaydi. Blockchain ma'lumotlarining bu buzilmas tabiati firibgarlik xavfini sezilarli darajada kamaytiradi, chunki tranzaktsiyalar yozuvlarini buzishga qaratilgan har qanday urinish tarmoq tomonidan darhol aniqlanadi. Auditorlar aniq va ishonchli auditorlik izini taqdim etish, auditorlik xulosalarining yaxlitligini oshirish va soxta faoliyatning aniqlanmaslik xavfini kamaytirish uchun blockchainga ishonishlari mumkin.

Muhokama va natijalar.Blockchain allaqachon turli sohalarda auditda qanday ishlatilayotganiga oid ba'zi misollar:(1- chizma)

Ushbu misollar blockchain texnologiyasining turli sohalardagi auditda turli xil qo'llanilishini namoyish etadi, bu uning shaffofligi, samaradorligi va moliyaviy jarayonlarga bo'lgan ishonchini oshirish imkoniyatlarini ta'kidlaydi. Blockchain qabul

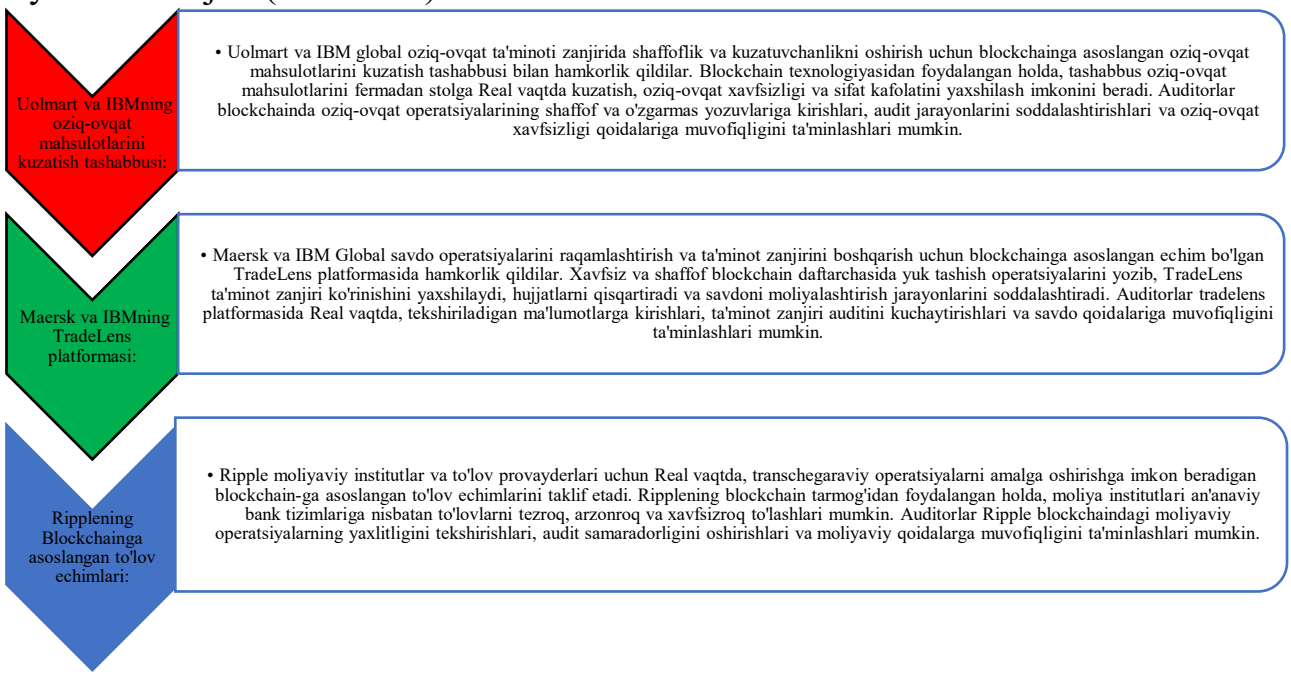
1-chizma.

Blockchain texnologiyasining turli sohalardagi auditda turli xil qo'llanilishi

№	Mavzu	Taxlil
1	Ta'minot zanjirini boshqarish	Blockchain texnologiyasi ta'minot zanjirini boshqarishda shaffoflik va kuzatuvchanlikni oshirish uchun ishlatiladi. Auditorlar blockchain-dan tovarlarning harakatini kuzatish va ta'minot zanjirining har bir bosqichida mahsulotlarning haqiqiyligini tekshirish uchun foydalanishlari mumkin. Tranzaktsion ma'lumotlarni buzuvchi daftarga yozib, blockchain ta'minot zanjiri tekshiruvlarining yaxlitligini yaxshilaydi va samarasizlikni, firibgarlikni yoki qalbaki mahsulotlarni aniqlashga yordam beradi.
2	Moliyaviy xizmatlar	moliyaviy xizmatlar sohasida blockchain audit jarayonlarini soddalashtirish va tartibga muvofiqlikni oshirish uchun foydalanilmoqda. Masalan, auditorlar blockchaindan moliyaviy operatsiyalarning to'g'riligini tekshirish, muvofiqlikni tekshirishni avtomatlashtirish va Real vaqt rejimida kelishmovchiliklarni yarashtirish uchun foydalanishlari mumkin. Bundan tashqari, blockchainga asoslangan aqlli shartnomalar auditorlarga shartnoma shartnomalarini bajarishga va kreditlar yoki derivativlar kabi moliyaviy vositalarning haqiqiyligini tekshirishga imkon beradi.
3	Raqamli identifikatsiyani tekshirish:	shaxsni tekshirish jarayonlarini takomillashtirish va shaxsni O'g'irlashga qarshi kurashish uchun Blockchain texnologiyasi qo'llanilmoqda. Auditorlar blokcheyndan pasportlar yoki haydovchilik guvohnomalari kabi raqamli identifikatorlarning haqiqiyligini tekshirish uchun xavfsiz va markazlashtirilmagan daftarda hisobga olish bilan bog'liq operatsiyalarni yozib olishlari mumkin. Shaxsni tekshirish auditlarining ishonchliligini oshirish

		orqali blockchain kiberxavfsizlik choralarini kuchaytiradi va shaxslarning shaxsiy ma'lumotlarini himoya qiladi.

Bu erda turli xil domenlarda audit jarayonlarini soddalashtirish uchun blockchain muvaffaqiyatli amalga oshirilgan ba'zi bir amaliy tadqiqotlar yoki loyihalar mavjud:(2- chizma)



2- chizma turli xil domenlarda audit jarayonlarini soddalashtirish uchun blockchain bir amaliy tadqiqotlar yoki loyihalar

Maqolamdan shundan xulosa qilib aytish mumkinki ushbu blockchain texnologiyasi xavfsiz va buzilmaydigan ma'lumotlarga real vaqtda kirishni ta'minlash, firibgarlik xavfini kamaytirish va umumiy samaradorlikni oshirish orqali audit protseduralarini yaxshilaydi. Blockchain-ning transformatsion imkoniyatlaridan foydalangan holda, auditorlar audit jarayonlarini soddalashtirishi, shaffofligini oshirishi va moliyaviy hisobotlarning yaxlitligini oshirishi, natijada auditorlik kasbiga bo'lgan ishonch va ishonchni oshirishi mumkin.

Men blockchain texnologiyalarining integratsiyasi bilan auditning kelajagi haqida optimistman, chunki u an'anaviy audit amaliyotini inqilob qilish va moliyaviy hisobotlarda shaffoflik, samaradorlik va ishonchni oshirish uchun ulkan salohiyatga ega.

Biroq, auditda blockchain integratsiyasi bilan bog'liq potentsial muammolar va cheklovlarni tan olish juda muhimdir. Bularga o'lchovlilik masalalari, o'zaro muvofiqlik muammolari, tartibga soluvchi murakkabliklar va maxsus ko'nikmalar va tajribaga ehtiyoj kiradi. Bundan tashqari, ma'lumotlarning maxfiyligi va xavfsizligini ta'minlash juda muhim masala bo'lib qolmoqda, chunki blockchain barcha tarmoq ishtirokchilari uchun ochiq bo'lgan ommaviy daftarda ishlaydi.

Ushbu qiyinchiliklarga qaramay, men ehtiyotkorlik bilan rejalashtirish, hamkorlik va innovatsiyalar yordamida auditorlar ushbu to'siqlarni engib o'tishlari va auditda blockchain texnologiyasining to'liq imkoniyatlarini ochishlari mumkinligiga ishonaman. Blockchainni o'zgarishlarning katalizatori sifatida qabul

qilish va audit amaliyotini o'z imkoniyatlaridan foydalanish uchun doimiy ravishda moslashtirish orqali auditorlar shaffoflik, hisobdorlik va moliyaviy hisobotlarga bo'lgan ishonchni kuchaytirib, oxir-oqibat kelajak uchun yanada ishonchli va ishonchli auditorlik kasbini shakllantirishlari mumkin.

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FEATURES OF REHABILITATION FOR PATIENTS AFTER SURGICAL TREATMENT OF PEPTIC ULCER DISEASE

Abstract:*This study explores the specific characteristics and challenges of rehabilitation programs for patients who have undergone surgical treatment for peptic ulcer disease (PUD). The primary focus is on the integration of physical therapy, dietary management, and psychosocial support to improve outcomes and prevent relapse. Data from recent clinical studies and guidelines are analyzed to formulate evidence-based recommendations for optimizing rehabilitation strategies.*

Keywords: *Peptic ulcer disease, rehabilitation, postoperative care, physical therapy, dietary management, psychosocial support.*

Introduction

Peptic ulcer disease (PUD) is a common gastrointestinal condition characterized by mucosal erosions in the stomach and duodenum. Despite advancements in medical therapy, surgical intervention remains necessary for complications such as perforation, bleeding, or non-healing ulcers. Postoperative rehabilitation plays a pivotal role in reducing morbidity and enhancing the quality of life for these patients. This article examines the essential components of postoperative rehabilitation and evaluates their effectiveness based on recent studies.

Literature Review

Recent literature highlights the multifaceted approach required for effective postoperative rehabilitation in PUD patients:

Physical Rehabilitation: Studies emphasize tailored exercise regimens to improve physical endurance and abdominal strength without exacerbating symptoms [1],[2].

Dietary Management: Nutritional interventions are crucial to prevent postoperative complications such as dumping syndrome and malabsorption [3].

Psychological Support: Addressing anxiety and depression significantly improves adherence to rehabilitation protocols [4].

Alternative Therapies: Emerging evidence supports the use of radon therapy and other balneological treatments to promote mucosal healing [5].

Materials and Methods

Study Design: This study was conducted using data collected from the Department of Therapy at the Andijan Branch of the Republican Scientific Center

for Emergency Medical Aid. A retrospective analysis of 150 patients who underwent surgical treatment for PUD was performed. Patients were divided into two groups:

Group A: Standard postoperative care (n=75)

Group B: Multidisciplinary rehabilitation program (n=75)

Data Collection: Parameters such as postoperative complications, quality of life (QoL) scores, and recurrence rates were evaluated over a 12-month period. Statistical analysis was performed using SPSS software.

Results

Complication Rates: Group B exhibited a 15% reduction in complications compared to Group A ($p < 0.05$).

Complications	Group A (%)	Group B (%)
Dumping Syndrome	25	10
Recurrence	20	8

Quality of Life: QoL scores were significantly higher in Group B across physical, emotional, and social domains (mean score: 85 vs. 70; $p < 0.01$).

QoL Domain	Group A Mean Score	Group B Mean Score
Physical Health	65	80
Emotional Health	70	85
Social Well-being	75	90

Recurrence Rates: Group B demonstrated a significant reduction in ulcer recurrence rates (8% vs. 20%, $p < 0.01$).

Discussion

The findings highlight the importance of a comprehensive rehabilitation approach for patients recovering from PUD surgery. Physical rehabilitation improved abdominal strength and overall fitness, while dietary interventions reduced gastrointestinal symptoms and prevented nutritional deficiencies. Psychological support addressed common mental health challenges, enhancing overall patient adherence to rehabilitation protocols. Emerging therapies, such as radon and balneological treatments, offer additional benefits but require further investigation.

Conclusion

A multidisciplinary rehabilitation program significantly improves outcomes for patients recovering from PUD surgery. Incorporating evidence-based practices, including physical therapy, dietary management, and psychosocial support, can reduce complications, enhance QoL, and minimize recurrence rates. Future research should focus on refining these interventions and exploring novel therapies to optimize postoperative care.

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MODERN APPROACHES TO REHABILITATION IN PATIENTS WITH BRONCHIAL ASTHMA AND OBESITY: NON-PHARMACOLOGICAL METHODS AND SANATORIUM TECHNOLOGIES

Abstract: *The prevalence of bronchial asthma (BA) combined with obesity poses significant challenges for rehabilitation medicine. This study evaluates the effectiveness of staged rehabilitation, including dry carbon dioxide baths, alimentary alkyl-glycerols, and thermal balneotherapy, in the comprehensive treatment of patients with mild BA and obesity. A total of 120 patients, aged 35-60 years, were treated at the Andijan Branch of the Republican Scientific Center for Emergency Medical Care. Our results show that combining these therapies significantly improves respiratory function, body mass index (BMI), and quality of life indicators ($p < 0.05$). These findings support the integration of innovative non-pharmacological methods in standard BA rehabilitation protocols.*

Keywords: *bronchial asthma, obesity, rehabilitation, thermal balneotherapy, dry carbon dioxide baths, respiratory function, BMI, quality of life*

Introduction: Bronchial asthma (BA) and obesity are chronic conditions with a high prevalence globally, often coexisting and exacerbating each other [1]. This phenotype presents unique challenges, including reduced treatment effectiveness, increased inflammatory markers, and impaired respiratory mechanics [2]. Non-pharmacological interventions, such as balneotherapy and physical rehabilitation, offer potential benefits in addressing these issues. Recent studies highlight the need for a comprehensive evaluation of these methods to optimize patient outcomes [3],[4]. This study investigates the effectiveness of staged rehabilitation incorporating innovative therapies in BA patients with obesity.

Literature Review: The association between BA and obesity is well-documented, with obesity increasing the risk of severe asthma exacerbations by 1.5 times [2]. Research by Kryzhanovsky et al. (2017) emphasizes the role of staged rehabilitation in managing this phenotype [1]. Yubitskaya and Antonyuk (2019) explored non-pharmacological treatments, highlighting thermal balneotherapy's benefits in reducing systemic inflammation and improving pulmonary function [2]. Additionally, Alexandrov et al. (2021) demonstrated the superiority of dry carbon dioxide baths over traditional therapies in enhancing metabolic and respiratory outcomes [3].

Materials and Methods: This study included 120 patients with mild BA and obesity who were treated in the Department of Therapy at the Andijan Branch of the

Republican Scientific Center for Emergency Medical Care. Patients were divided into three groups:

Group A (n=40): Received standard pharmacological treatment.

Group B (n=40): Underwent standard treatment plus dry carbon dioxide baths and alimentary alkyl-glycerols.

Group C (n=40): Received comprehensive staged rehabilitation, including thermal balneotherapy, in addition to Group B's therapies.

Baseline evaluations included spirometry, BMI measurements, and quality of life assessments using the Asthma Quality of Life Questionnaire (AQLQ). Interventions lasted 12 weeks, with follow-ups at 3 and 6 months.

Results: Table 1 summarizes the improvements across all groups:

Parameter	**Group A**	**Group B**	**Group C**
FEV1 (% predicted)	+8.2%	+15.4%	+22.8%
BMI reduction (kg/m²)	-1.2	-2.6	-3.8
AQLQ score improvement	+12.5%	+22.3%	+35.6%

Group C demonstrated significantly better outcomes in respiratory function (FEV1: $p=0.01$), BMI reduction ($p=0.02$), and quality of life ($p<0.001$) compared to Groups A and B.

Discussion: The integration of dry carbon dioxide baths and thermal balneotherapy within a staged rehabilitation program yielded superior outcomes compared to standard care. These therapies likely enhance vascular and metabolic functions, reduce systemic inflammation, and improve respiratory mechanics, as suggested by Alexandrov et al. [3]. Moreover, alimentary alkyl-glycerols may synergize with these modalities to optimize energy metabolism and immune responses. Limitations include the short follow-up duration and the single-center design. Future studies should explore long-term effects and expand on multicenter collaborations.

Conclusion: Staged rehabilitation, incorporating non-pharmacological methods, significantly enhances treatment outcomes for BA patients with obesity. These findings advocate for broader implementation of these therapies in clinical practice to improve patient quality of life and reduce the burden of chronic diseases.

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KORXONALARDA REZERF KAPITAL HISOBINI TAKOMILLASHTIRISH

Annotatsiya: *Ushbu maqolada korxonalarda rezerf kapital hisobini takomillashtirish jarayonidagi asosiy masalalar, zamonaviy usullar, va ularning amaliy ahamiyati tahlil qilinadi.*

Kalit so'zlar: *Rezerf kapital, buxgalteriya hisobi, moliyaviy hisobotning xalqaro standarti, moliyaviy barqarorlik*

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IMPROVEMENT OF RESERVE CAPITAL ACCOUNTING IN ENTERPRISES

Abstract: *This article analyzes the main issues, modern methods, and their practical significance in the process of improving reserve capital accounting in enterprises.*

Key words: *Reserve capital, accounting, international standard of financial reporting, financial stability*

Korxonalarda rezerv kapital hisobini takomillashtirish masalasi, korxonalarning moliyaviy barqarorligini ta'minlash, ularning risklarga qarshi himoyasini kuchaytirish va uzoq muddatli faoliyatni davom ettirish uchun muhimdir. Rezerv kapitali - bu korxonaning ma'lum bir qismida zaxiralar shaklida to'plangan mablag' bo'lib, noxush holatlar, kutilmagan xarajatlar yoki zararlarni qoplash uchun ishlatiladi. Rezerv kapitalining o'zgarishi va uni takomillashtirish usullari haqida quyidagi jihatlarni ko'rib chiqish mumkin:

1. Rezerv kapitalining maqsadlari va vazifalari Moliyaviy xavfni kamaytirish: Korxona o'z faoliyatini davom ettirish uchun har doim zarur bo'ladigan rezerv mablag'larini saqlashi kerak. Bu mablag'lar kutilmagan zararlarga qarshi turg'unlikni ta'minlaydi.Korxonaning barqarorligini oshirish: Rezerv kapitali korxonaning uzoq muddatli moliyaviy barqarorligini saqlab qolish uchun zarur bo'lib, ayniqsa, iqtisodiy inqiroz va bozor o'zgarishlarida muhim ahamiyatga ega.Zararlarga qarshi himoya: Rezerv kapitali kutilmagan xarajatlar yoki ziyonlarga qarshi himoya sifatida ishlatiladi, shuningdek, soliq, kredit va boshqa majburiyatlarni to'lashda qo'llaniladi.

2. Rezerv Kapitali miqdorini aniqlash O'rtacha miqdor: Rezerv kapitalining miqdori, odatda, korxonaning umumiy kapitalining ma'lum bir foizini tashkil qiladi. Bu foiz, kompaniyaning xavf darajasi va faoliyat turi bo'yicha belgilanishi mumkin.Moliyaviy barqarorlik: Korxona o'z moliyaviy barqarorligini oshirish uchun maksimal rezerv kapitali miqdorini aniqlashda ehtiyotkorlik bilan yondashishi kerak. Bu kapital miqdori o'rtacha bozor sharoitlariga qarab aniqlanishi lozim.

3. Rezerv kapitali shakllanishi Foyda taqsimoti: Korxona o'zining foydasining bir qismini rezerv kapitaliga yo'naltirishi mumkin. Bu mablag'lar korxonaning keyingi yillardagi barqarorligini ta'minlash uchun ishlatiladi.Aloqa: Rezerv kapitalining shakllanishida korxonalar aksiyadorlar va boshqa manfaatdor tomonlar bilan aloqalarini hisobga olgan holda qarorlar qabul qilishadi.

4. Rezerv kapitali nazorati Hisobotlar va auditlar: Korxona o'z rezerv kapitalining to'g'riligini va samaradorligini ta'minlash uchun muntazam ravishda moliyaviy hisobotlarni tayyorlashi va ichki auditlar o'tkazishi zarur.Moliyaviy tahlil: Korxona o'z rezerv kapitali harakatlarini tahlil qilish, oldingi davrlarning statistik ma'lumotlari asosida prognozlar chiqarish va bozor sharoitlarini inobatga olish orqali samarali nazorat o'rnatishi kerak.

Rezerv kapitalining o'zgaruvchan miqdorini belgilash: Korxonalar rezerv kapitalining miqdorini o'zgaruvchan qilib belgilashlari mumkin. Bu, masalan, bozorning o'zgaruvchan sharoitlariga qarab aniqlanishi mumkin.Korxona faoliyatiga moslashish: Har bir korxona o'z faoliyatiga mos tarzda rezerv kapitali tuzishi zarur. Bu, korxonaning risklarini baholash va undan kelib chiqqan holda kapital miqdorini belgilashni o'z ichiga oladi.Korxona kapitalining diversifikatsiyasi: Diversifikatsiya qilish orqali korxona o'z rezerv kapitalini bir necha manbalardan tashkil etishi mumkin, bu esa uning risklarini kamaytiradi.Qonunchilikka moslashish: Har bir davlatda kompaniyalarga tegishli qonunchilik asosida rezerv kapitalining miqdori va shakllanishiga oid me'yorlar mavjud. Ularni hisobga olish va bajarish zarur.Soliqlar va moliyaviy majburiyatlar: Korxona o'z rezerv kapitalini soliqlar va boshqa majburiyatlar bilan mos ravishda boshqarishi zarur. Bu, moliyaviy boshqaruvni optimallashtirishga yordam beradi.

Elektron tizimlar va dasturlar: Korxonalar o'z rezerv kapitalini boshqarishda zamonaviy elektron tizimlar va dasturlardan foydalanishi mumkin. Bu usullar hisob-kitoblarni aniq va samarali amalga oshirishga yordam beradi.Yangi investitsiya usullari: Korxona, shuningdek, yangi investitsiya strategiyalarini

o'zlashtirishi mumkin. Bu, ayniqsa, yuqori daromadli tarmoqlarda faoliyat yurituvchi kompaniyalar uchun foydali bo'lishi mumkin.

Xulosa

Korxonalarda rezerv kapitali hisobini takomillashtirish — bu moliyaviy barqarorlikni ta'minlashning eng muhim vositalaridan biridir. Bu, kompaniyaning oldindan rejalashtirilgan xavflarga qarshi kurashish, kutilmagan xarajatlar va zararlardan himoya qilishga imkon beradi. Takomillashtirish jarayonida moliyaviy tahlil, nazorat, va zamonaviy texnologiyalarni joriy qilish muhim ahamiyatga ega.

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KORXONALARDA DAROMADLAR HISOBINI TAKOMILLASHTIRISH

Annotatsiya: *Ushbu maqolada korxonalarda daromadlar hisobini takomillashtirish jarayonidagi asosiy masalalar ko‘rib chiqilgan.*
Kalit so’zlar: *Daromad, operatsiyon daromad, moliyaviy faoliyat daromad, buxgalteriya hisobi, moliyaviy hisobotning xalqaro standarti, moliyaviy barqarorlik*

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IMPROVING INCOME ACCOUNTING IN ENTERPRISES

Abstract: *This article examines the main issues in the process of improving income accounting in enterprises.*
Key words: *Income, operating income, financial activity income, accounting, international standard of financial reporting, financial stability*

Korxonalarda daromadlar hisobini takomillashtirish — bu korxona faoliyatining samaradorligini oshirish, uning moliyaviy holatini yaxshilash va foyda olishni maksimal darajaga keltirishga qaratilgan jarayonlardir. Bunday jarayonlarni takomillashtirishda bir qator usullar va strategiyalarni qo‘llash mumkin. Quyida korxonalarda daromadlar hisobini takomillashtirishga oid ba'zi asosiy yo‘nalishlar keltirilgan:

Daromadlarning aniq va to‘liq hisobini yuritish:

Hisob-kitoblarning shaffofligi: Korxona daromadlarini aniq va to‘liq hisoblash uchun barcha operatsiyalarni to‘liq va shaffof tarzda qayd etish zarur. Bu o‘z ichiga xaridlar, sotuvlar, xizmatlar va boshqa daromad manbalarini kirita oladi.

Hisoblarni tizimli ravishda yuritish: Barcha operatsiyalarni o‘z vaqtida va to‘g‘ri ro‘yxatga olish uchun zamonaviy hisob tizimlaridan foydalanish kerak.

Daromadlarni tahlil qilish va prognoz qilish:

Daromad tahlili: Korxona faoliyatida qanday mahsulot yoki xizmatlar ko‘proq daromad keltirayotganini aniqlash va shu asosda qarorlar qabul qilish. Bu orqali kam foyda keltiruvchi sohalarga e'tibor qaratilib, samaradorlikni oshirish mumkin.

Daromad prognozi: Kelgusi davrda daromadlar qanday o‘zgarishini prognoz qilish va unga qarab strategiyalarni ishlab chiqish. Bu korxonaga oldindan tayyorgarlik ko‘rishga va bozor sharoitlariga moslashishga yordam beradi.

Xarajatlarni tahlil qilish: Daromadlarni oshirish uchun xarajatlarni qisqartirish muhim. Xarajatlarni tahlil qilib, keraksiz yoki ortiqcha xarajatlarni aniqlash va ularni kamaytirish zarur.

Xarajatlarni optimallashtirish: Masalan, energiya sarfini kamaytirish, xom ashyo sotib olishni samarali boshqarish, mehnat resurslaridan foydalanish samaradorligini oshirish. optimallashtirib, yangi mijozlarni jalb qilish va mavjud mijozlarni ushlab qolish. Avtomatlashtirish: Korxona jarayonlarini avtomatlashtirish orqali ish samaradorligini oshirish va xarajatlarni kamaytirish. Bu masalalar bo‘yicha ERP tizimlari va boshqa zamonaviy texnologiyalar yordam berishi mumkin. Innovatsiyalarni joriy etish: Yangi mahsulotlar yoki xizmatlarni yaratish orqali yangi daromad manbalarini kiritish. Mijozlar ehtiyojlarini aniqlash: Mijozlarning ehtiyojlarini yaxshiroq tushunib, ularning talablarini qondirish. Bu orqali mijozlar sonini oshirish va ular bilan uzoq muddatli munosabatlar o‘rnatish mumkin. Mijozlarga qo‘shimcha xizmatlar taklif qilish: Mahsulot yoki xizmatni kengaytirish va mijozlarga qo‘shimcha xizmatlar taklif qilish orqali daromadlarni oshirish. Eksportni rivojlantirish: Xalqaro bozorlarda yangi mijozlarni topish, eksportni oshirish va xalqaro daromad manbalarini yaratish.Global tendentsiyalarni kuzatish: Xalqaro bozorlarning tendentsiyalarini kuzatib borish va yangi imkoniyatlardan foydalanish. Sarmoya va dividend siyosati: Korxona uchun to‘g‘ri sarmoya va dividend siyosatini ishlab chiqish. Bu investorlarga ko‘proq jalb qilish va moliyaviy holatni yaxshilashga yordam beradi.

Risklarni boshqarish: Daromadlar kamayishini oldini olish uchun risklarni identifikatsiya qilish va ularni boshqarish.

Xulosa:

Korxonalarda daromadlarni hisoblashni takomillashtirish jarayoni bir qator muhim amallarni o‘z ichiga oladi. Buning uchun samarali tahlil, modernizatsiya va strategik qarorlar qabul qilish zarur. Yangi texnologiyalarni joriy etish va mijozlarga xizmat ko‘rsatish tizimini yaxshilash orqali korxona daromadlarini sezilarli darajada oshirish mumkin.

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KORXONALARDA XARAJATLAR HISOBINI TAKOMILLASHTIRISH

Annotatsiya: *Ushbu maqolada korxonalarda xarajatlar hisobini takomillashtirish jarayonidagi asosiy masalalar ko‘rib chiqilgan.*
Kalit so’zlar: *xarajat, tannarx, buxgalteriya hisobi, moliyaviy hisobotning xalqaro standarti, moliyaviy barqarorlik*

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IMPROVING COST ACCOUNTING IN ENTERPRISES

Abstract: *This article examines the main issues in the process of improving cost accounting in enterprises.*
Key words: *cost, accounting, international standard of financial reporting, financial stability*

Korxonalarda xarajatlar hisobini takomillashtirish - bu korxonaning moliyaviy holatini samarali boshqarish va uning iqtisodiy faoliyatini yaxshilash maqsadida zarur. Bu jarayon turli xil usullar va tizimlar orqali amalga oshiriladi. Quyida korxonalarda xarajatlar hisobini takomillashtirish bo‘yicha ba'zi muhim tavsiyalarni keltiraman:Korxonalarda xarajatlarni to‘g‘ri tasniflash va guruhlash zarur. Xarajatlar quyidagicha ajratilishi mumkin:O‘zgarmaydigan xarajatlar (fixsiyalar): Mahsulot hajmi yoki ishlab chiqarish miqdoriga qarab o‘zgarmaydi, masalan, ijaraga olingan ofislar, maoshlar va boshqalar.

O‘zgaruvchan xarajatlar: Mahsulot ishlab chiqarish miqdori yoki xizmat ko‘rsatish miqdoriga qarab o‘zgaradi, masalan, xom ashyo, ishchi kuchi va energiya xarajatlari.Investitsion xarajatlar: Yangi uskunalar, texnologiyalar va boshqa aktivlarga sarflanadigan xarajatlar.Xarajatlarni doimiy ravishda monitoring qilish

va tahlil qilish zarur. Bu uchun avtomatlashtirilgan tizimlar yoki dasturlarni joriy qilish mumkin. Bular:Xarajatlarni tahlil qilish dasturlari: Korxonaning barcha xarajatlari haqidagi ma'lumotlarni yig‘ish va tahlil qilish uchun maxsus dasturlarni joriy etish.Xarajatlarni nazorat qilish va tahlil qilish komissiyasi: Har oyda yoki chorakda xarajatlar bo‘yicha yig‘ilishlar o‘tkazish.Korxonalarda xarajatlar hisobini takomillashtirishda malakali iqtisodchilar, buxgalterlar va moliyaviy mutaxassislar bilan ishlash muhim. Ular xarajatlarni samarali boshqarish va optimallashtirishda yordam berishlari mumkin.Xarajatlarni kamaytirish va optimallashtirish uchun strategiyalar ishlab chiqish zarur. Bularni amalga oshirish uchun:Energiya tejamkorligi: Resurslardan samarali foydalanish, masalan, energiya tejash, chiqindilarni kamaytirish.Tashish va logistika xarajatlarini kamaytirish: Ta'minot zanjirini optimallashtirish, yetkazib berish narxlarini pasaytirish.Ishlab chiqarish jarayonlarini optimallashtirish: Ishlab chiqarish samaradorligini oshirish va resurslardan samarali foydalanish.Zamonaviy texnologiyalarni qo‘llash xarajatlarni kamaytirishga yordam beradi. Bunga quyidagilar kiradi:

Avtomatlashtirilgan hisob-kitob tizimlari: Bu orqali xarajatlarni tez va aniq hisoblash mumkin. ERP (Enterprise Resource Planning) tizimlari: Korxonaning barcha resurslari va xarajatlarini yagona tizimda boshqarish.Xarajatlarni tahlil qilish uchun moliyaviy ko‘rsatkichlar asosida prognozlar tuzish va istiqbolli xarajatlarni baholash zarur. Bu, ayniqsa, o‘zgarmaydigan va o‘zgaruvchan xarajatlarni prognozlashda foydalidir. Korxona rahbariyatiga xarajatlar bo‘yicha aniq va batafsil hisobotlarni taqdim etish zarur. Hisobotlar har oyda yoki chorakda tayyorlanishi va ular asosida qarorlar qabul qilinishi lozim.

Xarajatlar hisobini takomillashtirish orqali korxona o‘z rentabelligini oshirishi, resurslarni samarali ishlatishi va raqobatbardoshligini kuchaytirishi mumkin.Tannarx — bu mahsulot yoki xizmatning ishlab chiqarish yoki taqdim etish jarayonida yuzaga keladigan barcha xarajatlarni o‘z ichiga olgan narxdir. Tannarxni aniqlash korxonalar uchun muhim, chunki bu narx orqali mahsulotni yoki xizmatni sotish narxini belgilash, foyda olishni rejalashtirish va narx siyosatini ishlab chiqish mumkin. Tannarxning hisoblanishi quyidagi elementlardan iborat bo‘lishi mumkin:Bu xarajatlar mahsulotni ishlab chiqarish yoki xizmatni taqdim etish bilan bevosita bog‘liq bo‘lgan xarajatlardir. Ular quyidagilardan iborat bo‘lishi mumkin:

Xom ashyo va materiallar: Mahsulot ishlab chiqarish uchun zarur bo‘lgan barcha xom ashyo va materiallar.Ishlab chiqarish jarayonida sarflanadigan energiya: Elektr energiyasi, suv va boshqa energiya manbalarining xarajatlari.Ishchi kuchi: Mahsulotni ishlab chiqarish yoki xizmatni taqdim etish uchun sarflanadigan ish haqi (to‘g‘ridan-to‘g‘ri mehnat).Bu xarajatlar mahsulot yoki xizmatni ishlab chiqarish bilan bevosita bog‘liq bo‘lmagan, lekin ishlab chiqarish jarayonini qo‘llab-quvvatlaydigan xarajatlardir:

Boshqaruv xodimlarining maoshi: Korxona boshqaruv xodimlarining mehnat haqi.Yordamchi xizmatlar: To‘g‘ridan-to‘g‘ri ishlab chiqarish jarayoniga ta'sir qilmasa-da, ishlab chiqarish faoliyatini qo‘llab-quvvatlovchi xizmatlar, masalan, yuridik xizmatlar, hisob-kitob va boshqalar.Amortizatsiya: Ishlab chiqarish uskunalari va boshqa aktivlarning eskirishiga asoslangan xarajatlar.

Bu xarajatlar ishlab chiqarish miqdoriga bog‘liq bo‘lmagan xarajatlardir. Ular doimo mavjud bo‘ladi, hatto ishlab chiqarish darajasi o‘zgarsa ham:Ijara haqi: Ofis, ishlab chiqarish maydoni yoki boshqa ko‘chmas mulk uchun to‘lanadigan ijaraga oid xarajatlar.Uskunalar va inshootlarning saqlanishi: Ishlab chiqarish jarayonining davomiyligini ta'minlash uchun zarur bo‘lgan texnik xizmatlar, to‘lovlar va boshqa xizmatlar.Boshqa doimiy xarajatlar: Kommunal xizmatlar, sug‘urta to‘lovlari, soliq va boshqa jarayonlar.Bu xarajatlar ishlab chiqarish miqdoriga bog‘liq bo‘lgan xarajatlardir:

Xom ashyo va materiallar xarajatlari: Mahsulot ishlab chiqarish uchun ishlatiladigan xom ashyo narxi, bu miqdor ishlab chiqarish hajmiga qarab o‘zgaradi.Energiya va resurslar: Ishlab chiqarish jarayonida ishlatiladigan energiya va boshqa resurslar (masalan, elektr energiyasi).Tannarxni hisoblash usullari:Tannarxni hisoblash uchun bir nechta metodlardan foydalanish mumkin:To‘g‘ridan-to‘g‘ri hisoblash: Har bir mahsulot bo‘yicha aniq xarajatlar hisoblanadi.Ortiqcha xarajatlarni hisoblash: Mahsulotlarning umumiy xarajatlari ishlab chiqarilgan butun miqdorga nisbatan taqsimlanadi (masalan, ishlab chiqarilgan umumiy mahsulot miqdori bo‘yicha).Tannarxni kamaytirish uchun chora-tadbirlar:Tannarxni kamaytirish uchun korxonalar quyidagi usullardan foydalanishi mumkin:Ishlab chiqarish samaradorligini oshirish: Resurslardan va xodimlardan samarali foydalanish.Xarajatlarni optimallashtirish: Ortiqcha va foydasiz xarajatlarni kamaytirish. Texnologiyalarni joriy etish: Avtomatlashtirish, yangi texnologiyalar yordamida ishlab chiqarish jarayonlarini takomillashtirish.Xarajatlarni boshqarish va monitoring qilish tizimlarini yaratish: Xarajatlarni kuzatib borish va tahlil qilish orqali boshqarish.Tannarxni to‘g‘ri aniqlash va uni samarali boshqarish korxonaning rentabelligini oshirishga yordam beradi.

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KORXONALARDA USTAV KAPITAL HISOBINI TAKOMILLASHTIRISH

Annotatsiya: *Ushbu maqolada korxonalarda ustav kapital hisobini takomillashtirish jarayonidagi asosiy masalalar, zamonaviy usullar, va ularning amaliy ahamiyati tahlil qilinadi. Maqolada ustav kapitalni hisoblashning nazariy asoslari, iqtisodchilarning yondashuvlari, shuningdek, analitik ma'lumotlar va real hayotdagi misollar orqali samarali boshqarish strategiyalarini ko‘rib chiqamiz.*

Kalit so’zlar: *Ustav kapital, buxgalteriya hisobi, moliyaviy hisobotning xalqaro standarti, moliyaviy barqarorlik*

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IMPROVEMENT OF ASSETS CAPITAL ACCOUNTING IN ENTERPRISES

Abstract: *This article analyzes the main issues, modern methods, and their practical significance in the process of improving the authorized capital account in enterprises. In the article, we consider the theoretical foundations of the calculation of authorized capital, the approaches of economists, as well as effective management strategies through analytical data and real-life examples.*

Key words: *Authorized capital, accounting, international standard of financial reporting, financial stability*

Korxonalarda ustav kapitali hisobini takomillashtirish bu korxona yoki kompaniyaning moliyaviy resurslarini samarali boshqarish va investitsion imkoniyatlarni yaxshilash maqsadida ustav kapitalining shakllanishi va hisobini rivojlantirishga qaratilgan harakatlar tizimidir. Ustav kapitali korxonaning yuridik faoliyatini boshlash va moliyaviy holatini belgilashda muhim o‘rin tutadi. Uning hisobini takomillashtirish, asosan, korxonaning barqarorligini ta'minlash, moliyaviy hisobotlarni yaxshilash va investorlar bilan aloqalarni mustahkamlash uchun zarur.

Ustav kapitali hisobini takomillashtirish uchun quyidagi usullar va yondashuvlar qo‘llanilishi mumkin:

1. Ustav kapitali miqdorini ko‘paytirish

Qo‘shimcha investitsiyalar: Korxona ustav kapitalini ko‘paytirish uchun yangi aktsiyalar chiqarish yoki yangi aksiyadorlarni jalb qilish mumkin. Bu, kompaniyaning o‘sishiga va rivojlanishiga yordam beradi.

Reinvestitsiya: Korxona foydasining bir qismini ustav kapitaliga qo‘shish orqali kapitalni oshirish. Bu, ayniqsa, uzoq muddatli rivojlanish strategiyasiga ega bo‘lgan korxonalar uchun muhim.

2. Hisoblash usullarini optimallashtirish

Kapitalning shakllanishini tahlil qilish: Ustav kapitali shakllanishining samaradorligini baholash va bu jarayonni shaffof qilish uchun muntazam tahlillar o'tkazish. Ustav kapitalining shakllanishi va uning o‘sishi kompaniyaning moliyaviy mustahkamligini ko‘rsatadi. Hisobdorlikni yaxshilash: Ustav kapitali hisobini aniq va to‘g‘ri qayd qilish uchun zamonaviy buxgalteriya dasturlari va metodologiyalarini qo‘llash. Diversifikatsiya va risklarni boshqarish: Ustav kapitalini turli yo‘nalishlar va aktivlarga investitsiya qilish orqali risklarni kamaytirish va rentabellikni oshirish. Bu, ayniqsa, yangi bozorlarga kirish uchun muhim bo‘lishi mumkin. Mulk va aktivlarni diversifikatsiya qilish: Kompaniya ustav kapitalini nafaqat naqd pul, balki boshqa aktivlar orqali ham shakllantirishi mumkin (masalan, ko‘chmas mulk, intellectual mulk va boshqalar).

4. Aksiyadorlar va investorlar bilan muloqot

Investorlar bilan shaffof aloqalar: Ustav kapitali va uning hisobini takomillashtirishda investorlar bilan ochiq va shaffof muloqot o‘rnatish. Bu, kompaniya ishonchliligini oshirishga va investorlar orasida ijobiy imidj yaratishga yordam beradi.

Aksiyadorlar majlislarini o‘tkazish: Aksiyadorlar va investorlar uchun muntazam hisobotlar va majlislar o‘tkazish, kompaniya moliyaviy holati va kelgusi rejalar haqida ma'lumot berish.

Ustav kapitali bo‘yicha nazoratni kuchaytirish: Kompaniyaning moliyaviy holatini muntazam nazorat qilish va audit qilish, shu jumladan ustav kapitalining shakllanishi va taqsimlanishini tekshirish.

Buxgalteriya siyosatini yangilash: Ustav kapitali bo‘yicha buxgalteriya siyosatini qayta ko‘rib chiqish va yangilash, shuningdek, buxgalteriya amaliyotlarining aniq va haqqoniy bo‘lishini ta'minlash.

Huquqiy me'yorlarga rioya qilish: Ustav kapitalini shakllantirish va uni hisobga olishda yuridik me'yorlarga to‘liq rioya qilish. Har qanday o‘zgarishlar yoki o‘zgartirishlar kompaniya huquqiy statusiga ta'sir qilmasligi kerak.

Huquqiy maslahatlar olish: Ustav kapitali hisobini takomillashtirishda yuridik maslahatlar olish, bu orqali kompaniyaning huquqiy xatoliklardan saqlanishi va eng optimal strategiyalarni ishlab chiqishi mumkin.

Hisobot shakllarini yangilash: Moliyaviy hisobotlar shakllarini yangilash va kompaniyaning ustav kapitali bo‘yicha to‘liq va aniq ma'lumotlar taqdim etishni ta'minlash.

Auditorlik tekshiruvi: Mustaqil auditorlar tomonidan o'tkaziladigan tekshiruvlar orqali ustav kapitali va moliyaviy hisobotlarning ishonchliligini ta'minlash.

Xulosa

Korxonalarda ustav kapitali hisobini takomillashtirish korxonaning moliyaviy barqarorligi va raqobatbardoshligini oshiradi. Bu jarayon kompaniyaning o‘sish strategiyasiga, investitsion salohiyatiga va bozordagi pozitsiyasiga bevosita ta'sir qiladi. Shuningdek, ustav kapitalini to‘g‘ri boshqarish va hisoblash kompaniyaning uzoq muddatli muvaffaqiyatiga xizmat qiladi.

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TURIZM XIZMATLARINI KO‘RSATUVCHI KORXONALARDA BUXGALTERIYA HISOBNING XUSUSIYATLARI

Annotatsiya: *Ushbu maqolada turizm xizmatlarini ko‘rsatuvchi korxonalarda buxgalteriya hisobning xususiyatlarining asosiy masalalar ko‘rib chiqilgan.*

Kalit so’zlar: *Turizm, xizmatlar, xarajat, tannarx, buxgalteriya hisobi, moliyaviy hisobotning xalqaro standarti, moliyaviy barqarorlik*

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FEATURES OF ACCOUNTING IN ENTERPRISES PROVIDING TOURISM SERVICES

Abstract: *In this article, the main issues of the characteristics of accounting in enterprises providing tourism services are considered.*

Key words: *Tourism, services, cost, cost, accounting, international standard of financial reporting, financial stability*

Bugungi kunda turizm sohasi jahon iqtisodiyotida jadal rivojlanib borayotgan sohalardan biri hisoblanib, yuz berayotgan o‘zgarishlar ta’sirida turistik xizmatlarga bo‘lgan talab va uning taklifi tez sur’atlarda takomillashib bormoqda. Turizm sohasining o‘ziga xos xususiyatlari sifatida, birinchidan, turistik korxonalar sonining, ikkinchidan, turistik xizmatlarga bo‘lgan talabning muntazam ravishda juda tez ortib borayotganligini ko‘rsatish mumkin. Jahon miqyosida turizm sohasida yuz berayotgan bunda o‘zgarishlar asosan yetarli turistik resurs komponentlariga ega bo‘lgan mamlakatlarda, xususan, O‘zbekiston Respublikasida ham kuzatilmoqda. Mamlakatimiz turizm sohasidagi asosiy muammolardan biri bu – turistik oqimlarning yil mavsumlari bo‘yicha katta ko‘rsatkichlar oralig‘ida tebranishi hisoblanib, mamlakat darajasida turizm sohasini

barqarorlashtirish borasidagi chora-tadbirlar doirasida ham ushbu masala zaruriy darajada o‘z yechimini topmayapti. Turistik mavsumni uzaytirish va sohadagi mavsumiy tebranishlarni tekislash muammosini hal qilish hududlarda aholini to‘liq ish bilan ta’minlash imkonini kengaytiradi, turistik obyektlarining moddiy komponentidan foydalanish darajasini oshiradi, tabiiy resurslardan oqilona foydalanishni ta’minlaydi, turistik xizmatlarga talabning mavsumiy tebranishlarga bog‘liqligini kamaytiradi va, natijada, turistik xizmatlarga bo‘lgan talabni barqarorlashtiradi. Tadqiqotning maqsadi – mavsumiylik omilini hisobga olgan holda turistik xizmatlarga bo‘lgan talabni boshqarishning nazariy jihatlarini tizimlashtirish va amaliy tavsiyalar ishlab chiqishdan iborat.

Turizm xizmatlarini ko‘rsatuvchi korxonalarda buxgalteriya hisobining xususiyatlari bir nechta omillar bilan belgilanadi. Ularning asosiy maqsadi — turizm sohasidagi operatsiyalarni to‘g‘ri va aniq hisobga olish, soliq va boshqa moliyaviy majburiyatlarni bajarish, shuningdek, kompaniyaning moliyaviy holatini yaxshilashga yordam berishdir. Quyida turizm xizmatlarini ko‘rsatuvchi korxonalarda buxgalteriya hisobining ba'zi xususiyatlarini keltirib o‘taman:

Turistik xizmatlar shartnoma asosida ko‘rsatiladi. Shartnomada ko‘rsatilgan xizmatlarning ko‘lami va sifati, taraflarning huquqlari hamda majburiyatlarini, haq to‘lash va hisob-kitoblar tartibini, shartnomaning amal qilish muddatini va uni bajarmaganlik yoki lozim darajada bajarmaganlik uchun javobgarlikni, shuningdek, taraflarning kelishuviga ko‘ra boshqa shartlarni belgilaydi

1-jadval

Turizm sohasida turli xil xizmatlar

Xizmatlari	Asoslanishi
Mehmonxona xizmatlari	buxgalteriya hisobida xonalar kirimi, xizmat ko‘rsatish va boshqa to‘lovlar (Wi-Fi, mini-bar va h.k.) alohida ajratiladi
Transport xizmatlari	aviachiptalar, poezd va avtobus yo‘lovchilari, shuningdek, transport xizmatlarini sotish hisoblari ko‘rsatiladi
Ekskursiyalar va turistik paketlar	bu turdagi xizmatlar uchun daromadlar va xarajatlar maxsus ajratilgan hisoblarda qayd etiladi

Turizm sohasidagi buxgalteriya hisobida o‘zgarmas (masalan, ijara to‘lovlari, ish haqini to‘lash) va o‘zgaruvchan xarajatlar (xizmat ko‘rsatish, mahsulotlar va materiallar xaridi) ajratilishi zarur. O‘zgarmas xarajatlar korxona miqyosi va faoliyatidan qat'i nazar barqaror bo‘ladi, o‘zgaruvchan xarajatlar esa xizmatlar hajmiga qarab o‘zgaradi.Turizm xizmatlarini ko‘rsatuvchi korxonalarda barcha operatsiyalar uchun birlamchi hujjatlar (chegirmalar, chiptalar, hisob-fakturalar va sh.k.) tayyorlanadi. Bu hujjatlar asosida xizmatlar ko‘rsatilishi va to‘lovlar qabul qilinishi kerak. Ular buxgalteriya hisobining to‘g‘ri tashkil etilishiga yordam beradi.Turizm sohasidagi tashkilotlar ko‘pincha vaqtinchalik yoki muayyan davrlar uchun (masalan, yillik, choraklik) boshqaruv hisobotlarini ishlab chiqaradi. Boshqaruv hisobotlari ichida turizm kompaniyasining foyda va zarari, aktivlar va passivlar, shuningdek, turistik xizmatlarga qo‘shimcha xarajatlar haqida ma'lumotlar keltiriladi.

Turizm xizmatlaridan olinadigan daromadlar hisobini yuritishda har bir xizmat turi uchun alohida hisob-kitoblar va soliq to‘lovlari hisobga olinadi. Masalan, xizmatlar uchun olingan to‘lovlar soliq hisobiga kiradi, shuningdek, ko‘rsatilgan xizmatlar uchun qaytarilgan mablag‘lar va chegirmalar hisobga olinadi. **Soliklar va boshqa majburiyatlar** Turizm xizmatlari ko‘rsatuvchi korxonalar uchun soliq hisoboti alohida muhim hisoblanadi. Odatda, ushbu sektorda soliq to‘lovlari (masalan, QQS, daromad solig‘i, yerdan foydalanish solig‘i) va boshqa majburiyatlarni hisobga olish talab qilinadi.

Amortizatsiya Mehmonxonalar va turizm xizmatlarini ko‘rsatuvchi korxonalarda ko‘plab asbob-uskunalar, inventarlar va ko‘chmas mulk (masalan, mehmonxona binosi, transport vositalari) mavjud. Buxgalteriya hisobida bu asbob-uskunalar uchun amortizatsiya hisoboti alohida yuritiladi.Sayohatlar yoki turistik paketlar bo‘yicha bekor qilingan yoki qaytarilgan xizmatlar hisobini yuritishda maxsus qoidalar mavjud. Bunday operatsiyalar buxgalteriya hisobida qayd etilishi, xizmat ko‘rsatilgan yoki yetkazilgan to‘lovlar bekor qilinishi va mablag‘lar qaytarilishi kerak. Turizm sohasida ko‘plab korxonalar avtomatlashtirilgan buxgalteriya tizimlaridan foydalanadilar, bu esa xizmatlarni tez va aniq hisoblashga yordam beradi. Zamonaviy dasturiy ta'minotlar buxgalterlarga turli turdagi xizmatlar bo‘yicha to‘lovlarni kuzatish, xarajatlar va daromadlarni hisoblashda qulaylik yaratadi.

Xulosa

Turizm xizmatlarini ko‘rsatuvchi korxonalarda buxgalteriya hisobi ko‘plab o‘ziga xos jihatlarga ega. Bu hisoblarning to‘g‘ri yuritilishi nafaqat soliq va boshqa moliyaviy majburiyatlarni bajarishda, balki kompaniyaning uzoq muddatli muvaffaqiyatini ta'minlashda ham muhimdir. Buxgalterlar turizm xizmatlarining har bir turini alohida hisobga olishlari, soliq to‘lovlarini o‘z vaqtida amalga oshirishlari va kompaniyaning moliyaviy holatini to‘g‘ri tahlil qilishlari kerak.

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KAM SUVLI DAVRLARDA DARYO OQIMINING TEZLIK MAYDONLARINI ANIQLASH ORQALI TO'G'ONSIZ SUV OLISHNING BARQAROR ISHLASHINI TA'MINLASH

Annotatsiya *Ushbu maqolada O'zbekiston Respublikasining Buxoro viloyatini suv bilan ta'minlaydigan yirik inshootlardan biri Amudaryo o'zandagi jarayonlarning tasnifi bo'yicha harakatchan o'zanli daryolar haqida malumotlar berilgan..*

Kalit so'zlar: *Amudaryo, o'zan ,o'zgarish,jarayon,inshoot,buzilish,holat.*

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ENSURING THE STABLE OPERATION OF WATER INTAKE WITHOUT DAMS BY DETERMINING THE VELOCITY FIELDS OF THE RIVER FLOW DURING PERIODS OF LOW WATER

Abstract. *This article provides information on the classification of processes in the Amudarya river basin, one of the large structures that supply water to the Bukhara region of the Republic of Uzbekistan..*

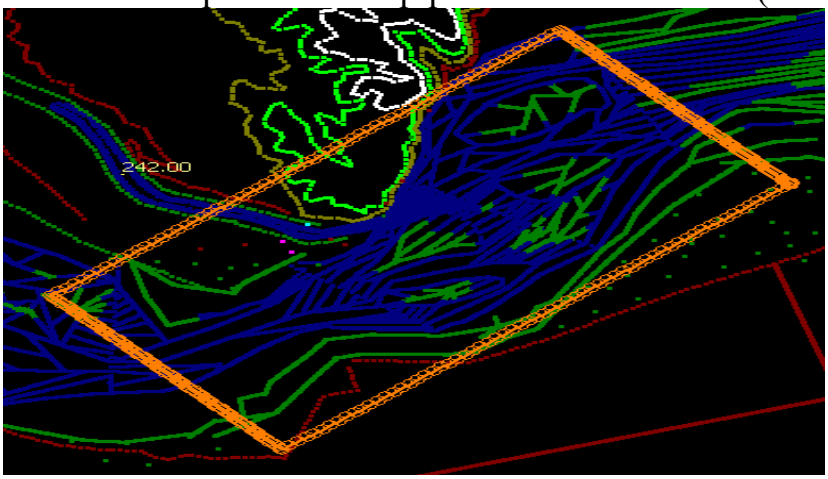
Keywords: *Amudarya, river, change, process, structure, destruction.*

Amudaryo o'zandagi jarayonlarning tasnifi bo'yicha harakatchan o'zanli daryolar tarkibiga kiradi. Amudaryodan kirayotgan suvning loyqaligi o'rtacha 5 kg/m^3 miqdorni tashkil qilib, yillik kanal o'zaniga kirayotgan nanoslar miqdori 8-10 mln. tonnani tashkil qiladi [1]. Bu sohada ham daryo o'zani qayir bo'ylab harakatlanib turadi. Amudaryo o'zanining harakatlanuvchanligi, Amu-Buxoro mashina kanaliga to'g'onsiz suv olish inshooti sohasida suvni kafolatli va sifatli olinishini doimiy tarzda murrakkabligini ta'minlab turadi.

Amu-Buxoro mashina kanaliga kafolatli suv olishni ta’minlash maqsadida, kam suvli davrda suv olish sohasida pioner transheyani qazishning bir necha variantlarini laboratoriya sharoitida tadqiq qilib chiqdik. Ya’ni daryo o‘zanidan kanalga suv olish qismida pioner transheyani 30^0, 45^0 va 60^0 burchak ostida joylashtirib, natijalar oldindi.

Matematik model yordamida Amu Buxoro mashina kanaliga kirish qismidagi sohada Amudaryoning oqim harakati tatqiqot qilinib, kirish stvorida suv sathining maksimal bo‘lishi va nanoslarning o‘zan tubi bilan sudralib yuruvchi qismi bosh inshoot orqali o‘zanga kirmasdan pastki befga o‘tib ketish varianti aniqlandi.Yilning mejen davrida sarf va sath Amudaryoda kam bo‘lishini inobatga olib, shu davrda Amu Buxoro to‘g‘onsiz suv olish inshootiga suv olish qiyinlashishi sababli, shu davrga mos keluvchi daryodagi Q=500 m^3/s va 300 m^3/s va kanalga olinadigan 100 m^3/s va 30 m^3/s sarflar uchun bir necha seriyada hisoblar amalga oshirildi. Amu Buxoro mashina kanaliga suv olish stvoridan hisobiy fragment boshigacha masofa bo‘lganligi sababli, hisobiy fragmentdan chiqish stvoridagi egrilik $Z=F(Q)$ ko‘rinishida berildi[3].

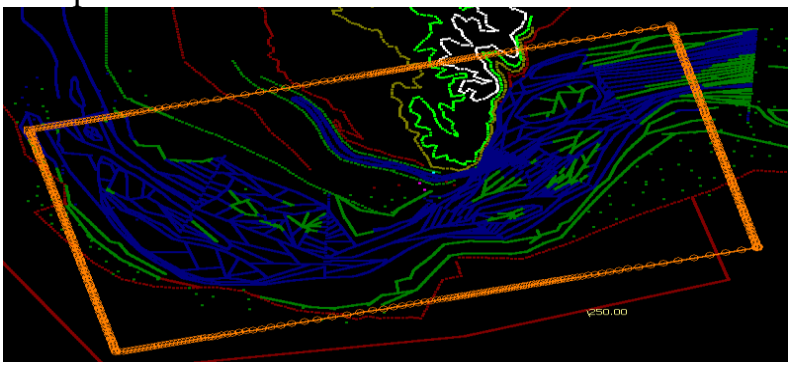
Soniy modellashtirish asosi bo‘lgan bir necha hisobiy turlar qabul qilindi. Amu Buxoro mashina kanaliga to‘g‘onsiz suv olish inshooti sohasida Amudaryoda o‘tkazilgan tatqiqotlarda olingan topografik ma’lumotlarga asoslanib, oqimning Amudaryo o‘zanidagi tezlik epyuralarini tatqiqot qilish uchun qadami ΔX=36,8 m bo‘lgan turlar qabul qilindi. Boshlang‘ich uchastkadagi 4 stvorda bu qadam, fragment o‘lchamlaridan kelib chiqib, mos ravishda shu ketma-ketlikda 22 m, 24 m, 28 m va 33 m ga teng qilib qabul qilindi. Ko‘ndalang yo‘nalishda turning o‘lchami ΔY=20 m.ga teng qilib qabul qilindi. Hisobiy franment uzunligi oqimga qarshi yo‘nalishda ABMK stvoridan 3 km, oqim bo‘ylab 2 km qabul qilindi. Ushbu sohada suv olish inshootiga suv olishning oqim daryo o‘zanida harakatlanayotgan oqim dinamikasiga ta’siri kamroq bo‘lishi tadqiqotlar bilan asoslandi. (1-rasm).



1-rasm. Tekis taqsimlangan turning belgilanishi

Bundan tashqari 8200 m va 4200 m o‘lchamli aralashgan tur ham soniy tatqiqotlarda qabul qilindi. Uzunlik bo‘yicha turlar qadami 209 m, bo‘lib, kirishda kenglik 190 m bo‘lib, hisobiy fragmentdan chiqishda hisobiy tur kengligi 37,5 m gacha kamayib bordi. Bundan tashqari tezlik maydonlarini aniqroq ifodalash uchun

Amu-Buxoro mashina kanaliga suv olish sohasida hisobiy turlar qadamlari ΔX=15 m ΔY=10 m. qabul qilindi.



2-rasm. Aralashgan turlar belgilanishi

Oqimni detallashtirib o‘rganish uchun suv olish inshooti sohasida mayda tekis taqsimlangan yakuniy farq to‘ri ΔX=15 m ΔY=20 m qadam bilan qabul qilindi. Bu yakuniy farq turlari yetarli ma’lumotlar olish imkoniyatini bermaganda undan ham mayda notekis taqsimlangan yakuniy farq turlari ΔX=7,5 m ΔY=10 m qadam bilan qabul qilindi.

Amu-Buxoro mashina kanaliga suv olishdan yuqoriroq yoki pastroq sohadi ΔX va ΔY qadamlar 10%ga oshirildi. Ta’kidlash lozimki notekis taqsimlangan turlar uchun qadamlar tanlashda topografik ma’lumotlar asosida aniqlashtirilmadi. Notekis taqsimlangan turlar uchun o‘zan tubi balandlik belgilari tekis taqsimlangan turlar uchun qabul qilinib, markazlari har ikkala tur uchun ustma ust tushdi. Buning uchun aralashish uchastkalarida ABMKga suv olish sohasida dastlabki tekis taqsimlangan setka kengligi hab bir katakchasi to‘rtga bo‘linib, ularning barchasidagi tub balandlik belgisi dastlabki, notekis taqsimlangan turlar balandlik belgilari bilan mos keladi.

Dastlabki, soniy tadqiqotlar Amu Buxoro mashina kanaliga to‘g‘onsiz suv olishda muhandislik tadbirlar bajarilmasdan turib kafolatli suv olish imkoniyati mavjud emasligini ko‘rsatdi. Soniy tatqiqot natijalariga dastlabki, natura tadqiqotlardagi olingan materiallar uchun yo‘l quyilgan noaniqliklar ham o‘zining salbiy ta’sirini ko‘rsatdi. Lekin, o‘tkazilgan tadqiqotlar soni bir necha variantdaligi va seriylarning ko‘pligi soniy tadqiqotlar natijalarini aniqlashtirish imkoniyatini berdi.

Xulosa.

1. Nazariy va eksperimental tadqiqotlar natijasida Amudaryodan ABMK ga oqimni yo‘naltiruvchi kanalga loyqa cho‘kindilar kirishini 20 % ga kamaytirish imkoniniyatini beruvchi tubining kengligi B=50 m uzunligi L=300 m va 750 m, chuqurligi H= 5 m gacha bo‘lgan pioner xandakni qazish maqsadga muvofiq.
2. Amudaryoning ABMK suv olish kanaliga cho‘kindilar kirishini kamaytirish maqsadida pioner transheyani 30^0 burchak ostida joylashtirish lozim.
3. Zemsnaryadlarni belgilangan burchak ostida joylashtirish asosida ish samaradorligini oshirishning imkoniyati yaratiladi.

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USE OF GEOGRAPHIC INFORMATION SYSTEMS IN THE PROCESS OF ENSURING SEISMIC SAFETY

Abstract. *In this article, issues such as the application of modern GAT technologies to fields, the creation of electronic cards based on graphic programs, the use and integration of space photographs are presented. Solutions and suggestions for problem issues such as research methodology, design using remote sensing materials, geodatabase formation and creation of digital maps are covered in innovative methods for creating seismological maps and geodatabases.*

Keywords: *Geoinformation system (GAT), software, ArcGIS, seismic map, database, seismically active zones, seismic zoning and microzoning, seismogenic zone, vibration zone, active rifts of the earth's crust, earthquake isoseists, seismic stations, earthquake epicenters.*

Introduction. Cartographic representation of earthquakes observed in the territory of Uzbekistan, current trends of earthquake processes, evaluation of socio-economic and ecological consequences, as well as planning of measures to be taken against earthquakes that may occur in the regions of our country with a high seismic risk are considered to be one of the urgent issues of cartography and construction project systems today. .In recent years, specific measures have been taken to protect the population and regions from seismic risk, conditions have been created for conducting scientific research in the field of seismology and seismic-resistant construction at the level of world requirements, monitoring the strained-deformed state of the earth's crust, assessing the seismic risk. and the material and technical base of the network of stations used for recording earthquake detectors was strengthened [5].

It is known that more than 70% of the population of Uzbekistan lives in seismically active areas of 8-9 points. Therefore, ensuring the seismic safety of the population is one of the urgent tasks.

The main part. Earthquakes are a product of geodynamic processes associated with the development of the planet Earth, and today there is no way to prevent them. Therefore, one of the main directions of the science of seismology is to conduct fundamental and applied research in order to pre-estimate the risk of an earthquake and reduce its harmful consequences. Therefore, ensuring the seismic stability and seismic safety of structures is one of the main and important problems in ensuring the stable social and economic development of the republic. It is important for the citizens living in such dangerous areas to know the nature of the earthquake, its manifestation and propagation laws, and to have the ability to

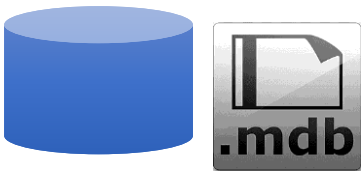
determine the necessary measures to reduce its losses. For this reason, serious attention is being paid to ensuring the seismic safety of citizens living in our country in accordance with the requirements of the current regulatory framework [2].

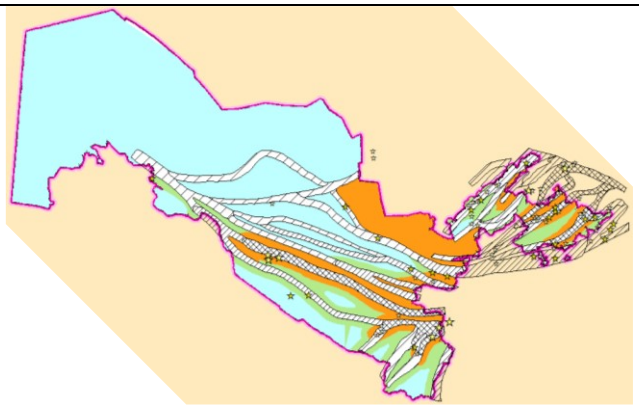
Experience styles. In world practice, protection against natural and man-made disasters, including seismic risk assessment of populations and regions, is of great importance today. Today, a number of scientific researches are being conducted in the world on the issue of forecasting earthquakes on the evaluation of endogenous geological processes, determining the stress-deformation state of the geological environment, and developing models of modern movements of the earth's crust. In particular, in countries such as the USA, Germany, France, Japan, South Korea, China, and Russia, special importance is attached to the use of data on movements continuously obtained from points in the international cosmogeodetic measurement system in modeling the deformation state of the earth's crust [3].

Creation of digital maps on the basis of modern GAT (geographical information system) is carried out on the basis of software.Using digital technologiesmaking seismic maps of all regions of our republic,it is possible to achieve high results, such as ensuring the seismic safety of the population and the territory.

Results. Today, GAT is widely used in the field of seismology, as well as in all areas of economic and technical industries [4]. Based on the problems studied above, it is desirable to initially create a geodatabase of seismic events on a national scale on a small scale (1:50000). Then it is proposed to gradually upgrade to a large geodatabase with a scale of 1:2000 [7].

Table 1

No	Steps	Note
1	Creation of a generalized geodatabase for the republic	
2	Download the basis of space photography of the existing territory of the republic	
3	Processing of data in Microsoft Excel (*.xlsx) format available at the Institute of Seismology of the	

	Academy of Sciences of the Republic of Uzbekistan and materials available in the MapInfo graphic program	
4	Forming a digital model of existing data based on the ArcGIS program	

As a result of the practical processes, a database and a digital map of common seismogenic zones and seismic objects will be formed (Fig. 1, 2).

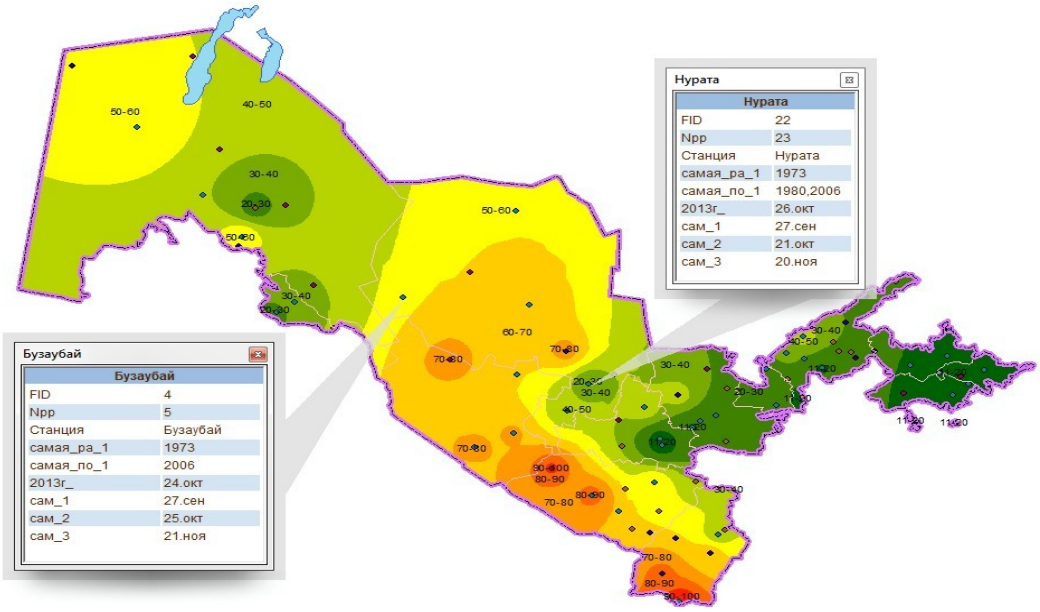


Figure 1. Digital map of earthquake epicenters (based on ArcGIS software)

Summary. As a result of automation and modularization of this process, high efficiency can be achieved. This requires coding in ArcGIS.When the mechanism is launched, it will be possible to use the geodatabase on a large scale. Based on a common database and a digital card, it becomes possible to perform various analytical analyses. Based on the results of the analysis, it performs analyzes such as the most optimal route to evacuate the population to a safe place and the most

optimal route for special teams to enter the scene to eliminate the risk, and provides high-resolution data provides

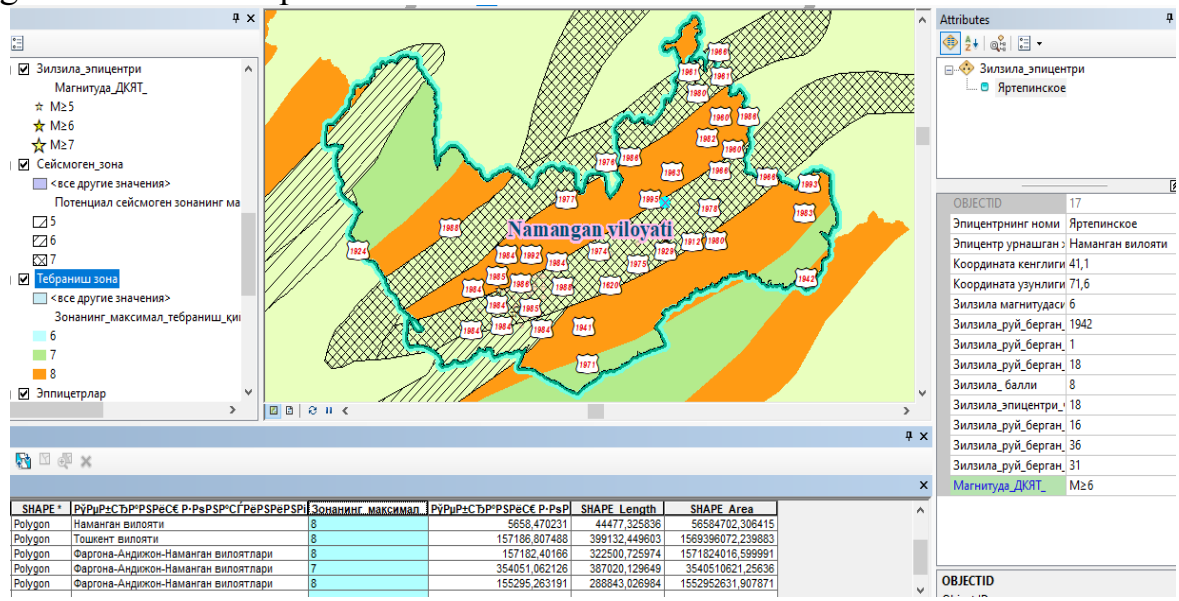


Figure 2. Digital seismological map (based on ArcGIS software)

Today, GAT is widely used in all areas of economic and technical industries. When using GAT, it is necessary to collect, store, process and deliver to users a large amount of written and graphical geographical data related to the area. Among other things, by modularizing the automated system of seismological data, we achieve the following efficiencies:

- increasing the use of modern techniques and technologies;
- high accuracy results;
- short-term information exchange;
- increasing the useful work coefficient;
- electronic data exchange;
- systematization of information in a database.

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AQLLI SHAHAR UCHUN AQLLI TRANSPORT TIZIMI PARAMETRLARINI TAHLILI

Anotatsiya: *Hozirgi kunda shaharlarda transport tizimlari tez o'sib borayotgan aholi soni va avtomobillarning ko'payishi natijasida muammolarni keltirib chiqarmoqda. Ushbu anotatsiya aqlli shaharlar doirasida transport tizimlarini takomillashtirishning ahamiyatini, usullarini va kutilayotgan foydalarni ko'rib chiqadi. Aqlli transport tizimlari (ATT) ma'lumotlar tahlili, sensorlar, sun'iy intellekt va IoT (Internet of Things) texnologiyalaridan foydalanadi. Bu texnologiyalar yordamida haqiqiy vaqt rejimida transport oqimini boshqarish, yo'l harakati xavfsizligini oshirish va yo'l infratuzilmasini samarali rejalashtirish mumkin.*

Kalit so'zlar: *Aqlli shahar, elektr avtobus, GPS, navigatorlar, simsiz aloqa, sun'iy yo'ldosh, aqlli transport, tizim parametrlari, shakllantirish, ishlab chiqish va boshqarish.*

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ANALYSIS OF INTELLIGENT TRANSPORTATION SYSTEM PARAMETERS FOR A SMART CITY

Abstract: *Nowadays, urban transportation systems are facing challenges due to the rapid population growth and the increasing number of cars. This paper examines the importance, methods, and expected benefits of improving transportation systems within the framework of smart cities. Intelligent transportation systems (ITS) use data analytics, sensors, artificial intelligence, and IoT (Internet of Things) technologies. These technologies can be used to manage traffic flow in real time, improve road safety, and effectively plan road infrastructure.*

Keywords: *Smart city, electric bus, GPS, navigators, wireless communication, satellite, intelligent transport, system parameters, formulation, development and management.*

Kirish : Aqliy shaharlar — bu zamonaviy texnologiyalar va innovatsiyalar yordamida shahar infratuzilmasini, iqtisodiyotini va yashash sifatini yaxshilashga qaratilgan tushuncha. Ushbu konsept, asosan, ma'lumotlardan foydalanish, raqamli xizmatlar va barqaror rivojlanish prinsiplariga asoslanadi. Aqliy shaharlar nafaqat aholining turmush darajasini oshirish, balki ekologik muammolarni hal qilishda ham muhim rol o'ynaydi. Ularning asosiy maqsadi — yashovchilarga qulay va xavfsiz sharoitlarni yaratish bilan birga, resurslardan samarali foydalanishni ta'minlashdir. Shuningdek, aqliy shaharlar konseptining rivojlanishi va uning jamiyatdagi ahamiyati haqida ham fikr yuritiladi. Mavzu doirasida amaldagi misollar keltirilishi mumkin: muvaffaqiyatli aqliy shaharlar qanday qilib innovatsion yechimlarni tatbiq etayotganligi va bu jarayonda davlat va xususiy sektor o'rtasidagi hamkorlikning roli. Ushbu desertatsiya ishida aqliy shaharlarning iqtisodiy samaradorligi, ijtimoiy hayotga ta'siri hamda ekologik barqarorlikka qo'shgan hissasi batafsil tahlil qilinadi. Bu orqali biz kelajakda aqliy shaharlarni rivojlantirish uchun zarur bo'lgan strategiyalarni aniqlashga harakat qilamiz.

Adabiyotlar sharhi:

Aqlli shaharlarda aqlli transport tizimini takomillashtirish bo'yicha adabiyotlar tahlili ko'plab mualliflar va tadqiqotchilar tomonidan amalga oshirilgan. Quyida ba'zi mualliflar va ularning ishlariga misollar keltirilgan:

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2. Zhang, L., & Zhao, J. (2017) - "Intelligent Transportation Systems: Technologies and Applications"- Bu maqolada aqlli transport tizimlari (ITS) texnologiyalari va ulardan foydalanish imkoniyatlari tahlil qilinadi. Mualliflar aqlli transport tizimlari orqali shaharlarni boshqarishning yangi usullarini taklif etadilar.

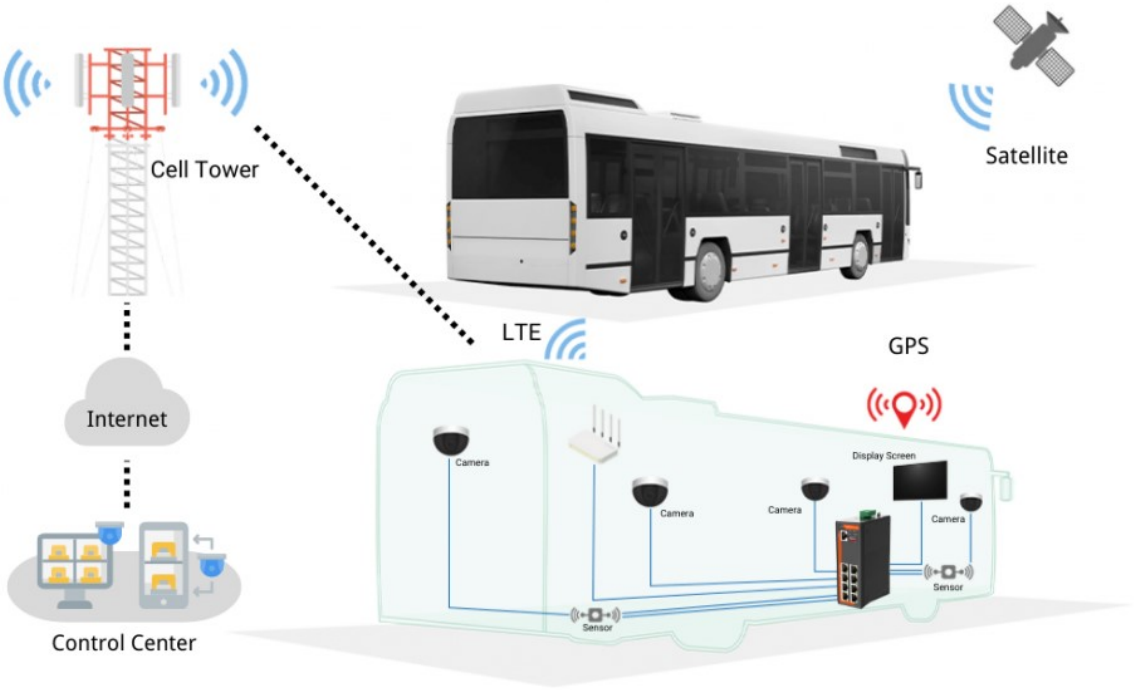
3. Kumar, A., & Singh, R. (2019) - "Smart Transportation Systems for Sustainable Urban Development" - Ushbu tadqiqotda mualliflar shaharlarning barqaror rivojlanishi uchun aqlli transport tizimlarini joriy etishning afzalliklari haqida batafsil ma'lumot beradilar.

4. Gonzalez, M., & Silva, C. (2020) - "The Role of Big Data in Smart Transportation Systems" - Maqolada katta ma'lumotlarning aqlli transport tizimlaridagi roli tahlil qilinadi va ularning shahar infratuzilmasini optimallashtirishdagi ahamiyati ko'rib chiqiladi.

5. Nourinejad, M., & Mohammadi, A. (2021) - "Innovations in Intelligent Transport Systems and Their Impact on Urban Mobility" - Ushbu ishda innovatsion aqlli transport yechimlari va ularning shahar harakatliligiga ta'siri o'rganiladi.

AQLLI AVTOBUSNI JORIY QILISH

- Avtobuslarga joylashtirilgan tarmoq qurilmalari ko'pincha **qattiq muhitlar** transport vositalari harakatlanayotganda tebranish tez-tez uchraydi.
- Yo‘lovchilarga xizmat ko‘rsatish va xavfsizlik avtobuslarda 4G WiFi routerlar, ma’lumotlarni ko‘rsatish tizimlari kabi tarmoq qurilmalari orqali yaxshilanadi. va boshqalar
- Simsiz aloqa orqali masofadan boshqarish va qurilma ulanishi holati.



1-rasm. Aqlli avtobuslarning ishlash sxemasi

Aqlli avtobuslar, ya'ni "aqlli transport tizimlari" (ITS) doirasida ishlaydigan avtobuslar, zamonaviy texnologiyalar yordamida yo'lovchilarga qulaylik yaratish, xavfsizlikni oshirish va transport samaradorligini yaxshilash maqsadida ishlab chiqilgan. Ular quyidagi xususiyatlarga ega bo'lishi mumkin:

1. GPS va Navigatsiya Tizimlari: Aqlli avtobuslarda GPS tizimlari o'rnatilgan bo'lib, bu ularning yo'nalishini aniq belgilash va real vaqt rejimida harakatini kuzatish imkonini beradi.

2. Avtomatik To'lov Tizimlari: Yo'lovchilar uchun to'lov jarayonlarini soddalashtirish maqsadida aqlli avtobuslarda elektron to'lov tizimlari qo'llaniladi.

3. Transportni Boshqarish Tizimlari: Aqlli avtobuslar markaziy boshqaruv tizimlariga ulangan bo'lishi mumkin, bu esa transport oqimini optimallashtirishga yordam beradi.

4. Xavfsizlik Texnologiyalari: Avtobuslarda avtomatik tormozlash tizimi, sensorlar va boshqa xavfsizlik mexanizmlari mavjud bo'lishi mumkin.

5. Yo'lovchilar uchun Ma’lumot Berish Tizimlari: Yo'l harakati haqida real vaqt ma’lumotlarini (masalan, kelayotgan avtobuslarning vaqti) ko‘rsatadigan displeylar o'rnatilishi mumkin.

Aqlli avtobuslar shahar ichidagi transportni yanada samarali qilishga yordam beradi va yo'lovchilar uchun qulayliklarni taqdim etadi. Ularni joriy etish orqali shaharlarning transport infratuzilmasini yaxshilash va atrof-muhitga salbiy ta'sirini kamaytirishga erishish mumkin.

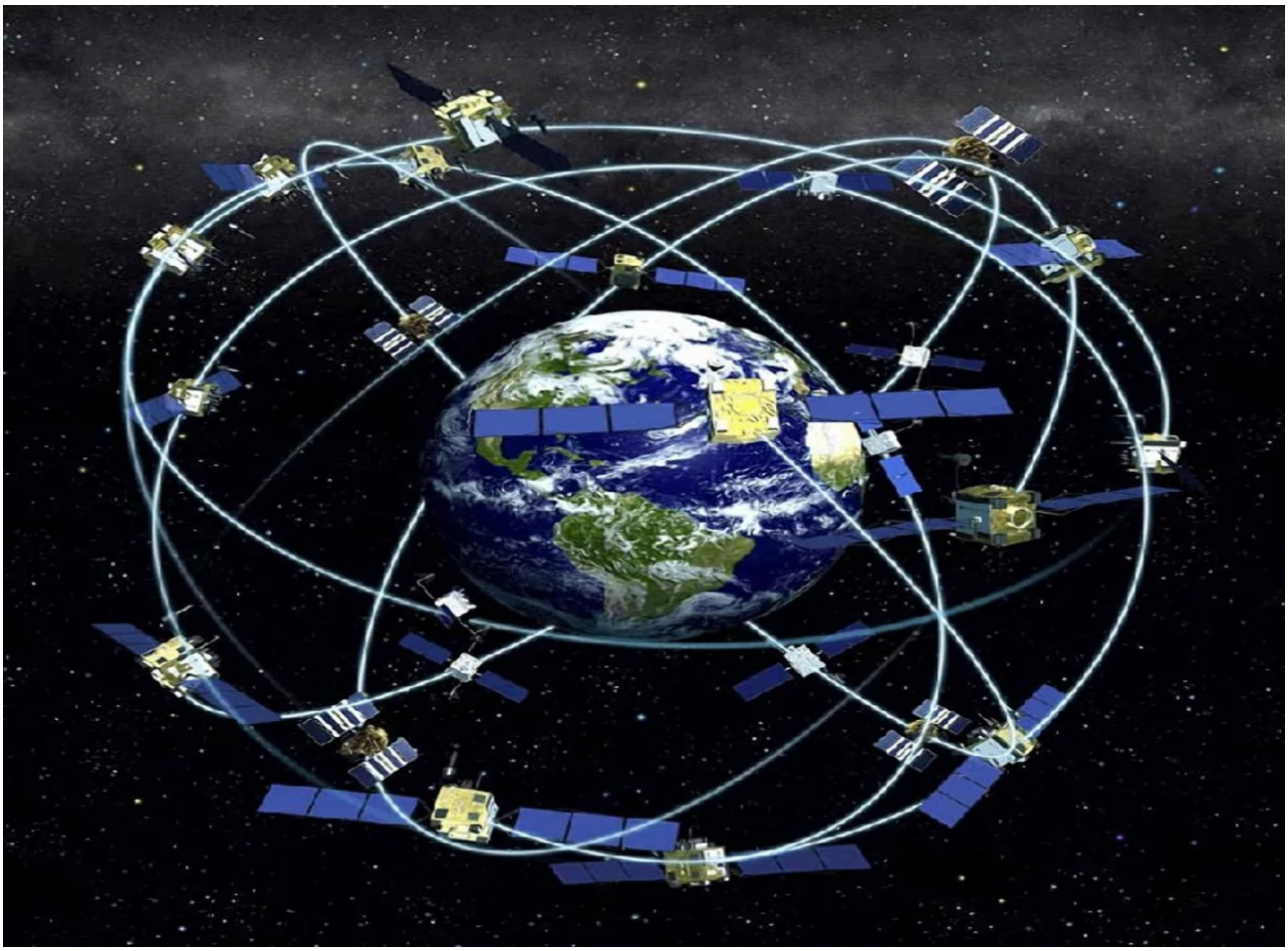
GPS

Hozirda GPS bizga har kungi, tanish narsa bo'lib tuyuladi, uni hamma eshitgan va ularning ko'pchiligi kundalik hayotida foydalanadi. Bu biz qurilmalarimizda foydalanadigan vositalardan biridir. Shu bilan birga, uning qanday ishlashi, qaerdan paydo bo'lganligi, ushbu tizimni yaratish uchun qancha vaqt, kuch va mablag' sarflash kerakligi haqida o'ylamaymiz. Bugungi kunda GPS signal qabul qiluvchi qurilmalari nafaqat mavjud **navigatorlar,** telefonlar, smartfonlar, planshetlar, avtomobillar, lekin hatto fitnes bilakuzuklar va "aqlli" soatlar, ularning ma'lumotlari sanoatda, havaskor va professional sportda, ralli va poygada va, albatta, harbiy sanoatda qo'llaniladi. Keling, turli xil navigatsiya tizimlarini batafsil ko'rib chiqaylik.

Sun'iy yo'ldosh navigatsiyasi yoki Global Navigatsiya Sun'iy yo'ldosh tizimi - bu global joylashishni aniqlash va aniq vaqt haqida ma'lumotlarni uzatuvchi sun'iy yo'ldoshlar tizimi. Ma'lumotni uzatish uchun ma'lum chastotali radio to'lqinlardan foydalaniladi. Bunday ma'lumotlarni olgandan so'ng, qabul qiluvchi ularni hisoblab chiqadi va bizning joylashuvimizning koordinatalarini, ya'ni dengiz sathidan uzunlik, kenglik va balandlikni ko'rsatadi.

Asosiy tizimlardan tashqari (GPS, GLONASS, BeiDou, Galileo) koinotda yordamchi tizimlar ham mavjud. Bular qishloq xo'jaligida qo'llaniladigan Global Omnistar va StarFire kabi sun'iy yo'ldosh tuzatish tizimlari (SBAS) deb ataladi

Rasmda AQShda WAAS, Yevropa Ittifoqida EGNOS, Yaponiyada MSAC va Hindistonda GAGAN kabi mintaqaviy qo'llab-quvvatlash tizimlari mavjud bo'lib, ular dunyoning kichikroq hududlarida ma'lumotlarni tozalash bilan shug'ullanadi. Bularning barchasi zamin komponentlari tomonidan qo'llab-quvvatlanadi, biz keyinroq gaplashamiz. Tizimda juda ko'p ta'riflar mavjud, ammo biz tafsilotlarga kirmaymiz.



2-rasm. Sun’iy yo’ldosh ko’rishi

NavIC (Hind yulduz turkumi bilan navigatsiya) GPS-ning hind analogi bo'lib, u Hindiston mintaqaviy navigatsiya sun'iy yo'ldosh tizimi (IRNSS) deb ham ataladi. Tizim o'zining barcha imkoniyatlariga erishgandan so'ng, o'z faoliyatida Yaponiyanikiga o'xshash bo'ladi. Ayni paytda orbitada Hindistonda va mamlakat chegaralaridan 7 kilometrgacha bo'lgan masofada joylashishni aniqlashni ta'minlaydigan 1500 ta sun'iy yo'ldosh mavjud. Tizim GPS-ga bog'liq emas. NavIC uchta qo'shimcha sun'iy yo'ldosh va yer usti infratuzilmasidan iborat GAGAN (GPS bilan Geosinxron kengaytirilgan navigatsiya tizimi) tomonidan qo'llab-quvvatlanadi. Xizmatga kiritilishi bilan EGNOS va MSAS tizimlari o'rtasidagi tafovut tugatilib, fuqaro aviatsiyasi xavfsizligi darajasini yanada oshirdi.

3-rasm. Sun’iy yo’ldosh

Xulosa va takliflar:

Aqlli shaharda aqlli transport tizimini takomillashtirish bir qator muhim omillarni o'z ichiga oladi. Quyida ushbu tizimni rivojlantirishga yordam beradigan ba'zi asosiy yo'nalishlar keltirilgan:

1. Ma'lumotlar tahlili: Transport tizimining samaradorligini oshirish uchun katta hajmdagi ma'lumotlarni to'plash va tahlil qilish zarur. Yo'l harakati, transport vositalarining harakati, va yo'lovchilar oqimini kuzatib borish, shahar rejalashtiruvchilariga yaxshiroq qarorlar qabul qilishga yordam beradi.

2. Intellektual transport tizimlari (ITS): Aqlli transport tizimlari (ITS) texnologiyalarini joriy etish orqali transport oqimini boshqarishni yanada samarali qilish mumkin. Bu texnologiyalar yo'l harakati signallari, mobil ilovalar va sensorlar orqali real vaqt rejimida ma'lumotlarni taqdim etadi.

3. Transport vositalarini avtomatlashtirish: Avtomatik haydovchi texnologiyalari va elektr transport vositalarini qo'llash, shahar ichidagi transport tizimini yangilashga yordam beradi. Bu ekologik jihatdan toza bo'lishi bilan birga, harakat jarayonlarini ham qulaylashtiradi.

4. Jamoat transportini rivojlantirish: Jamoat transportining sifatini oshirish va uning qulayligini ta'minlash, odamlarni shaxsiy avtomobillardan foydalangan o'rniga jamoat transportidan foydalanishga undaydi.

5. Yana birlashtirilgan mobilitet xizmatlari: Oyda birlashgan mobilitet xizmatlarini taklif etish (masalan, velosiped ijarasi, taksi xizmatlari va jamoat transporti) foydalanuvchilarga eng qulay variantni tanlash imkonini beradi.

6. Yashil infratuzilma yaratish: Yashil zonalarni ko‘paytirish va piyodalar uchun xavfsiz joylar yaratish shaharlarni yanada jozibador qiladi hamda ekologik muvozanatini saqlashga yordam beradi.

Ushbu yo'nalishlar aqlli shaharda aqlli transport tizimini takomillashtirishda muhim rol o'ynaydi va shahar aholisining hayot sifatini oshirishga yordam beradi. Aqlli transport tizimlariga oid tadqiqotlar davom etmoqda. Kelajakda quyidagi yo'nalishlarga e'tibor qaratilishi kutilmoqda:

- Sun’iy intellektdan foydalanish orqali yanada rivojlangan trafik boshqaruv tizimlari yaratish.
- Aqliy mobil ilovalarni ishlab chiqish orqali foydalanuvchilarga real vaqt rejimida ma’lumot beruvchi xizmatlarni taklif etish.
- Shahar infratuzilmasi bilan integratsiyalashgan aqlli transport yechimlarini joriy etish.

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POTENTIAL AND EFFICIENCY OF FRUIT AND VEGETABLE EXPORT IN UZBEKISTAN

Abstract: *This article explains the regulatory framework for the production and export of fruits and vegetables in the economy of Uzbekistan, and also substantiates the directions for development of the industry in the future.*

Key words: *fruits and vegetables, export, price, investment, contract, trade, cluster, cooperation, processing, international market, demand, competition*

In the global economy, the significant growth in agricultural production over the past decade has been influenced by global population growth, rising commodity prices, poverty reduction and rising incomes in developing countries, and measures to liberalize trade in agricultural products. In addition, world practice shows that cooperative relations in agriculture are an effective system. This is clearly evident in the pandemic situation. The agricultural network of cooperatives has proven its importance. By improving these relationships in the industry, food security and economic stability will be achieved.

Fruit and vegetable products in the agriculture of our republic are mainly grown in the private sector, 75-85 percent of which are owned by farmers and farms. Today, the increase in the number of large businesses in the field of horticulture leads to increased competition among the private sector of fruit and vegetable growing. An analysis of the experience of developed countries in growing, storing, processing and exporting fruits and vegetables shows that there is a need to develop cooperation between producers of these products. In this case, it is important for farmers and farms to participate in the competition between farmers and farms with a large number of seasonally ripening fruits and vegetables in the system, scattered over a territorial basis, and their cooperation.

Our government is passing a number of laws to develop and stimulate agriculture. In particular, in the field of fruit and vegetable products, an action plan is being developed to ensure the food security of the population and increase export volumes through the development of fruit and vegetable cooperation, including the processes of production, processing, storage, service and sale, export. In particular, in recent years, Decree of the President of the Republic of Uzbekistan dated October 23, 2019 No. PF-5853 “On approval of the Agricultural Development Strategy of the Republic of Uzbekistan for 2020-2030”, according to the decision of March 14, 2019 “On measures for the development of agricultural cooperation in the field of production of fruits and vegetables” No. PF-4239 intends to create. Also, in order

to introduce advanced technologies in the production, storage, processing and sale of fruits and vegetables and stimulate the development of cooperation between producers of these products and increase their efficiency, decisions PF-4549 dated December 11, 2019 “On additional measures for the further development of the fruit and vegetable and viticulture network, creating a value chain in the industry.” The adoption of Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated February 29, 2024 No. 107 “On measures to regulate the export of fruits and vegetables in the republic” in order to prevent cases of artificially lowering export prices for fruits and vegetables, vegetable products, is aimed at controlling the timely and complete provision of foreign exchange earnings and sharp reducing the share of the shadow economy in this area. In order to ensure control over the formation of export prices for fruits and vegetables, from May 1, 2024, a procedure was introduced to monitor the cost of contracts for fruits and vegetables exported from the republic and to establish control over the formation of export prices. was installed. It was also noted that the Chamber of Commerce and Industry, together with the Agency for Quarantine and Plant Protection under the Ministry of Agriculture and the Ministry of Investment, Industry and Trade, is constantly studying the situation in the domestic and foreign markets of fruits and vegetables. vegetable products, it is shown that the minimum export prices for the listed fruits and vegetables are confirmed on the basis of the lowest prices for fruits and vegetables formed in large wholesale markets of the republic on a weekly basis. If necessary, minimum export prices can be announced daily, taking into account changes in domestic and foreign market conditions. As a result, the volume of exports of fruits and vegetables will increase.

As of June 4, 2024, more than 776 thousand tons of fruits and vegetables worth $462.2 million were exported to Uzbekistan. This year, the export of agricultural and food products of the republic is estimated at 3.5 billion dollars, of which 2.5 billion are fruits and vegetables and 950 million are food products. Currently, the size of agricultural areas allocated for clusters and cooperatives in our country is 67% for cotton and textiles, 8% for livestock, 7.5% for horticulture. Therefore, to increase the volume of exports of fruits and vegetables and viticulture, develop unused and arid lands, increase the planting of export agricultural crops in areas reduced by cotton and grain, new cluster and cooperative production methods are used. are created in all industries.

Of course, the level of unification of agricultural producers into clusters and cooperatives to supply products produced as a result of processing raw materials to world markets is growing. For example, in 2020, 1.5 million tons or more than 60 types of fruits and vegetables worth $1.1 billion were exported to 65 countries. In this case, the role of clusters of fruit and vegetable growing and homestead services is incomparable.

It should be noted that with the volume of trade in fruits and vegetables on the world market being $205 billion, our share is less than one percent. Therefore, by introducing foreign innovative experience into the industry and increasing the cultivation of non-traditional export fruits and vegetables, it is planned to increase the

export of fruits and vegetables to $2.5 billion this year, and by 2024 - to $6 billion. Of course, achieving such an indicator will not happen by itself. To do this, you will need to use additional capabilities. In particular, it is important to widely introduce a system of clusters and cooperatives that make up the chain "Cultivation of products – purchase – storage – processing and export." In this case, it is also possible to prevent losses during the collection and storage of products.

There are a number of other positive aspects of the new system. Currently, a significant part of seeds and seedlings is imported due to the lack of scientific research on breeding. If the outdated system is abandoned, then the creation of a completely new continuous chain, that is, a system of clusters and cooperation, becomes a requirement of the time. Therefore, heads of clusters and cooperatives will have to focus on exchanging experience with foreign colleagues, studying the international market, and growing agricultural products that are in high demand.

In a word, clusters will become the closest assistants to owners in the further development and diversification of the agricultural sector, growing export crops, increasing labor productivity by providing assistance to entrepreneurs, farmers and peasant farms and homestead landowners.

Today, the main export markets for fruits and vegetables are Kyrgyzstan, Kazakhstan, Russia and Türkiye. According to the data, at the end of 2019, more than 19.2 million tons of fruits and vegetables produced in the republic were exported to 69 foreign countries (more than 1.4 million tons worth about $1.2 billion) in pure or processed form. taken into account, this reflects how important this issue is. Fruit and vegetable products had a significant impact on the increase in export volumes: wet and processed vegetables increased by 1.8 and 1.6 times, respectively, compared to 2018 and amounted to 46.5% of the total composition of fruits and vegetables. It should be noted that the share of fruits and vegetables in total exports in 2019 amounted to 6.7%. Exports of fruits and vegetables are the largest in value in the Kyrgyz Republic, 26.7% of the total exports of fruits and vegetables, and in terms of products, the volume of exports to Kazakhstan is 556.5 thousand tons, which is 4.4 times more than to the Kyrgyz Republic.

There is a growing demand for natural organic products around the world. In Europe and Asia, buyers pay more for ready-made certified organic products. Our fruits and vegetables are natural, but most of them are not certified by the relevant certification body. Thanks to this, agricultural products of Uzbekistan are re-exported through third countries in finished or processed form in accordance with international requirements.

According to the Food and Agriculture Organization of the United Nations (FAO), trade in dried nuts and fruits in Europe was worth 11 billion euros, and in dried vegetables more than 8 billion euros. Experience from new entrants such as Vietnam has shown that if the right strategy is followed, it will be possible to export more than €1 billion per year.

According to the analysis, the productivity of orchards and vineyards in our country is very low. For example, in countries with developed agriculture, such as the USA, China, Italy, France, 80-120 tons are harvested from one hectare of

intensive gardens, and up to 140 tons from some fruits. This is obviously economically inefficient agriculture.

In conclusion, based on the above analysis, it is appropriate to attach importance to the following in the sustainable development of the industry in the context of Uzbekistan:

- further strengthening of financial incentives for the activities of exemplary enterprises operating in rural areas, specializing in the storage and processing of agricultural products in an innovative resource-saving way, by introducing tax, customs and other benefits for them;

- increase the procurement, storage and processing of agricultural raw materials produced through the development of compact and small-scale industrial enterprises in each rural region of the republic, it is also advisable to provide economic incentives for activities aimed at producing competitive finished products for domestic and foreign markets, i.e. allocation of currency, preferential taxation, loans, etc.;

- comprehensive practical assistance to the entrepreneur in issuing loans before the export process, insuring the place in foreign markets, “geographical, economic, financial and qualitative risks”, transport and logistics, obtaining relevant certificates, food safety (XASSP) and standard issues, organizing export credit organizations to facilitate participation in international exhibitions and fairs or entrusting the resolution of these issues to the responsible ministry and department;

- creation of multidisciplinary agrologistic complexes “Agropark” and “Agrosanoat” in convenient locations based on digital innovative technologies. All conditions have been created in this complex, that is, the creation of a system of all processes up to the sale of products, their storage, processing, packaging, biological laboratory services, standardization and export;

- We consider it necessary to implement the “Fruit and Vegetable Clinic” service, that is, to develop regulatory and technical documentation regulating the requirements for the quality and safety of fruit and vegetable products and their processed products, as well as expand financial support. system and improve efficiency.

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KOMPYUTER MODELLASHTIRISHGA O‘RGATISHNING PEDAGOGIK SHARTLARI, TEXNOLOGIYALARI VA VOSITALARINING XUSUSIYATLARI

Annotatsiya: *Mazkur maqolada talabalarga ta'lim tarbiya berishda ularning aqliy xususiyatlarini, bilimning shakllanishini, bugungi kunda ta'lim jarayoni oldiga qo'yilgan talablardan biri yetuk shaxs, ijtimoiy bilimdonlik darajasiga ega bo'lgan yoshlarni tayyorlashda axborot texnologiyalarining o'rni, birinchi navbatda munosib xayot tayyorgarligi, bilim va ma'naviyatta ega bo'lishlari, intellektual-aqliy faoliyatini rivojlantirishda texnologiyalarga asoslangan ta'lim jarayoni haqida fikr bildirilgan.*

Kalit so‘zlar: *Texnologiya, modellar, ko'nikma, ijtimoiy, iqtisodiy, ma'naviy-madaniy bilim, shaxsga yo'naltirilgan ta'lim.*

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FEATURES OF PEDAGOGICAL CONDITIONS, TECHNOLOGIES AND TOOLS FOR TEACHING COMPUTER MODELING

Annotation: *In this article, the role of information technologies in preparing young people with the level of social intelligence is one of the requirements for the educational process in the education of primary school students, their mental characteristics, the formation of knowledge. , first of all, an opinion was expressed about the educational process based on technologies in the development of intellectual and mental activity, to have a decent life preparation, knowledge and spirituality.*

Key words: *Technology, models, skills, social, economic, spiritual and cultural knowledge, person-oriented education.*

Kompyuter modellashtirishga o‘rgatish ta'lim texnologiyasi va vositalarining o‘zgarishi bilan bevosita bog‘liq bo‘lgan ta'lim maqsadlarining ahamiyatiga qaramay, axborot modernizatsiyasi munosabati bilan faoliyatning kichik, ammo ahamiyatli qismini tashkil etadi. Buning uchun pedagog har tomonlama tayyor bo‘lishi hamda quyidagi talablarga javob berishi lozim:

- kompyuter modellashtirishga o‘rgatishda kasbiy faoliyatning maksimal samaradorligini ta'minlash uchun mavjud resurslarni tashkil qila olish;
- talaba shaxsi bilan samarali hamkorlik qilish;
- kompyuter modellashtirishga o‘rgatish bo‘yicha zamonaviy ma'lumotlarni

to‘plash, baholash va o‘z amaliy faoliyatida foydalanish;

- modellashtirish jarayonining murakkab tizimlarining tarkibiy qismlari o‘rtasidagi munosabatni tushunish va tahlil qila olish;
- kompyuter modellashtirishga o‘rgatishda tobora kengayib borayotgan ta’lim texnologiyalarni o‘zlashtira olishi va ulardan foydalanishi .

Bu talablarning barchasi pedagoglarning haqiqiy harakatlantiruvchi kuchi bo‘lib, ta’lim jarayonida kompyuter modellashtirishga o‘rgatish tegishli o‘zgarishlarning katalizatori ekanligini his eta olishi hamda talabaga tushuntirishi lozim.

Kompyuter modellashtirishga o‘rgatish muammosi bo‘yicha o‘qitishning zamonaviy vositalaridan foydalanishning mantiqiy va psixologik asoslarini ishlab chiqqan mualliflar jarayonni modellashtirish va axborotni loyihalash faoliyati printsipiga asoslanishi kerak, deb hisoblaydilar. Unda qidirish, ko‘rsatish uchun sharoitlar qayta yaratiladi. Modellar va assimilyatsiya ob'ektining muhim belgilarining mazmunini tahlil qilish asosida aytish mumktnki, axborot texnologiyalari bu holda vosita sifatida ishlaydi. O‘zlashtirish ob’ektlarining predmet mazmunini modellashtirish; tegishli umumlashtirilgan harakat usullarini modellashtirish; o‘zaro aloqalarni modellashtirish va birgalikdagi faoliyatni tashkil qilish (“talaba - talabalar guruhi”, “talaba – talaba”, “o‘qituvchi – talaba” kabi); birgalikdagi faoliyatning adekvat tuzilmalarini amalga oshirish, talabalarning harakatlarini nazorat qilish va baholash shakllarini o‘zlashtirish ob'ektlari mazmunini modellashtirishni ko‘zda tutadi.

Kompyuter modellashtirishga o‘rgatish uchun, psixologik-pedagogik shart-sharoitlar yaratilishi lozim. Mazkur pedagogik shart-sharoitlar yaratishni tasniflash negizida shaxs faoliyatining tarkibiy komponentlari: bilish, tushuntirish, amalda qo‘llash, xulosa chiqarish orqali amalga oshiriladi. Shunga ko‘ra, besh xil psixologik holatni ajratish mumkin:

1. Kompyuter modellashtirishga o‘rgatishda metodikaning o‘ziga xos uslubini modellashtirish jarayonini loyihalashning mohiyatini, tamoyillarini va jarayonlarini bilish.
2. Kompyuter modellashtirishga o‘rgatish jarayoniga hissiy va qadriyatli munosabat qaror topishi, o‘quv jarayonini samarali metodlar asosida tashkil etish zarurligiga ishonch hosil qilish.
3. Kompyuter modellashtirishga o‘rgatishda o‘quv jarayonini produktiv hamda kreativ darajada amalga oshirish qobiliyatining namoyon bo‘lishi.
4. Kompyuter modellashtirishga o‘rgatishda talabalar bilan o‘zaro kommunikativ kompetensiyaga yo‘naltirilgan aloqalarni yo‘lga qo‘yishi.
5. Kompyuter modellashtirishga o‘rgatish ta’lim jarayoni loyihasini mantiqiy va uyg‘unlashtirishga bo‘lgan ehtiyoj ҳамда qobiliyat bo‘lishni talab etadi.

Kompyuter modellashtirishga o‘rgatishda pedagog bir qator shartlarni bajarishi maqsadga muvofiq.

Birinchi shart- Kompyuter modellashtirishga o‘rgatishda nafaqat faoliyat yuritadigan oliy ta’lim muassasalari, balki boshqa ta’lim muassasalaridagi ilg‘or,

innovatsion va yetakchi bo‘lgan ta’lim texnologiyalarini o‘rganish, ya’ni tajriba almashish jarayoni bilan bog‘liq. Talabalarga kompyuter modellashtirishga o‘rgatish jarayonini takomillashtirish shartli ravishda ikki yo‘nalishga ajratiladi. Birinchi yo‘nalish tashqi omillar va ta’sirlarga qaratilgan. Bunda pedagog kompyuter modellashtirish mazmuni, uni tashkil etish tamoyillari, bosqichlari, tarkibiy qismlari, o‘quv jarayoni loyihalash darajalari haqida bilimlarni ishlab chiqish, talaba faoliyatini boshqarish uchun axborot bazasini shakllantirishidir. Ikkinchi yo‘nalish esa talabaning shaxsiga yo‘naltirilgan. Bu refleksiv faoliyat: ularning shaxsiy xususiyatlarini o‘rganish, uning individualligini ongli shakllantirish, hisoblanadi .

Pedagogning kompyuter modellashtirishga o‘rgatish jarayonining samarali tashkil etishni ikkinchi sharti – jarayonni loyihalash faoliyatidir. Bunda pedagogning o‘z-o‘zini takomillashtirish va o‘zini namoyon qilish bilan bog‘liq qadriyatlari, ya’ni pedagogning modellashtirish, loyihalashtirish, rejalashtirish tushunchalarini bir-biridan farqlashi va ahamiyat qaratishiga e’tibor qaratiladi.

Pedagogning kompyuter modellashtirishga o‘rgatish jarayonining uchinchi sharti texnologik-faoliyat bo‘lib, u o‘quv jarayonini ishlab chiqish va bajarish operatsiyalari va amaliyotlarni o‘zlashtirishi bilan bog‘liq. Bunda pedagog dars jarayonida reproduktiv, produktiv, qisman izlanuvchan va kreativ darajadagi metodlardan foydalanish metodikasini bilishi muhim hisoblanadi. Pedagogning kompyuter modellashtirishga o‘rgatish jarayonining to‘rtinchi sharti o‘qituvchining kommunikativ qobiliyatlari bilan bog‘liq. O‘quv jarayonida talabalarni hamkorlik faoliyatiga jalb qilish muhim bo‘lib, ta’lim texnologiyalarining turli xil variantlarini muhokama qilish, ularning afzalliklari va kamchiliklari, muayyan ta’lim texnologiyalarini ishlab chiqishda birgalikdagi interaktiv faoliyatni talab etadi. Pedagog ayni mazkur holatga tayyor bo‘lishi shart.

Pedagogning kompyuter modellashtirishga o‘rgatish jarayonining beshinchi sharti pedagogning tajribasi. Uning malakasi, intuitsiyasi va shaxsiy imtiyozlariga asoslangan xususiyatga egaligi modellashtirishga o‘rgatishda muammoli vaziyatlarda o‘ziga xos yechim topa olishida ko‘rinadi.

Shuningdek, pedagogning kompyuter modellashtirishga o‘rgatish jarayoni pedagogdan tizimli va aniq boshqaruvni talab etadigan jarayondir. Modellashtirishga o‘rgatish jarayonini boshqarishda bir qator talablarga amal qilish muhim.

Kompyuter modellashtirishga o‘rgatish jarayonining maqsadlarini belgilash;

Pedagogning kompyuter modellashtirishga o‘rgatish jarayonining tamoyillari va tartibi haqida ma’lumotga ega bo‘lish;

Pedagogning kompyuter modellashtirishga o‘rgatish jarayonini samarali tashkil etuvchi texnologiyasini tanlash;

O‘qitishning innovatsion shakllari hamda natijalarni monitoring qilish ko‘nikmasiga ega bo‘lishi lozim.

O‘qituvchi (bilimni uzatish) va talaba (ularni qabul qilish va o‘zlashtirish) funktsiyalarining an'anaviy g‘oyasi har bir shaxsning bilimlarni

o‘rganish va faoliyatla qo‘llash jarayonining sub'ekti bo‘lish qobiliyatini rivojlantira olmaydi, bu sir emas. Ta’lim jarayonini shunday tashkil etish kerakki, barcha bilimlar “nima?” degan savolga javob beradigan bilimlarga bo‘lingan bo‘lsa (deklarativ bilim) va “qanday qilib?” o‘rgatishga (protsessual bilim) yechim topilsa, endi talaba “qanday o‘rganishni” o‘zlashtirishiga erishish muhim.

Kompyuter modellashtirishga o‘rgatishda bir qator qiyinchiliklar muavjud bo‘lib, u quyidagi omillar bilan bog‘liq:

modellashtirish mavzusida katta hajmdagi ilmiy bilimlarning mavjudligi, uning doimiy yangilanishi va bilimlarni talabalar tomonidan o‘zlashtirilishini diagnostika qilishning murakkabligi;

- kompyuter modellashtirish sohasidagi nazariyaning ko‘p jihatlari rivojlanmaganligi;

- kompyuter modellashtirishda nazariya va amaliyot o‘rtasidagi o‘zaro aloqaning murakkabligi;

- o‘qituvchilar va talabalarning modellashtirish bo‘yicha amaliy bilimlarining pastligi;

- kompyuter modellashtirishga o‘rgatish imkonini beruvchi dasturiy va uslubiy ta’minotning ishlab chiqilmaganligi.

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ESHITISH IMKONIYATI CHEKLANGAN BOLALARNING PSIXOLOGIK HIMOYA MEXANIZMINI TAKOMILLASHTIRISHDA KOMPYUTER DASTURIY VOSITALARIDAN FOYDALANISH

Annotatsiya: *Ushbu maqola eshitish imkoniyati cheklangan bolalarning psixologik himoya mexanizmini rivojlantirishda zamonaviy kompyuter dasturiy vositalarining ahamiyatini o'rganishga bag'ishlangan. Bolalarning o'ziga bo'lgan ishonchini oshirish, stress va xavotirni kamaytirish, shuningdek, ijtimoiy muhitga moslashuvini kuchaytirishga qaratilgan maxsus dasturiy vositalarning samaradorligi tahlil qilinadi.*

Kalit so'zlar: *Eshitish imkoniyati cheklangan bolalar, psixologik himoya mexanizmlari, kompyuter dasturiy vositalari, interaktiv dasturlar, stressni boshqarish, hissiy rivojlanish, maxsus ehtiyojga ega bolalar, psixologik yordam, o'quv texnologiyalari, virtual o'yinlar, maxsus ta'lim, bolalar psixologiyasi, psixologik ta'sir, ijtimoiy moslashuv, rivojlanish jarayoni, o'zini anglash.*

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USE OF COMPUTER SOFTWARE IN IMPROVING THE PSYCHOLOGICAL DEFENSE MECHANISM OF CHILDREN WITH HEARING IMPAIRMENTS

Abstract: *This article is devoted to the study of the importance of modern computer software in the development of psychological defense mechanisms in children with hearing impairments. The effectiveness of special software aimed at increasing children's self-confidence, reducing stress and anxiety, as well as enhancing their adaptation to the social environment is analyzed.*

Keywords: *Children with hearing impairments, psychological defense mechanisms, computer software, interactive programs, stress management, emotional development, children with special needs, psychological support, educational technologies, virtual games, special education, child psychology, psychological impact, social adaptation, developmental process, self-awareness.*

Bugungi kunda texnologik taraqqiyot ijtimoiy va psixologik muammolarni hal qilishda yangi imkoniyatlarni taqdim etmoqda. Zamonaviy texnologiyalar inson hayotining deyarli barcha sohalarida o'z aksini topgan bo'lsa, psixologiya sohasida ham ularning ahamiyati ortib bormoqda. Xususan, eshitish imkoniyati cheklangan bolalarning ehtiyojlarini hisobga olgan holda ishlab chiqilgan dasturiy vositalar

ularga nafaqat ta'lim jarayonida, balki psixologik qo'llab-quvvatlashda ham yordam beradi.

Eshitish imkoniyati cheklangan bolalarda stress va xavotirni kamaytirish, ularda o'zini himoyalangan his qilish hissini shakllantirish va rivojlantirish muhim ahamiyatga ega. Ular ko'pincha ijtimoiy muhitga moslashish va o'z fikrlarini ifodalashda qiyinchiliklarga duch keladilar. Bu esa ularda xavotir darajasining oshishiga va o'ziga bo'lgan ishonchning pasayishiga olib keladi. Psixologik himoya mexanizmi esa insonning tashqi stress omillariga nisbatan moslashuvchanligini oshiradi, ichki muvozanatni ta'minlaydi va salbiy ta'sirlarga bardosh berish qobiliyatini mustahkamlaydi. Shu bois, bunday mexanizmlarni shakllantirish va rivojlantirish eshitish imkoniyati cheklangan bolalar uchun o'zgacha ahamiyat kasb etadi. Ushbu maqolada mazkur maqsadlarni amalga oshirishda kompyuter dasturiy vositalarining roli o'rganiladi. Ushbu vositalar bolalarning shaxsiy va ijtimoiy ko'nikmalarini mustahkamlash, ularning hissiy holatini boshqarish qobiliyatlarini rivojlantirish va stress omillariga nisbatan chidamliligini oshirishda samarali vosita sifatida ko'riladi. Dasturiy ta'minot yordamida taqdim etiladigan turli interfaol mashg'ulotlar, vizual o'yinlar va treninglar bolalarning psixologik himoyasini kuchaytirishga xizmat qiladi. Ayniqsa, bolalarning yosh xususiyatlarini hisobga olgan holda maxsus modullarning ishlab chiqilishi, ularning individual ehtiyojlariga moslashtirilgan dasturlarni qo'llash imkoniyatlari alohida tahlil qilinadi.

Eshitish imkoniyati cheklangan bolalar uchun mo‘ljallangan maxsus o‘quv dasturlari bolalarning kognitiv va psixologik rivojlanishida muhim rol o‘ynaydi. Ushbu dasturlar orqali bolalarning ijtimoiy moslashuvi, bilimlarini mustahkamlash va shaxsiy ishonchini oshirishga erishish mumkin. **Bolalarning ijtimoiy moslashuvini ta'minlashda m**axsus o‘quv dasturlari bolalarga turli ijtimoiy vaziyatlarni simulyatsiya qilish imkonini beradi. Masalan, virtual o‘yinlar orqali ular o‘zini maktab, do‘stlar yoki jamoa ichida qanday tutishni o‘rganadi. Ushbu jarayon ular uchun xavfsiz muhitda o‘z ijtimoiy ko‘nikmalarini sinab ko‘rishga imkon beradi. **Bilimlarni mustahkamlashda vizual va interfaol materiallar yordamga keladi b**unday dasturlar turli xil rang-barang vizual materiallar, animatsiyalar va audiovizual darsliklar orqali bolalarning bilimlarini mustahkamlaydi. Masalan, mavzuni o‘rgatishda maxsus grafika va animatsiyalar qo‘llanilishi ta'lim jarayonini yanada qiziqarli va tushunarli qiladi. Shu bilan birga, bolalarning e'tiborini ushlab turishga yordam beradi.**Individual ehtiyojlarga moslashtirilgan mashg‘ulotlarda o**‘quv dasturlari individual yondashuvni qo‘llash imkonini beradi. Masalan, har bir bolaning o‘ziga xos ehtiyojlari, qobiliyatlari va rivojlanish darajasiga moslashtirilgan mashg‘ulotlar yaratiladi. Bu orqali bolalar qiyinchiliklarsiz o‘quv jarayoniga jalb qilinadi va ularning shaxsiy o‘sishi ta'minlanadi. Bundan tashqari m**axsus video darsliklar va simulyatsiyalar** mavzjud bunda bolalar uchun ishlab chiqilgan maxsus video darsliklar mavzuni vizual tarzda ko‘rsatib beradi. Audiovizual simulyatsiyalar esa ularga turli ijtimoiy va hayotiy vaziyatlarda qanday qaror qabul qilishni o‘rgatadi. Bu dasturlar bolalarning nafaqat bilim olishida, balki hissiy va ijtimoiy rivojlanishida ham katta yordam beradi.

Interfaol o‘yinlar faoliyati bolalarning o‘zlashtirish darajasini oshirishda muhim o‘rin tutadi. Ushbu o‘yinlar bolalarning faolligini rag‘batlantiradi, ularga yangi bilim va ko‘nikmalarni qiziqarli shaklda o‘rgatadi, hamda kompyuter dasturlari internet orqali keng tarqatilishi, mobil qurilmalarda ishlashi va foydalanuvchi uchun qulay interfeysga ega bo‘lishi kerak. Bu dasturlardan foydalanishni osonlashtiradi va ulardan kengroq foydalanuvchi guruhini jalb qiladi. Eshitish imkoniyati cheklangan bolalar uchun maxsus ishlab chiqilgan o‘quv dasturlari ularning kognitiv va psixologik rivojlanishini qo‘llab-quvvatlash, ijtimoiy hayotga moslashuvini ta'minlash va o‘z-o‘ziga bo‘lgan ishonchini oshirishda beqiyos ahamiyat kasb etadi.

Psixologik muammolarni hal qilishda kompyuter dasturiy vositalari psixologik maslahatlar sifatida ishlatilishi mumkin. Ushbu vositalar bolalarning stress darajasini pasaytirish, emotsiyalarni boshqarish va hissiy-intellektual rivojlanishni qo‘llab-quvvatlashda samarali natijalar beradi. Stressni boshqarish va kamaytirish uchun maxsus dasturlar ishlab chiqilgan. Bu dasturlar orqali bolalar nafas olish texnikalari, meditatsiya mashg‘ulotlari va autogen mashqlarni o‘rganadi. Ushbu texnikalar bolalarning ruhiy tinchligini tiklash va ularda xavotirni kamaytirishga yordam beradi, hamda bolalarning emotsional rivojlanishini ta'minlash uchun maxsus dasturlar ishlatiladi. Masalan: **Emotsiyalarni aniqlashda i**nterfaol o‘yinlar yordamida bolalar o‘z va boshqalar emotsiyalarini tushunishni o‘rganadi. **Emotsiyalarni boshqarishda s**tressli vaziyatlarda qanday qilib o‘zini tinchlantirishni va ijobiy emotsiyalarni targ‘ib qilishni o‘rgatadigan modullar mavjud. **Muloqot ko‘nikmalarida esa u**shbu dasturlar orqali bolalar ijtimoiy muhitda o‘zini to‘g‘ri ifodalash va muloqotni boshqarish qobiliyatlarini rivojlantiradi.

Bolalarning individual ehtiyojlarini aniqlash va ularga yordam berish uchun maxsus diagnostika tizimlari ishlab chiqilgan. Ushbu tizimlar:

- Testlar yordamida bolalarning psixologik holatini baholaydi.
- Aniqlangan muammolar asosida individual maslahatlar taqdim etadi.
- Rivojlanish rejasini tuzish uchun psixolog va ota-onalarga foydali ma'lumotlarni taqdim etadi.

Bolalarning rivojlanishida ijtimoiy qo‘llab-quvvatlash vositalari onlayn platformalar orqali bolalarga muloqot qilish imkoniyatini beradigan dasturlar bolalarning ijtimoiy faolligini oshiradi. Ushbu vositalar ularga boshqa bolalar va mutaxassislar bilan aloqada bo‘lish imkoniyatini yaratadi.

Bolalarda samarali kommunikatsiya ko‘nikmalarini shakllantirish va rivojlantirish zamonaviy ta’lim va tarbiyaning asosiy maqsadlaridan biridir. Ushbu dasturlar bolalarning o‘z fikrlarini to‘g‘ri ifodalash, boshqalar bilan muloqot qilish qobiliyatini oshirish va ijtimoiy moslashuvini yaxshilashga qaratilgan. Quyida kommunikatsiya ko‘nikmalarini rivojlantirishga xizmat qiladigan turli dasturlar va ularning afzalliklari kengroq bayon etiladi:

Bu dasturlar bolalarga turli hayotiy vaziyatlarda o‘zini qanday tutishni o‘rgatadi. Imitatsiya orqali o‘qitish texnologiyasi Rolli o’yinlarni, muommoli vaziyatlarni, o’zini boshqalar o’rniga qo’yish mashqlarini o‘z ichiga oladi:

Bolalarga matn, rasmlar va audio orqali muloqotni rivojlantirish, bunday platformalar bolalarning sezgi organlari va e'tiborini jalb qilish orqali o'qitishni qiziqarli va samarali olib borilishiga sabab bo'ladi. O'yinlar orqali o'qitish muloqot ko'nikmalarini mustahkamlashda eng samarali usullardan biri hisoblanadi:

Bugungi kunda texnologiyalar bolalar bilan ishlashda yangi imkoniyatlar ochmoqda. Shu jumladan: Virtual va kengaytirilgan haqiqat texnologiyalaridan foydalanib, bolalar o'zlarini turli muhitlarda sinab ko'rishlari mumkin. Bu nafaqat muloqot ko'nikmalarini, balki tanqidiy fikrlash va muammoni hal qilish qobiliyatlarini rivojlantiradi. Ushbu dasturlar bolalarning nafaqat kommunikatsiya ko'nikmalarini, balki ijtimoiy hayotga moslashish darajasini ham oshiradi. Ularni muntazam ravishda o'tkazish bolalarning o'z fikrlarini aniq ifodalashini, boshqalarni tinglashni va samarali muloqot qilishni o'rganishini ta'minlaydi.

Xulosa qilib shuni aytish mumkinki, Eshitish imkoniyati cheklangan bolalar uchun psixologik himoya mexanizmlarini takomillashtirishda kompyuter dasturiy vositalarining o'rni nihoyatda muhimdir, chunki bu bolalarning o'z hissiyotlarini boshqarish va ifodalashda, shuningdek, psixologik reabilitatsiya jarayonini samarali amalga oshirishda katta yordam beradi. Ushbu texnologiyalar, ayniqsa, interaktiv va ko'p shaklli dasturlar orqali, bolalar uchun xavfsiz va samarali o'rganish muhitini yaratadi.

Eshitish imkoniyati cheklangan bolalar ko'pincha ijtimoiy va psixologik rivojlanishda qiyinchiliklarga duch keladilar. Ularning asosiy muammolaridan biri – hissiyotlarini to'g'ri ifodalashda yuzaga keladigan qiyinchiliklar. Kompyuter dasturlari, o'z navbatida, bu bolalarga stressni boshqarish, o'z hissiyotlarini tan olish va o'zini anglashda yordam beradi. Masalan, interaktiv o'yinlar va o'quv dasturlari orqali bolalar o'z hissiyotlari va his-tuyg'ularini ochish va ifodalash uchun maxsus mashqlarni bajaradilar. Bu jarayon, nafaqat hissiyotlarni anglashga, balki bolalarning o'ziga bo'lgan ishonchini oshirishga ham yordam beradi.

Kompyuter texnologiyalarining o'ziga xos xususiyati – ularning interaktivligi. Interaktiv dasturlar bolalarga turli xil vaziyatlarni model qilish, o'zgaruvchan sharoitlarda turli reaktsiyalarni ko'rish va o'z his-tuyg'ularini tan olish imkonini beradi. Misol uchun, virtual o'yinlar orqali bolalar, turli ijtimoiy vaziyatlarda qanday reaksiya ko'rsatishni o'rganadilar. Bunday o'yinlar, aslida, bolalarga psixologik himoya mexanizmlarini rivojlantirishda samarali vosita sifatida xizmat qiladi. Ular o'z hissiyotlarini boshqarish, stressni kamaytirish va psixologik holatni tahlil qilishda yordam beradi.

Bundan tashqari, kompyuter dasturlari orqali bolalarga vizual va auditorial stimullar orqali o'rganish imkoniyatlari taqdim etiladi. Masalan, ovozli yordamchi tizimlar yoki ko'rinishdagi belgilash vositalari yordamida bolalar o'z hissiyotlarini ifodalashda va stressni boshqarishda qulaylikka ega bo'ladilar, hamda psixologik reabilitatsiya jarayoni, asosan, bolalarning ruhiy va hissiy holatlarini tiklashga qaratilgan. Kompyuter dasturlari, ayniqsa, interaktiv o'yinlar va trenajyorlar orqali bolalarning stressni boshqarish ko'nikmalarini rivojlantirishda katta yordam beradi. Dasturlar, stressni boshqarish, o'zini anglash, ijtimoiy ko'nikmalarni o'rganish kabi sohalarda to'g'ridan-to'g'ri ta'sir ko'rsatadi. Bolalar, o'z his-tuyg'ulari va hislari

haqida gaplashishda va ularni tahlil qilishda yordam beradigan dasturlar orqali psixologik jarayonlarni yaxshiroq tushunadilar.

Kelajakda, eshitish imkoniyati cheklangan bolalar uchun kompyuter dasturlarining imkoniyatlari yanada kengayishi kutilmoqda. Hozirgi kunda mavjud dasturlar bolalarga oddiy interaktiv yordamni taqdim etadi, ammo keyinchalik ularning imkoniyatlari yanada boyitilishi mumkin. Masalan, sun'iy intellekt texnologiyalaridan foydalanish orqali bolalar bilan individual muloqotda bo‘lish, ularning hissiy holatini aniqlash va unga mos ravishda dasturiy yordamni taqdim etish mumkin bo‘ladi. Kompyuter dasturlari eshitish imkoniyati cheklangan bolalar uchun psixologik himoya mexanizmlarini takomillashtirishda samarali va qulay vosita bo‘lib xizmat qiladi. Ushbu dasturlar bolalarga o‘z hissiyotlarini tan olish va boshqarishda, stressni kamaytirishda va psixologik reabilitatsiya jarayonini tezlashtirishda yordam beradi. Kelajakda texnologiyalarni rivojlantirish, bolalarning psixologik yordam olish imkoniyatlarini yanada kengaytirish va sifatli qilishga yordam beradi.

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AHOLI MANZILGOHLARI MORFOLOGIYASINING HUDUDIY JIHATLARI (QISHLOQ AHOLI MANZILGOHLARI MISOLIDA)

Annotatsiya: *Ushbu ilmiy tadqiqot ishida, qishloq aholi manzilgohlari joylashuvi, tarkibiy qismlari va morfolgoiyasiga ta’sir qiluvchi omillar o'rganildi. Aholi manzilgohlari morfologiyasi bo'yicha xorijiy hamda mahalliy olimlarning ilmiy tadqiqotlari tahlil qilindi.*

Kalit so‘zlar: *Aholi manzilgohlari, qishloq, sotsiologik yondashuv, aholi joylashuvi shakllari, tarqoq va guruhlashgan aholi manzilgohlari.*

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TERRITORIAL ASPECTS OF SETTLEMENT MORPHOLOGY (APPLICABLE TO RURAL SETTLEMENTS)

Abstract: *In this scientific research work, the factors affecting the location, components and morphology of population rural settlements were studied. Scientific studies of foreign and local scientists on the morphology of settlements were analyzed.*

Key words: *Population settlements, village, sociological approach, forms of population settlement, scattered and grouped population settlements.*

Kirish. Qishloq aholi punktlarining morfologiyasi deganda qishloq joylaridagi barcha obyektlar jumladan ekin yerlari, binolar, yo‘llar va ochiq maydonlarning tabiiy joylashuvi, tarkibi va fazoviy tashkil etilishi tushuniladi. U tabiiy, madaniy, iqtisodiy va tarixiy omillarning o'zaro ta'sirini aks ettiradi.

Jahon miqyosida aholi soni ortishi natijasida ularning turli xil resurslarga bo’lgan ehtiyoji ham kengayib bormoqda. Aholi joylashuvining hududiy shakli bu aholi manzilgohlaridir. Aholi manzilgohlarini o‘rganish o‘ziga xos jihatlarga ega ular bir nechta tarkibiy qismlardan iboratdir. Ba’zilari fazo bilan bog‘liq (morfologiya va joylashuv kabi), ba’zilari sotsiologiya, tarix, arxitektura, siyosat va boshqalarni o‘z ichiga oladi. Geografik jihatdan tadqiq qilish yo‘nalishini ma’lum bir xususiyat yoki qismni aniq belgilash qiyin, chunki ko‘pchilik obyektlar o‘zaro bog‘liqdir. Aslida, aholi manzilgohlarini o‘rganish yagona ijtimoiy fan uchun murakkab obektlar majmui sanaladi. Qishloq va shaharlar misolida aholi manzilgohlarini o‘rganish natijasida ko‘plab va katta hajmdagi tadqiqotlar olib borilgan bo‘lib, ularning asosiy qismini geograflar tomonidan bajarilgan. Chunki, ushbu tadqiqotlarning eng muhim jihatlaridan biri bu obyektni kompleks yondashuv asosida o‘rganishidir.

Ijtimoiy hududiy tizimlar qatorida qishloq va shaharlar, yoki ularni o‘rganish geografiya fanlari tadqiqot doirasiga kiradi. Inson tomonidan yaratilgan bu tizimlar tabiiy tizimlarga nisbatan dinamik xususiyatga ega ekanligi bilan o‘ziga xosdir. Ushbu tizimlar inson sivilizatsiyasining tarkibi qismi bo‘lib, atrof-muhitning shakllanishi bilan birga rivojlanib boradi. Qishloqlar, shaharchalar (posyolkalar), shaharlar, va shu kabi boshqa tushunchalar uchun umumiy atama aholi manzilgohlari hisoblanadi. Aholi manzilgohlarini yashash yoki ijtimoiy-iqtisodiy faoliyatda foydalanish maqsadida tashkil etilgan, o‘zaro bog‘langan fazoviy birlikni tashkil etuvchi texnogen tuzilmalar (to‘plam) yig‘indisi sifatida tushunish mumkin.

Asosoiy qism. Har qanday aholi manzilgohini o‘rganish uchun biz bir nechta jihatlarni hisobga olishimiz kerak. Bularga shakllanishi, morfologiyasi ya’ni tarkibiy-tuzulishi, tarmoq tizimi, vertikal ko‘rinishi, shakli (formasi), individual komponentlari, arxitekturasi, ijtimoiy-iqtisodiy muhit, tabiiy-ekologik joylashuvi va boshqalar kiradi. Ushbu jihatlarning aksariyati geografik xususiyatga ega, ammo tadqiqot iqtisodiyot, sotsiologiya va arxitektura kabi bir qancha boshqa fanlar tadqiqot obyektiga mos keladi. Aslida, umumiy tadqiqotning sintezi kompleks yondashuv geografik xususiyatga ega bo‘lib, ilmiy va optimall yechim hamda xulosalar chiqarishda integratsiyalashgan tadqiqot metodlaridan foydalanish maqsadga muvofiqdir. Bu aholi manzilgohlari geografiyasida qo‘llaniladigan model va paradigmalar asosan, iqtisodiy-ijtimoiy va sotsiologik tamoyillarga asoslanganligida yaqqol ko‘rinadi. Biroq, geograf muhim fazoviy, hududiy jihatlarni ochib beradi. Misol uchun, sotsiolog aholi manzilgohi ichidagi etnik segregatsiyani aniqlashi mumkin, ammo uni xaritaga olish geografga qoladi. Iqtisodchi bozor hajmi, hinterlend yoki shahar ehtiyojlarini tahlil qilishi mumkin,

ammo shahar hududini tabiiy-ekologik, iqtisodiy ijtimoiy jihatdan tafovutlarini tavsiflash geograflar tomonidan bajariladi. Aholi punktlarini o‘rganish har doim iqtisodiy tamoyillar, sotsiologiya va tarix bo‘yicha asosiy bilimlarni talab qiladi, chunki bular geografning uslubiy asosini yaratadigan muhim yo‘nalishlardir. 1960-yillardan statistik metodning aholi manzilgohlari o‘rganishga kirib kelishi tadqiqotlarning amaliy ahamiyatini oshirdi. Bugungi kunda kosmik metodlar va geografik axborot tizimlarining tadqiqotlarga jalb qilinishi aholi manzilgohlarining dinamikasi va bunday o‘zgarishlarning ijtimoiy-iqtisodiy oqibatlarini ochib beradigan izlanishlarning yangi natijalarni taqdim etmoqda. Aholi manzilgohlari geografiyasi bu jihatlarning barchasini birlashtirib, ularning "fazoviy joylashuvi" hamda boshqa munosabatlarini o‘zaro bog‘liq holda tadqiq qiladi.

Aholi manzilgohlarini tadqiq qilishga bo‘lgan qiziqish II Jahon urushi va fan texnika inqilobi (FTI) hamda 1960-yillardagi “Demografik portlash” ta’sirida ortib bordi. Ammo sohada “qishloqshunoslikka” emas, balki “shaharshunoslikka” ko‘proq e’tibor qaratildi. Qishloq aholi punktlari ba’zilar tomonidan mintaqaga xos va faqat tavsifiy tadqiqotni talab qilishi mumkin deb hisoblangan. Haqiqatan ham, bir mintaqada qancha qishloqlar bo‘lsa, shuncha qishloq shakllari mavjud va ularning har biri alohida tekshirishni talab qiladi. Ba’zan qishloqlarni klassifikatsiyaga ajratish ham juda murakkab masalaga aylanadi. Biroq, statik shaharlarning shakllanishi, rivojlanishi, funksional xususiyatlari bir xil qonuniyatlar asosida sodir bo‘ladi. Ayniqsa, hududiy mehnat taqsimoti, FTI, globallashuv natijasida shaharlarning shakllanishi, morfologiyasi, funksional tiplari bir-biriga o‘xshash bo‘lib bormoqda. Bu jarayonni E.M.Rojerning “Yangiliklar diffuziyasi” nazariyasi bilan izohlash mumkin [1].

Osiyoning eng qadimiy svilizatsiya markazlaridan biri Hindistonda ham aholi manzilgohlari bo‘yicha ko‘plab tadqiqotlar olib borilgan. Jumladan, Patrik Geddes, S.Goshning tadqiqotlarida Bixar va Uttar-Pradeshdagi markazlari, qishloq aholi manzilgohlari hamda Kalkutta shaharlarini hududiy dinamikasini tadqiq qilgan[5].

Sharqiy Osiyoda aholi manzilgohlari tadqiq qilish asosan Xitoyda aholi soni keskin oshishi va yerdan foydalanishning alohida toifasi sifatida aholi manzilgohlarining hududiy kengayishi hamda buning ijtimoiy ekologik oqibatlarini o‘rganishga keng e’tiboq qaratilgan. Aholi manzilgohlarining ham gorizontal ham vertikal o‘sish intensivligi yuqoriligi sababli er resurslaridan samarali foydalanishga qaratilgan kompleks amaliy ahamiyatga ega tadqiqotlar olib borilmoqda. Masalan, J.CHeng, J.Jou tomonidan so‘nggi 60 yilda hududiy dinamikasi juda yuqori bo‘lgan Uxan shaxri ijtimoiy iqtisodiy rivojlanishi va istiqbollarini kompleks geografik metodlar va GAT texnologiyalari asosida tahlil qilingan[2].

MDH davlatlarida ham aholi va aholi manzilgohlarini tadqiq qilishga sotsiologiya va ijtimoiy-iqtisodiy geografiya doirasida ko‘plab tadqiqotlar olib borilgan. V.A.Kopilov fikricha, aholi geografiyasining obekti aholi va aholi manzilgohhlari tizimidir, predmeti esa ularning dinamikasi, tarkibi, makon va zamonda rivojlanishining hududiy xususiyatalarini o‘rganish deb ta’kidlagan [8]. Bundan tashqari A.A.Anoxin, D.V.Jetin kabi olimlar ham aholi manzilgohlarini

aholi geografiyasining muhim tadqiqot obekti sifatida ko‘rsatganlar. V.V.Pokshishevskiy esa aholi geografiyasi iqtisodiy geografiyaning tarkibi qismi bo‘lib, aholini hududiy tizimlari va tarkibi bilan bir tizim doirasida tadqiq qilish kerak deb hisoblaydi [6].

O‘zbekistonda aholi va aholi manzilgohlarini tadqiq qilish bo‘yicha izlanishlar XX asrning ikkinchi yarmida rivojlana boshladi. Bu borada M.K.Qoraxonov boshchiligidagi “Aholishunoslik ilmiy tadqiqot labarotoriyasi” ning roli katta bo‘ldi. Ushbu markaz tomonidan O‘rta Osiyoning XIX asr oxirigacha bo‘gan aholiga oid ma’lumotlari to‘plangan. Aholining hududiy jihatlari va joylashuvi bo‘yicha N.Smirnov, Z.Akramov, T.Raimov, O.Atamirzaev, A.Soliyev, A.Qayumov, Z.Rayimjonov, M.Bo‘riyeva, Y.Ahmadaliyev, Z.Tojieva, N.Komilova, S.Tashtaeva, M.Nazarov va boshqalar tadqiqotlar olib borgan.

A.Soliyev ushbu tadqiqot yo‘nalishi bo‘yicha nafaqat O‘zbekiston balki O‘rta Osiyo miqyosida ilmiy izlanishlar olib borgan. A.Soliev “O‘rta Osiyo respublikalarida zamonaviy aholi joylashuvi tizimlari rivojlanishining omillari va jarayonlari” mavzusida doktorlik dissertatsiyasini himoya qilgan (1986-yil). Bundan tashqari Soliev O‘zbekiston qishloqlari va shaharlari geografiyasi, aholi manzilgohlarini tipologiyaga ajratish masalalarini o‘rgangan [4]. Respublikamizda shaharlarni tadqiq qilishda ilk ilmiy tadqiqotlardan biri N.Smirnov tomonidan Farg‘ona vodiysi shaharlari misolida olib borilgan [3].

Aholi manzilgohlari morfologiyasi, birinchi navbatda, turar – joylarning joylashuvi, rejasi va ichki tuzilishi bilan bog‘liq. Qishloq aholi punktlari morfologiyasi deganda qishloqlarning ichki tuzilishi va joylashuvi tushuniladi. Shaharlarning morfologiyasi esa ancha murakkab bo‘lib, aholi soni bajaradigan funksiyasiga bog‘liq holda murakkablashib boradi. Aholi manzilgohlarining morfologiyasiga nafaqat tabiiy sharoit va resurslar, ijtimoiy-iqtisodiy makonda joylashuvi, formasi funksional xususiyatlari, aholiga xos bo‘lgan jihatlar ham (masalan, aholining etnik diniy tarkibi, tabaqalanishi bevosita ta’sir ko‘rsatadi. Aholi maznilgohlarining morfologiyasi ularning ijtimoiy-madaniy tuzilishini, ularning tabiiy ekologik hamda sanitariya sharoitlarini, shuningdek, hududning potensial rivojlanish imkoniyatlarini tushunishga yordam beradi.

Qishloq aholi punktlari morfologiyasi qishloqlarning er rejasi va shaklini o‘rganadi. Bular uylar va dalalarning joylashishidan kelib chiqadi va jamiyat tomonidan atrof-muhit bilan munosabatlari natijasidir. Ushbu munosabatlarning ba’zilari murakkab emas va shuning uchun tushunish oson. Ular odatda tabiiy sharoit va qulayliklarga tegishli. Mavsumiy shamollarning esishi va yorug‘likning tushishidan kelib chiqan holda tabiiy yorug‘lik va issiqlikdan samarali foydalanish maqsadida qishloq aholisi ushbu ikki yo‘nalishni to‘siqlardan xoli qilishni xohlaydi, bu esa qishloqning ma’lum bir formasi shakllanishiga olib keladi. Bundan tashqari, tabiiy sharoit va qulaylik ijtimoiy raqobat va tabaqalanishni yuzaga keltiradi. Masalan, musson iqlimli hududlarda toshqin xavfi yuqori tekisliklarida qishloqning xavfsiz qismlarida ko‘proq badavlat odamlar egallab, kambag‘allarni suv havzalari atrofida pastqam botqoq joylarda to‘planishga majbur qiladi. Bu jarayon ijtimoiy tabaqalanishning aholi manzilgohlari morfologiyasiga o‘ziga xos ta’siri

hisoblanadi.

Aholi manzilgohlarining shaklni yagona munosabatlar majmuasi bilan tushuntirish qiyin, ko‘p hollarda bu bir nechta omillarning natijasida sodir bo‘ladi. Asosan chiziqli shaklga ega bo‘ladigan daryo, kanal bo‘ylaridagi aholi manzilgohlarida tarqoq va hatto ko‘p yadroli formalar ham uchraydi. Hindistonning shimoliy tekisliklarida, O‘zbekistonda Farg‘ona vodiysida turli xil formaga ega aholi manzilgohlari ko‘p uchraydi.

Ushbu bosqichda qishloq shakliga nisbatan qo‘llaniladigan atamalarga aniqlik kiritish kerak. *Morfologiyaning* o‘zini turar-joy shakli va yerdan foydlanish rejasini o‘rganish sifatida belgilash mumkin. Forma yoki shakl va *tur atamalari* turli olimlari tomonidan turlicha ishlatilgan. Shakl *atamasi* binolar orasidagi masofani bildiradi (masalan, klasterli va tarqoq formalar). *SHakl* to‘rtburchaklar, radial yoki chiziqli kabi qishloqlarning geometrik shakllarini tasvirlash uchun ishlatiladi. Biroq, ba’zi olimlar *ixcham* va *tarqoq (klaster va dispers) aholi punktlarini* farqlash uchun *tipdan* va shaklni tasvirlash uchun *foydalanadilar (1-rasm. to‘rtburchak forma, chiziqli, yulduzsimon, halqasimon, T-chorraha, kesishmali va boshqalar).* Ushbu tadqiqotda uylarning ixchamligi yoki tarqalishi uchun *forma* ishlatiladi, Aholi punktlarini formasi yoki shakl-tiplarga ajratish nafaqat taksonomik jihatdan, balki qishloq joylarini kelajakda rejalashtirish uchun ham dolzarbdir.

Qishloq aholi manzilgohlari shakllanishiga bir qancha omillar ta’sir ko‘rsatadi (2-rasm). Biroq muayyan bir omilni asosiy yoki doimiy ekanligini aniqlash murakkab jarayon. Qishloqlarning joylashuvida suv ta’minoti va er resurslarining sifat ko‘rsatkichlari muhim ahamiyatga ega. Suv ta’minotiga bog‘liq holda yerdan foydalanish darajasi va shunga mos mehnat resurslari talab qilanadi. SHu boisdan suv ta’minotiga bog‘liq holda aholi manzilgohlari hajmi va shakli belgilanadi. A.Soliyev Qishloq joylari geografiyasi asarida Qishloqlarning hududiy kengayish intensivligi kanallar suv hajmiga to‘g‘ri porparsional bo‘lishini Zarkent, Zarmitan qishloqlari misolida tahlil qilgan.

Chiziqli shakl	**Kesishmali shakl**	**Yulduzsimon shakl**

T-chorraha shakl	**Halqasimon shakl**	**Ikki tomonlama shakl**

1-rasm Aholi manzilgohlari shakllari Manba: Google Eart Xorazm viloyati hududi

Qishloqlarning joylashuvida relyef qiyaligi, tepaliklar, yoyilmalar, qayir zonalarining amaliy ahamiyati mavjud. Tog‘ oldi tepeliklarida aholi spiralsimon yoki halqa shakllarni hosil qilsa, qayir zonalarida va konussimon yoyilmlarda uchburchak shakldi cho‘zilgan formalarni uchratish mumkin. Alabata, aholi joylashuvining har qanday shaklida xavfsizlik darajasiga kuchli e’tibor qaratiladi. Xavfsizlik omili sifatida tabiiy, ekologik yoki iqtisodiy-ijtimoiy jihatdan sodir bo‘lishi mumkin bo‘lgan xatarlarga nisbatan himoyalanganlik darajasi tushuniladi.

Davlat tomonidan yerlarni o‘zlashtirish natijasida yangi hududlarga aholi joylashtiriladi. Bunday jarayonlarda aholi asosan katta yo‘l bo‘ylarida sug‘orma dehqonchilik hududlarida klasterlangan formalarni hosil qiladi. Masalan, 1960-yillarda Mirzacho‘lning o‘zlashtirilishi natijasida 30 dan ortiq zamonaviy xo‘jaliklar (Sovxoz) tashkil etilgan.

Aholi punktlarini morfologiyasi nafaqat tabiiy makon nuqtai nazaridan shakllanadi, balki uning turli tarkibiy qismlari ijtimoiy-iqtisodiy makonga bog‘liq holda namoyyon bo‘ladi. Bu esa binolarni tartibga solish, ko‘chalar va dalalardan foydalanish hamda umuman aholi punktlarining funksional xususiyatlarini nazorat qilishda bevosita ta’sir ko‘rsatadi. Masalan, turli xil millat yoki ijtimoiy qatlamga ega guruhlar bir-biriga yaqinligi sababli o‘ziga xos zonalarni hosil qilib, hunarmandlar, savdogarlar, kosiblar yoki elita qatlam yashaydigan hududlarni shakllantiradi.

2-rasm Qishloq aholi manzilgohlari shakliga ta’sir qiluvchi omillar (A.Doxiadis)

Ba’zi mutaxassislarning fikriga ko‘ra hozirgi kunda zamonaviy qishloqlar asosan (nucleted) yadroli yoki konsetratsiyalashgan shaklda tashkil qilinmoqda [7]. Bunga asosiy sabab qishloq xo‘jaligi yerlarini saqlab qolish, xavfsizlik, infratuzilma xizmatlari bilan kompleks ta’minlash hamda aholining guruh bo‘lib yashashga moyilligi sifatida ko‘rsatiladi. Masalan, Yevropaning aksariyat davlatlari va O‘zbekistonning Xorazm viloyatida deyarli 95% (Tuproqal’a tumani bundan mustasno) aholi manzilgohlari konesntratsiyalashgan formaga ega.

Uelsda Angliya-Normand monarxiya mulkchilik shakli ta’siri tufayli yopiq mulkka ega qishloqlar ustunlik qiladi. Katta shaharlar yaqinida qishloq xo‘jaligi hududlari bo‘lmagan, faqat turar-joy vazifasini bajaradigan (residensial) qishloq aholi punktlari paydo bo‘lgan. Ular suburbanizatsiya jarayonining boshlanishini belgilaydi [7]. Buyuk Britaniyadagi aksariyat qishloqlarning yana bir jihati shaharlarga xos qulayliklarning tashkil qilinganidadir, shu sababdan qishloqlar va shaharlar o‘rtasidagi chegarani aniq ko‘rsatish imkoni yo‘q.

Bundan tashqari aholi manzilgohlari shakllanishida aksiomatik qonuniyat o‘z kuchini ko‘rsatadi, unga ko‘ra zamonaviy iqtisod va ilg‘or texnologiyalarga ega jamiyatlar doimiy aholi punktlari chegaralarini balandlik va kenglik bo‘yicha, tabiiy sharoit nuqtai nazaridan qulay bo‘lgan bo‘shliqlarga hisobiga kengaytirish va egallash qobiliyatiga ega. Bu jarayon F.Ratselning hududni madaniyat va mafkuraviy jihatdan egallash nazariyasiga o‘xshash, ya’ni ijtimoiy-iqtisodiy jihatdan yetakchi bo‘lgan qatlam madaniyati boshqa hududlarga tez tarqaladi. Bu esa aholi manzilgohlarining rivojlanishida ham o‘z ta’sirini ko‘rsatadi.

Xulosa. Umuman olganda qishloq aholi manzilgohlari morfologiyasiga hududning topologiyasi, tabiiy sharoiti, iqtisodiy holat va faoliyat, madaniy va tarixiy omillar, davlat siyosati, va infratuzilma rivojlanishi kabi omillar ta’sir qiladi. Aholi manzilgohlarini morfologiyasi juda murakkab bo‘lib, turli xil yondoshuv, metod va mezonlar asosida shakllanadi. yer yuzida mutloq bir xil hudud bo‘lmagani singari bir xil aholi yashash joylari ham bo‘lmaydi. Shu sababdan tadqiqotlarda qo‘yilgan maqsaddan kelib chiqqan holda aholi manzilogohlari morfologiyasi va

boshqa jihatlarini tadqiq qilish hamda shu asosda klassifikatsiyalarga ajratish orqali izlanishlarni olib borish maqsadga muvofiq deb hisoblaymiz.

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STUDY OF EXISTING HYDROTECHNICAL STRUCTURES AND THEIR TECHNICAL CONDITION AT THE HEAD DAM OF THE "DOSTLIK" CANAL

Annotation: *This article provides complete information about the geology and hydrology of the area where the main structure of the "Dustlik" canal is located, as well as about the existing hydraulic structures at this hydro node. The current technical condition of the hydro node is also studied. Suggestions and recommendations for improving the technical condition of the hydro node are presented.*

Keywords: *Hydro node, dam, main structure, water supply channel, dump.*

The main structure of the "Dustlik" canal is located in the Bekabad district of the Tashkent region. According to the management system, it is part of the "Mirzachul Hydro-Construction and the Dustlik Canal" department of the Syrdarya Basin Water Management Association. The geological structure of the structure base consists of light sandy loam (loam) and some gypsum loam (supes) and sand, with seepage waters located at a depth of 2...4 m. The layer thickness is 30-50 m. The filtration coefficient of the soils is 5 - 7 m per day. The mineralization of groundwater is 1.0...3.0 gpl, the type of mineralization: hydrocarbonate-chloride (sodium; magnesium; calcium).

The hydraulic structure consists of the following structures:

1. Water intake basin; 2. Water transfer facility to the Dostlik Canal;
3. Discharge facility.

Figure 1. Water intake basin.

The water supply channel is trapezoidal in shape. The width of the uning tagine is 80 m, the maximum depth is 6.06 m and the height of the hole is 2.0 tenge. The mark of the canal at the mouth of the hydroelectric unit is 282.10 m, the maximum water level in the canal is 288.16 m, the normal water level is 286.73 m ha, the mark of inshoot damming is 288.70 m ha. Water feeder channeling maximum water consumption 470 m^3 / sec.

The main structure of the "Dostlik" canal was built in 1948 at the end of the water-carrying channel of the Farkhod HPP (length 5,235 m).

The maximum water throughput capacity of the Dostlik canal main structure is 230 m3/sec, today it cannot pass more than 220 m3/sec.

The main structure design is open. The number of spans is 5. The span dimensions are 10.0 x 5.35 m. The main structure spans are equipped with flat working locks with a maximum pressure of 6.06 m. Devices for repair locks are made in front of the working locks. A port crane with a width of 6.0 m and a lifting capacity of 30 t is installed to lift and lower the working and repair locks. Lock control is controlled from the dispatcher's room or from the site. The spans of the structure are equipped with sensors indicating the state of the lock.

The main structure has four concrete spans, the dimensions of which are: length - 16.7 m, thickness - 2.0 m, height - 6.8 m. A crane road, service and automobile bridges are built on the spans.

The main structure's culvert is made of concrete, its dimensions are: length - 15 m, width - 58 m, and thickness - 0.4 m. In the front part of the culvert, the bottom and banks of the water supply channel are reinforced with large stone rubble. The culvert elevation is 282.10.

The water energy discharge well built in the downstream of the main structure is 56.45 m long and 62 m wide. The water well is made of concrete and its thickness varies along its length, that is, it is 2.3 m thick at the entrance and 1.0 m at the end. To additionally absorb the water energy, a series of checkers with a width of 1.0 m, a height of 0.9 m and a length of 1.6 m are installed inside the well.

A berm 15 m long was created at the end of the water well by quarrying large stones. The water-carrying channel of the main structure is made of earth and its dimensions are as follows: the width of the bottom is 40.0 m, the slope of the bank is 2.0.

The main structure is connected to the trapezoidal channel at the front with a “revolving wall” type entrance, and to the water-carrying channel at the back with a wing in the form of a “plunging wall” with a length of 19.75 m.

Figure 2. "Dustlik" channel main building.

Monitoring of filtration and deformations of structures in the hydropower plant.

Since the hydropower plant is not equipped with piezometric wells and control measuring instruments, monitoring of the filtration regime and deformations is not carried out.

Technical condition of structures located in the hydropower plant

- Metal structures in the hydropower plant are not treated with anti-corrosion coating;
- The lifting mechanism of all locks in the structures is not equipped with a load relay;
- The crane equipment installed in the hydropower plant requires repair.
- Due to the ineffective operation of the water well installed on the hydropower plant embankment, the bottom of the embankment and the stones thrown onto the shore were washed away.

Impact of the hydropower plant on the environment.

Protection zone. The protection zone of the main dam of the Friendship Canal is 300 m in accordance with the Resolution of the Cabinet of Ministers No. 174 of April 7, 1992.

Measures to reduce the environmental impact of the hydropower plant.

In order to reduce the environmental impact of the hydropower plant, it is advisable to implement the following measures:

a) develop measures to reduce the operating costs of the main dam;

b) constantly monitor and control the operation of the facilities;

c) develop plans for operational activities and other work.

The main indicators of the technical condition of hydraulic structures and canals are:

a) ensuring the water flow capacity specified in the design;

b) minimizing filtration and operational-organizational water losses;

c) to muddy the top of the structure, to the growth of plants,

g) the way to wash the bottom and side walls of the hydrocell not to put

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EVALUATION OF THE WATER CARRYING CAPACITY OF THE MAIN WATER INTAKE FACILITY OF THE "DOSTLIK" CANAL

Annotation: *In this article, the water carrying capacity of the Dostlik canal main intake is evaluated. Hydraulic calculations of the canal and calculations of the water discharge structure are carried out. Recommendations are given to improve the technical condition of the hydraulic structure.*

Keywords: *Hydraulic structure, water capacity, hydraulic calculation, water discharge.*

Data on the water supply channel:

1. Maximum water flow Q_{max} = 470 m^3/s;
2. Maximum depth h_{max} = 6.06 m;
3. Width of the bottom b = 80 m;
4. Shore slope coefficient m = 2.0;
5. Slope i = 0.00004;
6. Height - roughness coefficient n = 0.025;
7. Channel bottom mark before the spillway Δ c.b = 282.10;
8. Normal water level mark in the upper reaches Δ NWL = 286.73 m;
9. Maximum water level mark in the upper reaches Δ MWL = 288.16 m;
10. Dam mark in the upper reaches Δ Dam = 288.70 m;

Ҳисоблаш тартиби

To construct a graph of the operating characteristics of the channel supplying water to the hydraulic unit $Q_i=f(h_i)$ (the relationship between water depth and water flow), we give several values for the channel depth and determine the corresponding water flow according to the Schezi expression Q = ωV. We perform the calculation using a table method and construct a graph $Qi = f(h_i)$ based on the calculated values.

Table 1.

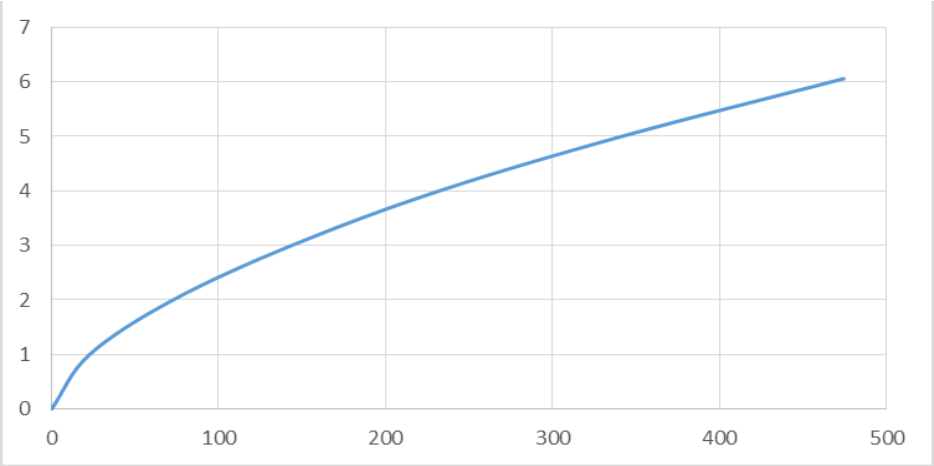
№	h_i м	b м	m	ω_i $м^2$	χ_i м	R_i м	$R_i^{1/6}$	n	C_i	i	√ R i	V_i	Q_i $м^3/с$
1	0,0	80	2,0	0	0	0	0	0,025	0	0,00005	0	0	0
2	1,0	80		82	84,48	0,97	0,995		39,8		0,007	0,28	22,7
3	2,0	80		168	88,96	1,89	1,11		44,47		0,01	0,43	72,6
4	3,0	80		258	93,44	2,76	1,184		47,38		0,012	0,55	143,6
5	4,0	80		352	97,92	3,59	1,24		49,51		0,013	0,66	232
6	5,0	80		450	102,4	4,39	1,28		51,19		0,0148	0,76	341,3
7	6,6	80		558	107,2	5,21	1,32		52,66		0,0161	0,85	474,3

Here: hi–water depth in the channel, m;
b– width of the channel bottom, m;
m– slope coefficient of the channel bank;
i– slope of the channel bed;
ωi– channel live surface, m2;
χi– wetted perimeter, m;
Ri– channel hydraulic radius, m;
Ci– Shezi coefficient;
n– channel roughness coefficient.

Since the channel cross-section is trapezoidal, we use the following formulas to calculate ωi, χ_i, R_i, C_i:

$$\omega_i=(b+mh_i)h_i,\ \chi_i=b+2h_i(m^2+1)^{0,5},\ R_i=\omega_i/\chi_i$$

$$C_i=(R_i^{1/6})/n,\ V_i=\omega_i C_i(R_i i)^{0,5},\ Q_i=\omega_i V_i$$



Picture 2. Operating characteristics of the water supply channel

The correctness of the calculations is checked according to the constructed graph. That is, at the maximum value of the water depth h_{max}=6.06m, the maximum water flow rate determined on the abscissa axis of the graph should be Q_{max} = 470 m^3/s.

Conclusion. The technical condition of the hydraulic node located at the head of the "Dostlik" canal was examined and assessed as "satisfactory".

To ensure its reliable operation, the following measures are recommended:

Operate the locks in the hydraulic node in accordance with the established procedure;

Install piezometric and control measuring instruments to monitor the filtration regime and deformation of structures at the base of the hydraulic node structures;

Restore the design documentation for the hydraulic node;

Develop the rules for the operation of the hydraulic node based on new modern requirements;

Create a reserve of necessary materials, taking into account possible accidents at the hydraulic node;

Asphalt the road passing over the hydraulic node, install speed limit signs on it;

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STUDYING THE CHEMICAL COMPOSITION OF WATER IN THE BASIN SUPPLYING ZARCHOB II HPP AND THE AVERAGE ANNUAL SUPPLY OF THE RIVER

Annotation: *Hydroelectric power plants are now an integral part of energy. Taking this into account, it is appropriate to study the composition and annual costs of water coming to hydroelectric power plants. We know that, as a result of studying the consumption and composition of water in the supply canal, the continuity of production of the specified amount of electricity supply is ensured.*

Keywords*: HPP, water supply, water consumption, electricity.*

The chemical composition of Topalang river water was obtained based on the inspection data. According to the results of chemical analysis, when the river water reaches the maximum level, it is less mineralized (dry residue 84-190 mg/l), soft (total hardness 1.12-2.39 mg-eq/l), bicarbonate alkalinity (dispersion with HCO_3 ions). Medium mineralized (dry residue 230-266 mg/l) very solid (3.20-3.75 mg-eq/l), (dispersion by HCO_3 ions) at minimum water level. Water has a neutral or weak alkaline reaction (pH=6.6-8.5) (table 1).

Chemical composition of Topalang river water.

Table 1.

Date of inspection	pH	Unit of measure	Dry residue	Alkalis		CL	SO4	Ca	Mg	Na+ K	hardness mg-eq/l		
				SO3	NSO3 total						total	carbonate	constant
Topalang river. Topalang reservoir.													
15.07.80	-	mg/l	108	-	73	7	25	24	sled.	16	1.20	1.19	0.01
26.08.80	-	mg/l	168	no	98	21	35	32	sled.	31	1.60	1.60	-

23.10.80	-	mg/l	190	no	98	7	65	48	sled.	17	2.39	1.61	0.78
Topalang river –k Xarduri													
03.07.93	8.52	mg/l	126	no	61	6.84	41.14	22.04	1.21	19.55	1.20	-	0.20
15.06.94	7.8	mg/l	84	no	61	5.7	8.23	20.07	9.73	5.06	1.12	-	0.12
27.04.95	8.0	mg/l	154	no	146	6.84	8.23	26.05	1.22	31.28	1.4	-	ustr.
22.05.96	7.6	mg/l	88	no	73.20	3.96	12.34	26.05	1.22	3.91	1.4	-	0.20
30.06.06	6.6	mg/l	175	no	73.20	8.4	59.2	20.04	9.73	31.28	1.31	-	0.11

Date of inspection	pH	Unit of measure	Dry residue	Alkalis		CL	SO4	Ca	Mg	Na+ K	hardness mg-eq/l		
				SO3	NSO3								
To‘polang river-k. Zarchob (0,2 km above the village Zarchob)													
11.01.85	8.10	mg/l	265.6	no	69.5	14.9	112.	39.5	21.7	11.0	3.75	-	-
11.03.85	7.70	mg/l	241	no	97.6	9.6	69.2	56.5	4.6	8.0	3.20	-	-
8.05.85	7.60	mg/l	175	no	64.0	8.5	56.4	21.1	11.2	3.0	1.97	-	-
10.06.85	8.0	mg/l	120	no	55.5	10.0	17.8	24.9	1.0	3.0	1.32	-	-
10.08.85	7.75	mg/l	129	no	62.8	10.0	19.6	24.7	2.2	13.0	1.41	-	-
14.10.85	8.05	mg/l	230	no	78.7	11.4	73.9	43.7	4.4	7.0	2.54	-	-

Fractional composition of sediments in water.

Table 2.

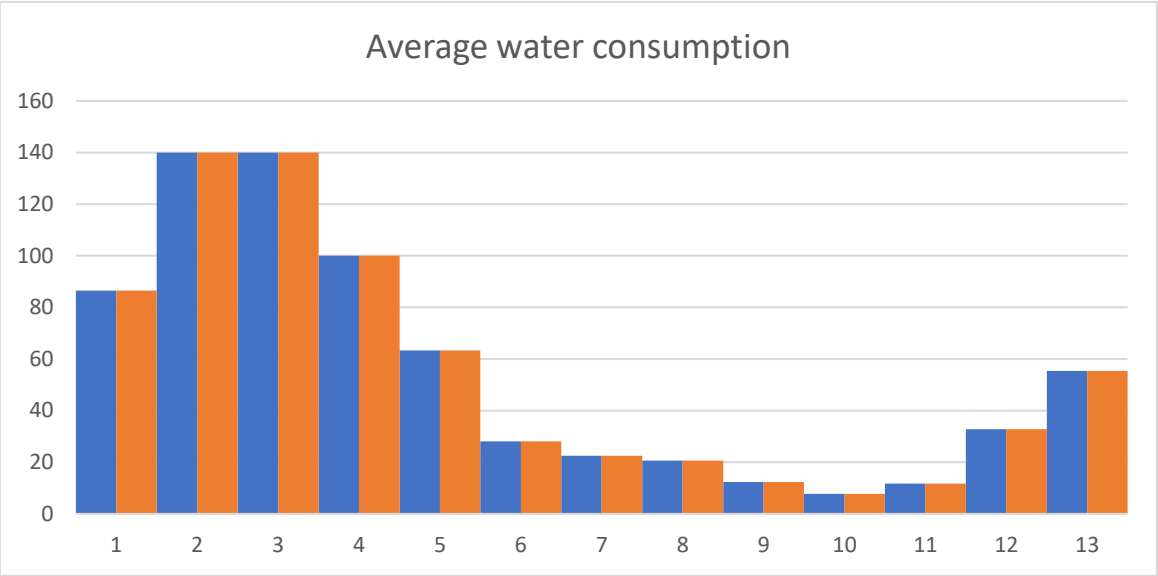
River, post	Observation year	Diameter (mm) and weight (%) of sediments			
		1,0 – 0,25	0,25 – 0,05	0,05 – 0,01	0,01 – 0,005
r. Topalang-c. Zarchob	1973-1980	15,3	29,2	19,7	35,8

Average monthly and average annual water consumption of the Topalang river.

Table 3.

Years	IV	V	VI	VII	VIII	IX	X	XI	XII	I	II	III	Average annual
2007	94,8	158	110	86,2	57,9	22,9	25,4	19,2	11,3	1,1	17,4	29,4	52,7
2008	158	166	146	100	64,6	20,4	25,2	19,8	4,15	2,7	8,73	42,2	63,4
2009	58,9	102	97,6	63,4	39,8	15	8,82	18,2	6,38	2,3	2,95	38,8	37,8
2010	71,9	135	171	139	89,8	51,2	36,4	32,1	23,1	13	14,3	62,4	69
2011	115	163	165	120	72,5	34,4	24,7	24	10,7	5,5	1,3	25,9	63,5
2012	67,2	130	99,7	79,1	52,1	28,2	18,6	8,62	26,2	18	13,5	27,2	47,36
2013	111	108	151	101	70,4	30,5	16,4	20,6	5,21	3,7	18,8	16,6	54,4
2014	48,9	113	160	85,1	58	35	20,5	18,8	13,4	10	2,06	27,3	49,3
2015	52,4	155	149	93,1	55,8	21,8	17,9	21,2	11,6	11	23,9	26,8	53,2
2016	87,1	166	160	140	73	21,9	31,2	25,3	12,8	12	14,4	32,1	64,6
Average	86,5	140	140	100	63,3	28,1	22,5	20,7	12,4	7,8	11,7	32,8	55,4

After determining the average multi-year water consumption, we construct a hydrograph of the hydroelectric plant and a water consumption return graph. After constructing the hydrograph of the hydroelectric power plant, we will draw the return graph of water consumption from the maximum water consumption Q_{max}=140 m^3/s to the minimum Q_{min}=7.8 m^3/s, and the calculated water consumption of the hydroelectric power plant will be determined.



Conclusion and recommendations.

The presence of minerals in the river water flowing into the hydroelectric power plant can occur for several reasons and should be addressed as follows:

1. **Solubility properties of the water**: As the river water passes through the ground and rocks, it absorbs minerals from them. If the river water is stopped or its flow is slowed down during the construction of the hydroelectric power plant, the amount of dissolved minerals in the water may increase.

2. **River basin composition**: The rocks, soil and plants present in the river basin cause the minerals to dissolve. If the river water comes from areas rich in minerals, these minerals can be more concentrated in the water through the hydroelectric power plant.

3. **Hydropower plant and water impoundment**: After the construction of the hydroelectric power plant, the flow of river water is stopped or slowed down. This can cause dissolved minerals in the water to accumulate on the riverbed or in stagnant water, rather than being transported to "other places." This leads to a high concentration of minerals in the water.

4. **Evaporation and accumulation**: During the process of evaporation of water, minerals in the water remain in high concentration. Increased evaporation before or after a hydroelectric power plant can increase the amount of minerals in the water.

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FORECASTING THE VOLUME OF INVESTMENTS IN INDUSTRIAL ENTERPRISES OF SURKHANDARYA REGION USING THE ARIMA MODEL

Abstract:*This article presents an analysis and forecasts of the volume of investments in industrial enterprises of Surkhandarya region, the number of industrial enterprises and the volume of products obtained from industrial enterprises for 2010-2023. The article is devoted to studying the growth dynamics and development directions of the industrial sector of the region, highlighting the importance of industry in the economic growth of the region. The article determines the prospects for growth and development in the industrial sector of Surkhandarya region, and also offers recommendations for the effective implementation of investment policy, modernization of industry and expansion of production.*

Key words*: ARIMA, investment volume, industrial products, Economic Analysis, investment flows, industrial development, investment trends, industrial investments, investment forecast.*

INTRODUCTION

Surkhandarya region is located in the southwestern part of Uzbekistan, its industrial potential is important for the country's economy. In recent years, special attention has been paid to the development of industry, opening new enterprises and attracting investments in the region. Investments in industrial enterprises can lead to many positive changes, especially in ensuring the economic growth of the territory, the creation of new jobs, the introduction of modern technologies and Environmental Protection. It is important in forecasting the size of investments, Economic Planning and strategic decision-making. One effective method of statistical modeling in this process is the ARIMA (AutoRegressive Integrated Moving Average) model. The ARIMA model is widely used in data forecasting through time series analysis and is known as an effective tool in the study of economic systems, including the industrial sector. This study examines the application of the ARIMA model in forecasting the volume of investments in industrial enterprises of Surkhandarya region. Forecasts make it possible to determine the factors affecting the development of the industrial sector in the region and anticipate future investment flows. This, in turn, contributes to the formation of territorial economic policies and the effective implementation of investment strategies. This study aims to analyze the capabilities of the ARIMA model and its practical importance in forecasting industrial investments.

Literature review

The impact of foreign investment on the development of the economy of the region, the study of econometric models of attracting foreign investment in the development of the economy of the region Khatamov N. made by [1]. Scientific proposal and practical recommendations for making economic-statistical analysis and forecast of competitiveness of enterprises in the housing and construction boozer Ibragimov Q. from development by [2].Multi-option forecast parameters of the targeted development of the regional industry until 2030 due to the correlation-regression correlation between privatization of industry transformation processes in the region, investments in fixed capital and demographic factors Murodkhojayeva F. developed by[3]. In contrast to the above, statistical analysis and predictive state of industrial enterprises are given.

Research Methodology

This study used techniques such as economic, statistical and structural analysis. The article also analyzes the articles of several economists as a basis. Analysis and discussion of the results this article gives an economic-statistical analysis of active industrial enterprises in Surkhandarya region. It is known that statistical observation is analyzed in two forms and is based on statistical reporting and specially organized [4] and levels stability, vibration coefficient, trend equation, additional growth, stability index [5] s.

Analysis and discussion of results

A number of econometrics have been used to forecast the indicators of the volume of investment in industrial enterprises(billion soums)to 2024-2029. Typical time series modeling uses multi-factor trend models, distributed lag models, autoregression models, ARIMA(Autoregressive integrated moving average) models, and other models. It is known that from these modeling methods, the ARIMA model is distinguished by a high accuracy of forecast values. For this reason, we used Arima models in our scientific research work. As far as ARIMA models are concerned, Jenkins and Boks proposed to distinguish this model separately from a group of non-stationary series, which together took sequential differences and proved that it could be brought into the Arima-type stationary form.Also, the boxing and Jenkins methodology consists of three parts, which are: Stage 1, determination Stage 2, evaluation Stage 3, forecasting. The above processes are stages of ARIMA forecasting. The predictive ARIMA (Autoregressive integrated moving average) i.e.,the “integral autoregression to the sliding mean” model has (p,d, q) order, where P indicates the autoregression parameter, d indicates the integration part, q indicates the sliding mean parameter. The general outline of the ARIMA model would be as follows:

or, =

Where, is the stationary time series,, is the model parameter, s the time series subtraction of the order.

We used the data provided by the Surkhandarya Region Department of Investment, Industry and trade to model the indicators of investment volume

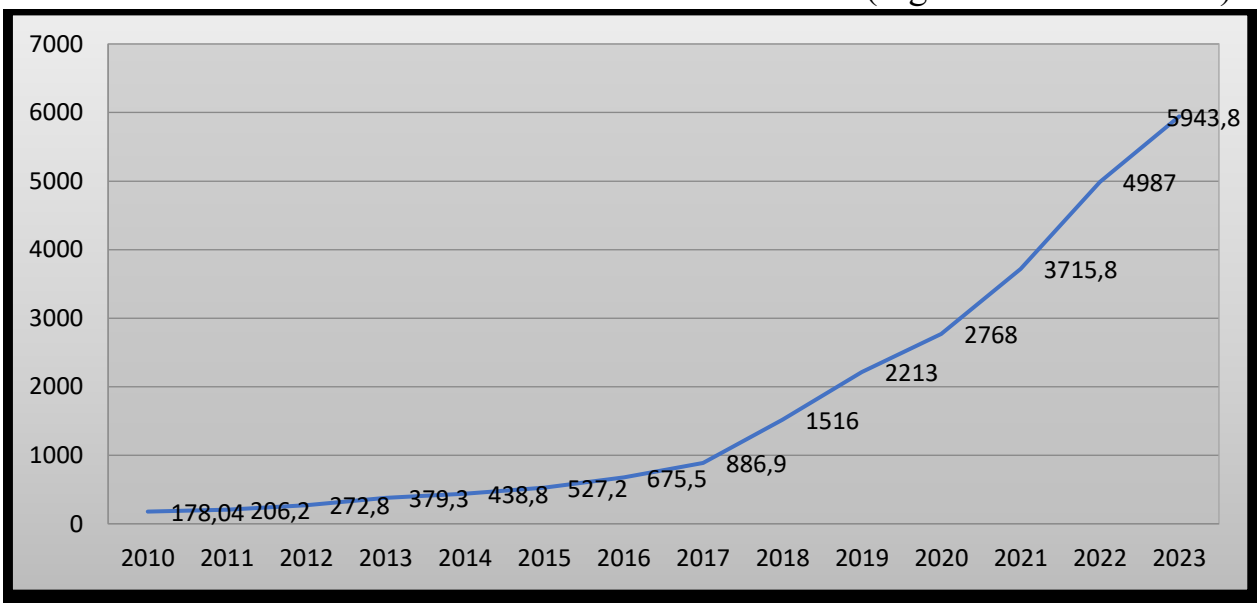
included in the industrial enterprises of Surkhandarya region (table 1). During the study, the volume of investment in industrial enterprises of Surkhandarya region (Bln. sum) we forecast using ARIMA models.

table 1

The volume of investment in industrial enterprises of Surkhandarya region(Bln.sum)[12]

Years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Specification	178	206,2	272,8	379,3	438,8	527,2	675,5	886,9	1516	2213	2768	3715,8	4987	5943,8

A gretl 2023c interpretation of Gretl's software was used for modeling. Typically, ARMA models are used to model stationary time series. In the ARIMA model, however, it also has the potential to model non-stationary time series. It is known that the stationary or constant represents the nature of the process of not changing its properties over time. Initially, the indicators in Table 1 are the volume of investment in industrial enterprises of Surkhandarya region (billion. sum)when modeling, we check the time series stationary. To do this, we look at the drawing of the timed row (Figure 1).



3.3.1-rasm. The volume of investment in industrial enterprises of Surkhandarya region(Bln.sum)[13]

According to the visual analysis of Figure 1, we can see that the time series is not stationary. Therefore, we check the constancy of its first differences. To do this, we will use the ADF-extended Dickey-Fuller test, which is considered one of the most common methods of checking for stability(Table 2). The Dickey-Fuller test (ADF test, Dickey - Fuller test) is a method used in Applied Statistics and econometrics to perform a stationary test to analyze timed rows , representing one of these single root tests (the unit Root Test). It was proposed by David Dickey and Wayne Fuller in 1979 .

[12] Information of surkhandarya Region investment, industrial and Trade Department.
[13] Author development.

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Results of the extended Dickey-Fuller test [14]

```
Augmented Dickey-Fuller test for d_n
testing down from 4 lags, criterion AIC
sample size 9
unit-root null hypothesis: a = 1

  test without constant
  including 3 lags of (1-L)d_n
  model: (1-L)y = (a-1)*y(-1) + ... + e
  estimated value of (a - 1): 0.0860391
  test statistic: tau_nc(1) = 0.26011
  asymptotic p-value 0.7616
  1st-order autocorrelation coeff. for e: 0.079
  lagged differences: F(3, 5) = 3.432 [0.1088]

  test with constant
  including 3 lags of (1-L)d_n
  model: (1-L)y = b0 + (a-1)*y(-1) + ... + e
  estimated value of (a - 1): -0.0060559
  test statistic: tau_c(1) = -0.0187554
  asymptotic p-value 0.9558
  1st-order autocorrelation coeff. for e: -0.057
  lagged differences: F(3, 4) = 2.907 [0.1646]
```

The first difference in the time series according to the results of the unchanged test according to Table 2 is also not stationary. For this reason, we will check the second difference of the ARIMA model(Table 3).

Table 3.

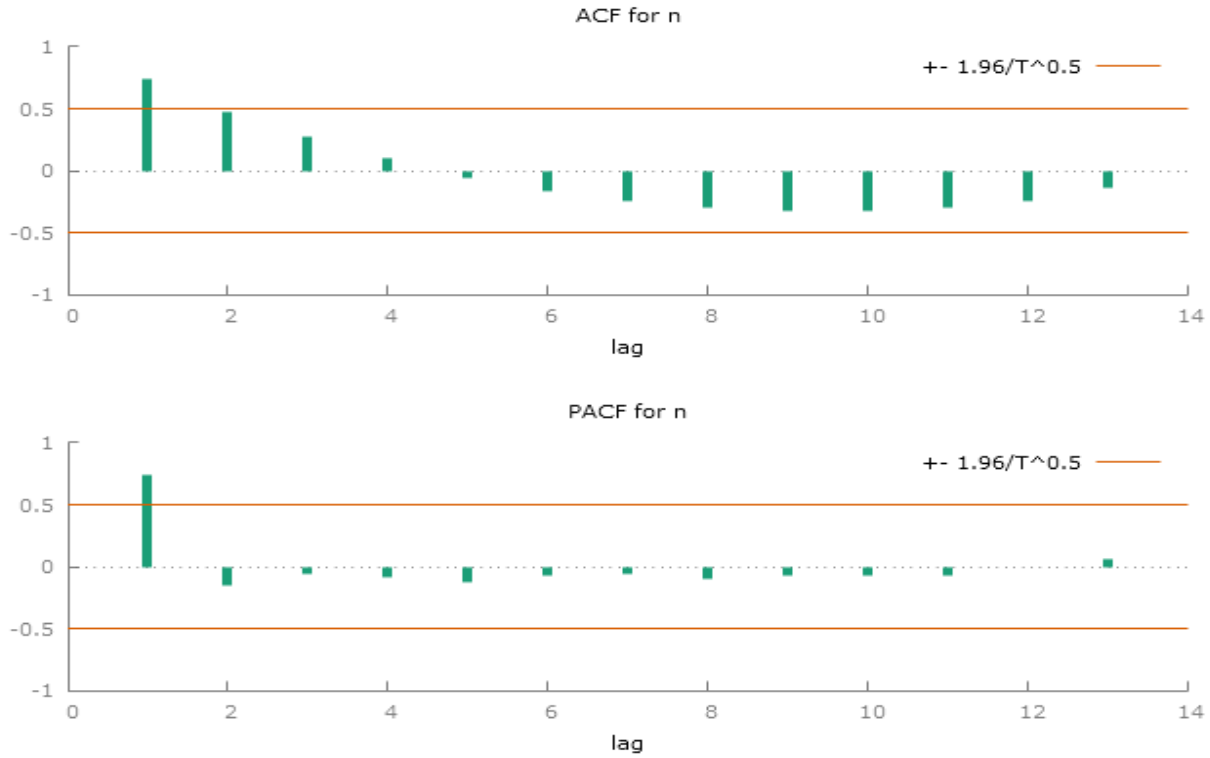
Results of the extended Dickey-Fuller test [15]

```
Augmented Dickey-Fuller test for d_d_n
testing down from 4 lags, criterion AIC
sample size 9
unit-root null hypothesis: a = 1

  test without constant
  including 2 lags of (1-L)d_d_n
  model: (1-L)y = (a-1)*y(-1) + ... + e
  estimated value of (a - 1): -0.0673956
  test statistic: tau_nc(1) = -0.124097
  asymptotic p-value 0.641
  1st-order autocorrelation coeff. for e: 0.020
  lagged differences: F(2, 6) = 6.172 [0.0350]

  test with constant
  including one lag of (1-L)d_d_n
  model: (1-L)y = b0 + (a-1)*y(-1) + ... + e
  estimated value of (a - 1): -2.1232
  test statistic: tau_c(1) = -4.42483
  asymptotic p-value 0.0002631
  1st-order autocorrelation coeff. for e: 0.307
```

According to Table 3, the invariant test results have a p-value of 0.641 and the invariant test results have a p-value of 0.0002631. These values are smaller than the desired significance levels, i.e. $\alpha=0.1$,$\alpha=0.05$,$\alpha=0.01$. So the second difference in the time series is stationary. This means that the order d of the ARIMA(p,d,q)model is 2. So far, our model looks like this:

[14] Author development
[15] Author development

At the next stage, we determine the remaining P and q orders of the ARIMA model. To do this, we will examine the ACF and PACF correlograms. It is shown in Figure 2.



2-rasm. Temporal series correlogram

Figure 2 shows that ACF is decreasing exponentially, and in turn a discontinuity after the first lag is observed in PACF. This was thus found to be an autoregression specific case, and the order of p and q was determined to be p=1 and q=0. Therefore, we experiment with the ARIMA(1,2,0) model order (Table 4).

Table 4

Regression analysis results [16]

Model 14: ARIMA, using observations 2012-2023 (T = 12)
Dependent variable: (1-L)^2 n
Standard errors based on Hessian

	Coefficient	*Std. Error*	*z*	*p-value*	
const	94.9568	17.7216	5.358	<0.0001	***
phi_1	0.351331	0.315030	1.115	0.2648	
theta_1	−0.999999	0.260017	−3.846	0.0001	***

Mean dependent var	77.38667		S.D. dependent var	212.9434
Mean of innovations	−25.68829		S.D. of innovations	166.0018
R-squared	0.992769		Adjusted R-squared	0.992046
Log-likelihood	−79.32677		Akaike criterion	166.6535
Schwarz criterion	168.5932		Hannan-Quinn	165.9354

		Real	*Imaginary*	*Modulus*	*Frequency*
AR					
	Root 1	2.8463	0.0000	2.8463	0.0000
MA					
	Root 1	1.0000	0.0000	1.0000	0.0000

According to table 3.3.4, we will use the capabilities of the Gretl program due to the fact that the results were not obtained from the procedures of the ARIMA model found on the correllogram. In Gretl, we experience the ARIMA(2,1,3)model layout from ‘ARIMA lag selection’(table 5).

Table 5

ARIMA lag tanlash natijalari [17]

```
Estimated using AS 197 (exact ML)
Dependent variable Surxondaryoviloyatisanoatkor, T = 12
Criteria for ARIMA(p, 2, q) specifications
-----------------------------------------------------------
 p, q          AIC           BIC           HQC         loglik
-----------------------------------------------------------
 0, 0     165.6750      166.6448      165.3160      -80.8375
 0, 1     165.8342      167.2889      165.2956      -79.9171
 0, 2           NA            NA            NA            NA
 0, 3           NA            NA            NA            NA
 1, 0     167.2421      168.6968      166.7035      -80.6210
 1, 1     166.6535      168.5932      165.9354      -79.3268
 1, 2     164.9957      167.4203      164.0981      -77.4979
 1, 3     166.4573      169.3667      165.3801      -77.2286
 2, 0     163.4107      165.3504      162.6926      -77.7054
 2, 1     162.8761*     165.3007*     161.9785*     -76.4381
 2, 2     164.7169      167.6263      163.6397      -76.3584
 2, 3     165.8986      169.2929      164.6419      -75.9493
 3, 0     163.2576      165.6821      162.3599      -76.6288
 3, 1     164.7202      167.6296      163.6430      -76.3601
 3, 2     166.3134      169.7078      165.0567      -76.1567
 3, 3     168.0967      171.9759      166.6604      -76.0483

'*' indicates best, per criterion
'NA’ indicates that a specification could not be estimated
Log-likelihood ('loglik') is provided for reference
```

[16] Author development
[17] Author development

The order p=2 and q=1 according to Table 5 are significant by the Akank criterion. For this reason we check the ARIMA(2,2,1)values for the experiment based on the above case(table6).

Table 6

Regression analysis results [18]

Model 18: ARIMA, using observations 2012-2023 (T = 12)
Dependent variable: (1-L)^2 n
Standard errors based on Hessian

	Coefficient	*Std. Error*	*z*	*p-value*	
const	87.5862	28.5755	3.065	0.0022	***
phi_1	−0.491809	0.245565	−2.003	0.0452	**
phi_2	−0.755171	0.179305	−4.212	<0.0001	***
theta_1	0.636258	0.264590	2.405	0.0162	**

Mean dependent var	77.38667	S.D. dependent var	212.9434
Mean of innovations	0.145362	S.D. of innovations	128.5208
R-squared	0.995313	Adjusted R-squared	0.994271
Log-likelihood	−76.43807	Akaike criterion	162.8761
Schwarz criterion	165.3007	Hannan-Quinn	161.9785

		Real	*Imaginary*	*Modulus*	*Frequency*
AR					
	Root 1	-0.3256	-1.1037	1.1507	-0.2957
	Root 2	-0.3256	1.1037	1.1507	0.2957
MA					
	Root 1	-1.5717	0.0000	1.5717	0.5000

From table 6 we can see that all parameters of the model have statistical significance, that is, the coefficients φ_1, φ_2, and 〖theta〗 _1 have statistical significance. Also, according to the table, all parameters of the model are of statistical significance. Also the model's approximation error is MARE =

[18] Author development

10.107%.(Figure3).

Model estimation range: 2012 – 2023
Standard error of the regression = 128.521

	Surxondaryoviloy~	fitted	residual
2012	272.8	303.0	−30.2
2013	379.3	413.3	−34.0
2014	438.8	601.4	−162.6
2015	527.2	592.9	−65.7
2016	675.5	791.7	−116.2
2017	886.9	896.4	−9.5
2018	1516.0	1213.5	302.5
2019	2213.0	2280.7	−67.7
2020	2768.0	2714.9	53.1
2021	3715.8	3572.1	143.7
2022	4987.0	4865.9	121.1
2023	5943.8	6076.4	−132.6

Forecast evaluation statistics using 12 observations

Mean Error	0.14536
Root Mean Squared Error	128.52
Mean Absolute Error	103.24
Mean Percentage Error	−5.4135
Mean Absolute Percentage Error	10.107
Theil's U2	0.52243

Figure 3. Model approximation error . Figure 3 shows that the model's approximation error fully satisfied the required 15% threshold . Further experiments found that there was no autocorrelation in the remains. Also the model residues obey the law of normal distribution. Figure 4 examined the autocorrelation of the remains and observed no autocorrelation state in the remains (Figure 4).

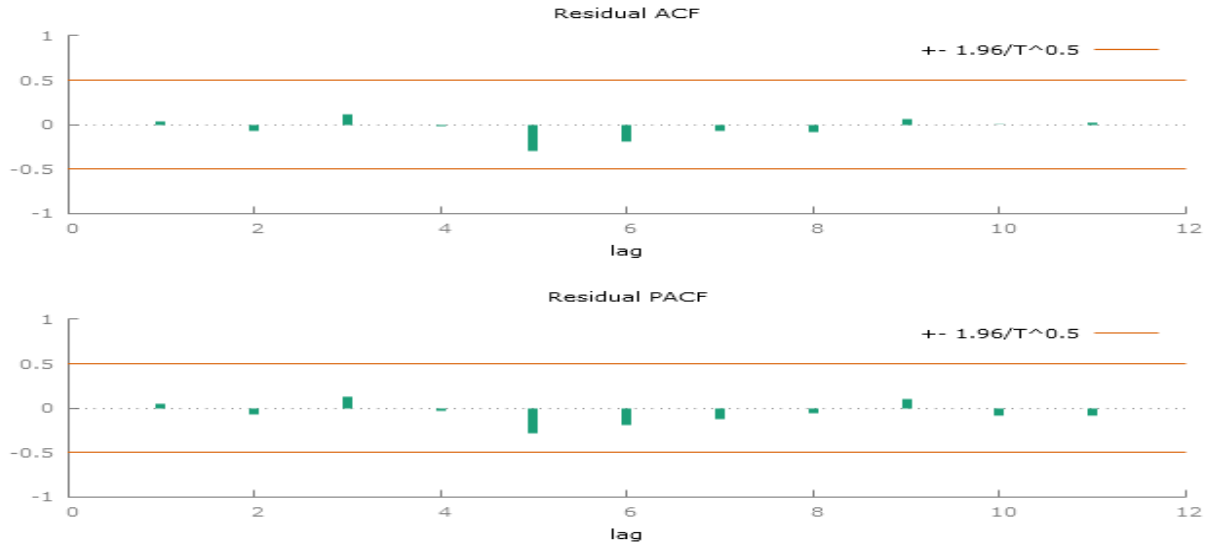
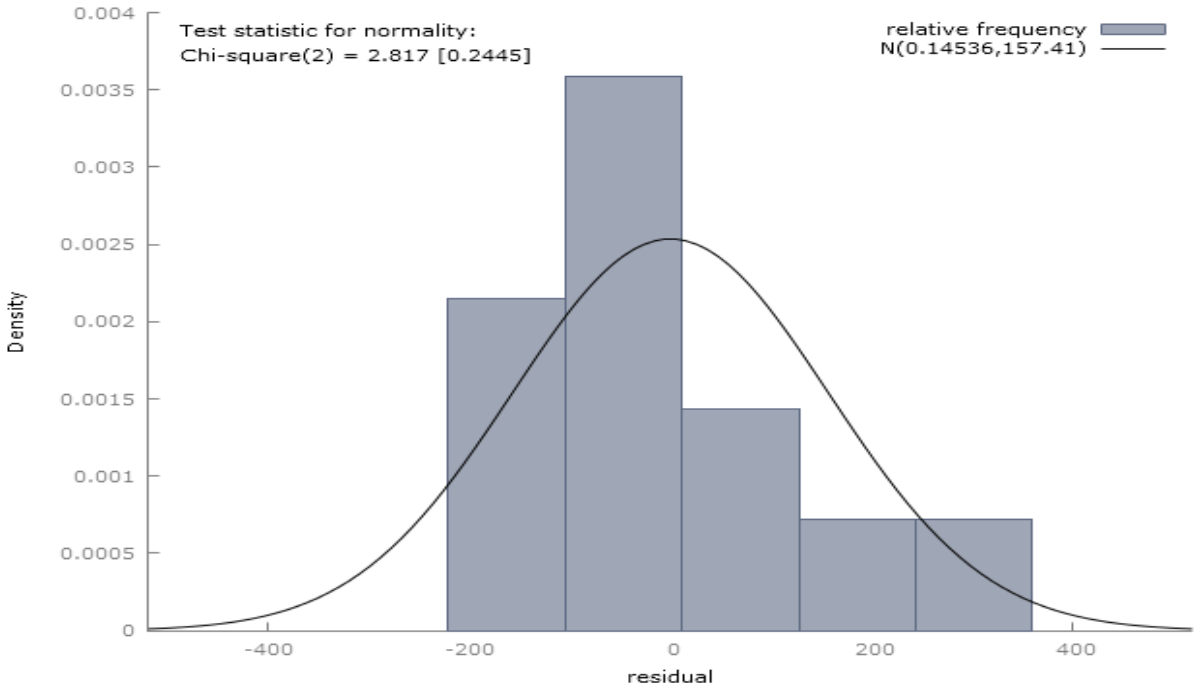


Figure 4. Correlagram of residues

Based on Figure 4, the correlagrammation of residues is subject to the criterion requirements. That is, the lags that pierce the system were not detected. Next we take advantage of Gretl's capabilities to examine the law of normal

distribution(Figure5).



5. Residue normality In experiments according to figure 5, the remnants of the model obey the normal tasimot law. That is, Chi-square(2) = 2.817 [0.2445]. This value is greater than 0.1. Next we will place the normal feed indicators (table 7).

Table 7

Indicators of the law of Normal distribution [19]

Frequency distribution for residual, obs 3-14 number of bins = 5, mean = 0.145362, sd = 157.405					
interval	midpt	frequency	rel.	cum.	
< -104.49	-162.62	3	25.00%	25.00%	*********
-104.49 - 11.782	-46.353	5	41.67%	66.67%	**********
11.782 - 128.05	69.917	2	16.67%	83.33%	******
128.05 - 244.32	186.19	1	8.33%	91.67%	***
>= 244.32	302.46	1	8.33%	100.00%	***
Test for null hypothesis of normal distribution: Chi-square(2) = 2.817 with p-value 0.24448					

From Table 7 we can also see that Chi-square(2) = 2.817 [0.2445]. That this value is greater than 0.1. Thus the general outline of the model was as follows:

ARIMA(2,2,1) ;

or, 87.586−0.492−0.755+0.636

The value of this (4) modeling AKAIKE criterion is 162.8761. It is known that the best model is chosen in which the value of the Akaike criterion is the smallest. Thus, the optimal module was found to be the Arima(2,2,1) model. Also, using (4)and(5), the volume of investment in the industrial sector of Surkhandarya

[19] Author development

region (mlrd.so ' m) we can predict. We can see that this process has the following appearance if we see the predictive state of the ARIMA model in gretl capabilities(Figure 6).

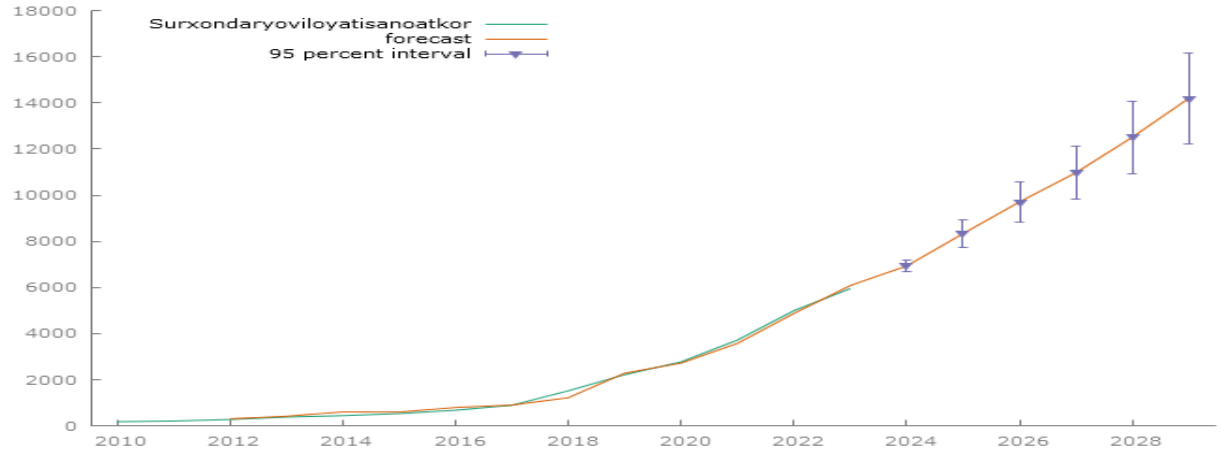


Figure 7. The volume of investment in industrial enterprises of Surkhandarya region(Bln.su m) of predictive value[20]

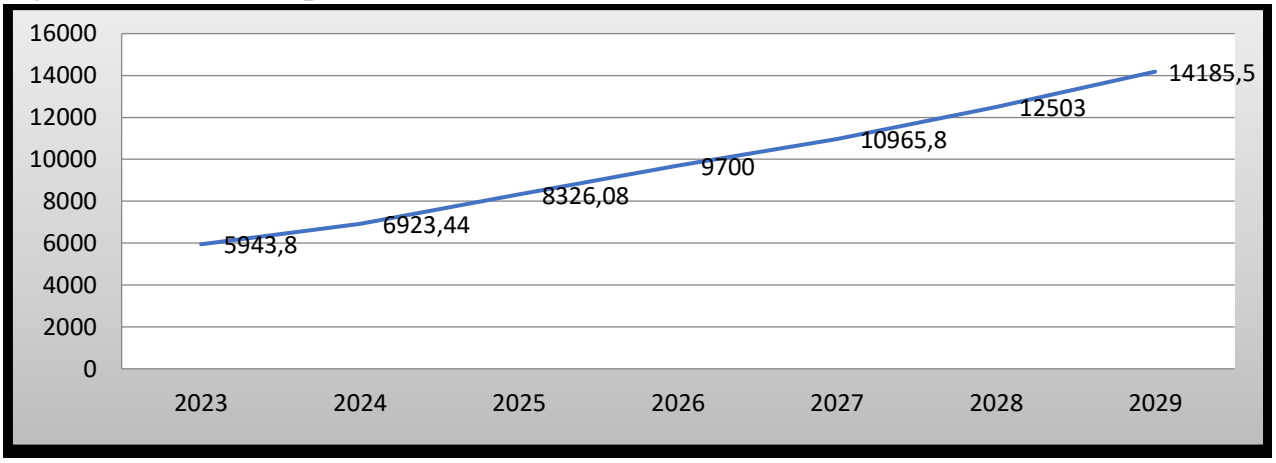


Figure 7. The volume of investment in industrial enterprises of Surkhandarya region(mlrd.so 'm)' s forecast value for 2024-2029 [21]

As can be seen from Figure 6 and Figure 7, the volume of investment in the industrial sector of Surkhandarya region(Bln.sum) it has been found that there is a tendency to grow and that a state of growth can be observed when the factors affecting this state are not affected. If we determine the general view of the indicators of the forecast and confidence intervals of our model, we will make the following view(Table 8)

[20] Author development
[21] Author development

Table 8

Indicators of forecast and confidence intervals [22]

Years	Indicator real values	Indicator theoretical values	Standard error	95% confidence interval lower limit	95% confidence interval upper limit
2010	178.040				
2011	206.200				
2012	272.800	303.006			
2013	379.300	413.287			
2014	438.800	601.423			
2015	527.200	592.896			
2016	675.500	791.732			
2017	886.900	896.403			
2018	1516.00	1213.54			
2019	2213.00	2280.75			
2020	2768.00	2714.93			
2021	3715.80	3572.14			
2022	4987.00	4865.86			
2023	5943.80	6076.39			
2024		6923.44	128.521	6671.55	7175.34
2025		8326.08	304.100	7730.06	8922.11
2026		9700.24	438.922	8839.97	10560.5
2027		10965.8	590.898	9807.64	12123.9
2028		12503.0	797.858	10939.3	14066.8
2029		14185.5	1008.94	12208.0	16163.0

According to Table 8, the volume of investment in industrial enterprises of Surkhandarya region (mlrd.so ' m) 2010-2023-year data was given, and the state of stationary was not observed in investments in the annual industry network collected using statistical observations. Using the Dickey-Füller test, it was found that there is a stationary presence when the second order integrative is I (2).As the most optimal model for the ARIMA model, we calculated that ARIMA is(2,2,1). The ARIMA(2, 2, 1) model has determined the value indicators for the volume of investment in industrial enterprises of Surkhandarya region up to 2029. The volume of investment in industrial enterprises in 2023 is 5943,80 Bln.sum, this figure is 14,185. 5 as of 2029 Bln.sum. The volume of investment in industrial enterprises over the past 6 years according to the forecast results is 8241.7 Bln.sum M will increase, and in 2025-2029 this figure is expected to be 115.5%. The highest increase in the cross-sectional of years will occur in 2029, the volume of investment in industrial enterprises will be 14185.5 billion soums. Descriptive statistics conducted between the volume of investment in industrial enterprises and the forecast of the volume of investment in industrial enterprises calculated using the ARIMA model showed positive results. As a result of the formation of the base of investment volume invested in industrial enterprises, their correct formation, as well as the identification of factors affecting these processes, it will be possible to

[22] Author development

achieve forecast indicators. We forecast the volume of investment in industrial enterprises of Surkhandarya region based on the data from 2010-2023 above, as well as the value of products produced by industrial enterprises of Surkhandarya region through the data provided by the Department of industry, investment and trade of Surkhandarya region using the gretl program through the ARIMA model, based on the data provided (Bln.sum), and the number of industrial enterprises was projected in the above order, and the models produced the following outline(Table 9).

Table 9

General formula views of ARIMA models [23]

Name	Model formula
The volume of investment in the industrial sector of Surkhandarya region(billion sum).	87.586−0.492−0.755+0.636 yoki, ARIMA(2,2,1)
The value of the product produced in the industrial network of Surkhandarya region(billion sum).	50.444−0.919−0.738 yoki, ARIMA(2,2,1)
The number of industries established in Surkhandarya region, in the cross section of years (PCs)	65.020+0.894−0.596+1.0006 yoki, ARIMA(2,1,1)

On the basis of the data available in Table 9, formulas were generated that were specific to the criteria requirements in the gretl program. Also, the overall forecast results of ARIMA models are expressed as follows(table 10).

Table 10

General forecast results of ARIMA models [24]

Years	The volume of investment in the industrial sector of Surkhandarya region(Bln.sum).	The value of the product produced in the industrial network of Surkhandarya region(Bln.sum).	The number of industries established in Surkhandarya region, in the cross section of years (PCs)
2024	6923.44	4978.18	603
2025	8326.08	5142.43	918
2026	9700.24	6233.20	1125
2027	10965.8	7106.13	1167
2028	12503.0	7628.84	1128
2029	14185.5	8768.64	1112

Conclusion: The volume of investment in the industrial sector of Surkhandarya region in recent years(billion sum), the value of the product produced by industrial enterprises(billion sum) and the number of industrial enterprises (PCs)

[23] Author development
[24] Author development

5943, respectively 80mlrd.so 'm, 4137,30 billion soums. the investment in the industrial sector is 14,185 in 2029, if it is m and 400 5 billion soums., the value of the product produced by industrial enterprises is 8768,64 billion soums. and the number of industrial enterprises in 2027 is projected to reach 1167. In 2025-2029, these figures are expected to be 115.5%, 112.2% and 114.8% respectively. As we know from the table, the volume of investments in the industrial sector(billion sum), the value of products produced in the industrial sector(billion sum) and the number of enterprises being established in the industrial sector represents positive results. The products created at the enterprises created by the inclusions introduced into the industrial network will not only improve the way of living the population, but also contribute to the creation of new jobs, the improvement of population income, the growth of the country's gross domestic product.

List of used literature

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UO'T 626.35

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BUXORO TUMANIDAN OQIB O'TUVCHI "CHORBAKIR" KANALINI REKONSTRUKSIYA QILISH

Annotatsiya: *Ushbu maqolada "Chorbakir" kanali haqida umumiy ma'lumotlar keltirilgan bo'lib, ushbu ma'lumotlar orqali inshootni rekanstruksiya ishlari amalga oshirilgan. Amalga oshirilgan rekanstruksiya ishlari orqali inshootning hozirgi holati baholangan. Hozirgi kunda suv kamayib borayotganligini inobatga olgan holib suvni istemolchiga yo'qotilishlarini kamaytrib yetqarishni inobatga olingan, inshootning texnik holatini yaxshilash bo'yicha tavsiya va umumiy xulosalar keltirib o'tilgan.*

Kalit so'zlar: *Kanal, rekonstruksiya, suv sarfi, sarf koeffitsiyenti, trapetsiya kanal, loyqa cho'kishi.*

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RECONSTRUCTION OF THE CHORBAKIR CANAL FLOWING THROUGH THE BUKHARA REGION

Abstract: *This article provides general information about the Chorbakir canal, through which the reconstruction of the structure was carried out. During the*

reconstruction work, the current condition of the structure was assessed. Taking into account that water consumption is currently decreasing, it was decided to reduce water losses for consumers, recommendations and general conclusions on improving the technical condition of the structure are given.

Keywords: *Channel, reconstruction, water flow, flow coefficient, trapezoidal channel, turbid sediment.*

“Chorbakr” kanali – 1974 yilda qurilgan, Uzunligi – 8,1 kmni tashkil etadi, loyihaviy suv o‘tkazish qobiliyati 9 m3/s, Suv olish manbai “Kobdun nazorat” kanali, Bog‘langan jami yer maydon 2146 gektar.

Chorbakr (loyihaviy suv farfi Q=6.0 m^3/s) kanalining oxiri “Navro‘z” (suv farfi Q=1.0 m^3/s) va “Novmetan” (suv farfi Q=3.0 m3/s) kanallariga bo‘linib ketadi. “Navro‘z” kanali loyihalashtirilayotgan Chorbakr kanalimizdan 70 sm balandda qurilganligi sababli Chorbakr kanali ko‘mish orqali 50 sm ga ko‘tarib (nishabligi i=0.0004, kanal osti kengligi b=2.5÷2.0 m, qiyaligi m=1.75, qalinligi t=10 sm)li beton qoplama qoplash yo‘li bilan loyihalashtirildi. Kanal ostida to‘plangan ortiqcha loy va axlatlar; katta va kichik ko‘priklar ostlari, barcha turdagi kommunikatsiyalar ostlari qo‘l kuchi va texnika (ekskovator)lar yordamida amalga oshiriladi.

1-rasm Chorbakir kanali PK40+00

2-rasm. Chorbakir kanali PK45+00

1-jadval

№№		НАИМЕНОВАНИЕ РАБОТ	ЕД.ИЗМ	КОЛ-ВО
1	1	2	3	4
		РЕКОНСТРУКЦИЯ КАНАЛА ЧОРБАКР		
		ЗЕМЛЯННЫЕ РАБОТЫ		
		КОРЧЕВКА ПНЕЙ ДИАМЕТРОМ 25-35СМ	ШТ	**300**
		РАЗРАБОТКА СТАРЫЙ СЕЧЕНИЕ ОДНОКОВШОВЫМИ ЭКСКАВАТОРАМИ С КОВШОМ ВМЕСТИМОСТЬЮ 0,8 М3 ГРУППА ГРУНТОВ 2 С ПОГРУЗКОЙ/СТР. СЕЧЕНИЕ ДО БЕТОНА/	М3	**9784**
		РАЗРАБОТКА ГРУНТА В РУЧНУЮ ПОД ПЕРЕСЕЧЕНИЕ ГРУППА ГРУНТОВ 2 С ПОГРУЗКОЙ/СТР. СЕЧЕНИЕ/	М3	**741**
		РАЗРАБОТКА СТАРЫЙ СЕЧЕНИЕ ОДНОКОВШОВЫМИ ЭКСКАВАТОРАМИ С КОВШОМ ВМЕСТИМОСТЬЮ 0,8 М3 ГРУППА ГРУНТОВ 2 С ПОГРУЗКОЙ/СТР. СЕЧЕНИЕ ДО БЕТОНА/	М3	**741**
		ПЕРЕВОЗКА ГРУЗОВ АВТОМОБИЛЯМИ-САМОСВАЛАМИ ДО 10 КМ /СТР СЕЧЕНИЕ/	Т	**17366**
		РАЗРАБОТКА ГРУНТА ОДНОКОВШОВЫМИ ЭКСКАВАТОРАМИ С КОВШОМ ВМЕСТИМОСТЬЮ 0,8 М3 С ПОГРУЗКОЙ НА ТРАНСПОРТ ГРУППА ГРУНТОВ 2 /ДЛЯ НАСЫП НЕДОСТАЯЩИЙ ГРУНТ/	М3	**27106**
		ПЕРЕВОЗКА ГРУЗОВ АВТОМОБИЛЯМИ-САМОСВАЛАМИ ДО 10 КМ /ЗАВОЗ/	М3	**44725**
		РАЗРАБОТКА ГРУНТА ОДНОКОВШОВЫМИ ЭКСКАВАТОРАМИ С КОВШОМ ВМЕСТИМОСТЬЮ 0,8 М3 ГРУППА ГРУНТОВ 1 /ПАДАВАТЬ НА СЕЧЕНИЕ/	М3	**27106**
		УПЛОТНЕНИЕ ГРУНТА ПНЕВМАТИЧЕСКИМИ ТРАМБОВКАМИ С УВЛАЖНЕНИЕМ И ДОВОДЕНИЕМ γ=1.65 т/м3	Т	**27106**
		РАЗБОРКА СТАРОГО БЕТОННОГО СЕЧЕНИЕ	М3	**1**
		БЕТОНИРОВАНИЕ КАНАЛА ТОЛЬЩИНОЙ 0.1 СМ (М150)		
		УКЛАДКА ДНО И ОТКОС КАНАЛА БЕТОН М-150	М3	**3444**
		ПРОЧИ РАБОТ: ТЕМПЕРАТУРНО-УСАДОЧНЫЕ И СТРОИТЕЛЬНОГО ШВЫ		
		РУБЕРОИД СТРОИТЕЛЬНОГО ДЛЯ ТЕМПЕРАТУРНО-УСАДОЧНЫХ ПОПЕРЕЧНЫХ ШВОВ	М2	**17230**

Mavjud muammo: SFK loyxaviy 0,90 %, xaqiqiy 0,60 %, Suv o‘tkazish qobiliyati loyixaviy 9,0 m3/sek, haqiqiy 2,5 m3/sekdan oshmaydi. Loyqa o‘tirishi xamda o‘simliklarni o‘sishi natijasida suv o‘tkazish qobiliyati pasaygan. Kanalni

xar yil joriy tozalashda 6000-8500 m3 tuproq ishi mexanizm yordamida katta sarf xarajatlar bilan bajariladi.

Xulosa va tafsiyalar

Ushbu maqolada biz Chorbakr kanalining oxiri “Navro‘z” va “Novmetan” kanallariga bo‘linib ketadi. “Navro‘z” kanali loyihalashtirilayotgan Chorbakr kanalimizdan 70 sm balandda qurilganligi sababli Chorbakr kanali ko‘mish orqali 50 sm ga ko‘tarib (nishabligi i=0,0004, kanal osti kengligi b=2,5÷2,0 m, qiyaligi m=1,75, qalinligi t=10 sm)li beton qoplama qoplash yo‘li bilan loyihalashirsak.

SFKsi 0,60 dan 0,90 ga, 2146 ga maydon suv ta’minoti yaxshilanadi, yangi loyixaviy ko‘rsatkichi 6,0 m^3/sek suv o‘tkazishga erishiladi, bog‘langan maydonda suv ta’minoti oshadi, suv o‘tkazish qobilyati 2,5 m^3/s dan 6,0 m^3/s gacha oshishi va 13 % suvni iqtisod bo‘lishiga erishishimiz mumkin

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BUXORODAN OQIB O'TUVCHI "SHOXRUD" KANALINI REKONSTRUKSIYA QILISH

Annotatsiya: *Ushbu maqolada "Shoxrud" kanali haqida ma'lumotlar keltirilgan bo'lib, ushbu ma'lumotlar orqali inshootni rekanstruksiya ishlari amalga oshirilgan. Amalga oshirilgan rekanstruksiya ishlari orqali inshootning hozirgi holati baholangan. Hozirgi kunda suv kamayib borayotganligini inobatga olgan holib suvni istemolchiga yo'qotilishlarini kamaytrib yetqarishni inobatga olingan, inshootning texnik holatini yaxshilash bo'yicha tavsiya va umumiy xulosalar keltirib o'tilgan.*

Kalit so'zlar: *Kanal, rekonstruksiya, suv sarfi, sarf koeffitsiyenti, trapetsiya kanal, loyqa cho'kishi.*

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RECONSTRUCTION OF THE "SHAKHRUD" CANAL FLOWING FROM BUKHARA

Abstract: *This article provides information about the Shokhrud canal, through which the reconstruction of the structure was carried out. During the reconstruction work, the current condition of the structure was assessed. Taking into account that water consumption is currently decreasing, it was decided to reduce water losses for consumers, recommendations and general conclusions on improving the technical condition of the structure are given.*

Keywords: *Channel, reconstruction, water flow, flow coefficient, trapezoidal channel, turbid sediment.*

“Shoxrud” kanali – 1971 yilda qurilgan, Uzunligi – 5,9 kmni tashkil etadi, loyihaviy suv o‘tkazish qobiliyati 1,5 m^3/s. Suv olish manbai “Chorbakr” kanali , bog‘langan jami yer maydon 1016 gektar , 12 ta fermer xo‘jaliklari va bog‘-uzumzorlar, tomorqa 354 gektar.

Mavjud muammo: SFK loyxaviy 0,90 %, xaqiqiy 0,60 %, Suv o‘tkazish qobiliyati loyixaviy 1,5 m3/sek, haqiqiy 0,6 m3/sekdan oshmaydi Loyqa o‘tirishi xamda o‘simliklarni o‘sishi natijasida suv o‘tkazish qobiliyati pasaygan. Bundan tashqari kanal nishabligi talabga javob bermaganligi tufayli loyqa cho‘kishi tez. Kanalni xar yil joriy tozalashda 3500-5000 m3 tuproq ishi mexanizm yordamida katta sarf xarajatlar bilan bajariladi.

Shoxrud kanalini rekonstruksiya qilinadigan uzunligi 2.25 km. PK0+00 dan PK3+50 gacha kanal (izvestnyak) bilan qoplanmoqda. PK0+00 dan PK22+48 gacha kanal tubi qalinligi t=10 sm monolit beton qoplamasi bilan qoplanmoqda. Kanalning loyihaviy suv sarfi Q=1.0 m^3/s.

1-rasm. Shoxrud kanali PK14+77 dan PK18+00 gacha

1-jadval

РЕКОНСТРУКЦИЯ КАНАЛА ШОХРУД			
ЗЕМЛЯННЫЕ РАБОТЫ			
1	РАЗРАБОТКА ГРУНТА ВРУЧНУЮ, ГРУППА ГРУНТОВ 2/ВЫЕМКА/	М3	979,4
2	РАЗРАБОТКА ГРУНТА ЭКСКАВАТОРАМИ JY 230 ELD С ЕМКОСТЬЮ КОВША 0,8 М3 В ГРУНТАХ 1 ГРУППЫ. РАЗРАБОТКА ЭКСКАВАТОРАМИ С ПОГРУЗКОЙ В АВТОСАМОСВАЛЫ	М3	979,4
3	ПЕРЕВОЗКА ГРУЗОВ АВТОМОБИЛЕМ, РАССТОЯНИЕ ПЕРЕВОЗКИ 10 КМ,ПРИ ПЕРЕВОЗКЕ АВТОСАМОСВАЛАМИ ГРУЗОПОДЪЕМНОСТЬЮ 25Т/ВЫВОЗ/	Т	1616
4	РАЗБОРКА ФУНДАМЕНТОВ БЕТОННЫХ	М3	436
5	РАЗРАБОТКА ГРУНТА ЭКСКАВАТОРАМИ JY 230 ELD С ЕМКОСТЬЮ КОВША 0,8 М3 В ГРУНТАХ 1 ГРУППЫ. РАЗРАБОТКА ЭКСКАВАТОРАМИ С ПОГРУЗКОЙ В АВТОСАМОСВАЛЫ	М3	436
6	ПЕРЕВОЗКА ГРУЗОВ АВТОМОБИЛЕМ, РАССТОЯНИЕ ПЕРЕВОЗКИ 10 КМ,ПРИ ПЕРЕВОЗКЕ АВТОСАМОСВАЛАМИ ГРУЗОПОДЪЕМНОСТЬЮ 25Т/ВЫВОЗ/	Т	1090
БЕТОНИРОВАНИЕ КАНАЛА			
7	УКЛАДКА БЕТОНА ПРИ УВЛАЖНЕНИИ ПОВЕРХНОСТИ ВОДОЙ	М3	505,73
8	УСТРОЙСТВО ЛЕНТОЧНЫХ ФУНДАМЕНТОВ БЕТОННЫХ	М3	178,78
9	УСТРОЙСТВО ОТКОСОВ	М3	22,00
10	УСТРОЙСТВО БЕТОННОЙ ПОДГОТОВКИ/НАРАШЕВАНИЕ МОСТОВ/	М3	9,00
ПРОЧИЕ РАБОТЫ			
11	УСТРОЙСТВО ОСНОВАНИЯ ГРАВИЙНОГО	М3	436,730
12	УСТАНОВКИ АРМОСЕТОК И АРМОКАРКАСОВ	Т	0,597
13	КЛАДКА ИЗ КРУПНЫХ ИЗВЕСТНЯКОВЫХ БЛОКОВ МАССОЙ БОЛЕЕ 0,5 Т	М3	184
14	СТОИМОСТЬ ПЛИТЫ ОБЛИЦОВОЧНЫЕ ИЗВЕСТКАВОЕ 8Х40Х60СМ	ШТ	1966
15	СТОИМОСТЬ БЛОК ИЗВЕСТЯКОВЫЕ 20Х30Х60СМ	ШТ	4063
16	МОНТАЖ ПЛОЩАДОК С НАСТИЛОМ И ОГРАЖДЕНИЕМ ИЗ ЛИСТОВОЙ, РИФЛЕНОЙ, ПРОСЕЧНОЙ И КРУГЛОЙ СТАЛИ	Т	5,5
17	МЕТАЛЛОКОНСТРУКЦИЯ ОГРАЖДЕНИЕ	Т	5,5
ТРУБЧАТЫЙ ПЕРЕЕЗД			
18	РАЗРАБОТКА ГРУНТА ЭКСКАВАТОРАМИ JY 230 ELD С ЕМКОСТЬЮ КОВША 0,8 М3 В ГРУНТАХ 2 ГРУППЫ	М3	0,125
19	УСТРОЙСТВО ОСНОВАНИЯ ГРАВИЙНОГО	10М3	0,15
20	УСТРОЙСТВО ОСНОВАНИЯ БЕТОННОГО	10М3	0,15
21	УКЛАДКА ТРУБОПРОВОДОВ ИЗ ЖЕЛЕЗОБЕТОННЫХ БЕЗНАПОРНЫХ РАСТРУБНЫХ ТРУБ ДИАМЕТРОМ 600 ММ	М/ШТ	25/10
22	ОКРАСОЧНАЯ ИЗОЛЯЦИЯ ГОРИЗОНТАЛЬНОЙ БЕТОННОЙ ПОВЕРХНОСТИ ГОРЯЧИМ БИТУМОМ В ДВА СЛОЯ	100М2	0,49
23	ЗАСЫПКА ВРУЧНУЮ ТРАНШЕЙ, ПАЗУХ КОТЛОВАНОВ И ЯМ, ГРУППА ГРУНТОВ 1	М3	0,7813
БЕТОНИРОВАНИЕ КАНАЛА/ПК14+77-ПК21+00/			
24	РАЗРАБОТКА ГРУНТА ЭКСКАВАТОРАМИ JY 230 ELD С ЕМКОСТЬЮ КОВША 0,8 М3 В ГРУНТАХ 2 ГРУППЫ. РАЗРАБОТКА ЭКСКАВАТОРАМИ С ПОГРУЗКОЙ В АВТОСАМОСВАЛЫ/ОЧИСТКА СЕЧЕНИЕ ДО БЕТОНА/	М3	148,83
25	ПЕРЕВОЗКА ГРУЗОВ АВТОМОБИЛЕМ, РАССТОЯНИЕ ПЕРЕВОЗКИ 10 КМ, ПРИ ПЕРЕВОЗКЕ АВТОСАМОСВАЛАМИ ГРУЗОПОДЪЕМНОСТЬЮ 25Т /ВЫВОЗ/	Т	246,00
26	РАЗБОРКА ФУНДАМЕНТОВ БЕТОННЫХ	М3	243,62
27	РАЗРАБОТКА ГРУНТА ЭКСКАВАТОРАМИ JY 230 ELD С ЕМКОСТЬЮ КОВША 0,8 М3 В ГРУНТАХ 2 ГРУППЫ. РАЗРАБОТКА ЭКСКАВАТОРАМИ С ПОГРУЗКОЙ В АВТОСАМОСВАЛЫ/НЕДОСТОЯЩИЙ ГРУНТ ДЛЯ НАСЫПА/	М3	180,67
28	ПЕРЕВОЗКА ГРУЗОВ АВТОМОБИЛЕМ, РАССТОЯНИЕ ПЕРЕВОЗКИ 10 КМ, ПРИ ПЕРЕВОЗКЕ АВТОСАМОСВАЛАМИ ГРУЗОПОДЪЕМНОСТЬЮ 25Т/ЗАВОЗ/	Т	298,00
29	РАЗРАБОТКА ГРУНТА ЭКСКАВАТОРАМИ JY 230 ELD С ЕМКОСТЬЮ КОВША 0,8 М3 В ГРУНТАХ 1 ГРУППЫ/ПАДАЕТ В СЕЧЕНИЕ/	М3	180,67
30	УПЛОТНЕНИЕ ГРУНТА ПНЕВМАТИЧЕСКИМИ ТРАМБОВКАМИ, ГРУППА ГРУНТОВ 1, 2	М3	180,67
31	ПОЛИВ ВОДОЙ УПЛОТНЯЕМОГО ГРУНТА НАСЫПЕЙ	М3	180,67
32	УКЛАДКА БЕТОНА ПРИ УВЛАЖНЕНИИ ПОВЕРХНОСТИ ВОДОЙ	М3	205,59
33	РУБЕРОИДА СТРОИТЕЛЬНОГО ДЛЯ ТЕМПЕРАТУРНО-УСАДОЧНЫХ ПОПЕРЕЧНЫХ ШВОВ	М2	1920,00
34	ПЛАНИРОВКА ВРУЧНУЮ ДНА И ОТКОСОВ ВЫЕМОК КАНАЛОВ, ГРУППА ГРУНТОВ 1	М2	2492,00

Muammoning yechimi: Shoxrud kanalini rekonstruksiya qilinadigan uzunligi 2.25 km. PK0+00 dan PK22+48 gacha kanal tubi qalinligi t=10 sm monolit beton qoplamasi bilan qoplanmoqda. Kanalning loyihaviy suv sarfi Q=1.0 m3/s

Xulosa va tafsiyalar

Ushbu maqolada biz SFKsi 0,6 dan 0,90 ga, 1016 ga maydon suv ta'minoti yaxshilanadi, yangi loyixaviy ko'rsatkichi 1,0 m^3/sek suv o'tkazishga erishiladi, bog'langan maydonda suv taminoti oshadi, suv o'tkazish qobilyati 0,6 m^3/s dan 1,0 m^3/s gacha oshirish va 15 % suvni iqtisod bo'lishiga erishishimiz mumkin

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OLIY TA'LIM TIZIMIDA NODAVLAT TA'LIM MUASSALARINING ROLI VA AHAMIYATI

Annotatsiya. *Hozirda yangidan-yangi oliy o'quv yurtlari, dunyodagi etakchi universitetlarning filiallari tashkil etilmoqda. Shu nuqtai nazardan xususiy oliy ta'lim muassasalaridagi moliyaviy holat tahlil qilingan va ta'lim muassasalarining daromadlari manbalarining barqarorligini ta'minlash yo'llari bo'yicha ilmiy taklif va amaliy tavsiyalar asoslab keltirilgan.*

Tayanch so'zlar: *ta'lim muassasalari, davlat-xususiy sherikchiligi, nodavlat ta'lim tashkilotlari, kontrakt, daromadlar, xarajatlar, respublika byudjeti, smeta, shtat birliklari, daromad bazalari, soliqlar, moliyaviy tahlil.*

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THE ROLE AND SIGNIFICANCE OF NON-STATE EDUCATIONAL INSTITUTIONS IN THE HIGHER EDUCATION SYSTEM

Abstract*. Currently, new higher education institutions, branches of leading universities in the world are being established. In this context, the financial situation in private higher education institutions is analyzed and scientific proposals and practical recommendations on ways to ensure the stability of sources of income of educational institutions are substantiated.*

Keywords*: educational institutions, public-private partnership, non-state educational organizations, contract, income, expenses, republican budget, estimate, staff units, income bases, taxes, financial analysis.*

Respublikamizda yaqin yillardan buyon ta'lim tizimiga, xususan oliy ta'lim tizimiga juda keng imkoniyatlar berilmoqda. O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning Yoshlar kuniga bag'ishlangan tantanali marosimdagi ma'ruzasida "Mamlakatimizda yuqori bilim va malakaga ega bo'lgan,

raqobatbardosh kadlar tayrlash muqsadida oliygohlar soni 127 taga etkazildi, 26 ta xorijiy oliy ta'lim muassasasining filiallari ochildi. Shuningdek, keyingi 5 yilda oliy t'alimga qabul kvotasi 3 barobar oshirilib, joriy yilda 182 ming yoshlar uchun talaba bo'lish imkoniyati yaratildi. Bu –umumiyqamrov 28 foizga etdi, deganidir. Vaholangki, 4 yil avval bu raqam atigi 9 foizni tashkil etardi. Davlat grantlari 21 dan 47 mingtaga ko'paytirilgani, ehtiyojmand oilalarga mansub 2 ming nafar qizlarga oily o'quv yurtlariga kirish uchun alohida grantlar atjratilgani yoshlarimiz kelajagini ta'minlashga qaratilgan amaliy e'tiborimiz namunasidir"[25] deb ta'kidlashlari, oliy ta'lim tizimini rivojlantirishning strategik maqsadlari va ustuvor yo'nalishlarini yangi bosqichga olib chiqishga asos bo'ladi.

Hozirgi kunda davlatimizda islohotlar faqat iqtisodiyot sohasida emas, boshqa sohalarda ham olib borilmoqda, bu - avvalo, institutsional islohotlar bo'lib, ular eski markazlashtirilgan iqtisodiy tizimni yangi, erkin boshqaruv tizimiga o'tkazishni, uni rag'batlantiruvchi, hayotiy faoliyatga aylantirishni ta'minlaydi. Shu nuqtai nazarda ta'lim tizimida ham tub islohotlar amalga oshirilib kelinmoqda.

Ta'lim tizimini modernizatsiya qilishning muhim asoslari, jumladan, quyidagilar bo'ldi:

- Respublikaning demokratik huquqiy davlat va ochiq fuqarolik jamiyat barpo etish yo'lida barqaror ilgarilashi;

- mamlakat iqtisodiyotida radikal o'zgarishlar amalga oshirilishi, respublika xo'jaligining xom ashyo ustun yo'nalishidan raqobatbardosh pirovard mahsulot ishlab chiqarishga izchil transformatsiyasini, mamlakat eksport salohiyati kengaytirilishi;

- davlat ijtimoiy siyosatida shaxs manfaatlari va ta'lim ustivorligini qaror toptirish;

O'zbekiston Respublikasi boshqa mamlakatlarga qiyosan olganda inson taraqqiyoti ko'rsatkichlari borasida ham farqlanib turadi. Basharti, YAMMning taxminan 10%ga yaqini, davlat budjetining esa 35% atrofidagi mablag'lari ta'lim tizimiga yo'naltirilgan. Ammo ta'limga sarf-harajatlar o'sishi nafaqat budjetdan moliyaviy mablag'larni ko'paytirish, qolaversa shakllanish mexanizmi yetarlicha tadqiq etilmagan budjetdan tashqari yangi manbalar bilan ham ta'minlandi. Ilgari moliyaviy ta'minlash mexanizmi ta'lim muassasalari ehtiyojlariga mablag'lar ajratish qat'iy reglamentlangan tartibiga asoslangan edi. Hozir esa oliy o'quv yurtlariga moliyaviy-xo'jalik mustaqilligini berishni nazarda tutuvchi moliyaviy ta'minlash aralash modeli borgan sayin keng tarqalmoqda. Moliyaviy mablag' bilan ta'minlash hozirgi tizimi ta'lim xizmatlari bozori va mehnat bozorini inobatga olgan holda tashkil etilgan. Ana shunday sharoitda uzoq muddatli xarakterdagi prognozlash baholashni o'z ichiga oluvchi ta'lim xizmatlari ijtimoiy marketingi alohida o'rin tutadi. Personallashtirilgan moliyaviy ta'minlash, ya'ni ta'lim xizmatlari iste'molchisining bevosita mablag' bilan ta'minlashi hamda korxonalar va aholi tomonidan yondosh moliyaviy ta'minlash alohida o'rin egallaydi. Moliya

[25] O'zbekistonRespublikasiPrezidentiShavkatMirziyoyevning Yoshlar kuniga bag'ishlangan tantanali marosimdagi maruzasi//https://president.uz/uz/lists/view/4463

mablag‘ bilan ta’minlash yangicha tartibi amaliyoti tahlil etish va umumlashtirishni talab qiladi. O‘zbekiston Respublikasida ta’lim tuzilmasi va bandlik tuzilmasining demografik vaziyat bilan o‘zaro bog‘liqligi ustida izlanish bormoqda,bu narsa esa milliy ta’lim modelini shakllantirishda ancha muhimdir. O‘tish davridagi oliy ta’lim tizimini isloh qilish tajribasini kompleks tadqiq etish-barqaror iqtisodiy yuksalishga erishishga bog‘liq. Bularning barchasi davlat oliy ta’lim davlat siyosati zamonaviy konseptual yondoshuvning yangi shakllari va uslublarini ro‘yobga chiqarish bilan bog‘liq bo‘lgan muammolar dolzarbligini oshiradi.

Mamlakatimizda so’nggi yillarda barcha sohalarda bo‘lgani singari ta’lim tizimida, xususan oliy ta’lim tizimida ham tub islohotlar amalga oshirilmoqda. Mazkur islohotlardan ko‘zda tutilayotgan eng oliy maqsad mamlakatimizni rivojlangan demokratik davlatlar qatoriga kirishida munosib hissa qo‘shadigan yuqori malakali kadrlar tayyorlashdan iborat. O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev Oliy Majlisga Murojaatnomasida, “Biz O‘zbekistonni rivojlangan mamlakatga aylantirishni maqsad qilib qo‘ygan ekanmiz, bunga faqat jadal islohotlar, ilm-ma’rifat va innovatsiya bilan erisha olamiz. Buning uchun, avvalambor, tashabbuskor islohotchi bo‘lib maydonga chiqadigan, strategik fikr yuritadigan, bilimli va malakali yangi avlod kadrlarini tarbiyalashimiz zarur. Shuning uchun ham bog‘chadan boshlab oliy o‘quv yurtigacha – ta’limning barcha bo‘g‘inlarini isloh qilishni boshladik”[26] deb alohida to‘xtalib o‘tdilar. Bu kabi mulohazalar ta’lim tizimiga qaratilayotgan e’tiborning va bu sohada bajarilayotgan ishlarning samaradorligidan dalolat bermodqa deyish mumkin.

Xulosa va takliflar. Respublikada Kadrlar tayyorlash Milliy dasturining bosh ustivor yo‘nalishi-ijtimoiy-siyosiy hayotda ongli ravishda ishtirok etishga va ijtimoiy jarayonlarga faol ta’sir o‘tkazishga qodir shaxsni shakllantirishdir.

Mehnat sohasiga qadam qo‘yayotgan kishilar kasb-hunar egallash va ish topish imkoniyatlariga ega bo‘lishi uchun o‘rta maxsus ta’lim muasasasalari rivojlanishiga alohida e’tibor qaratildi. Kadrlar tayyorlash milliy modeli O‘zbekistonning raqobatbardoshligini ta’minlash zaminidir. Ta’lim jarayoni maqsadlari, mundarijasi, hajmiy va davriy tuzilmasini belgilovchi davlat ta’lim standartlarini uning muhim unsuridir. Kadrlar tayyorlash Milliy dasturining spetsifik xususiyati uning inson butun umri davomida uzluksiz ta’lim tizimini rivojlantirishga yo‘naltirilganligidir.

Ta’lim islohotlari mantig‘i O‘zbekiston iqtisodiyotining barcha bo‘g‘inlarini isloh qilish, ularning vorsiyligi, izchilligi, tizimga solinganligi va hokazolar mantig‘iga to‘la mos keladi.

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ARGO UML DASTURI YORDAMIDA AXBOROT TIZIMINI LOYIHALASHTIRISH USULLARI

Annotatsiya*: Mazkur maqolada ARGO UML dasturi yordamida axborot tizimini loyihalashtirish usullari, qo'llaniladigan asosiy yondashuvlar, diagrammalar va metodologiyalar, tibbiyot, ta'lim va boshqa sohalarda amaliy qo'llanilishi* ***yoritilgan.***

Kalit so'zlar so'zlar: *ARGO UML, axborot tizimlari, dasturiy loyihalash, UML diagrammalari, model asosida loyihalash, texnologik integratsiya, sinflar diagrammasi, dasturiy yechimlar, avtomatlashtirilgan tizimlar, loyiha jarayonlari.*

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INFORMATION SYSTEM DESIGN METHODS USING ARGO UML PROGRAM

Annotation: *This article explores the methods of designing information systems using the ARGO UML software, key approaches, applied diagrams and methodologies, as well as their practical applications in fields such as medicine, education, and other domains.*

Keywords: *ARGO UML, information systems, software design, UML diagrams, model-based design, technological integration, class diagrams, software solutions, automated systems, project processes.*

Kirish:

Bugungi kunda axborot tizimlari nafaqat texnologik inqiloblarni boshqarayotgan, balki jamiyatning barcha sohalarini ham keng qamrovli ravishda o'zgartirmoqda. ARGO UML dasturi yordamida axborot tizimlarini loyihalashtirish zamonaviy texnologiyalarni amaliyotga joriy etishda muhim o'rin tutadi. Ushbu dastur, UML diagrammalari orqali axborot tizimlarini samarali modellashtirish va loyihalashda keng imkoniyatlar yaratadi. Axborot tizimlarining loyihalashtirilishi jarayonida ARGO UML ning o'rni, diagrammalarni tuzish, tizimni optimallashtirish va ilg'or metodologiyalarni qo'llashda katta ahamiyat kasb etadi.

Maqolada ARGO UML dasturi yordamida axborot tizimlarini loyihalashtirish usullari va metodologiyalari batafsil yoritiladi. Shuningdek, ushbu dasturdan foydalanishning afzalliklari, imkoniyatlari va amaliy qo'llanilish sohalari, shu jumladan tibbiyot, ta'lim va boshqa sohalardagi samarali qo'llanilishi misollarida ko'rib chiqiladi. Maqola davomida ARGO UML dasturining axborot tizimlarini loyihalashtirish jarayonidagi o'rni, texnologik integratsiya va raqamli transformatsiya jarayonlari haqida to'liq tahlil keltiriladi.

ARGO UML - bu **ochiq manbali dasturiy ta'minot** bo‘lib, UML (Unified Modeling Language) diagrammalarini yaratish va tahlil qilish imkonini beradi. Ushbu dastur axborot tizimlarini loyihalash jarayonini avtomatlashtirish va soddalashtirishga xizmat qiladi.

Asosiy imkoniyatlari:

- UML diagrammalarining turli turlarini yaratish: sinflar diagrammasi, foydalanish holatlari diagrammasi, ketma-ketlik diagrammasi va boshqalar.
- Loyihalashtirilayotgan tizimning strukturasi va funksiyalarini vizual ko‘rinishda taqdim etish.
- Loyihalashtirish jarayonida kutilayotgan xatoliklarni oldindan aniqlash.

ARGO UML yordamida modellashtirishning asosiy afzalliklari

- **Tizimni tahlil qilish imkoniyati:** Diagrammalar orqali tizimning kuchli va zaif tomonlarini aniqlash mumkin.
- **Qulay interfeys:** Foydalanuvchi uchun tushunarli va oson boshqariladigan muhit.
- **Resurslarni tejash:** Loyihalashtirish jarayonida vaqt va mablag‘ni tejashga yordam beradi.
- **Xatoliklarni kamaytirish:** Modellashtirish jarayonida dasturiy ta'minotdagi muammolarni oldindan ko‘rish.

Axborot tizimlarini modellashtirishda ARGO UML yordamida quyidagi diagrammalar keng qo‘llaniladi:

- **Sinflar diagrammasi (Class Diagram):** Tizimning asosiy obyektlarini va ularning o‘zaro bog‘lanishlarini aniqlash.
- **Foydalanish holatlari diagrammasi (Use Case Diagram):** Foydalanuvchilarning tizim bilan o‘zaro aloqasini modellashtirish.
- **Ketma-ketlik diagrammasi (Sequence Diagram):** Operatsiyalar ketma-ketligini aniqlash va ular o‘rtasidagi bog‘lanishni ko‘rsatish.

1. Tizimni tahlil qilish va talablarni aniqlash

Mazmuni:

- Tizimdan kutilayotgan natijalarni belgilash.
- Foydalanuvchilar ehtiyojlari va talablarini o‘rganish.

Misol:

Bir kasalxona bemorlarni boshqarish tizimini yaratmoqchi. Ushbu bosqichda shifokorlar, bemorlar va administratorlarning ehtiyojlari aniqlanadi:

- Shifokorlar uchun tashxis va davolash jarayonlarini kuzatish.
- Bemorlar uchun onlayn ro‘yxatdan o‘tish va tibbiy ma’lumotlarga kirish.
- Administratorlar uchun xodimlar jadvalini boshqarish.

2. Tizim arxitekturasini loyihalash

- Tizimning asosiy komponentlarini aniqlash.
- Komponentlar o‘rtasidagi aloqalarni belgilash.

Misol*:*

Kasalxona tizimi quyidagi komponentlardan iborat bo‘lishi mumkin:

- Foydalanuvchilar (shifokorlar, bemorlar, administratorlar).
- Ma’lumotlar bazasi (bemor ma’lumotlari, tashxislar).
- Tizim interfeysi (veb-sayt yoki mobil ilova).

Diagramma: **Sinflar diagrammasi (Class Diagram)** orqali komponentlar va ularning o‘zaro bog‘lanishi ko‘rsatiladi.

3. Modellashtirish

- Tizimning funksionalligi va jarayonlari UML diagrammalarida tasvirlanadi.
- Modellashtirish yordamida tizimning ishlash jarayonlari tushunarli bo‘ladi.

Misol:

- **Foydalanish holatlari diagrammasi (Use Case Diagram):**
  - Shifokorlar bemorning tibbiy tarixini ko‘rish.
  - Bemorlar davolanish vaqtlarini tekshirish.
  - Administratorlar ro‘yxatlarni boshqarish.
- **Jarayonlar diagrammasi (Activity Diagram):**
  - Bemor ro‘yxatdan o‘tadi.
  - Shifokor tashxis qo‘yadi.
  - Ma’lumotlar bazaga yoziladi.

4. Tizimni amalga oshirish va sinovdan o‘tkazish

- Loyihalashtirilgan tizimni dasturlash tillari yordamida ishlab chiqish.
- Sinov jarayonida tizimning ishlashida xatoliklarni aniqlash va ularni tuzatish.

Misol:

- Dasturchilar sinflar diagrammasidan foydalanib tizim kodini yozadilar.
- Har bir jarayon (masalan, foydalanuvchi ma’lumotlarini kiritish) test qilinadi va xatolar aniqlanadi.

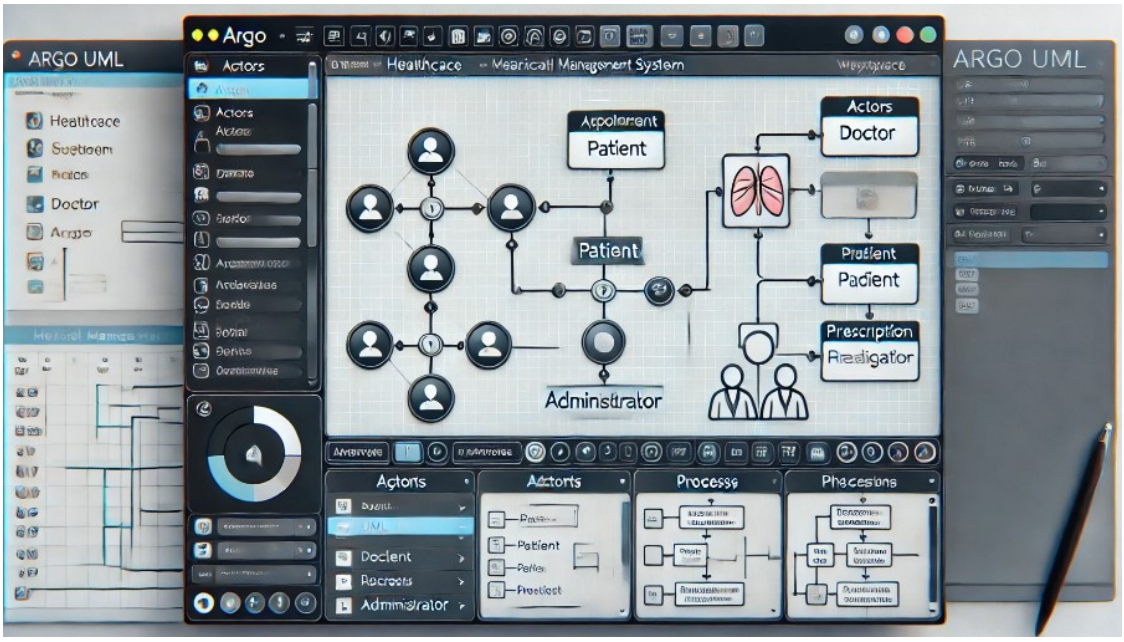
5. Tizimni joriy qilish va qo‘llab-quvvatlash

- Tayyor tizimni foydalanuvchilar uchun ishga tushirish.
- Foydalanuvchilardan fikr-mulohazalarni qabul qilish va tizimni takomillashtirish.

Misol:

Kasalxona tizimi ishga tushirilgach:

- Bemorlar va shifokorlar tizimdan foydalanishni boshlaydi.
- Texnik qo‘llab-quvvatlash xizmati tizimda yuzaga kelgan muammolarni hal qiladi.



Rasm ARGO UML dasturining ishchi oynasini tasvirlaydi. Ushbu dastur UML diagrammalarini loyihalashtirish uchun mo‘ljallangan qulay vositalardan biridir.

1. **Ishchi oyna:**
   - Dastur interfeysining asosiy qismi diagrammalarni tahrirlash uchun mo‘ljallangan. Diagramma elementlari markaziy joyda ko‘rsatilgan.
   - Oynada **Doktor**, **Bemor**, va **Administrator** kabi asosiy aktyorlar aks etgan.
2. **Diagramma:**
   - Diagramma tibbiyot sohasidagi axborot tizimini loyihalashtirish jarayonini aks ettiradi.
   - Asosiy jarayonlar: **Tibbiy yozuvlarni boshqarish**, **Vaqtlarni rejalashtirish**, va **Dori-darmon buyurish** kabi funksiyalarni o‘z ichiga oladi.
3. **Qo‘shimcha elementlar:**
   - Yuqori qismda menyular va vositalar paneli joylashgan, bu diagramma elementlarini tezda qo‘shish, tahrirlash yoki o‘chirishga yordam beradi.
   - Chap tomonda elementlar kutubxonasi, u orqali diagramma komponentlarini loyihaga qo‘shish mumkin.

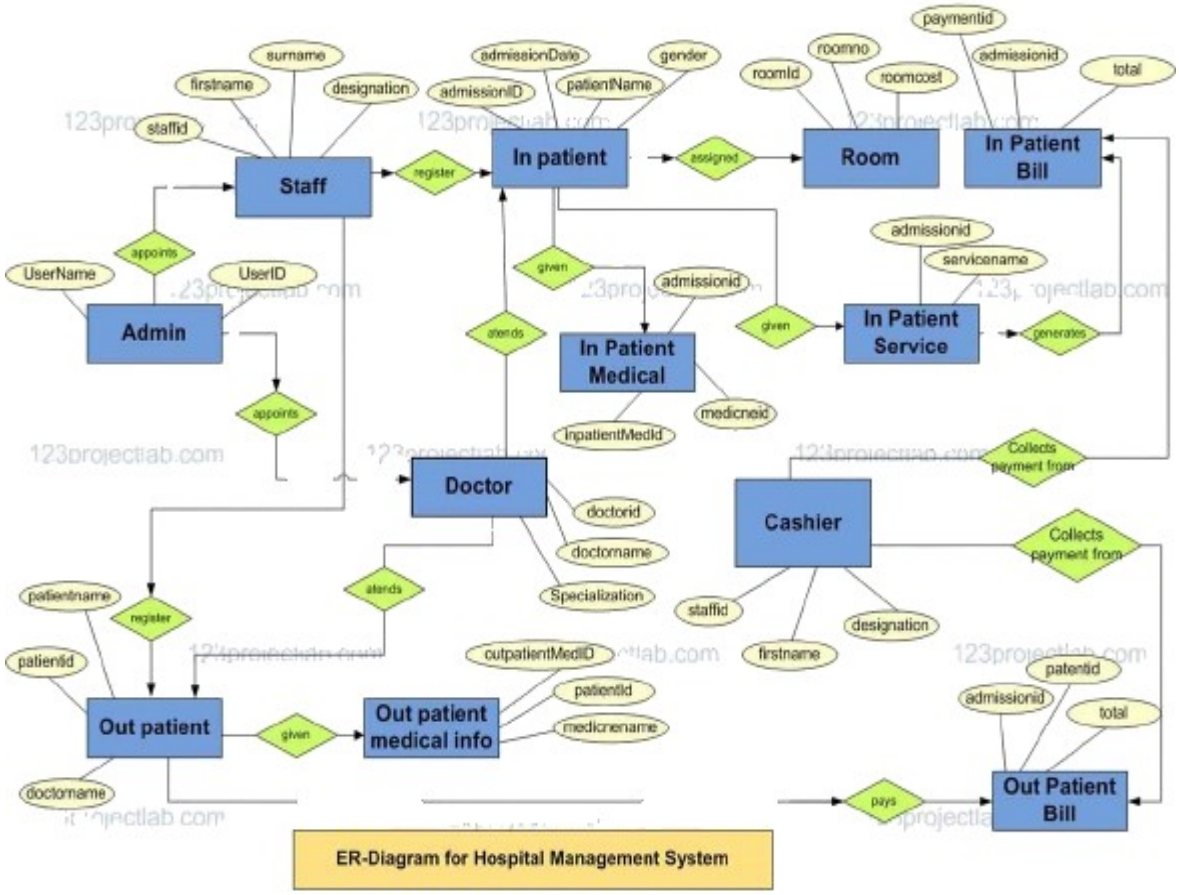


Diagramma Tavsifi:

Loyiha: Tibbiyot muassasasi boshqaruv tizimi Diagramma turi: UML Use Case Diagram (Foydalanish holatlari diagrammasi)

1. **Personajlar:**
   - **Bemor (Patient):** Tibbiy xizmatlardan foydalanadi.
   - **Shifokor (Doctor):** Davolash jarayonlarini boshqaradi.
   - **Administrator:** Tizimni boshqaradi, bemorlar va shifokorlar jadvalini yuritadi.
2. **Foydalanish holatlari (Use Cases):**
   - **Ro‘yxatdan o‘tish (Registration):** Bemorlar tizimga kiritiladi.
   - **Vaqtlarni rejalashtirish (Appointment Scheduling):** Shifokor bilan uchrashuvlarni tashkil etadi.
   - **Tibbiy yozuvlarni boshqarish (Manage Medical Records):** Bemor tarixini saqlaydi.
   - **Davolash rejalarini belgilash (Plan Treatment):** Shifokor tomonidan belgilanadi.
   - **To‘lovlarni boshqarish (Payment Management):** Tibbiy xizmat uchun to‘lovlarni amalga oshiradi.
3. **O‘zaro bog‘liqliklar:**
   - Administrator barcha jarayonlarni nazorat qiladi.
   - Bemor faqat ro‘yxatdan o‘tish, uchrashuvlar va to‘lovlarni amalga oshiradi.

- Shifokor faqat davolash rejasi va bemor yozuvlari bilan ishlaydi.

Xulosa va takliflar

Maqolada ARGO UML dasturi yordamida axborot tizimlarini loyihalashtirish usullari yoritildi. ARGO UML, tizimlarni vizual tarzda modellashtirishda samarali vosita bo‘lib, UML diagrammalarini yaratish orqali loyihalash jarayonini soddalashtiradi. Ushbu dastur yordamida, tibbiyot, ta'lim va boshqa sohalarda tizimlarni loyihalashtirishda samaradorlikni oshirish va mehnat unumdorligini yaxshilash mumkin. Maqolada, ARGO UML dasturining imkoniyatlari va afzalliklari tahlil qilinib, tizimni avtomatlashtirish va optimallashtirish jarayonlari ko‘rib chiqildi. Shuningdek, ARGO UML diagrammalari, jumladan, foydalanish holatlari, sinflar va faoliyat diagrammalari yordamida tizimning tuzilishi va jarayonlari aniq ifodalandi. Maqola axborot tizimlarini loyihalashtirishda ARGO UML dasturining samarali qo‘llanilishi va uning imkoniyatlarini kengaytirish zaruriyatini ta'kidlaydi.

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ASSESSMENT AND MANAGEMENT OF POSTOPERATIVE PAIN IN INFANTS

ANNOTATION: *The most important task in pediatric care is pain management. This report presents current data on the assessment and management of pain syndrome during various invasive procedures in neonates. The main principles of pain assessment and key aspects of pain control strategies for newborns are discussed.*

Keywords: *pain, neonates, postoperativ pain.*

It is indisputable today that newborns experience pain. They have both short-term and long-term consequences of pain, including disruptions in neurological and behavioral development. The effects of severe and repeated pain include the development of intraventricular hemorrhages, periventricular ischemia, an increased risk of metabolic acidosis, sepsis, and disseminated intravascular coagulation syndrome. The rise in the number of skin-damaging procedures in neonatal intensive care units (NICU) is associated with the presence of a thinner layer of gray matter in the cerebral cortex of children who underwent these procedures, at the age of 7. Stress associated with neonatal pain correlates with lower cognitive and motor function at the corrected age of 8-18 years and more anxious/depressive behavior from 18 months to 30 years. Effective pain control includes prevention, assessment of severity, effective analgesia, and subsequent re-evaluation of the adequacy of the intervention, determining the need for further action. In 2006, the American Academy of Pediatrics and the Canadian Pediatric Society published a statement stating that every healthcare institution should develop a program for the control of neonatal pain, aimed at routine pain assessment, reducing the number of painful procedures, as well as minimizing and preventing acute pain from invasive procedures (procedural pain). To date, at least 37 pain assessment scales for newborns have been published. The most commonly used are: PIPP (Premature Infant Pain Profile), NIPS (Neonatal Infant Pain Scale), NFCS (Neonatal Facial Coding System), N-PASS (Neonatal Pain, Agitation, and Sedation Scale), CRIES (Cry, Requires Oxygen, Increased Vital Signs, Expression, Sleeplessness), COMFORT scale, and DAN (Douleur Aiguë du Nouveau-né). The clinical use of these scales is based on their simplicity and validity for this population.

However, data from a prospective cohort study conducted in 223 neonatal intensive care units, including data from 6648 newborns, indicate that recommendations for pain prevention exist in 75% of European NICUs. Only 10% of the surveyed newborns have daily assessments of chronic pain, while acute and

procedural pain assessment was carried out in 30–58% of cases. Less than half of the newborns receiving analgesia, anesthesia, or sedation had regular pain assessments. Additionally, 67% of NICU staff noted the difficulty in assessing constant pain in newborns and the importance of forming an overall impression of the child's comfort. In 2009, an Italian group of neonatal experts (Lago P., Garetti E., Merazzi D., et al.) developed guidelines to assist clinicians in managing procedural pain experienced by patients in neonatal intensive care units (NICUs) [3].

Pain management in newborns is not limited to pharmacological interventions. Pain control strategies can vary [4]:

Exogenous (environmental changes): a) Minimizing the number of painful procedures;

b) Reducing noise and lighting; c) Maintaining a calm environment during the procedure;

d) Clustering procedures. *Physical (non-pharmacological interventions):* a) Kangaroo care (holding the infant on the mother's chest); b) Non-nutritive sucking (NNS); c) Breastfeeding; d) 24% sucrose solution. *Pharmacological analgesia:* a) Lidocaine-prilocaine cream; b) Paracetamol; c) Opioids; d) Regional and general anesthesia. *Psychological interventions:* a) Distraction during the procedure; b) Tactile stimulation, positioning.

General principles for controlling procedural pain in newborns include the following requirements:

- During each procedure, exogenous, behavioral, and non-pharmacological comfort measures should be used. Pharmacological interventions, when combined with these measures, can have an additive or synergistic effect in controlling procedural pain and stress.
- Before planned procedures (such as blood draws or establishing venous access), it is important to achieve an optimal state of quiet alertness. If possible, sleep should not be interrupted, and the procedure should be scheduled away from feeding times and other painful invasive procedures.
- The procedure should be performed in a calm and relaxing environment, minimizing additional stimuli (light and noise). During the procedure, the newborn should be wrapped in warm blankets.
- Monitoring pain and stress during ongoing analgesia or invasive procedures using neonatal pain scales can facilitate titration of analgesics and improve understanding of how the newborn is feeling.
- After the procedure, physiological parameters should continue to be monitored until they return to baseline. No other invasive procedures should be planned for at least 2 hours following the procedure.

Thus, pain assessment still relies on proven multimodal, yet subjective, pain assessment tools. The development of more modern equipment for quantitative pain assessment includes the use of parameters such as heart rate dynamics, blood pressure, non-invasive infrared spectroscopy, amplitude-integrated electroencephalography, skin conductance measurement, and others.

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EXPLORING KONSTANTIN STANISLAVSKI'S SYSTEM: REVOLUTIONIZING ACTING WITH DEPTH AND AUTHENTICITY

Abstract. *Konstantin Stanislavski, the legendary Russian theatre practitioner, forever altered the landscape of acting with his innovative approach to performance. His system, which emphasizes emotional truth, psychological depth, and a strong connection between an actor and their role, remains a cornerstone of modern acting techniques. This article explores the key principles of Stanislavski's System, its profound impact on theatre and film, and how it continues to shape acting schools and practitioners around the world. From the use of "inner justification" to the development of "objective and super-objective," we dive into the methods that create more genuine, compelling performances.*

Keywords: *Konstantin Stanislavski, acting system, method acting, emotional truth, theatrical technique, actors' training, performance art*

Introduction: The Rise of a Revolutionary Theatre Practitioner

Konstantin Stanislavski (1863-1938) is one of the most influential figures in the history of acting. His work forever changed the way acting is taught and performed, with his system remaining the cornerstone of modern acting techniques. The transformation Stanislavski brought to the stage, and later to film, moved away from the grandiose style of acting that dominated Russian theatre in the 19th century and sought to bring greater emotional depth, realism, and psychological complexity to performance.

Born into an aristocratic family in Russia, Stanislavski initially trained in various artistic disciplines. However, it was his immersion in the world of theatre that sparked his revolutionary contributions. His experimentation with acting techniques and the eventual development of his System at the Moscow Art Theatre sought to provide actors with an approach that would yield authentic and truthful performances, a stark contrast to the melodramatic style that preceded him.

The Genesis of Stanislavski's System

Before Stanislavski, the acting tradition was dominated by external expression, where exaggerated gestures and vocal delivery were seen as the key to success on stage. This approach had its roots in the tradition of *commedia dell'arte*, but with the advent of Stanislavski's System, the focus shifted to an internalized, truthful, and grounded form of acting. The Moscow Art Theatre, founded in 1898 by Stanislavski and his colleagues, became the proving ground for this new approach to performance. The theatre’s productions of works by Anton Chekhov and Maxim Gorky, which embraced naturalism and psychological depth,

demonstrated the potential for Stanislavski's System to influence the course of modern theatre.

Stanislavski's approach was not a rigid methodology but rather a set of principles and tools that actors could use to explore and express the emotional lives of their characters. Through systematic practice and focused training, actors were encouraged to connect with the character's inner world, thus achieving a level of emotional authenticity previously unseen in theatre.

Core Principles of Stanislavski's System

At the heart of Stanislavski's System lies the desire for authenticity. Rather than relying on external theatrics, Stanislavski believed actors needed to find truth within themselves to connect with their characters on an emotional level. Below are some of the key principles that form the foundation of the System:

1. The Magic If

The concept of the "Magic If" is one of Stanislavski's most famous and enduring techniques. It encourages actors to ask themselves, "What would I do if I were in this situation?" By immersing themselves in this hypothetical scenario, actors can draw upon their own emotional experiences to understand how the character might feel and react in the same situation. This approach helps actors break down the barriers between themselves and their characters, allowing them to connect more deeply with the emotional truth of the performance.

2. Emotional Memory

Stanislavski also introduced the idea of "emotional memory," which requires actors to recall their own past emotional experiences and use them as a basis for portraying the emotions of their characters. For example, an actor may draw upon the memory of a personal loss to evoke the same grief their character might be experiencing. While this technique is often associated with method acting (as practiced by Stanislavski's students, such as Lee Strasberg), it remains a core element of his System, providing actors with a powerful means of conveying truthful emotion.

3. Objective and Super-Objective

In Stanislavski's framework, every character has an "objective," or a goal they strive to achieve in each scene. But beyond this, there is a larger, overarching "super-objective," which is the character's main driving force throughout the entire play. Understanding both the objective and the super-objective is vital for actors, as it provides a sense of direction and purpose to the character's actions. These objectives help create dramatic tension and motivate the character's behavior, ensuring that each moment on stage is rooted in intention.

4. Inner Justification

Stanislavski believed that actors should understand the internal motivations behind every action their character takes. This is referred to as "inner justification" and demands that the actor examine the character's backstory, circumstances, and psychological state to understand why they make particular choices. By justifying a character's behavior, even when it may seem irrational or unusual, the actor adds depth to the portrayal, creating a fully realized character.

5. Concentration and Observation

Stanislavski's focus on concentration and observation encouraged actors to be fully present in the moment and observant of the world around them. By paying close attention to details in the environment, human interactions, and their own internal responses, actors could enrich their performance with realism. This principle is particularly important in ensemble work, where an actor's responsiveness to other performers enhances the overall quality of the scene.

6. Physical Action and "Through Line" of Action

Stanislavski emphasized the importance of physical action in bringing a character to life. The "through line" of action refers to the overall sequence of actions that define a character's journey throughout the play. For Stanislavski, physical movement was not merely for spectacle; it was an essential tool in expressing the inner emotional life of the character. Through purposeful action, the actor could convey internal transformation and connect with the audience.

Impact on Theatre and Film

Stanislavski's influence on theatre cannot be overstated. His approach marked the transition from grand theatrical spectacles to more intimate, psychologically rich portrayals of human behavior. His work with the Moscow Art Theatre, particularly with plays like Chekhov's *The Seagull* and Gorky's *The Lower Depths*, brought a new level of realism to Russian theatre. His ideas on naturalism and emotional depth were revolutionary and inspired a generation of actors and directors.

Stanislavski's influence extended beyond the theatre and had a profound impact on film, particularly with the advent of method acting in Hollywood. Method actors, such as Marlon Brando, James Dean, and Robert De Niro, drew directly from Stanislavski's principles, using emotional memory and inner justification to create powerful and authentic performances on the screen. His approach also influenced directors like Elia Kazan, who worked with many of Hollywood's most iconic actors.

In the modern era, Stanislavski's ideas have been adapted and evolved by other practitioners, such as Lee Strasberg, who formalized method acting; Michael Chekhov, who focused on imagination and physicality; and Stella Adler, who stressed the importance of textual analysis. Though the System has undergone numerous interpretations, its core principles – emotional truth, psychological depth, and authenticity – remain central to contemporary acting.

The Continuing Legacy of Stanislavski's System

Stanislavski's system has had an enduring legacy, shaping the art of acting for over a century. It remains a cornerstone of acting education, with institutions around the world incorporating his techniques into their curricula. The System continues to influence not only actors but also directors, playwrights, and theatre companies, shaping the nature of both stage and film performance. Through its focus on emotional truth and the human experience, Stanislavski's system allows actors to transcend superficiality, delivering performances that resonate with audiences on a deeper, more meaningful level.

In conclusion, Konstantin Stanislavski's approach to acting revolutionized the theatre by emphasizing psychological realism and emotional truth. His System laid the groundwork for modern acting techniques, ensuring that the performances we see today, whether on stage or screen, are grounded in authenticity and complexity. By understanding and applying Stanislavski's techniques, actors continue to create performances that resonate with audiences across the world, preserving his legacy for generations to come.

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THE RELIABILITY AND EFFECTIVENESS OF TOOLS FOR ASSESSING PAIN IN NEWBORNS

ANNOTATION*:A variety of neonatal observational tools are available for pain assessment. However, their use in clinical practice is limited. This study compares three predictive scales for neonatal pain assessment:* ***NFCS-R*** *(Neonatal Facial Coding System - Revised),* ***CHIPPS*** *(Children and Infant's Postoperative Pain Scale), and the in terms of their psychometric properties. All three tools demonstrated high relative convergent validity. Therefore, when selecting a tool, it is essential to consider its clinical utility and explore opportunities for further improvement.*

Keywords: *Pain, assessment, newborns, NFCS-R scale, CHIPPS*

The relevance of the problem.

The need to assess pain in infants is widely recognized and considered a prerequisite for adequate pain management. Today, there are several tools available for assessing pain in newborns [1, 11, 12]. Despite the fact that the availability of these tools is a significant advantage, their use in clinical practice is limited [2, 3, 5]. One of the main issues may be that there is no "gold standard" for these tools due to the lack of systematic psychometric comparative studies [11, 12]. The *NFCS-R scale (Neonatal Facial Coding System*) [13] (Grunau and Craig, 2010) is widely used in research and can also be applied in clinical settings. The postoperative pain scale for children and infants (*CHIPPS)* [7, 8] is easily accessible and is often used not only because of its availability but also due to its high reliability, time efficiency, and simplicity in coding and assessment. Due to the limited available information, many users are unaware that *CHIPPS* has only been validated for full-term neonates experiencing postoperative pain, but it is used for both preterm and full-term neonates with various pain conditions. The limited use of standardized assessment tools [5, 12] also implies that healthcare professionals often assess infant pain intuitively .

Perhaps comparing intuitive assessments of observers with pain scores included in observation tools could shed light on which signals are used when evaluating pain. Encouragingly, some studies have shown that the crying and facial movements of infants influenced pain assessment by clinical observers [15], as these signals directly correspond to elements of categories included in observation tools.

The goal of this article is to conduct a psychometric comparison of the effectiveness of the *CHIPPS, FLACC*, and *NFCS-R scales*, with a particular focus on their ability to differentiate pain.

Materials and Methods

In the present study, a series of video fragments depicting the facial expressions and behaviors of 44 newborns admitted to the neonatal intensive care unit of the Andijan Regional Children's Multidisciplinary Medical Center were consecutively collected. Among them, 30 were preterm (gestational age less than 37 weeks) with an average gestational age of 33.57 weeks (SD=1.48). For full-term newborns, the average gestational age was 38.69 weeks (SD=1.6). There were 27 girls (16 preterm and 11 full-term). At the time of recording, the average age of the newborns was 1.92 days (SD=2.58). Exclusion criteria from the study included newborns with neurological pathologies, hepatorenal disorders, syndromic diseases, facial malformations, and altered muscle tone.

All infants were recorded on video using an HD camera (Canon Legria HF M46) during a painful situation (venipuncture or peripheral venous catheter placement), and the videos were processed (segmented) using TechSmith Camtasia 2019 software (TechSmith Corporation, USA). The extracted video sequences started 10 seconds before the onset of the painful or stressful situation. These situations were chosen because pediatricians and neonatologists considered them painful or stressful and similar to those described in the literature as inducing pain and stress [9]. The order in which the videos were recorded was not predetermined or randomized. However, pain and stress situations were recorded on the same day for each newborn, with an average interval of 9.5 hours. Data on the order of situations were available for 40 newborns. Of these, 17 newborns experienced stress before the painful situation, and 23 newborns experienced pain before the stressful situation. T-tests for mean differences showed that the order had no significant impact on the pain assessment using *NFCS-R* and *CHIPPS.*

The *NFCS* is a unidimensional tool for assessing pain in newborns, as it is based solely on facial movements. While the original version (*NFCS*) included ten facial movements, the reduction to five key points increased specificity without reducing sensitivity . Therefore, the authors revised *NFCS* by reducing the number of items to the following five key elements [13]: 1) brow bulge (bulging, folds, and/or vertical furrows above the eyebrows and between them); 2) eye squint (squeezing and/or bulging of the eyelids); 3) nasolabial furrow (pulling up and deepening of the nasolabial furrow, a line or wrinkle starting near the nostrils and extending downward and outward toward the corners of the mouth); 4) horizontal mouth stretch (distinct horizontal stretching at the corners of the mouth, sometimes accompanied by a taut upper lip); and 5) tight tongue (elevated, cup-shaped tongue with sharp, taut edges). Only the presence or absence of facial movements was coded with the words "present" (score 1), "absent" (score 0), or "uncertain" (score "NC"). The occurrence of each facial action (one after another) was coded within predefined time segments. Scores for individual items are summed, with possible scores ranging from 0 to 5 for each coded time segment.

Like *NFCS-R,* the *CHIPPS* scale relies on behavioral signals for pain assessment. However, its five categories cover several behavioral aspects: 1) crying; 2) facial expression; 3) body posture; 4) leg posture; and 5) motor agitation. The newborns were observed for 15 seconds, and based on behavioral definitions, each

item was rated as "0" (no pain), "1" (potential pain), or "2" (obvious pain) during this time frame. Scores for individual items were summed, so the final score for the 15-second time segment ranged from 0 to 10. A total score of 4 or higher indicates the need for analgesic treatment [8].

Data were analyzed using Microsoft Excel 2016. For better comparability, we calculated the average score for each item, meaning that the total score for the tool was divided by the number of items. As a measure of relative validity, Spearman's correlation coefficients between *NFCS-R* and *CHIPPS* were selected.

Results. Since the intraclass correlation coefficients (ICC) were high for both tools across all newborns, the scores were averaged across all rating scales for further analysis (Table 1).

Table 1

Intraclass Correlation Coefficients (ICC) for NFCS-R and CHIPPS Scales in Painful Situations for Preterm and Full-Term Newborns

№	Pain Assessment Scale	Pain Rating	Preterm Newborns	Full-Term Newborns	All Newborns
1	NFCS-R	Pain Assessment	0.980 (0.963-0.990)	0.944 (0.864-0.980)	0.975 (0.958-0.986)
2	CHIPPS	Pain Assessment	0.970 (0.945-0.985)	0.954 (0.889-0.984)	0.968 (0.947-0.981)

Table 2

Intraclass Correlation and Convergent Validity for *NFCS-R and CHIPPS* Scales in Painful Situations for Preterm and Full-Term Newborns

№	Pain Assessment Scale	ICC for Pain Situations	Preterm Newborns	Full-Term Newborns	All Newborns	Internal Consistency (α)
1	*NFCS-R*	Pain Rating	0.980 (0.963-0.990)	0.944 (0.864-0.980)	0.975 (0.958-0.986)	All Newborns: α = 0.936
						Preterm: α = 0.943
						Full-Term: α = 0.880
2	*CHIPPS*	Pain Rating	0.970 (0.945-0.985)	0.954 (0.889-0.984)	0.968 (0.947-0.981)	All Newborns: α = 0.83
						Preterm: α = 0.82
						Full-Term: α = 0.85

Convergent Validity (Effect Size):
The correlation between the *NFCS-R* and *CHIPPS* scales showed a large effect size for the associations between the two tools in assessing pain in preterm newborns. The effect size was also large in the full-term group, further confirming the convergent validity of these two pain assessment tools.

Table 3. Results of Repeated Measures ANOVA for NFCS-R and CHIPPS Scales

Scale	Source of Variation	*Df*	*F*	*p*	η^2	*d*	*Er*
NFCS-R	Pain Situation	1	10.886	0.002	0.214	0.48	40
	Gestational Age	1	1.167	0.286	0.028		
	Pain Situation × Gestational Age	1	1.264	0.268	0.031		
CHIPPS	Pain Situation	1	13.161	0.001	0.239	0.52	42
	Gestational Age	1	1.372	0.248	0.032		
	Pain Situation × Gestational Age	1	1.416	0.241	0.033		

Note: Df – Degrees of freedom, *F* – F-ratio (variation coefficient*), p* – p-value, η^2 – Eta squared (effect size), *d* – Effect size (Cohen's d*), Er* – Within-group error

Key Findings: Both the *NFCS-R* and *CHIPPS* scales showed a significant main effect for the pain situation (*p = 0.002 for NFCS-R and p = 0.001 for CHIPPS),* indicating that pain significantly affected the assessments in both scales. The gestational age and pain situation × gestational age interaction did not show significant effects ($p > 0.05$), suggesting that gestational age did not significantly influence the pain assessments when using either scale.

Discussion. Despite limited preparation time, both scales demonstrated a high degree of agreement on the pain assessment tool items (*CHIPPS* range: 0.918 - 0.981, *NFCS* - R: 0.910 - 0.980). The inter-rater reliability for *NFCS-R* was comparable to that established in the literature [14], while the inter-rater reliability for *CHIPPS* was higher [4, 7], presumably due to the extensive time spent in advance clarifying the coding criteria. Both tools achieved good internal consistency (*NFCS-R*: 0.94; *CHIPPS*: 0.83), suggesting they are homogeneous. The validity scores for CHIPPS in our study were slightly lower compared to existing data on *CHIPPS* [7] and *NFCS-R.* Since *CHIPPS* has not yet been evaluated for premature newborns, it is promising that the validity assessment for premature newborns in *CHIPPS* is similar to the evaluation for all newborns (0.82; 0.83). The relationship between the two pain assessment tools, i.e., relative validity, was significantly high in terms of effect size and resembled the results of other studies [7, 10]. Perfect associations between both pain assessment tools are unlikely, as *NFCS-R* measures facial expression, while *CHIPPS* includes additional pain behaviors. However, the relationships between the two tools were higher than the

associations between each tool and clinicians' intuitive assessments *(NFCS* 0.55–0.66; *CHIPPS* 0.53–0.55). Although these latter associations are still strong, intuitive judgments often arise implicitly, tend to be biased, and may vary widely. Therefore, the use of an objective assessment tool is strongly recommended.

Gestational age did not affect the pain assessment with either of these tools. Additionally, the relationship between gestational age and the situation was not significant. This is particularly encouraging because it suggests that *CHIPPS* can be used not only for term but also for preterm newborns. Regarding practicality, both tools are equally short, and obtaining the final score is relatively simple.

Our results show that both tools can be easily improved. For *NFCS-R,* it is necessary to create training opportunities that are accessible and time-efficient. For *CHIPPS*, further research is needed with preterm and term newborns suffering from various painful conditions, and there is a need for guidelines that provide clinicians with clear definitions of the elements and their coding, as well as answers to questions related to the coding process. Due to the significant consequences of pain assessment, additional research is undoubtedly needed to gather information on what implicit decision-making strategies healthcare professionals use to assess pain in newborns.

Thus, the psychometric results are promising for both tools, especially *CHIPPS,* as our results show that it can also be used to assess acute pain in preterm newborns. Both tools can be improved in terms of clinical applicability. The pain assessment scales through observations for newborns studied in this research, *NFCS-R* and *CHIPPS*, are comparable in terms of their reliability and validity. Although both could potentially be used quite easily in everyday clinical practice, both have different shortcomings that may hinder their current clinical application.

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BO'LAJAK O'QITUVCHILARNI PEDAGOGIK SIKL FANLAR INTEGRATSIYASI VOSITASIDA KASBGA QIZIQISHLARINI RIVOJLANTIRISH

Annotatsiya. *Pedagogika fanida taklif etilayotgan integratsiya jarayonining texnologik jihatlari kengroq bo'lib, quyidagilarga ta'rif berishni o'z ichiga oladi: integratsiyaning turlari va darajalari, uning tamoyillari, integrallashtiruvchi omil, integrativ bog'lanishlar, integratsiyaning usullari, turlari va shakllari. Aynan ular bizning tadqiqotimizda integratsiya algoritmiga birlashtiriladi. Integratsiyaning muhim texnologik jihatlaridan biri tadqiqotchilar integral (integratsion) ulanishlar deb ataladi. Adabiyotda bu tushuncha fanichi va fanlararo aloqadorlik tushunchasi bilan birga qo`llaniladi.*

Kalit so'lar: *integratsiya, bilim, ta'lim, hamkorlik, tendensiya, ilmiylik, tizim, omil, global.*

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THE CONTENT OF DEVELOPING THE FUTURE TEACHER'S INTEREST IN THE PROFESSION THROUGH THE INTEGRATION OF SUBJECTS OF THE PEDAGOGICAL CYCLE

Annotation. *The technological aspects of the proposed integration process in pedagogical science are broader and include the definition of: types and levels of integration, its principles, integrating factor, integrative connections, methods, types and forms of integration. They are the ones that are integrated into the integration algorithm in our study. One of the important technological aspects of integration is what researchers call integral (integrative) connections. In the literature, this concept is used together with the concept of scientificity and interdisciplinarity.*

Key words: *integration, knowledge, education, cooperation, trend, scientific, system, factor, global.*

Bugungi kunda ta'lim tizimi muhim ahamiyatga ega tashqi omillar ta'sirida. U taqdim etgan tubdan yangi talablar, doimiy takomillashtirish bir qator global tendentsiyalar sabab bo'ldi rivojlanish:

- jamiyat taraqqiyoti sur'atlarini tezlashtirishni taqozo etadi talabalarni tez o'zgaruvchan hayotga tayyorlash shartlar;

- masshtabning sezilarli darajada kengayishi bilan madaniyatlararo hamkorlik alohida ahamiyatga ega xushmuomalalik va bag'rikenglikka ega bo'ling maktab bitiruvchilari;
- global muammolarning paydo bo'lishi va kuchayishi talab qiladi yoshlardan ularning zamonaviy tafakkurini hal qilish;
- jamiyatni demokratlashtirish, kengaytirish siyosiy va ijtimoiy tanlov uchun imkoniyatlar tayyorgarlikni shakllantirish zaruratidan oldin maktab fuqarolarning bunday tanlovga;
- dinamik iqtisodiy rivojlanish va chuqur belgilaydigan bandlik sohasidagi tarkibiy o'zgarishlar kasbiy rivojlanishga doimiy ehtiyoj ishchilarning malakasini oshirish va qayta tayyorlash, talabalarning butun hayoti davomida o'rganish istagi va qobiliyatini shakllantirishni talab qiladi.

Ilmiy adabiyotlarda integratsiya deganda ko'pincha har qanday elementlarni bir butunga birlashtirish jarayoni tushuniladi, buning natijasida yangi xususiyat paydo bo'ladi, bir-biri bilan chambarchas bog'liq, bir butunlikni yaratish jarayoni va natijasi, tizimlashtirish jarayoni va natijasi. , umumlashtirish va tushuntirish.
Pedagogikada integratsiya tushunchasi xilma-xildir. Biroq, bu tadqiqotchilar nuqtai nazarining nomuvofiqligi va o'zaro istisno ekanligini ko'rsatmaydi. Kasb-hunar ta'limi amaliyotida integratsiyani qo'llashning turli darajalari va turli mavzulari haqida gapirish adolatdan bo'lardi.
Shunday qilib, integratsiyani zamonaviy ta'limni takomillashtirishning istiqbolli yo'nalishi sifatida ko'rib chiqsak, biz integratsiyaning quyidagi darajalarini ajratib ko'rsatishimiz mumkin:
- universitetlararo (universitetlarning o'quv-uslubiy birlashmalari);
- hududiy (o‘quv-ilmiy-ishlab chiqarish majmualari);
- kontseptual (gumanitar va politexnika tushunchalarining integratsiyasi);
- fanlararo (fanlararo aloqalar);
- fanlararo (uslublar va o'quv qo'llanmalar shakllarini birlashtirish).

Bizning tadqiqotimiz uchun eng qiziqarlisi fanlararo va fanlar ichidagi darajalardir.
Fanlararo integratsiyaning asosiy tamoyili shundan iboratki, umumiy kasbiy va maxsus fanlar bilimlari elementlari fundamental fanlar bilimlari elementlaridan ularni kengaytirish orqali tuzilishi kerak.

O'qitish usullari, shakllari va vositalarining fan ichidagi integratsiyasi quyidagi yo'llar bilan ma'ruza, laboratoriya va amaliy mashg'ulotlar, talabalarning mustaqil ishlarini mutlaqo yangi darajada tashkil etish imkonini beradi:
- o'quv va kasbiy faoliyatning jamoaviy shakllaridan keng foydalanish;
- o'quvchilarning jamoaviy va individual ta'lim faoliyati va pedagogik muloqotni boshqarishni tashkil etishda o'qituvchining tegishli ko'nikmalarini rivojlantirish;
- interfaol, muammoli ta'limning turli shakllaridan foydalanish, o'qitishning barcha xilma-xil vositalaridan foydalanish;

Fanlarning integrativ mazmunini loyihalash tamoyillarini belgilaymiz:
- kasbiy-pedagogik faoliyat mazmuni va funksiyalariga muvofiq maxsus fanlar mazmunini tanlash;

- tarmoq sikli fanlari mazmunini fan komponenti sifatida o‘zlashtirish uslubiy komponent sifatida psixologik-pedagogik tayyorgarlik mazmuni orqali amalga oshirilishi kerak;
- kasbiy-pedagogik kadrlar tayyorlash mazmunini takomillashtirish.

Bosqich maqsadlari	Tarkib	Usullari
1. Tayyorgarlik bosqichi		
Talabalarni yangi ta'lim sharoitlariga moslashtirish. O'quv va kasbiy faoliyatni o'zlashtirishga bo'lgan ehtiyojni shakllantirish. Kelajakdagi kasb-hunar va shaxsiy rivojlanish kontekstida o'rganilayotgan materialga qiziqishni uyg'otish. Maqsad belgilash bo'yicha trening	Ta'lim va kasbiy faoliyatning psixologik va pedagogik asoslari, ushbu fanning kasbiy rivojlanish, keyingi ta'lim va shaxsiy o'sish kontekstidagi ahamiyati.	Axborot usullari: tushuntirish va illyustrativ, ko'rsatma, professional vaziyatlarni tahlil qilish algoritmini namoyish qilish
2. Reproduktiv bosqich		
Ta'lim va kasbiy faoliyatni o'zlashtirishga bo'lgan ehtiyojni barqarorlashtirish. O'rganilayotgan fanga va umuman kasbga qiziqishni saqlab qolish. Ta'lim va kasbiy faoliyatda maqsadni belgilash operatsiyalarini birlashtirish va tizimlashtirish. To'liq huquqli kognitiv, kasbiy va shaxsiy motivlarni shakllantirish	Ta'lim va kasbiy faoliyatni o'zlashtirishga bo'lgan ishonchni mustahkamlash. O'rganilayotgan fanga va umuman kasbga saqlashni saqlab qolish. Ta'lim va kasbiy faoliyatda maqsadni amalga oshirishni birlashtirish va tizimlashtirish. To'liq huquqli kognitiv, kasbiy va shaxsiy motivlarni kuzatish	Axborot usullari: tushuntirish va illyustrativ, ko'rsatma, professional vaziyatlarni tahlil qilish algoritmini avtomatlashtirish. Amaliy usullar: model bo'yicha professional vaziyatlarni tahlil qilish, algoritmga muvofiq moddiy va shaxsiy rivojlanishni o'rganish maqsadlarini belgilash bo'yicha mashq.
3. Ishlab chiqarish bosqichi		
Bilim olish, kasb-hunar egallash va shaxsiy rivojlanish ehtiyojlarini faollashtirish. Ta'lim va kasbiy faoliyatning qiziqish doirasini kengaytirish. Maqsadni belgilashni rag'batlantirish. O'quv va kasbiy faoliyat motivlari haqida tushunchani shakllantirish	Mutaxassisning kasbiy funktsiyalarini ochib beruvchi material, kasbiy vaziyatlar, kasbiy xatolar misollari	Axborot usullari: tushuntirish va illyustrativ, ko'rsatma, professional vaziyatlarni tahlil qilish algoritmini namoyish qilish. Interfaol ta'lim usullari: munozara, davra suhbati, o'zaro ta'lim. Muammoli ta’lim usullari
4. Ijodiy bosqich		

Ta'lim va kasbiy faoliyat uchun yaxlit motivatsiyaning mustaqil avlodini barqarorlashtirish va faollashtirish	Ilmiy faktlar, ilg'or professional amaliyotdan olingan ma'lumotlar	Evristik, qidiruv usullari

Integratsiyalashgan ta'lim usuli - birlashtirish, integratsiya va ta'limni birlashtirish. Integratsiyalashgan ta'lim usuli o‘quv dasturlari mazmunini semantika bilan bog‘lash va birlashtirish moddiy mazmun va tabiiy hayot, birdamlik va barqarorlik talaba o'rganish. Ushbu o'qitish usulida bolalar o'zlarini integratsiyalashgan holda topadilar murakkab real dunyo muammolari doirasida. Integratsiyalashgan ta'limda asosiy quyidagi jihatlarga e’tibor qaratiladi:

1) Bola shaxsini umumiy tarbiyalashga ahamiyat berish.
2) Kirish bosqichi uchun tegishli kitoblar to'plami bilan talabalar uchun boy muhit yaratish.
3) O‘quv dasturini tayyorlash barcha darsliklar mazmunida bir mavzuga oid barcha materiallarni jamlash asosida amalga oshirilishi kerak.
4) Bolalarda maktabga, sinfga, darsga daxldorlik hissini shakllantirish.
5) Ilmiy tajribalar uchun etarli joyni ta'minlash.
6) Maktabda bolalar uchun qiziqarli sharoitlarni tashkil etish.
7) O'qituvchi tomonidan dars mavzusi va unga oid materiallar taqdimoti.
8) Bolalarning quvnoqligi va hayotiyligini saqlash, fikrlashga e'tibor berish.
9) Sinfni o'quv yadrolariga bo'lish va darsning muayyan mavzulari bo'yicha tadbirlarni o'tkazish.
10) Raqobat va individual o'rganish o'rniga guruh faolligi va hamkorlikni rag'batlantirish.
11) Dars mavzusiga emas, balki talaba sifatida bolaga urg'u berish.
12) Og'zaki bilim va ko'nikmalarga monopol tayanishdan ko'ra, faoliyat, bevosita tajriba va ijtimoiy qadriyatlarga tayanish.
13) Dars mavzusiga oid mavzular va tadqiqotlar taklifi.
14) Ko'rib chiqilayotgan mazmunni hamkorlik modellari yordamida o'rgatish

Umuman olganda, bu yondashuvda o‘qitish jarayonida o‘qituvchi darsda hamkorlikda o‘qitish va guruhli ishlash usullaridan foydalanadi, o‘quvchilar esa sinfda yaratilgan boy muhitdan foydalanib, o‘z bilimlarini shakllantiradi va amalda qo‘llaydi.

O'z tadqiqotida Yu.M. Kolyagin ta'lim tizimiga nisbatan "integratsiya" tushunchasini ikki ma'noda qo'llaydi:

 maktab o‘quvchilari atrofidagi dunyoning yaxlit ko‘rinishini yaratish, ya’ni. integratsiya o'rganish maqsadi sifatida ishlaydi, shu bilan birga u o'quvchiga dunyoning alohida qismlarining tizim sifatida bog'liqligini aks ettiruvchi bilimlarni berishi kerak, bolani o'rganishning birinchi qadamlaridanoq butun dunyoni butun dunyo sifatida tasavvur qilishga o'rgatadi. bir-biriga bog'langan;

 fan bilimlarini yaqinlashtirish uchun umumiy platformani topish, ya’ni. integratsiya o'rganish vositasi sifatida ishlaydi, shu bilan birga u talabalarning

bilimdonligini rivojlantirishga, ta'limdagi mavjud tor ixtisoslikni yangilashga qaratilgan.

Aksariyat o'qituvchilar pedagogik integratsiya hodisasining protsessual xususiyatlariga tayanib, uni jarayon va natija, tizim, to'plam, assotsiatsiya, tarkibiy qismlar va elementlarning tashkiliy aloqasi, shakllar, usullar sifatida taqdim etadilar. Masalan, V.S. Bezrukova "pedagogik integratsiya" tushunchasining ko'p qirraliligini ta'kidlab, uni quyidagicha izohlaydi:

- tarkibiy qismlarning ajralmasligi, yangi ob'ektivlik – yagona ob'ekt, yangi tuzilma, bog'lanishga kirishuvchi ob'yektlarning yangi funksiyalari bilan ajralib turadigan o'zaro bog'lanishning eng yuqori shakli (ta'lim bo'limlari, ta'lim bosqichlari). Ushbu ta'rifda muallif o'zaro bog'lanishning eng yuqori shakli sifatida integratsiyaning o'ziga xos xususiyatlarini ta'kidlaydi.

- ta'limning bir necha bo'limlarida amalga oshirilayotgan, o'quvchilarni tayyorlash tizimini faollashtirishga qaratilgan maqsadlar, mazmun tamoyillari, ta'lim va tarbiya jarayonini tashkil etish shakllari birligini ifodalashning oliy shakli;

- o'quvchilarni tayyorlashning bir necha bo'limlari o'quv jarayonining turli komponentlarini o'zaro bog'lash asosida kengaytirilgan pedagogik birliklar yaratish.

A.A. Yataykinaning tadqiqotlarida pedagogik integratsiyaning mazmunini yanada chuqurroq o'rganish, ta'lim jarayoni elementlarining o'zaro ta'siri, o'zaro taxminlari, bir-birini to'ldirishi, o'zaro muvofiqligi, o'zaro bog'liqligi sifatida tavsiflanadi. A.A. Yataykina nuqtai nazaridan pedagogik integratsiya:

 dunyoning yaxlit manzarasini yaratishga, insonni hayotning barcha hodisalarini ularning chuqur o'zaro bog'liqligi va shu bilan birga, nomuvofiqlikda ko'rishga o'rgatish imkonini beradi;

- shaxsni tezda modellashtiradi, sog'lom munosabatga turtki bo'lib xizmat qiladi, o'quvchi ongiga falsafiy shifo keltiradi;

- turli fanlar uchun umumiy bo'lgan kognitiv, amaliy va baholash ko'nikmalarini shakllantiradi, ular asosida to'g'ri baholarni shakllantiradi;

- dunyoga dialektik qarashning umumlashtirilgan bilim va ko'nikmalari, uning hayotida insonning axloqiy qadriyatlar yo'nalishlari uchun asos yaratuvchi axloqiy va estetik ideallar tizimi asosida shakllanadi. Integratsiya xususiyatlarini kengaytirib, uning ilmiy ob'ektlariga bilimlar, ob'ektiv hodisalar, jarayonlar, atrofdagi dunyo ob'ektlari, inson faoliyati turlari, tasvirlar, his-tuyg'ular, kasblar, shuningdek, bilim turlari, ilmiy tushunchalar tizimlari, qonunlar, nazariyalar, etakchi g'oyalar, tizimli harakatlar (fan usullari), ob'ektiv jarayonlar va hayot hodisalari modellari kiradi.

Pedagogika fanida taklif etilayotgan integratsiya jarayonining texnologik jihatlari kengroq bo'lib, quyidagilarga ta'rif berishni o'z ichiga oladi: integratsiyaning turlari va darajalari, uning tamoyillari, integrallashtiruvchi omil, integrativ bog'lanishlar, integratsiyaning usullari, turlari va shakllari. Aynan ular bizning tadqiqotimizda integratsiya algoritmiga birlashtiriladi. Integratsiyaning muhim texnologik jihatlaridan biri tadqiqotchilar integral (integratsion) ulanishlar

deb ataladi. Adabiyotda bu tushuncha fanichi va fanlararo aloqadorlik tushunchasi bilan birga qo`llaniladi.

Fanlararo aloqalarga oid masalalarni ishlab chiqish turli davrlarda G.I. Belenky, I.D. Zverev, D.M. Kiryushkin, P.G. Kulagin, N.A. Loshkareva, V.N. Maksimova, V.N. Maksimenko, M.N. Skatkin, V.N. Fedorova va boshqalar I.D. Ular ta'lim va tarbiyaning birligi shartini fanlararo aloqadorlikda, ta'limning fan tizimiga yaxlit yondashish vositasi deb hisobladilar. Olimlarning ta'kidlashicha, integrativ aloqalar fanlararo aloqalarga qaraganda ancha kengroqdir. N.K.Chapayev o‘z tadqiqotida fanlararo bog‘lanishlarga qaraganda integrativ bog‘lanishlar muhimroq, chuqurroq ekanligini qayd etadi. Shuni hisobga olib, biz fanlararo aloqalarni ta'limda integratsiyani amalga oshirish vositalaridan biri sifatida tushunamiz. Fanlararo aloqalarga qaraganda zamonaviyroq bo'lgan integrativ aloqalar hali etarlicha o'rganilmagan. Integratsiyaning yuqorida qayd etilgan va tahlil qilingan texnologik jihatlari pedagogik oliy o‘quv yurtida talabalarni o‘qitish jarayonida integratsiyani amalga oshirish algoritmi sifatida ifodalanishi mumkin, unga ko‘ra quyidagilar yuzaga keladi: integratsiya ob'ektlarini tanlash va asoslash —» integratsiya tamoyillarini belgilash, tanlash va o'rnatish —> integrallashtiruvchi omil —> integratsiya turi —> integral aloqalar va shakllar - turli fanlar bo'yicha o'rganiladigan kursning mavzui, bo'limlari, muammosi bo'lishi mumkin bo'lgan integral ob'ektni yaratish. , fanning turli sohalaridagi bilimlarni birlashtirgan maxsus kurs.

Shunday qilib, integratsiyaning nazariy va uslubiy asoslarini universitetda bo'lajak o'qituvchilarning kasbiy-pedagogik tayyorgarligini takomillashtirish vositasi sifatida ko'rib chiqib, biz xulosalar qilamiz.

Integral yondashuv pedagogik jarayonning barcha tarkibiy qismlariga integratsiyani qo'llashni, fanlararolik tamoyillaridan foydalanishga yo'naltirishni va umumiy ob'ekt, mavzu va maqsadlarga ega bo'lgan o'quv fanlari guruhlari mazmunini tanlashning asosliligini o'z ichiga oladi. o'qitish va terminologik apparatning o'xshashligi. Integratsiya jarayonining mohiyati pedagogik jarayonning tarkibiy qismlari o'rtasida integrativ aloqalarni o'rnatish orqali bilimlarni o'zaro bog'lash, mustahkamlashda yotadi.

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YOSH PARATAEKVONDOSHILARNING MASHG‘ULOT JARAYONINI TASHKIL ETISH

Annotatsiya: *Tayanch-harakat apparatida kasalliklari bo‘lgan yosh parataekvondoshilarning sport mashg‘ulotlarining xususiyatlari ko‘rib shiqiladi. Ta’kidlanishisha, tayanch-harakat tizimida nuqsoni bo‘lgan shaxslar uchun taekvondo bo‘yisha sport mashg‘ulotlarini o‘tkazish masalalari bo‘yisha yetarlisha ilmiy-metodik adabiyotlar mavjud. Ammo amaliyotda ushbu muammolarni o‘rganish yo‘nalishlari yetarlisha tizimlashtirilmagan. Tadqiqotimiz davomida tayanch-harakat tizimida nuqsoni bo‘lgan parataekvondo sportchilarining sport mashg‘ulotlari samaradorligiga ta’sir yetuvshi asosiy omillar aniqlandi va kertakli mashg‘ulot metodi ishlab chiqildi.*

Kalit so‘zlar*: parataekvondo, sport mashg‘ulotlari, tayanch-harakat tizimi kasalliklari, adaptiv sport dasturi.*

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ORGANIZATION OF THE TRAINING PROCESS OF YOUNG PARA-TAEKWONDO PRACTICERS

Annotation: *The features of sports training of young parataekwondo athletes with musculoskeletal disorders are considered. It is noted that there is a sufficient amount of scientific and methodological literature on the issues of conducting sports training in taekwondo for people with musculoskeletal disorders. However, in practice, the areas of study of these problems are not sufficiently systematized. During our study, the main factors affecting the effectiveness of sports training of parataekwondo athletes with musculoskeletal disorders were identified and a method of training was developed.*

Keywords: *parataekwondo, sports training, musculoskeletal diseases, adaptive sports program.*

Kirish: Parataekvondo tayanch-harakat tizimida nuqsoni bo‘lgan sportchilar uchun maxsus moslashtirilgan dastur bo‘lib, taekvondoning an’anaviy qoidalariga asoslanadi. Ushbu sport turi jismoniy imkoniyatlari cheklangan shaxslar uchun

musobaqalarda ishtirok etish imkoniyatini taqdim etishi bilan an’anaviy jang san’atlaridan farq qiladi. Parataekvondo mashg‘ulotlari sog‘lom sportchilar bilan bir xil taekvondo standartlari doirasida olib boriladi, ammo tayanch-harakat tizimida nuqsoni bo‘lgan shaxslar uchun bu jarayon murakkab va ko‘p qirrali bo‘lib, alohida e’tibor hamda individual yondashuvni talab etadi.

O‘smirlik davri sportchilar shaxsiyati shakllanishining muhim bosqichidir. Jismoniy imkoniyatlari cheklangan yosh sportchilar bu davrda o‘zlarining kimligini anglash va jamiyatdagi mavqeini tuchunishda qiyinchiliklarga duch keladilar. Ayniqsa, harakat tizimidagi nuqsonlar ularning o‘zini idrok etishi va shaxs sifatida rivojlanishiga ta’sir ko‘rsatadi. Shu bois, parataekvondo mashg‘ulotlarida nafaqat jismoniy tayyorgarlik, balki sportchining shaxsiy rivojlanishiga ta’sir qiluvchi psixologik omillarni ham hisobga olish zarur.

Ilmiy izlanishlarning hozirgi yo‘nalishlaridan biri moslashtirilgan sport dasturlarining imkoniyatlarini o‘rganish va ularning tayanch-harakat tizimi buzilgan shaxslar organizmiga fiziologik ta’sirini aniqlashdir. Masalan, D.Bogushevski [3] va P.Rajan [7] jang san’atlarini jismoniy reabilitatsiyaning samarali usuli deb hisoblasalar, L.G. Litchke [5] va boshqa mutaxassislar esa reabilitatsiya jarayonida sport turini harakat buzilishlarining turiga va mushaklarning funksional imkoniyatlariga mos ravishda tanlash muhimligini ta’kidlashadi. Paralimpiyada qatnashadigan sportchilarning aksariyati sanatoriy-kurort reabilitatsiyasini tanlash o‘rniga sport mashg‘ulotlariga e’tibor qaratgani sportning sog‘lomlashtirishdagi o‘rnini yana bir bor tasdiqlaydi. Yuqorida takidalangan mutaxassislar fikrlari hamda parataekvondo sport turning tayanch harakat tizimida nuqsoni bo’lgan yoshlar orasida ommalashtirish va ularning salomatlik darajasini yahshilashga aloqador mashqlar tizimini shakllantirish zarurati mavjud.

Tadqiqotning maqsadi: yosh parataekvondochilarning sport salomatlik darajasini oshirish hamda sportchilar ruxiy barqarorligini tartibga solish.

Tadqiqotning vazifasi:

- Tayanch aparat tizimida nuqsoni bo’lgan yoshlarni parataekvondo sport turiga jalb etish.
- Mashg’ulotlar davomida sport salomatligini va ruxiy barqarorligini taminlovchi mashqlar majmuasii ishlab chiqish.

Tadqiqot natijalari va muhokamasi: Parataekvondo zamonaviy sportning muhim yo‘nalishlaridan biri bo‘lib, jismoniy imkoniyati cheklangan insonlar uchun keng imkoniyatlar eshigini ochadi. Ushbu sport turi, nafaqat jismoniy mashg‘ulotlar orqali insonning salomatligini yaxshilash, balki ijtimoiy moslashuv va psixologik barqarorlikni rivojlantirishga xizmat qiladi. Bugungi kunda parataekvondo bo‘yicha mashg‘ulotlarni ilmiy asosda tashkil etish nafaqat individual yondashuvni ta’minlash, balki xalqaro darajadagi sport musobaqalarida yuqori natijalarga erishish uchun ham muhim ahamiyat kasb etmoqda.

Parataekvondo mashg‘ulotlarini samarali tashkil etish jarayonida xavfsizlik choralari, individual moslashuv imkoniyatlari va bosqichma-bosqich rivojlantirish tamoyillari ustuvor hisoblanadi. Jismoniy tayyorgarlikni texnik va psixologik

tayyorgarlik bilan integratsiya qilish, sportchilarning nogironlik xususiyatlarini hisobga olgan holda maxsus reabilitatsion dasturlarni joriy etish zarur. Shu bilan birga, mashg‘ulot jarayonida motivatsiyani oshirish va stressni boshqarish kabi psixologik omillar sportchilarning musobaqalarda muvaffaqiyatli ishtirokini ta’minlaydi.

Tadqiqot davomida tayanch-harakat tizimi kasalliklarida organizm faoliyatining asosiy xususiyatlarini aniqlash uchun yengil atletikaga oid testlar to‘plamidan, shu jumladan reaktsiya vaqti, pastki tana harakatlari, masofani nazorat qilish va boshqa harakatlar treyektoriyalarini aniqlashga yo‘naltirilgan test sinovlari o‘rganildi. Ushbu testlar sportchi mashg‘ulotlari va musobaqalarda erishishi mumkin bo‘lgan ko‘rsatkichlarni aniqlash, shuningdek ularni takomillashtirish imkoniyatlarini belgilashga qaratilgan.

Ye.A. Jaarsma, P.U. Deykstra, A.S. de Blesourt, J.X. Geertzen va R. Dekkerlar [4] sport bilan shug‘ullanadigan va jismoniy faolligi cheklangan bolalar guruhini o‘rganar ekan, sport mashg‘ulotlarining samaradorligi uchun quyidagi asosiy omillarni hisobga olish zarurligini ta'kidladilar:

- Mashg‘ulotlarni individuallashtirish zarurati: Har bir sportchining individual xususiyatlari, xususan, tayanch-harakat tizimining buzilishi darajasi va turi, yoshi, jismoniy tayyorgarlik darajasi, tibbiy tavsiyalar va sport maqsadlari hisobga olinishi muhimdir;
- Hissiy qiyinchiliklarni yengish uchun psixologik yordam ko‘rsatish zarurati;
- Mashg‘ulotlar jarayonining maqsadli yo‘nalishi: tayanch-harakat tizimining mushaklarini kuchaytirish va kompensatsion xususiyatlarni rivojlantirish, shuningdek, samarali mashq qilish va yuqori natijalarga erishish imkonini beradigan shart-sharoitlarni yaratish.

Shu o’rinda chet-el olimi O.N.Vladimirovaning [1] fikriga ko’ra, tayanch-harakat a’zolarida nuqsoni bo‘lgan yosh para-taekvondoshilar uchun sport mashg‘ulotlarining psixologik muammolari har bir sportchi uchun turli xil shaklda va individual bo‘lishi mumkin. Muallif yosh para-taekvondo sportchilari o‘rtasida mashg‘ulotlar jarayonida yuzaga keladigan asosiy psixologik muammolar va ularning oqibatlarini aniqlab bergan.

Yuqorida qayd etilgan olimlarning va malakali mutaxasislarning fikr muloxazalarini inobatga olgan holda biz tomonimizdan yosh parataekvondochilarning mashg’ulot samaradorligini oshirish maqsadida mashqlar jamlanmasi tayyorlandi (1-jadvalga qarang).

1-jadval.

Yosh parataekvondochilarning mashg’ulot samaradorligini oshiruvchi mashqlar

T/r	Mashq nomi va izohi	Bajarilish tartibi	Vaqt	Dam olish	Foydali jihatlari
1	**Yurish yoki sekin yugurish**	Mashg‘ulotni boshlashdan oldin tanani isitish maqsadida yurish yoki sekin yugurish tavsiya etiladi.	5-10 daqiqa davomida sekin yurish yoki yugurish.	Boshqa mashqdan oldin dam olish kerak emas, lekin mashg‘ulotlar orasida qisqa dam olish mumkin.	Yurish yoki sekin yugurish umumiy kardio mashqi bo‘lib, yurak va nafas olish tizimining samaradorligini oshiradi. Bu mushaklarni isitadi, qon aylanishini yaxshilaydi va jismoniy faollikka tayyorlaydi.
2	**Dinamik cho‘zilishlar**	Harakatlanayotganda, tanadagi bo‘g‘imlar va mushaklarni cho‘zish. Bu mashqlarni sekin va o‘ta yengil bajarish zarur.	10-15 marta.	Har bir mashqdan so‘ng 5-10 soniya dam olish mumkin.	Qo‘l va oyoqlardagi bo‘g‘imlarni ochadi, mushaklarni isitadi va elastikligini oshiradi. Mashqning asosiy maqsadi harakatdan oldin tanani tayyorlash.
3	**Bir oyoqda turish (muvozanat mashqi)**	Bir oyoqda turish va muvozanatni saqlash. Agar oson bo‘lsa, qo‘lni yordamchi sifatida ishlatish mumkin.	Har bir oyoqda 20-30 soniya davomida turish.	10-15 soniya dam olish, keyin boshqa oyoqqa o‘tish.	Muvozanatni saqlashga yordam beradi va tananing barqarorligini oshiradi. Oyoqlarni kuchaytirish va bo‘g‘imlardagi elastiklikni yaxshilashga yordam beradi.
4	**Koordinatsiya mashqlari (ikki qo‘lni bir**	Ikkala qo‘lni bir vaqtda yuqoriga va pastga	15-20 marta.	Har bir seriya orasida 10-15	Tanadagi koordinatsiyani oshiradi va

	vaqtda harakatlantirish)	harakatlantirish, bu miya va mushaklar koordinatsiyasini yaxshilaydi.		soniya dam olish.	miya faoliyatini rivojlantiradi. Bu mashq sportchining texnikasini yaxshilash va mushaklarning to‘g‘ri ishlashini ta'minlash uchun zarur.
5	**Oyoqlarni kengaytirish (flexion-extension)**	Oyoqlarni birin-ketin kengaytirish va qaytarish. Mashqni sekin va to‘g‘ri bajarish kerak.	15-20 marta har bir oyoqda.	Har bir seriya orasida 10-15 soniya dam olish.	Oyoq mushaklarini kuchaytiradi, ayniqsa, to‘siqni urish uchun foydalidir. Harakatlarning aniqligini va kuchini oshiradi.

1-jadvalda qayd etilgan yosh parataekvondochilar uchun mo‘ljallangan mashqlar majmuasi tanani tayyorlash va jismoniy tayyorgarlikni rivojlantirishga qaratilgan. Har bir mashqning o‘ziga xos foydali jihatlari mavjud bo‘lib, ular sportchining texnikasini, kuchini, chidamliligini, muvozanat va koordinatsiyasini yaxshilashga yordam beradi.

1. **Kardio va nafas olish tizimining rivojlanishi**: Yurish yoki sekin yugurish mashqi yurak va nafas olish tizimining samaradorligini oshiradi, bu esa sportchining umumiy jismoniy faollikda yuqori natijalarga erishishiga yordam beradi.

2. **Mushaklarni isitish va elastikligini oshirish**: Dinamik cho‘zilishlar va oyoqlarni kengaytirish mashqlari bo‘g‘imlar va mushaklarni isitib, ularning elastikligini oshiradi, bu esa harakatlarning aniqligini va samaradorligini ta'minlaydi.

3. **Koordinatsiya va muvozanatni rivojlantirish**: Muvozanat mashqlari va ikki qo‘lni bir vaqtda harakatlantirish mashqlari sportchining koordinatsiyasini va muvozanatni yaxshilaydi, bu esa texnik harakatlarni to‘g‘ri va samarali bajarishga imkon beradi.

4. **Jarohatlardan saqlanish**: Harakatlarning to‘g‘ri bajarilishi, mushaklarning va bo‘g‘imlarning elastikligi jarohatlar xavfini kamaytiradi. Bu mashqlar sportchining xavfsizligini ta’minlashda ham muhim ahamiyatga ega.

5. **Oyoq kuchini oshirish va texnikani mukammallashtirish**: Oyoqlarni kengaytirish mashqlari oyoq mushaklarini kuchaytiradi, bu esa parataekvondoda zarbalarni kuchli va aniq bajarishga yordam beradi.

Ushbu mashqlarni muntazam ravishda bajarish orqali yosh sportchilar nafaqat jismoniy, balki ruhiy jihatdan ham yaxshilanadilar, yuqori darajadagi sport musobaqalariga tayyorlanishlari mumkin. Mashqlar to‘g‘ri bajarilishi va shaxsiy yondashuv bilan sportchining umumiy tayyorgarligi va muvaffaqiyati sezilarli darajada oshadi.

Jismoniy nuqsonlari bo‘lgan sportchilar uchun tegishli mashqlar yordamida yo‘qolgan funktsiyalarni muvaffaqiyatli qoplash imkoniyatlari va ularning psixologik hamda jismoniy rivojlanishi haqida fikr yuritilgan. Sport faoliyati jismoniy faolligi cheklangan sportchining ijtimoiy va ruhiy o‘zgarishlarining asosini tashkil etadi. Bu holatni tushuntirish uchun bir nechta muhim jihatlarni keltirish mumkin:

1. Jismoniy faollik va psixologik o‘zgarishlar:

Jismoniy nuqsonlari bo‘lgan sportchilar uchun mashqlar faqat jismoniy jihatdan yordam bermaydi, balki ularning psixologik holatini ham yaxshilaydi. Sport faoliyati orqali sportchilar yangi jismoniy rivojlanishga erishib, ijtimoiy va ruhiy darajada o‘zgarishlar yuz beradi. Bu jarayon sportchining o‘ziga bo‘lgan ishonchini oshiradi va motivatsiyasini kuchaytiradi.

2. Ijtimoiy muhitning roli:

Sport mashg‘ulotlari olib boriladigan guruh, sportchining ijtimoiy taraqqiyotini qo‘llab-quvvatlaydi. Bu yerda shaxs nafaqat psixologik yordam oladi, balki o‘z fikrini va nuqtai nazarini baham ko‘radigan boshqa odamlar bilan

muloqotda bo‘ladi. Bunday ijtimoiy muhit sportchining ruhiy holatini yaxshilashda katta ahamiyatga ega.

3. Yu Jukovning tadqiqotlari:

Yu.Jukovning tadqiqotlari tayanch-harakat tizimi zararlangan yosh sportchilar uchun individual dasturga asoslangan mashg‘ulotlarni tavsiya qiladi. Jismoniy nuqsonlari bo‘lgan sportchilar sog‘lom sportchilarga qaraganda alohida mashq rejimiga rioya qilishlari kerak. U sog‘lom sportchilarning sparring sheriklari va yordamchilari sifatida harakat qilishlarini, ammo ular guruh mashg‘ulotlarida birgalikda ishtirok etishda muammolarga duch kelishlari mumkinligini ta’kidlaydi [2].

4. Xorijiy tadqiqotlar bilan o‘xshashlik:

Yu.Jukovning natijalari xorijiy tadqiqotlar bilan mos keladi, xususan, R. Makkonki, S. Dovling, D. Hassan, va S. Menke kabi olimlarning ishlari bilan o‘xshashliklar bor. Ular ham sport mashg‘ulotlarida sog‘lom va jismoniy nuqsonlari bo‘lgan sportchilar uchun alohida yondashuvlar zarurligini ta’kidlaydilar [6].

Shunday qilib, jismoniy nuqsonli sportchilarga tegishli mashqlarni muvaffaqiyatli tanlash orqali ular faqat jismoniy holatlarini yaxshilab qolmay, balki psixologik jihatdan ham kuchliroq bo‘lishlari mumkin. Bunda individual yondashuv va ijtimoiy muhitning qo‘llab-quvvatlashi katta ahamiyatga ega. Yuqoridagi tadqiqotlar shuni ko‘rsatadiki, sport mashg‘ulotlari jismoniy nuqsonlar bilan kurashish va ijtimoiy integratsiyani kuchaytirish uchun muhim vosita hisoblanadi.

Shundan kelib chiqib, para-taekvondo (tayanch-harakat a’zoligida nuqsoni bo‘lgan) yoshlarni sportga tayyorlashning quyidagi xususiyatlarini ajratib ko‘rsatish maqsadga muvofiqdir.

Xulosa

1. Sportchilar va ota-onalar uchun tibbiy konsultatsiya zarurati. Har qanday sport mashg‘ulotlarini boshlashdan oldin, tayanch-harakat tizimi kasalliklari bo‘lgan sportchilar to‘liq tibbiy ko‘rikdan o‘tishlari va sport tibbiyoti shifokoridan ruxsat olishlari kerak, bu samarasiz mashqlarni bartaraf qiladi va xavfsiz texnikani ishlab shiqadi.

2. Moslashuvshan sport dasturini ishlab shiqish, sportchining cheklovlari va imkoniyatlarini hisobga olgan holda mashg‘ulot jarayonini tashkil yetishda moslashuvshan yondashuv, shuningdek, jarohatlar xavfsizligi va minimallashtirish, xususan, tananing mashg‘ulotlarga reaktsiyasini kuzatish va o‘z vaqtida javob berish. mumkin bo‘lgan muammolar yoki kasallikning kuchayishi, ortiqsha ishlamaslik va shu bilan birga dam olish va tiklanish uchun optimal tanaffuslar bilan yukni bosqishma-bosqish oshirish. Bundan tashqari, kuch, aerobik, moslashuvshanlik va muvofiqlashtirish kabi turli xil mashg‘ulotlarni kiritish tavsiya yetiladi - bu murakkab jismoniy tayyorgarlikni rivojlantirishga va sportchining tanasini mustahkamlashga yordam beradi.

3. Para-taekvondo sportchilarining mashg‘ulotlar jarayonining asosiy yo‘nalishi tayanch-harakat apparati mushaklarini mustahkamlashga qaratilgan. Masalan, orqa, dumba, tizza va to‘piq mushaklari uchun maxsus mashqlar, muvozanat va muvofiqlashtirishni yaxshilash, aerobik shidamlilik,

moslashuvshanlik va kuchni rivojlantirish, shuningdek, umumiy jismoniy tayyorgarlik.

4. Tananing holati va mashg‘ulotlar natijalarini doimiy nazorat qilish va tahlil qilishga qaratilgan sportchining holatini kuzatish.

5. Guruh va individual yondashuvning kombinatsiyasi, murabbiy tibbiyot mutaxassislari bilan birgalikda sportchining holatini tahlil qilib, tayanch-harakat a’zolarining buzilish turini, jismoniy tayyorgarlik darajasini aniqlaydi va shu ma’lumotlar asosida mashg‘ulot rejasini tuzadi - individual va guruhda.

6. Sportchining shaxsiy va kasbiy fazilatlarini (emotsional-psixologik barqarorlik, qat’iyatlilik, moslashuvshanlik, yangi atrof-muhit sharoitlariga moslashish va boshqalar), kognitiv rivojlanish (o‘zini o‘zi qabul qilish) ni rivojlantirishga qaratilgan sportchilarni ota-onalari bilan birgalikda o‘z vaqtida va doimiy psixologik qo‘llab-quvvatlash. va jismoniy cheklovlar, o‘z-o‘zini aniqlash), jamiyatga ijtimoiy integratsiya.

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YANGI O‘ZBEKISTON MILLIY IQTISODIYOTIDA SANOATNING TUTGAN O‘RNI VA UNI MODERNIZATSIYA QILISH

Annotatsiya: *Ushbu maqolada yangi O`zbekiston milliy iqtisodiyotida sanoat tarmog‘ining o`rni, o‘ziga xos tomonlari amaliy materiallar yordamida o‘rganilgan. Shuningdek, mamlakatimizda qabul qilingan strategiyaga va dasturlar doirasida sanoat tarmog‘ini rivojlantirish yo`llari, modernizatsiya qilish haqida so`z yuritiladi.*

Kalit so‘zlar: *milliy iqtisodiyot, sanoat, sanoat salohiyati, sanoat korxonalari, ishlab chiqarish korxonalari, barqaror sanoatlashtirish, tarmoqlararo kooperatsiya.*

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THE PLACE OF INDUSTRY IN THE NATIONAL ECONOMY OF NEW UZBEKISTAN AND ITS MODERNIZATION ANNOTATION

Annotation: *This article studies the role and specific aspects of the industrial sector in the national economy of the new Uzbekistan using practical materials. It also discusses the ways of developing and modernizing the industrial sector within the framework of the strategy and programs adopted in our country.*

Keywords: *national economy, industry, industrial potential, industrial enterprises, manufacturing enterprises, sustainable industrialization, inter-sectoral cooperation.*

Asosiy qism: Sanoat – moddiy ishlab chiqarishning eng yirik yetakchi tarmog’i bo’lib, unda mehnat qurollari (vositalari), mehnat buyumlari va xalq

iste’mol tovarlarining ko’pchilik qismi yaratiladi. Unda mashina va mexanizmlarning barcha turlari, bino va inshootlarning konstruktiv elementlari ishlab chiqariladi, yer osti boyliklarini qazib olish amalga oshiriladi, mineral, o’simlik va hayvon xomashyosiga ishlov beriladi hamda keng iste’mol mollari tayyorlanadi.

Sanoat iqtisodiyotning barcha tarmoqlarini ishlab chiqarish vositalari, mehnat qurollari bilan ta’minlaydi. Milliy iqtisodiyot, fan, maorif, madaniyat, sog’liqni saqlash, sport, turizm va boshqa sohalar rivoji sanoatning taraqqiyot darajasiga bog’liq. Ishlab chiqarish kuchlari va munosabatlari taraqqiyotida sanoatning tarixiy roli beqiyosdir. Shu sababli uning rivoji va samaradorligi qanchalik yuqori bo’lsa, davlatning mavqei shunchalik kuchli bo’ladi va aholi turmush darajasi yanada yaxshilanib boradi.

Sanoat jamiyatning yetakchi kuchi bo’lgan ishchilar sinfini o’zida birlashtiradi. Sanoat rivoji tufayli unda band bo’lgan xodimlarning soni ko’payadi, ularning bilim va ko’nikmalari, mahorati ortadi, kadrlar salohiyati yuqori darajaga ko’tariladi.

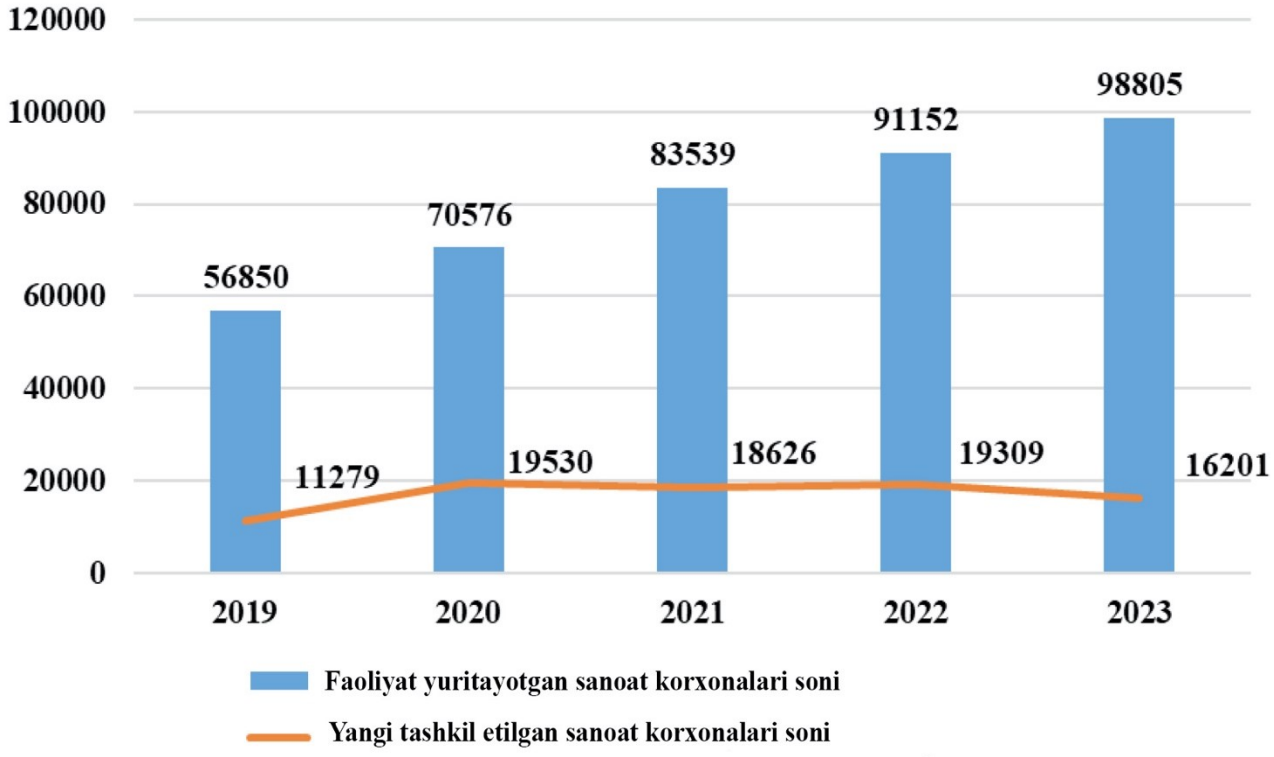
Mehnatni ijtimoiy tashkil qilishning eng oliy turi, konsentratsiyaning yuqori darajasi va shu asosda ijtimoiy ishlab chiqarishni uyushtirishning ilg’or usullari – ixtisoslashtirish, kooperativ-lashtirish va kombinatlashtirish, ko’plab ishlab chiqarish va uzluksiz konveyer tizimi yordami bilan tashkil etish sanoat sohasida hukmronlik qiladi. Faqat yirik mashina industriyasigina fan va texnikaning barcha yutuqlarini o’zida to’plab, mujassamlashtirib, mehnatni texnika bilan qurollantirishi va uning unumdorligini yuqori darajaga ko’tarishi mumkin.

Sanoat va ayniqsa uning eng muhim sohasi bo’lgan og’ir sanoat mamlakatda kengaytirilgan takror ishlab chiqarishninig asosi hisoblanadi. U moddiy texnika vositalarini o’zi va boshqa tarmoqlar uchun takror ishlab chiqarish bilan bir vaqtda jamiyat a’zolari o’rtasidagi ijtimoiy ishlab chiqarish munosabatlarini takomillashtirib boradi.

Sanoat qishloq xo’jaligi ishlab chiqarishini qayta qurishning negizi hisoblanadi. Uni yangi texnika bilan ta’minlash orqali sanoat dehqon xo’jaligini iqtisodiy va madaniy jihatdan yuqori darajaga ko’tarishga, shahar bilan qishloq o’rtasidagi muhim tafovutni yo’qotishga, dehqon mehnatini industrial mehnatga aylantirishga yordam beradi.

Jahon iqtisodiyotining globallashuvi va raqamli iqtisodiyotni shakllanishi sharoitida mamlakatimizda milliy iqtisodiyotning raqobatbardoshligini ta’minlash, tarmoqlar va sohalarda ishlab chiqarishni samarali tashkil etish va boshqaruv samaradorligini oshirish, korxonalar va aksiyadorlik jamiyatlari, kompaniya va firmalarda kor-porativ boshqaruvni samarali tashkil etish, ishlab chiqarishni samarali tashkil etish, korxonalar amaliyotida korporativ boshqaruv standartlari va kodekslarini ishlab chiqish, davlatlar iqtisodiyotini rivojlantirishda sanoat korxonalari raqobatbardoshligini oshirishda ilg‘or xorijiy tajribalarni qo‘llash kabi masalalarga alohida e’tibor qaratilmoqda. 2023-yil 11-sentyabrda O‘zbekiston Respublikasi Prezidentining “O‘zbekiston–2030” strategiyasi to‘g‘risi-da”gi 158--son Farmoni asosida qabul qilingan mazkur strategiyada 5 ta ustuvor yo‘nalish

bo‘yicha 100 ta muhim maqsad o‘z aksini topgan bo‘lib, mazkur hujjat orttirilgan tajriba, xalqaro ekspertiza va jamoatchilik muhokamasi natijalari asosida ishlab chiqildi.Xususan, sanoat sohasini barqaror rivojlantirish, mahalliy xomashyo bazasidan samarali foydalanish va ilg‘or texnologiyalarga asoslangan sanoatni rivojlantirish, sanoatning “drayver” sohalarini rivojlantirish va hududlarning sanoat salohiyatini to‘liq ishga solish, sanoatda qo‘shilgan qiymat hajmini 45 milliard dollarga yetkazish va 2,5 millionta yuqori daromadli ish o‘rinlarini yaratish kabi vazifalar belgilangan. Sanoat moddiy ishlab chiqarishning eng yirik, yetakchi tarmog‘idir. Unda mehnat qurollari (vositalari), mehnat buyumlari va xalq iste’mol tovarlarining ko‘pchilik qismi yaratiladi; mashina va mexanizmlarning barcha turlari, bino va inshootlarning konstruktiv elementlari ishlab chiqariladi; yer osti boyliklari qazib olish amalga oshiriladi; mineral, o‘simlik va hayvon xomashyosiga ishlov beriladi, keng iste’mol mollari tayyorlanadi va hoka-zolar Sanoat milliy iqtisodiyotning barcha tarmoqlarini ishlab chiqarish vositalari, mehnat qurollari bilan ta’min-laydi. Milliy iqtisodiyot, fan, maorif, madaniyat, sog‘liqni saqlash, sport, turizm va boshqa sohalar rivoji sanoatning taraqqiyot darajasiga bog‘liq. Ishlab chiqarish kuchlariva munosabatlari taraqqiyotida sanoatning tarixiy roli beqiyosdir. Shu sababli, uning rivoji va samaradorligi qanchalik yuqori bo‘lsa, davlatning mavqei shunchalik kuchli bo‘ladi va aholi turmush darajasi yanada yaxshilanib boradi. Sanoat jamiyatning yetakchi kuchi bo‘lgan ishchilar sinfini o‘zida birlashtiradi. Sanoat rivoji tufayli unda band bo‘lgan xodimlarning soni ko‘payadi, ularning bilimi va ilmi, mahorati ortadi, kadrlar salohiyati yuqori darajaga ko‘tariladi.



Keyingi qadamlar: 2022─2026-yillarga mo‘ljallangan Yangi O‘zbekistonning taraqqiyot strategiyasi doirasida mavjud korxonalarni modernizatsiya qilish va yuqori qo‘shimcha qiymatli mahsulotlar ishlab chiqaradigan yangi korxonalar tashkil etish bo‘yicha quyidagi choratadbirlar va loyihalar ko‘zda tutilgan:

- ✓ klasterlar yaratish, mis, tabiiy gaz va boshqa xomashyolarni qayta ishlashni chuqurlashtirish;
- ✓ avtomobilsozlik sohasida kooperatsiyani rivojlantirish va mahalliylashtirish darajasini oshirish;
- ✓ qurilish materiallari ishlab chiqarishni ikki barobarga oshirish;
- ✓ to‘qimachilik sanoati ishlab chiqarish hajmini ikki barobarga oshirish;
- ✓ charmpoyabzal sanoatini rivojlantirish va ishlab chiqarish hajmini 3 barobarga oshirish;
- ✓ farmatsevtika sanoati mahsulotlarini ishlab chiqarish hajmini 3 barobarga oshirish;
- ✓ elektrotexnika sanoatini rivojlantirish va ishlab chiqarishni ikki barobar oshirish. Bundan tashqari, tayyor mahsulotlarni Yevropa bozorlariga eksport qilishni rag‘batlantirish, shuningdek, ishlab chiqarish samaradorligini va mehnat unumdorligini oshirish dasturlarini amalga oshirish hamda kadrlar tayyorlash bo‘yicha choratadbirlar ko‘rish nazarda tutilgan.

XULOSA VA TAKLIFLAR

Sanoat milliy iqtisodiyotining yetakchi tarmog’i hisoblanadi va ijtimoiy ishlab chiqarishni rivojlantirishda, aholining turmush-darajasi oshirishda uning ahamiyati beqiyosdir.

O‘zbekistonda barqaror sanoatlashtirishni ta’minlash uchun amalga oshirilishi kerak bo‘lgan qo‘shimcha tadbirlar quyidagilardan iborat:

- – energetika, avtomobil transporti va boshqa sanoat infratuzilmalarni kompleks rivojlantirish;
- – mahalliy muhandisliktadqiqot va ishlanmalar bazasini rivojlantirish hamda ilmiy tadqiqotlarni rivojlantirish va kengaytirish, sanoat tarmoqlarining texnologik salohiyatini yuksaltirishda har tomonlama yordam ko‘rsatish;
- – sanoatni modernizatsiya qilish, mahalliy xomashyoni chuqur qayta ishlash asosida tayyor mahsulot ishlab chiqarish, ulardan foydalanish samaradorligini oshirish hamda havfsiz ekologik texnologiyalar va ishlab chiqarish jarayonlaridan kengroq foydalanish uchun zarur investitsiyalar hajmini ta’minlash

O‘rta va yuqori texnologiyali sanoat mahsulotlarining umumiy hajmida qo‘shilgan qiymat ulushini oshirish maqsadida hududlarda yuqori qo‘shimcha qiymat yaratuvchi innovatsion mahsulotlarni ishlab chiqarish texnologiyalarini o‘zlashtirgan holda innovatsion o‘quv ishlab chiqarish texnoparklarini tashkil etish ma`qul ish hisoblanadi.

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ABMK TO'G'ONSIZ SUV OLISH SOHASIDA O'ZAN JARAYONLARI JADALLIGINI BAXOLASHDA DALA TADQIQOT NATIJALARI

Annotatsiya *Ushbu maqolada O'zbekiston Respublikasining Buxoro viloyatini suv bilan ta'minlaydigan yirik inshootlardan biri Amudaryo o'zandagi jarayonlarning tasnifi bo'yicha harakatchan o'zanli daryolar haqida malumotlar berilgan..*

Kalit so'zlar: *Amudaryo, o'zan ,o'zgarish,jarayon,inshoot,buzilish,holat.*

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THE RESULTS OF FIELD RESEARCH ON THE ASSESSMENT OF THE FLOW RATES IN THE ABMK DAMLESS WATER INTAKE AREA

Abstract. *This article provides information on the classification of processes in the Amudarya river basin, one of the large structures that supply water to the Bukhara region of the Republic of Uzbekistan..*

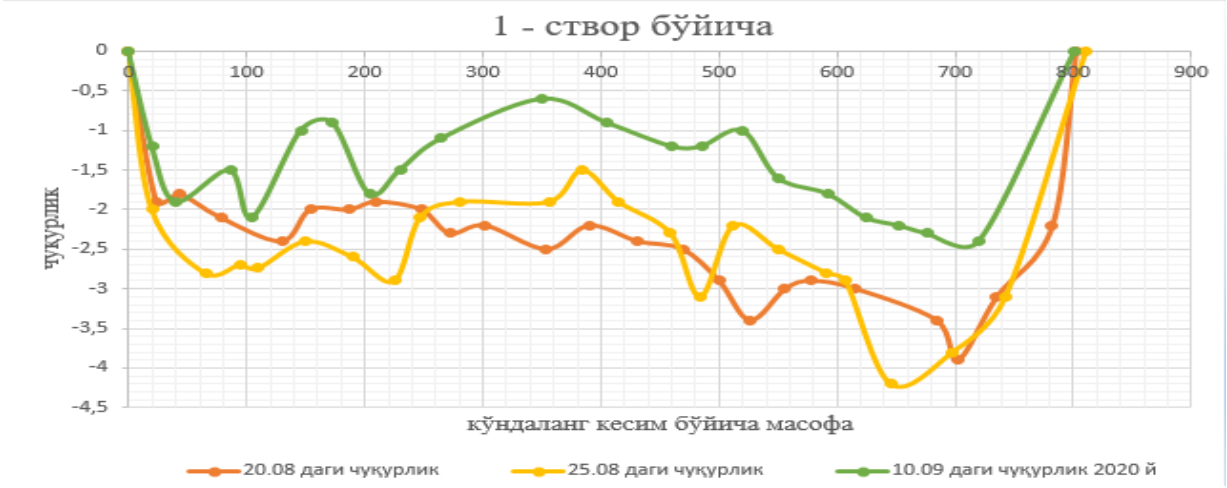
Keywords: *Amudarya, river, change, process, structure, destruction.*

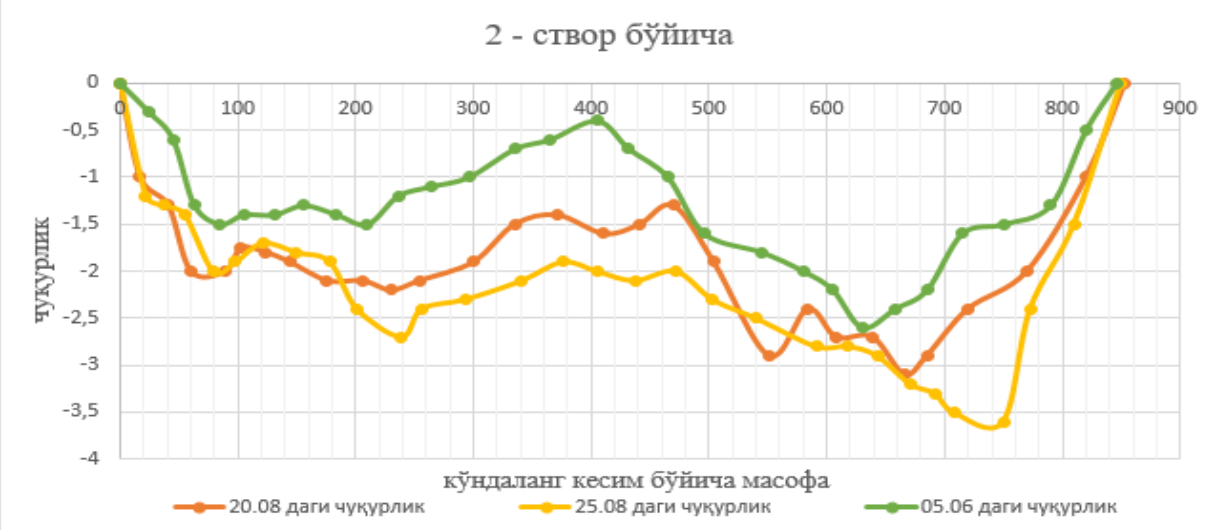
Amudaryoning o'rta oqimida joylashgan yirik to'g'onsiz suv olish inshooti bu Amu-Buxoro mashina kanaliga suv olish inshooti hisoblanadi. Asosan O'zbekiston Respublikasining Buxoro viloyatini suv bilan ta'minlaydigan yirik inshootdir. Amudaryo o'zandagi jarayonlarning tasnifi bo'yicha harakatchan

o‘zanli daryolar tarkibiga kiradi. Amudaryodan kirayotgan suvning loyqaligi o‘rtacha 5 kg/m^3 miqdorni tashkil qilib, yillik kanal o‘zaniga kirayotgan nanoslar miqdori 8-10 mln. tonnani tashkil qiladi [1]. Bu sohada ham daryo o‘zani qayir bo‘ylab harakatlanib turadi. Amudaryo o‘zanining harakatlanuvchanligi, Amu-Buxoro mashina kanaliga to‘g‘onsiz suv olish inshooti sohasida suvni kafolatli va sifatli olinishini doimiy tarzda murrakkabligini ta’minlab turadi. Suv olish bosh inshootiga suv olishni yaxshilash bo‘yicha bir qancha tadbirlar o‘tkazilib turadi, bosh kanalning kirish qismi qayta loyihalashtirilib, qayta qurilish ham amalga oshirilgan. Ta’kidlash lozimki, ekspluatatsiya jarayoni boshlangandan buyon oqim o‘qi o‘zgaruvchan bo‘lib, asosiy farvater doimo chap qirg‘oq tomonda bo‘ladi. Mejen davrida Amudaryo o‘zani asosan ushbu sohada bitta tarmoq orqali harakatlanadi[2]. Daryo o‘zanida chuqurlik va planli deformatsiyalar jadal kechadi. Suv oqimining keskin ko‘tarilib, pasayishi va sarfni o‘zgaruvchanligi natijasida to‘g‘onsiz suv olish inshooti pastki sohasida deygish jarayoni ham ro‘y beradi.

Amudaryo o‘zanida kechayotgan chuqurlik bo‘yicha deformatsion jarayonlarni tahlil qilish uchun tadqiqot sohasida o‘tkazilgan dala kuzatuv ishlari olib borildi. Bunga asosan oqimning gidravlik parametrlari dinamikasi tahlil qilindi.

Tadqiqot sohasida suv sathi egriligining qiyaligi 0,0002÷0,00025 qiymatni tashkil etgan (1-rasm).



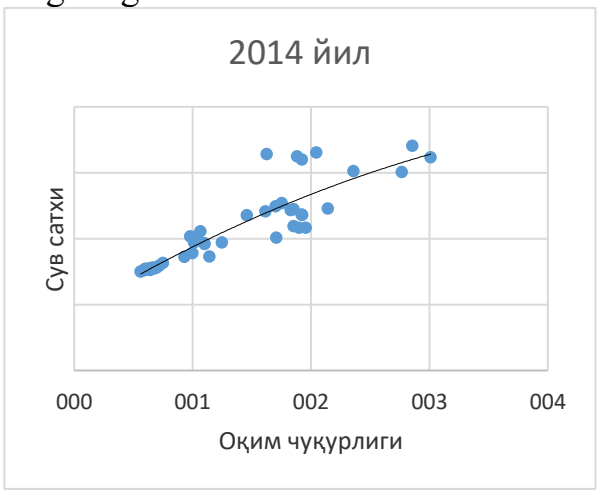


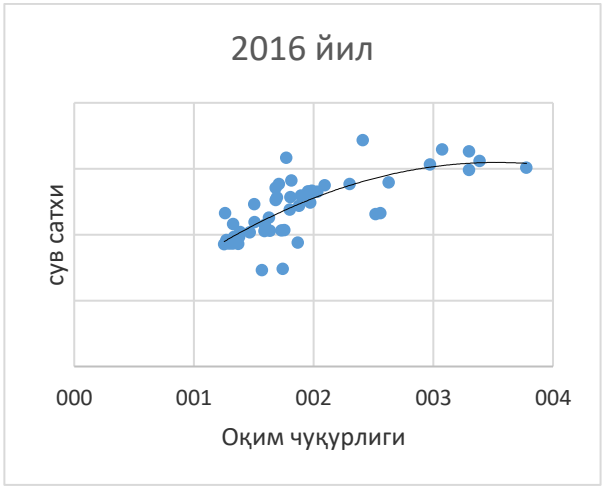
1-rasm. ABMK to‘g‘onsiz suv olish xududida quyi qismi Amudaryo o‘zani tubi ko‘ndalang kesim dinamikasi.

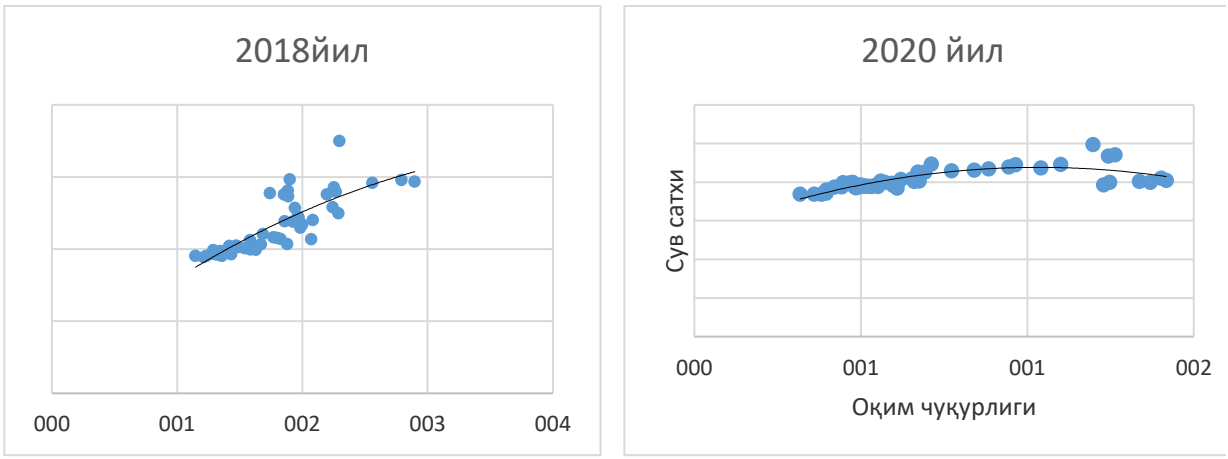
Rasmdan ko‘rinib turibdiki, to‘g‘onsiz suv olish inshooti to‘g‘onsiz suv olish bosh inshootining ta’sirida oqim qayta taqsimlanib, o‘ng va o‘rta irmoqlarda o‘zan tubi balandlik belgisi ko‘tarilib, irmoqlarning qayta shakllanish jarayoni kechmoqda.

Suv oqimi tadqiqot sohasida o‘rtacha tezlik bilan deyarli proporsional shaklda o‘zgarib turadi. Ayrim yillarda bu mutanosiblik ma’lum bir qonuniyatga bo‘ysunsa, ayrim davrlarda ularning o‘zaro bog‘liqlik darajasi past bo‘lgan.

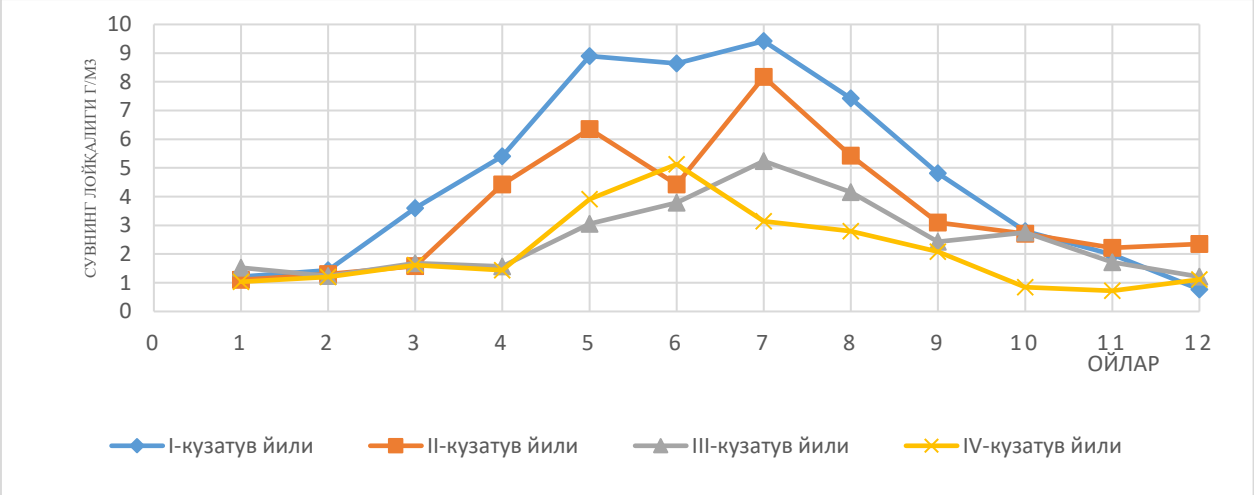
Oqimning o‘rtacha tezligi keng diapazonda o‘zgargan. Ayrim hollarda o‘zan tubi gruntlarining yo‘l qo‘yiladigan tezligidan bir necha marotaba katta bo‘lganligini ko‘rish mumkin.







2-rasm. Oqim sathi bilan chuqurligi bog‘liqligi dinamikasi



3-rasm. Amudaryo suvning loyqaligining yillar davomida o‘zgarishi

Oqimning loyqalanganligi bahor yoz davrlarida o‘zining maksimal qiymatlariga yetgan. Suv oqimi kuz va qish davlarida maksimal darajada tiniqlashishi kuzatilgan.

Chuqurlikni o‘zgarish dninamikasi suv sathi ko‘tarilganda o‘zan tubining balandlik belgisi ko‘tarilishini, kam suvli davrida u pasayishini ko‘rsatdi. Bu xulosani bir necha yillik tadqiqotlar natijalari ko‘rsatdi.

Xulosa.

7. ABMK to‘g‘onsiz suv olish bosh inshooti sohasida ekspluatatsiya jarayoni boshlangandan bo‘yon oqim o‘qi o‘zgaruvchan bo‘lib, asosiy farvater doimo chap qirg‘oq tomonda bo‘ladi. Kam suvli davrda Amudaryo o‘zani asosan ushbu sohada bitta tarmoq orqali harakatlanadi.
8. Dala tadqiqotlari natijasida chuqurlikni o‘zgarish dinamikasi suv sathi ko‘tarilganda o‘zan tubining balandlik belgisi ko‘tarilishini, kam suvli davrida u pasayishini ko‘rsatdi.

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THE ESSENCE OF EDUCATIONAL PROCESS IN ZOROASTRIANS

Abstract*: in this article, based on the analysis of "Avesta", ancient edifying texts and manuscripts of Zoroastrians, the views and thoughts about the system of upbringing and education are substantiated.*

Keywords: *Avesta, Zoroastrianism, Zarathushtra, knowledge, education, upbringing, youth, development, reading books, result.*

After the adoption of Zoroastrianism religion in Movaraunnahr, Iran and Khorasan, based on the belief in a single Creator, special temples - otashkadas with an altar for prayers to Ahura Mazda - began to be built in towns and villages. Otashkadas were usually built in wide squares on the outskirts of the city. They included from ten to one hundred hujras (rooms), tolor (hall), reading rooms, book depositories, and singing rooms.

Professor Isa Jabbarov [7] wrote that the temples discovered during archaeological excavations led by S.P.Tolstov in the ruins of Tuprak-Kala and Zhanbas-Kala in Kharezm consisted of several structures, in the centre of the buildings there was a rectangular building surrounded by several fences, with a circular pavement inwards. It was also found that next to the temples there was a beautiful triangular building built in two floors, which had more than a hundred rooms. Each room was decorated with a special ornament. The 140 documents on administrative and economic issues found in the rooms, executed on leather and wood; 138 large and small statues; images of people, birds, animals; a colourful drawing of a woman playing a triangular musical instrument (harp) and a hand holding a certain position of a musical instrument testify to the fact that various objects were located here.

Otashkadas occupied a special place in the public, educational life of the state. Along with educational facilities, they also had medical ones: sikhatgoh (hospital), darmongoh (polyclinic), pharmacies, town dogustar (court), rooms of the head of the waqf and the chairman of the community. In the care of the otashkad were also dijnabisht - special chancelleries where various documents and religious books were kept. Here the odes of Zoroaster were copied in many copies as separate books and kept, kitobdors (book keepers), dozens of avestologists, sages Nokila and Rovi (narrators) carried out their activities. In otashkad rites-testing "Sidrapushi", "Kamarbastan" were held (Every believing Zoroastrian who reached the age of majority was obliged to wear a belt called kusty made of woollen threads numbering

72 - according to the number of chapters of "Yasna" - wrapped around the waist three times).

The mobilisation of young people into warriors, the construction of canals, the organisation of khashars, various festivals and festivities were also connected with the activities of the otashkad. In a word, otashkad - temples of Zoroastrian religion, along with preaching, calling to believe in one God, conducting various religious rites, bringing to people the laws of religion, served as centres of science, public opinion and spirituality. Various socio-political and enlightenment issues were solved here.

Otashkadas were built on hills of raw and burnt bricks in order to protect them from various natural disasters. Otashkadas were built in ancient cities such as Urgench, Termez, Balkh, Bomiyan, Merv, Mehan (Turkmenistan); Huttaliyan (Tajikistan); Tabrez, Yazd, Seistan, Isfahan. Otashkad in the cities of Koma (India) and Isfahan (Iran) are comparatively better preserved. The walls of a dozen hujra otashkad erected at a height of 10 metres in Isfahan during the reign of the Sassanids have been well preserved to this day. And nowadays the largest and most beautiful otashkad in Yazd city is functioning. Academician A.Askarov during excavations in the ruins of Yarkutan in Surkhandarya discovered the remains of a huge otashkad, which also consists of a tolor and hundreds of hujras.

In educational institutions like madrasahs and schools at the otashkad, which constituted the main link of the Zoroastrian educational system, copies of the Avesta, manuscripts of books of public and educational importance were kept and used in the ed ucational process along with books devoted to secular knowledge.

Later, these books were enriched with additional information and evidence, systematised, translated into Pahlavi, and distributed in many copies throughout the country.

In "Avesta" about the advantage of reading books in different stages of education system it is said that "to him who reads with soul, it gives purity and prudence" or "Haoma gives brilliant children and righteous offspring to those who give birth to them. Haoma bestows glory and wisdom on all those who study naski"[books][1].

This is an indication that among Zoroastrians the book is the primary means of learning knowledge.

At present, there is a noticeable tendency among young people to reduce the reading of popular science and fiction. This undoubtedly has a negative impact on the formation of their worldview, on their development. Therefore, it seems important to promote, use in the process of education and upbringing, in the formation of comprehensively developed young generation thoughts, advice of our ancestors - Zoroastrians about the love for books.

Analyses of extant Zoroastrian manuscripts written in Pahlavi, such as "Dadeston-i menog-i khrad" (Judgement of the spirit of reason), "Bundahishn", "Arta viraznoma", "Oyatkor Zareran", "Zatsporam", "Kornomai Ardasheri Bobakon" The study of their thoughts on education and upbringing, the advice of

the mentor to the pupil and the sage to the younger generation is made possible by studying "Arta viraznoma", "Oyatkor Zareran", "Zatsporam", "Kornomai Ardasheri Bobakon", "Bahman yasht", "Rivoyat", "Rost Sukhan", "Shoyist-noshayist", "Chim-i-dron", "Andarz-i danag mard" and "Hveshkarikh-i redagon"; obtain detailed information about the system and process of education, the rules observed in the process of upbringing and education, and the duties of teachers and tutors and pupils.

In the manuscript "Andarz-i danag mard" (Advice of the Sage), the sage addressed his son, instructed (him), taught, disposed and ordered: "Son! Be sinless, so that you may have no fear. Be thankful so as to be honourable. Be prudent to be rich. Be thankful to have good friends. According to precept and duty, (be) obedient to family and friends, and do not quarrel with your preceptor... Treat your wife and children as well as possible and kindly ('joyfully'), namely, talk (with them), instruct and teach them"[6]. As we see, the head of the family was obliged, first of all, to give advice (family education), and then to educate (school education) his children. It was emphasised that the son's duties included: to find good and intelligent friends, not to steal, to be truthful always, to be able to be responsible for his words and deeds.

Primary education in Zoroastrians was the main part of the educational system, covering the period from 7 to 15 years.

Up to the age of seven children were not systematically taught, but only familiarised with certain canons of Zoroastrianism. It was believed that up to this age children were far from sins and influence of Ahriman (avest. "evil spirit", pehl. Ahriman is the Devil, "prince of darkness", the leader of evil forces, the main enemy of Ahura Mazda and the whole good world, according to one of the myths, who appeared as a fruit of Zervan's doubt. He is opposed by Spanta Mainyu - the Holy Spirit. It is manifested in man, first of all, through pride). A child who reached the age of seven was dressed in special clothes with holy signs. Considering that a seven-year-old child is able to distinguish between good and bad (good and evil), certain duties were imposed on him.

The special attention to the upbringing of children in the Zoroastrian religion is evidenced by the words: "Oh, Ahura-Mazda, you embodied your spirit in various things, gave reason and clothed life in flesh. You created action and learning so that everyone could choose a path to his liking" or "Education should be considered the most important pillar of life. Every young person must be brought up so that he or she can reach the highest level of education by first learning good manners, reading and then writing"[5].

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ECONOMIC AND SOCIAL EFFICIENCY OF PRODUCTION

Annotation. *This article is devoted to the topic "economic and social efficiency of production" and analyzes economic and social factors in assessing the effectiveness of production processes. The article examines the economic strategies, innovations and technological innovations necessary to improve productivity. Social aspects-welfare of workers, working conditions and environmental issues-are also considered. The authors argue that by increasing productivity, it is possible to achieve not only economic growth, but also social stability. This article is an important resource for researchers, economists and practitioners, helping to organize production processes more efficiently.*

Keywords: *efficiency, resources, working conditions, competition, profit, income, profitability, quality indicators.*

Introduction. Efficiency is the degree to which a goal is achieved through the maximum use of resources (labor, materials, time and Energy) [1]. Efficiency is one of the important indicators of the functioning of an enterprise or organization, which is aimed at reducing costs and improving results in the production process. To improve efficiency, enterprises seek to improve their activities by introducing new technologies, optimizing work processes, improving working conditions and applying innovative approaches. High efficiency not only brings economic benefits, but also increases competitiveness, effectively ensures the use of resources and improves customer satisfaction. Therefore, efficiency is an important factor for the successful operation and sustainable development of any enterprise.

Efficiency is very important in the production activities of the enterprise, since it includes a number of key aspects:

- High efficiency reduces the costs of the enterprise and increases revenues. This, in turn, improves the profit margin and provides opportunities for investment.
- Increasing efficiency distinguishes the enterprise from competitors. By producing fast and quality products, the enterprise can expand its market share.
- Efficiency ensures more efficient use of resources (labor, materials, energy). This is also important ecologically, as less resource expenditure reduces environmental impact.
- Increasing efficiency creates favorable conditions for workers and increases their motivation. Good working conditions increase the efficiency of workers.

- To improve efficiency, it is necessary to introduce new technologies and innovations. This contributes to the development of the enterprise and its adaptation to market requirements.

- Efficiency allows you to provide high-quality products and services, which increases customer satisfaction and strengthens the brand's reputation.

Efficiency shows to what extent production processes are efficient and cost-effective [2]. It includes the following key aspects:

Economic efficiency. It measures the value of the products or services obtained as a result of the resources spent in the production process (labor, materials, energy, etc.). To improve economic efficiency, it is important to use innovation, technological innovations and resources efficiently.

Social efficiency. This includes factors such as the well-being of workers, working conditions and the social responsibility of the enterprise. Increasing social efficiency increases the social prestige of the enterprise and increases the motivation of workers.

Environmental efficiency. It is also important to reduce the environmental impact of manufacturing processes. By introducing sustainable production methods and environmentally friendly technologies, enterprises can make their activities more efficient [3]. Strategies for assessing and increasing efficiency are important in ensuring the competitiveness of the enterprise and achieving long-term success.

There are a number of criteria and indicators for assessing the effectiveness of economic management. They help to measure the activities of an enterprise or organization, the level of resource use and economic results. Below are the main criteria and indicators:

1. Economic indicators:
   - ✓ Revenue
   - ✓ Cost
   - ✓ Profit
   - ✓ Profitability
2. Production figures:
   - ✓ Production volume
   - ✓ Labor productivity
   - ✓ Efficiency of resource use
3. Quality indicators:
   - ✓ Product quality
   - ✓ Customer satisfaction
4. Timescales:
   - ✓ Duration of the work process
   - ✓ Time of delivery
5. Innovative indicators:
   - ✓ Amount of new products or services
   - ✓ Tech updates

These criteria and indicators are important in assessing the effectiveness of the enterprise, helping to improve the development and competitiveness of the organization.

The economic and social efficiency of production are important concepts that measure not only the economic results of the production process, but also the Social Impact [4]. These two aspects complement each other and play an important role in assessing the overall effectiveness of the enterprise. Economic efficiency measures the economic results obtained from the production process. It is evaluated through the following indicators:

- ✓ Profit
- ✓ Profitability
- ✓ Production volume
- ✓ Labor productivity
- ✓ Efficiency of resource use

Economic efficiency helps to ensure the financial stability of the enterprise, increase its competitiveness and attract investments.

And social efficiency measures the social impact of the production process. This process includes the following aspects:

- ✓ Job creation
- ✓ Social responsibility
- ✓ Improved product quality

Economic and social efficiency complement each other. For example, high economic efficiency makes it possible to increase the social responsibility of the enterprise, since by obtaining more profit, the enterprise can allocate more funds to social projects. Also, social efficiency also affects economic results: when customer satisfaction is high, it increases sales and improves the financial condition of the enterprise.

Conclusion. In conclusion, the economic and social efficiency of production is an important factor in assessing the success of an enterprise. Economic efficiency measures the financial results obtained from the production process, such as profit, profitability and labor productivity. These indicators help to increase the competitiveness and ensure financial stability of the enterprise. However, the social impact of the production process cannot be ignored. Social efficiency, in turn, includes aspects such as job creation, customer satisfaction, improved product quality, and environmental impact. These aspects increase the reputation of the enterprise in society and strengthen social responsibility. Economic and social efficiency complement each other: while higher economic results allow more funds to be allocated to social projects, social satisfaction increases sales and improves the financial condition of the enterprise. Thus, it is necessary to jointly assess the economic and social efficiency of production, to ensure sustainable development and to successfully operate in the future.

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PEDAGOGIK FAOLIYATDA YUZAGA KELADIGAN NIZOLAR VA ULARNING OLDINI OLISH STRATEGIYALARI

Annotatsiya: *Mazkur maqolada nizolar, ularning turlari, pedagogik faoliyatda yuzaga keladigan nizolarning kelib chiqish sabablari hamda oldini olish haqida bayon etilgan. Shuningdek, nizolarning rivojlanish bosqichlari keltirilgan.*

Kalit so‘zlar: *nizo, nizoli ziddiyat, nizolarning bosqichlari, nizoli vaziyat, konflikt, pedagogik konflikt, qoida.*

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CONFLICTS THAT ARISE IN PEDAGOGICAL ACTIVITY AND STRATEGIES FOR THEIR PREVENTION

Abstract: *This article describes conflicts, their types, causes of conflicts arising in pedagogical activities, and prevention. The stages of conflict development are also presented.*

Keywords: *dissension, contentious conflict, stages of conflict, conflict situation, conflict, pedagogical conflict, rule.*

Bo‘lajak o‘qituvchilar o‘qituvchi va o‘quvchi orasidagi nizolarni hal qilish va salbiy oqibatlarning oldini olish bo‘yicha yetarli bilimlarga ega bo‘lishi kerak. O‘qituvchi o‘zining kasbiy faoliyatida nizolar, shaxsning rivojlanishi va turli sharoitlarga moslashishdagi qiyinchiliklar, shaxslararo munosabatlarning kelishmovchiligi bilan bog‘liq keng ko‘lamli muammolarni hal qilishi kerak. V. A. Suxomlinskiy maktabdagi nizolar haqida shunday yozadi: “O‘qituvchi va bola, o‘qituvchi va ota-ona, o‘qituvchi va jamoa o‘rtasidagi ziddiyat maktab uchun katta muammodir. Ko‘pincha mojaro o‘qituvchi bola haqida adolatsiz o‘ylashi bilan yuzaga keladi. Bola haqida adolatli o‘ylang, shundagina hech qanday nizolar bo‘lmaydi. Nizolardan qochish qobiliyati o‘qituvchining pedagogik donoligining tarkibiy qismlaridan biridir. Mojaroning oldini olish orqali o‘qituvchi nafaqat saqlaydi, balki jamoaning tarbiyaviy kuchini ham yaratadi”.

O‘quv faoliyati sharoitlaridagi nizolar turli xildagi nizolar bo‘ladi. Pedagogika sohasi shaxsni maqsadga muvofiq shakllantirish barcha turlari to‘plamidan iborat bo‘ladi, uning mohiyati esa ijtimoiy tajribani o‘rgatish va o‘zlashtirish bo‘yicha faoliyati hisoblanadi. Shuning uchun aynan mana shu yerda pedagog, o‘quvchi va ota-onalarning ko‘ngil xotirjamliklari uchun qulay ijtimoiy-psixologik sharoitlar yaratish zarur.

Nizoning rivojlanish bosqichlari: 1. Tahmin qiluvchi bosqich – manfaatlari to‘qnashuvi yuzaga kelishi mumkin bo‘lgan sharoitlar bilan bog‘liq. 2. Nizoning paydo bo‘lish bosqichi – turli guruhlar yoki alohida insonlar manfaatlarining to‘qnashuvi. 3. Nizoning yetilishi bosqichi – manfaatlari to‘qnashuvi muqarrar

bo‘lib qoladi. 4. Nizoni anglab yetish bosqichi – janjallashuvchi tomonlar manfaatlari to‘qnashuvini faqatgina sezibgina qolmay, balki anglab ham yeta boshlaydilar.

Nizoli vaziyat – ijtimoiy sub’ektlar o‘rtasida haqiqiy qarama-qarshilikni yuzaga keltiruvchi insonlar manfaatlarining mos kelmasligi.Asosiy belgisi – nizo predmeti yuzaga kelishi, lekin hozircha ochiq faol kurashning yo‘qligi, ya’ni to‘qnashuv rivojlanishi jarayonida nizodan oldin har doim nizoli vaziyat yuzaga keladi, uning asosi hisoblanadi.

Nizolarni to‘rt turlari ko‘rsatiladi:

- *ichki shaxsiy,* shaxsning kuchi bo‘yicha tahminan teng motivlari, qiziqishlari, ishqibozligi, manfaatlarining kurashini aks ettiruvchi;
- *shaxslararo*, o‘z hayotiy faoliyatida qarama-qarshi maqsadlarni amalga oshirishga intiluvchi shaxslarni ifoda etadi;
- *guruhlararo*, biri-biriga mos kelmaydigan maqsadlarni ko‘zlagan va ularni amalga oshirish yo‘lida bir-biriga to‘sqinlik qiluvchi ijtimoiy guruhlar nizo tomonlari sifatida ishtirok etishlari bilan ajralib turadi;
- *shaxsiy-guruhli*–shahsning hulqi guruh qoidalari va umidlariga mos kelmasligi holatlarida yuzaga keladi.

Pedagogik jarayon o‘ziga xos murakkab ijtimoiy tuzilma bo‘lib, shahslararo aloqalarning doimiy jarayonidan iboratdir. Albatta, bu jarayonda ikki sub’ekt o‘rtasidagi munosabatlarni ijobiy shakl doirasidan chetga chiqish holatlari ham kuzatiladi.

Pedagogik konflikt–pedagogik jarayonda shahslararo munosabatlarning keskinlashuvi natijasi sifatida yuzaga keluvchi muamoli vaziyatdir. Pedagogik konfliktlarning quyidagi shakllari yuzaga keladi:

1. O‘quvchi-o‘quvchi
2. O‘quvchi-o‘qituvchi
3. O‘qituvchi-o‘qituvchi

Pedagogik jarayonning muhim ishtirokchisi o‘quvchi bo‘lib, ular orasidagi aksar konfliktlar kichik guruhlarda liderlikka intilish natijasida namoyon bo‘ladi. Bunda shahslararo konflikt qoloq lider va guruhda e’tibor qozonayotgan ikkinchi lider o‘rtasida vujudga kelishi kuzatiladi. Konfliktli vaziyat guruhdagi ikki lider o‘rtasida vujudga kelib, ular konfliktga nafaqat o‘zlarini, balki tarafdorlarini ham tortishi mumkin. Bu esa konfliktik eskalyatsiyani, ya’ni uni miqyosini kengayishiga sabab bo‘ladi. Ayrim hollarda ikki lider o‘rtasidagi kofliktga tortilgan tarafdorlar hududiy manfaatlar doirasida yuzaga kelsa, shahslararo konfliktning ko‘lami etnik yoki hududiy mojarolar darajasigacha ko‘tarilishi mumkin.

Pedagogik nizolarni muvaffaqiyatli hal qilish odatda muammoni aniqlash, uni tahlil qilish, uni hal qilish bo‘yicha harakatlar va natijalarni baholash siklini o‘z ichiga oladi. Har qanday aniq bir vaziyatda nizolarni hal qilish bo‘yicha siyosatni ishlab chiqishga kirishishdan avval ularning manbalarini aniqlash zarur.

Pedagog va ta’lim oluvchi pozitsiyalarining to‘g‘ri kelmasligi ko‘p konfliktlarga sabab bo‘ladi, shuning uchun konflikt vaziyatlarda qo‘llaniladigan sinalgan quyidagi qoidalarni bilish kerak:

Birinchi qoida. Konflikt vaziyatini o‘z qo‘liga olish. Bu emotsional taranglikni bartaraf etishni anglatadi. Buning uchun ortiqcha jismoniy zo‘riqishdan, ortiqcha hatti-harakatlardan halos bo‘lish kerak. Mimika, poza, jestlar faqatgina odamning ichki kechinmalarini ifodalab qolmay, unga ta’sir ham ko‘rsatadi. Shunday qilib, tashqi vazminlik va xotirjamlik!

Ikkinchi qoida. O‘z xatti-harakatlari bilan sherigiga ta’sir ko‘rsatish. Bunda ishtirokchining yuzini diqqat bilan o‘rganib chiqish yordam beradi, fikrni jamlaydi va uning holatini aniqlashga imkon yaratadi.

Uchinchi qoida. Hamsuhbatning xatti-harakatlari motivlarini tushuna olish. Aqliy tahlilning ishga solinishi emotsional qizishni pasaytiradi. Yaxshisi holatning murakkabligini tushunganligini ifoda etish (Men sizning holatingizni tushunib turibman...), o‘z holatini tushuntirish (Shu meni o‘ylantiryapti...) Ya’ni xatti-harakatni darrov baholamang, oldin tug‘ilgan vaziyatga bo‘lgan munosabatingizni bildirishga harakat qiling.

To‘rtinchi qoida. Maqsadni muvofiqlashtirish. Ta’lim oluvchi bilan sizni birlashtiruvchi narsani tezroq anglash va uni ko‘rsatish.

Beshinchi qoida. Samarali yechim borligiga ishonishingizni namoyish qiling. Va nihoyat, konflikt hal qilinganidan so‘ng uni tahlil qilib chiqing (sababi va oldini olish yo‘llari).

Birinchi navbatda nima sodir bo‘lganligini aniqlash kerak. Muammo nimadan iborat? Ushbu bosqichda muammoni aniqlash bilan barcha rozi bo‘lishi uchun hodisalarni bayon etish muhim.

Nizo tahlil qilib chiqilganidan so‘ng hamkorlik ruhida birgalikda barchani murosaga keltirish yo‘lini izlashga o‘tish mumkin.

O‘qituvchi va o‘quvchi o‘rtasidagi nizoni hal qilishda nizoning sabablarini tahlil qilishdan tashqari yosh omilini hisobga olish kerak.

“O‘qituvchi-o‘quvchi” amaliy nizoli vaziyatlar bilan bir qatorda shaxsiy xususiyatdagi qarama-qarshiliklar ham uchrab turadi.

Nizoli vaziyatga tushib qolib, o‘qituvchi o‘zining faolligini yoki suhbatdoshini yaxshiroq tushunishga yoki nizoni bostirish yoki uni oldini olish maqsadida o‘z psixologik holatini boshqarishga qaratishi mumkin. Birinchi holatda nizoli vaziyatni hal qilishga insonlar orasidagi bir-birini tushunishlarini yo‘lga qo‘yish, anglashilmovchiliklarni, kelishmovchiliklarni yo‘qotish yo‘li bilan erishiladi. Umuman olganda, boshqa insonni tushunish ancha murakkab. Tajribali pedagoglar nimani gapirishni (dialogda mazmunini tanlash), qanday gapirishni (suhbatni emotsional tusda olib borish), bolaga qaratilgan nutqda maqsadga erishish uchun qachon gapirishni (vaqti va o‘rni), kimning oldida va nima uchun gapirishni (natijaga ishonch) biladi.

Agar butun ta’lim jarayonini tashkil qilish sharoitlarida, jamoali qoidalar va tartiblar tizimida, ushbu jarayonning bir-birlariga nisbatan ijobiy munosabatlari, bo‘lajak nizolarda konstruktiv xulqlariga tayyorliklarida haqiqiy ob’ektiv va

sub’ektiv o‘zgarishlar yaqqol ko‘zga tashlansa, nizo samarali hal qilingan hisoblanishi mumkin.

Xulosa qilib aytganda, qaysi faoliyatda bo‘lmasin, doimo nizolar mavjud, lekin oqilona yechim topish mutaxassislar uchun birmuncha qiyinchilik tug‘diradi. Pedagogik faoliyatda yuzaga keladigan nizolarda esa albatta pedagoglardan mas’uliyat, adolatlilik, e’tibor va pedagogic-psixologik bilimdonlik talab etiladi. Ko‘pincha yosh va tajribasiz o‘qituvchilarda vaziyatni to‘g‘ri baholay olmasligi, nizolarni bo‘rttirib yuborish yoki uni e’tiborsiz qoldirish holatlari amaliyotda kuzatiladi. Pedagoglar hamisha nizolarni to‘g‘ri qabul qilishi, undan qochmasligi yoki vaziyatni bostirmasligi lozim. Uni o‘z o‘rnida muayyan muddat oralig‘ida hal etishi lozim. Shuningdek, nizolarni hal etishda ota-onalarni hamkorlikka chaqirishi mumkin, yechimni auditoriyaning o‘zida bo‘lishi mumkinligini yodda tutishi zarur.

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EFFECTIVE METHODS FOR TEACHING IDIOMS THROUGH DEVELOPMENTAL STAGES

Abstract: *The article thinks about the core of every educational game lies a commitment to widely recognized educational strategies and approaches. The development of educational games should be based on subject-specific material. In classroom settings, academic students often show increased enthusiasm for participating in educational games, considering them more captivating than traditional instructional sessions. As a result, students feel more at ease during these interactive educational activities. They demonstrate a strong inclination towards lively and interactive lessons, expressing a desire to succeed. Educators leverage these tendencies as effective tools for imparting knowledge and educating students.*

Key words: concepts, vocabulary exercises, *strategies and approaches.*

Currently, there's a significant focus on employing effective EFL (English as a Foreign Language) teaching methods for Uzbek students to foster a harmonious generation. Understanding the cultural context of a foreign language is crucial for effective learning. Among various teaching methods used in universities, lectures are widely employed for introducing new concepts, addressing issues, summarizing ideas, illustrating connections between theory and practice, and emphasizing key points. Different approaches have been identified to enhance educational effectiveness, with particular emphasis on accommodating diverse learning styles. While there's ongoing discussion on the topic of learning styles, there's a consensus that four fundamental styles exist: auditory, visual, kinesthetic, and tactile. Kinesthetic and tactile learning styles are often discussed together.

Idiomatic expressions play a significant role in language learning. A flexible approach to lesson design is essential, especially when teaching complex idioms, to avoid misunderstandings. Interaction with students and questioning them about the idioms they've learned can aid teachers in clarifying misconceptions.

One effective strategy to enhance the effectiveness of teaching English idioms is to teach idioms and idiomatic expressions relative to the students' native language. This approach makes lessons engaging and easy to remember. However, mastering English idioms can be challenging for EFL learners due to their figurative meanings.

Teaching uncommon phrases in English as a foreign language requires pedagogical investigations. Non-native speakers face difficulties in acquiring foreign language skills, particularly with vocabulary exercises, which can become monotonous, especially for those with limited language learning skills.

Incorporating games and activities that encourage physical activity can help keep students alert and alleviate boredom. Emphasizing fun activities, even while learning new vocabulary, can reduce monotony. Since learning English idioms is essential for EFL learners to achieve proficiency, teachers can plan various activities to help students use English idioms effectively. Encouraging students' natural inclination towards narrative meaning-making, along with text-based lessons, can enhance their engagement with textual material and reduce resistance to challenging or frustrating reading material. Students respond to writings through narrative approaches, engaging in role-playing and allowing memories, images, and stories to surface as they interpret metaphors. They are more likely to understand, recall, and care about the meaning of metaphors after playing with the word through personalized exploration of their own experiences.

The acquisition of idiomatic language involves cognitive processes similar to those governing other linguistic behaviors and learning in general. General principles of long-term memory formation, such as encoding, storage, and retrieval, underlie the learning of multi-word figurative expressions, much like they do for the literal meanings of individual words. Taking note of expressions within the input is crucial for long-term information retention. Learners must attend to linguistic features within the content for the input to be processed. Providing varied experiences with the target phrase is expected to facilitate the detectable quality of figurative language.

Another concern is advancing appropriate learning tasks. There's ample evidence demonstrating that information committed to long-term memory is information required to perform the task. Hence, tasks should be outlined to direct learners' attention to the usage of figurative language. This can be achieved, for example, by embedding an idiom in an address or asking a question that requires the proper interpretation of metaphorical meaning.

The concept of using metaphors has transformed our comprehension of language not meant to be taken literally. Idiomatic expressions often have purposeful word choices rather than being random. People employ metaphors in language unconsciously, aiding in their understanding and use of common phrases in novel ways. Grasping the workings of metaphors can assist second language learners in utilizing idiomatic language more effectively. Conceptual metaphors can elucidate word choices in idiomatic phrases. It's easier to recall and apply knowledge that makes sense than that which appears random. Utilizing the conceptual metaphor framework, idiomatic language can be organized and presented in a manner conducive to learners' comprehension. Research indicates that individuals recall information better when they can relate new information to existing knowledge. This implies that teaching phrases as part of a group and relating them to familiar concepts can enhance learning.

Numerous experiments support this notion. Boers demonstrated that organizing pictures using metaphors enhances memory retention. In Csábi's study, students who learned about comparison phrases performed better in remembering them compared to students who only learned their meanings in their native

language. Beréndi, Csábi, and Kövecses divided intermediate learners into two groups and asked them to read a text containing 22 English phrases, attempt to comprehend their meanings, and provide translations in their native language. In the translation task, the experimental group encountered idioms with their meanings explained, while the control group saw them in the order they appeared in the text. After translating, the students had to fill in the gap in a test using idioms.

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PLANTING EQUIPMENT OF PLANTING MACHINES

Abstract. *The technological evolution of planting machines has significantly improved agricultural productivity by enhancing planting precision and efficiency. This paper explores the components and mechanisms of planting equipment used in planting machines, focusing on their design, functionality, and applications. Key findings include advancements in metering devices, seed placement technologies, and automation, which collectively address challenges such as soil variation and crop-specific requirements.*

Keywords: *Planting machines, seed metering, soil interaction tools, automation, precision agriculture, GPS-based guidance, variable rate technology (VRT).*

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EKIN EKISH MASHINALARINING EKISH APPARATLARI

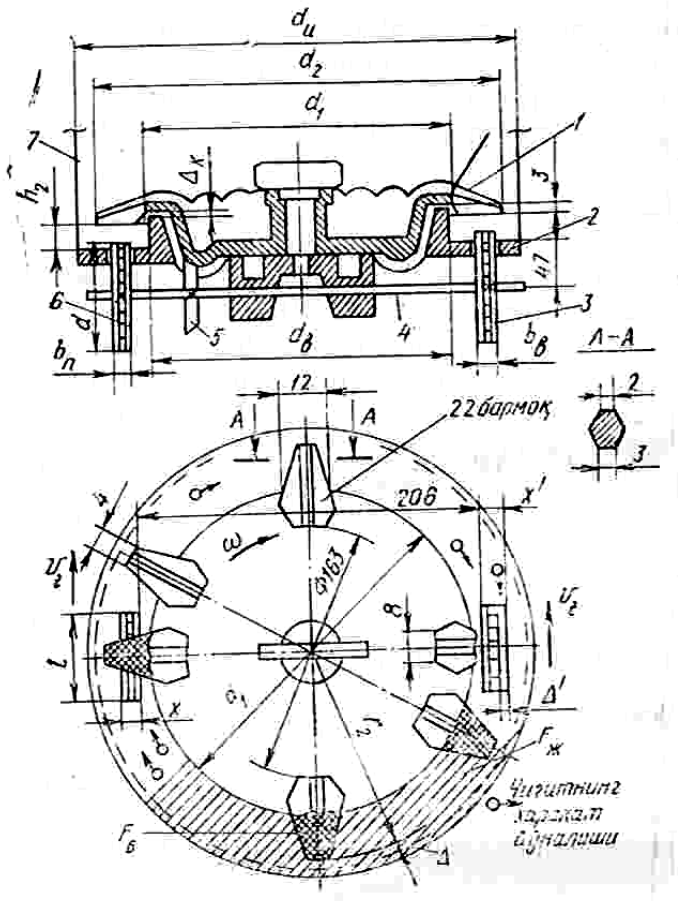
Abstrakt. *Ekish mashinalarining texnologik evolyutsiyasi ekish aniqligi va samaradorligini oshirish orqali qishloq xo'jaligi samaradorligini sezilarli darajada oshirdi. Ushbu maqolada ekish mashinalarida ishlatiladigan ekish uskunalarining tarkibiy qismlari va mexanizmlari o'rganilib, ularning dizayni, funksionalligi va qo'llanilishiga e'tibor qaratiladi. Asosiy topilmalar tuproqning o'zgarishi va ekinlarga xos talablar kabi muammolarni birgalikda hal qiladigan o'lchash asboblari, urug'larni joylashtirish texnologiyalari va avtomatlashtirish sohasidagi yutuqlarni o'z ichiga oladi.*

Kalit so'zlar: *Ekish mashinalari, urug'larni o'lchash, tuproqning o'zaro ta'siri, avtomatlashtirish, aniq qishloq xo'jaligi, GPS-ga asoslangan yo'riqnoma, o'zgaruvchan tezlik texnologiyasi (VRT).*

Introduction. Planting machines have transformed modern agriculture by automating seed sowing processes. These machines are integral to achieving uniform seed placement, optimal depth, and consistent spacing, factors critical to maximizing crop yields. The development of planting equipment involves integrating mechanical, hydraulic, and electronic systems to cater to diverse agricultural needs. This study aims to investigate the key components of planting equipment, their functions, and recent technological advancements.

Methods. A comprehensive review of the literature and technical specifications was conducted to analyze the components of planting equipment. The study focused on three primary areas: (1) seed metering mechanisms, (2) soil interaction tools, and (3) advanced control systems. Data were collected from academic journals, manufacturer documentation, and field case studies. Analytical methods included comparative assessments of different designs and evaluation of performance metrics such as seed placement accuracy and machine adaptability.

Results. The study identified three core components critical to planting equipment:



1. **Seed Metering Mechanisms**: Metering devices, such as plate, vacuum, and pneumatic systems, are crucial for precise seed delivery. Among these, vacuum metering has gained popularity due to its high accuracy in handling seeds of varying sizes.

2. **Soil Interaction Tools**: These include furrow openers, seed tubes, and press wheels. Furrow openers are categorized into disc, chisel, and hoe types, each suited for specific soil conditions. Seed tubes ensure gentle seed delivery, while press wheels maintain seed-to-soil contact.

3. **Control and Automation Systems**: Modern planting machines incorporate GPS-based guidance, variable rate technology (VRT), and sensors to optimize planting operations. These systems enhance efficiency by adjusting planting parameters in real-time based on soil and environmental conditions.

Discussion. Advancements in planting equipment address several challenges in agriculture. For example, the adoption of pneumatic metering systems minimizes seed wastage and improves uniformity. Soil-specific furrow openers enhance adaptability, enabling machines to function effectively across varying soil types. Additionally, automation technologies reduce labor dependency and allow for precision farming practices, thus improving productivity and sustainability.

However, challenges remain, including high equipment costs and the need for operator training. Future research should focus on cost-effective solutions, integrating artificial intelligence for predictive maintenance, and developing universal planting equipment adaptable to multiple crops and soil conditions.

Conclusion. Planting equipment forms the backbone of planting machines, driving agricultural efficiency and productivity. Continuous innovations in metering systems, soil interaction tools, and automation technologies are essential for meeting the growing demands of modern agriculture. The integration of these technologies holds the potential to revolutionize farming practices, ensuring food security and sustainable resource use.

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CLASSIFICATION OF SEED DRILLS AND GENERAL SCHEME OF THEIR OPERATION

Abstract. *Seed drills are essential agricultural machines that ensure precise sowing of seeds, improving crop yields and minimizing seed waste. This study explores the classification of seed drills based on their operational principles, design features, and applications. Additionally, the general scheme of their operation is analyzed to illustrate the mechanics of seed placement and soil preparation, emphasizing their critical role in modern agriculture.*

Keywords: *Seed drills, agricultural machinery, sowing techniques, seed placement, crop yield, operational mechanisms, classification, manual seed drills, animal-drawn seed drills.*

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URUG` EKISH MASHINALARINING TASNIFLANISHI VA ISH JARAYONINI UMUMIY SXEMASI

Abstrakt. *Urug'lik chigitlari urug'larni aniq ekish, hosildorlikni oshirish va urug'lik chiqindilarini minimallashtirishni ta'minlaydigan muhim qishloq xo'jaligi mashinalaridir. Ushbu tadqiqotda seyalkalarning ishlash tamoyillari, konstruktiv xususiyatlari va qo‘llanilishidan kelib chiqib tasnifi o‘rganiladi. Bundan tashqari, urug'larni joylashtirish va tuproqni tayyorlash mexanikasini ko'rsatish uchun ularning ishlashning umumiy sxemasi tahlil qilinib, ularning zamonaviy qishloq xo'jaligidagi muhim roli ta'kidlangan.*

Tayanch iboralar: *Seyalkalar, qishloq xo‘jaligi texnikasi, ekish texnikasi, urug‘larni joylashtirish, hosildorlik, ishlash mexanizmlari, tasnifi, qo‘lda seyalkalar, hayvon chigitlari.*

Introduction. Efficient sowing is fundamental to agricultural success, directly affecting crop establishment and yield potential. Over the years, seed drills have emerged as indispensable tools, streamlining the sowing process through uniform seed distribution and consistent depth placement. Understanding the classifications and mechanisms of seed drills not only aids in their effective application but also highlights their contributions to sustainable farming. This article aims to categorize seed drills comprehensively and elucidate the general scheme of their operation.

Methods. This research employed a mixed-method approach to investigate seed drills:

1. **Literature Review**: An extensive review of scholarly articles, technical manuals, and agricultural engineering textbooks was conducted to establish a classification framework.
2. **Technical Analysis**: Detailed analysis of seed drill components and their operational mechanisms was performed using manufacturer specifications and case studies.
3. **Expert Consultations**: Interviews with agricultural engineers and practitioners provided insights into practical applications and preferences across different farming conditions.

Results

Classification of Seed Drills

Seed drills can be categorized based on various criteria, such as their mode of operation, seed delivery mechanisms, sowing patterns, and intended crop types:

1. **By Mode of Operation**:
   - **Manual Seed Drills**: Operated by hand, ideal for small-scale or subsistence farming.
   - **Animal-Drawn Seed Drills**: Designed for regions with limited mechanization, powered by draft animals.
   - **Tractor-Mounted Seed Drills**: Mechanized and suitable for large-scale operations.
2. **By Seed Delivery Mechanism**:
   - **Mechanical Seed Drills**: Feature fluted rollers or agitators for seed dispensing.
   - **Pneumatic Seed Drills**: Use air pressure for precise seed transport.
   - **Gravity Seed Drills**: Depend on gravity, offering simpler and cost-effective solutions.
3. **By Sowing Pattern**:
   - **Row Seed Drills**: Create evenly spaced rows, optimal for cereals and grains.
   - **Broadcast Seed Drills**: Scatter seeds across a wide area, useful for cover crops.
   - **Precision Seed Drills**: Ensure exact spacing and depth, vital for high-value crops.
4. **By Crop Type**:
   - **Cereal Seed Drills**: Suited for grains like wheat and maize.
   - **Vegetable Seed Drills**: Handle smaller seeds such as carrots and lettuce.
   - **Multi-Purpose Seed Drills**: Offer flexibility for varied crop types.

General Scheme of Operation

The operation of seed drills involves the following coordinated mechanisms:

- ✓ **Seed Hopper**: A container that stores seeds and channels them to the metering unit.

✓ **Seed Metering Unit**: Regulates seed flow based on predetermined rates. Common mechanisms include fluted rollers, discs, and pneumatic systems.

✓ **Furrow Openers**: Create grooves in the soil to deposit seeds at the desired depth. Types include disc, hoe, and shoe openers.

✓ **Seed Delivery Tubes**: Guide seeds from the metering unit to the furrows.

✓ **Seed Placement Mechanism**: Ensures seeds are placed uniformly at specified intervals.

✓ **Covering Device**: Repositions soil over the seeds, protecting them and promoting germination.

✓ **Press Wheels**: Compact the soil to enhance seed-to-soil contact and water retention.

Discussion. The classification and operational scheme of seed drills underscore their adaptability to diverse farming scenarios. Tractor-mounted and pneumatic seed drills are favored in mechanized agriculture for their precision and efficiency, while manual and animal-drawn models cater to smaller-scale or resource-constrained settings. The integration of advanced technologies, such as GPS-guided systems in modern seed drills, is a promising trend that enhances accuracy and productivity.

The general scheme of operation highlights the interplay of multiple components, ensuring uniform sowing and optimal crop growth. Understanding these mechanisms is essential for selecting appropriate equipment and maximizing its potential.

Conclusion. Seed drills are pivotal in modern agricultural practices, facilitating efficient and precise sowing. Their classification reflects the diversity of farming needs and technological advancements, while their operational scheme demonstrates the intricate processes involved in seed placement. Continued innovations in seed drill technology hold significant promise for enhancing agricultural productivity and sustainability.

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OPPORTUNITIES FOR FORMING PRACTICAL COMPETENCES IN STUDENTS IN TEACHING A FOREIGN LANGUAGE

Abstract. *The development of practical competences in foreign language education is essential for achieving fluency and communicative proficiency. This paper examines key strategies, such as integrating real-life scenarios, emphasizing Communicative Language Teaching (CLT), leveraging technology, and fostering cultural competence. These approaches are shown to enhance students' ability to use a foreign language effectively in real-life contexts.*

Keywords: *Practical competences, foreign language education, communicative proficiency, real-life scenarios, communicative language teaching (CLT), technology in language learning, project-based learning (PBL), cultural competence.*

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TALABALARDA CHET TILI O‘QITISH BO‘YICHA AMALIY KOMPETENTLARNI SHAKLLANTIRISH IMKONIYATLARI

Abstrakt. *Chet tilini o'qitishda amaliy kompetentsiyalarni rivojlantirish ravon va kommunikativ malakaga erishish uchun muhimdir. Ushbu maqolada real hayot stsenariylarini birlashtirish, kommunikativ tillarni o'rgatish (CLT) ga urg'u berish, texnologiyadan foydalanish va madaniy kompetentsiyani rivojlantirish kabi asosiy strategiyalar ko'rib chiqiladi. Ushbu yondashuvlar talabalarning chet tilidan real hayot sharoitida samarali foydalanish qobiliyatini oshirishga qaratilgan.*

Kalit so‘zlar: *Amaliy kompetensiyalar, chet tili ta’limi, kommunikativ malaka, real hayot stsenariylari, kommunikativ tilni o‘rgatish (CLT), til o‘rganish texnologiyasi, loyiha asosida o‘rganish (PBL), madaniy kompetensiya.*

Introduction. Practical competences—the ability to apply language knowledge in real-life contexts—are vital for achieving fluency and communicative proficiency. Developing these competences enables students to navigate real-world situations, fostering confidence and autonomy. This paper explores opportunities and strategies for forming practical competences in foreign language education, emphasizing innovative teaching methodologies and immersive experiences. The

development of practical competences in foreign language education is a cornerstone of effective teaching. Practical competences—the ability to apply language knowledge in real-life contexts—are vital for students to achieve fluency and communicative proficiency. This article explores key opportunities and strategies for fostering these competences in students.

Methods. The study synthesizes pedagogical approaches and examples that have demonstrated effectiveness in fostering practical competences. Key strategies include:

1. **Integration of Real-Life Scenarios:** Designing activities like role-plays and simulations to mimic everyday interactions.
2. **Communicative Language Teaching (CLT):** Focusing on authentic communication through group discussions, debates, and problem-solving tasks.
3. **Incorporation of Technology:** Utilizing language apps, virtual reality, and online platforms for immersive practice.
4. **Project-Based Learning (PBL):** Engaging students in extended tasks like creating travel guides or producing short films.
5. **Cultural Competence Integration:** Including cultural activities such as cooking traditional dishes or analyzing foreign films.
6. **Practical Assessment:** Employing role-plays, presentations, and real-world tasks as evaluation methods.
7. **Immersive Experiences:** Providing opportunities through study-abroad programs, language camps, and community interactions.
8. **Teacher as a Facilitator:** Shifting the teacher's role to guide collaborative and personalized learning activities.

Results. Implementing these strategies fosters improved communicative abilities and student engagement. Activities grounded in real-life scenarios and immersive contexts enhance students' confidence and ability to navigate practical situations in the target language. Cultural integration deepens understanding and contextual usage, while technology and PBL promote active learning and skill application. Moreover, practical assessments align with functional language use, providing more accurate evaluations of student proficiency.

Discussion. The results emphasize the importance of a multifaceted approach to teaching foreign languages. Real-life scenarios and CLT promote interactive and spontaneous communication, while immersive experiences solidify language skills. Cultural competence and project-based learning bridge the gap between language and cultural understanding. Teachers play a pivotal role in adapting these methods to meet diverse student needs, creating an engaging and supportive environment that encourages active participation.

Conclusion. The formation of practical competences in foreign language education requires innovative and immersive strategies. By integrating real-life contexts, leveraging technology, emphasizing cultural understanding, and adopting functional assessments, educators can equip students with the tools to communicate effectively and confidently. These competences empower learners to thrive in a globalized world. Using real-life scenarios in language instruction bridges the gap

between theoretical knowledge and practical application. Teachers can design activities that simulate everyday interactions, such as ordering food at a restaurant, asking for directions, or participating in job interviews. Role-playing exercises allow students to practice language in a safe, controlled environment while building confidence.

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TEXNIKUM TALABALARIDA KOMMUNIKATIVLIK VA TASHKILOTCHILIK

Annotatsiya: *Ushbu maqolada kommunikativ kompetentlik tushunchasining mazmun-mohiyati, lug‘atlarda ta’riflanishi, pedagogik ahamiyati va uni shakllantirishga qaratilgan ta’lim tizimining imkoniyatlari va mavjud holati tadqiq etilgan.*
Kalit so’zlar: *Kommunikativ kompetensiya, kommunikativlik dunyoqarashi.*

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COMMUNICATIVENESS AND ORGANIZATION IN TECHNICAL STUDENTS

Abstract: *this article explores the meaning and essence of the concept of communicative competence, its definition in dictionaries, its pedagogical significance and the possibilities and current state of the educational system aimed at its formation.*
Keywords: *communicative competence, communicative worldview.*

Texnikum talabalarida kommunikativlik va tashkilotchilik - bu ularning shaxsiy va kasbiy rivojlanishi uchun juda muhim xususiyatlardir. Ushbu ko'nikmalar nafaqat ta'lim jarayonida, balki kelajakdagi professional faoliyatda ham muhim rol o'ynaydi. Quyida har bir jihatning ta'rifi va uning texnikum talabasiga qanday foyda keltirishi haqida to'xtalamiz:

1. Kommunikativlik:

Kommunikativlik - bu insonning o'z fikrini aniq va tushunarli ifoda eta olish, boshqalar bilan samarali muloqotda bo'lish, fikrlarni, g'oyalarni boshqalar bilan baham ko'rish va turli vaziyatlarda do'stona va professional tarzda muloqot qilish qobiliyatidir.

- **Talabalar uchun ahamiyati:** Texnikum talabalari jamoaviy ishlar, guruh bo'lib bajariladigan loyihalar va boshqa turli vazifalarda faol ishtirok etadilar. Shuningdek, ular o'z mutaxassisliklari bo'yicha ustozlar va sanoat mutaxassislari bilan hamkorlik qilishlari mumkin. Yaxshi kommunikativ ko'nikmalarga ega bo'lish, ular o'rtasida tushunishni va samarali ishlashni ta'minlaydi.
- **Kasbiy rivojlanish:** Kommunikativlik kasbga oid muloqotda, muammo hal qilishda, mijozlar bilan ishlashda yoki ishchi guruhlarida etakchilik qilishda yordam beradi.

2. Tashkilotchilik:

Tashkilotchilik - bu o'z vazifalarini rejalashtirish, boshqarish, vaqtni samarali taqsimlash, resurslarni to'g'ri yo'naltirish va jamoadagi barcha ishtirokchilarning birgalikda ishlashini ta'minlash qobiliyatidir.

- **Talabalar uchun ahamiyati:** Texnikumda talabalar ko'plab guruhli ishlarda qatnashadilar. Tashkilotchilik qobiliyatiga ega bo'lish, loyihalarni boshqarishda va sinovdan o'tkazish jarayonida ularning muvaffaqiyatli yakunlanishiga yordam beradi. Talaba biror tadbirni yoki loyihani rejalashtirishda o'zining liderlik qobiliyatini namoyon etishi mumkin.
- **Kasbiy rivojlanish:** Tashkilotchilik kasbda muvaffaqiyatga erishish uchun juda zarur, chunki bu qobiliyat ishda rahbarlik qilishda, jamoadagi ishlarni boshqarishda va murakkab vazifalarni samarali bajarishda yordam beradi.

3. Bu ikki ko'nikma qanday o'zaro aloqada?

Kommunikativlik va tashkilotchilik o'rtasidagi aloqaning muhim tomoni shundaki, samarali muloqot qilmasdan, yaxshi tashkilotchi bo'lish qiyin. Shuningdek, yaxshi tashkilotchilikni ko'rsatgan talabalar guruhdagi boshqa a'zolarni yaxshiroq tushunib, birgalikda ishlashni osonlashtirishi mumkin.

4. Texnikumda bu ko'nikmalarni qanday rivojlantirish mumkin?

- **Guruhli ishlarda ishtirok etish:** Talabalar guruhdagi o'quv mashg'ulotlari, praktikumlar, seminarlar va amaliyotlar orqali kommunikativlik va tashkilotchilik qobiliyatlarini rivojlantirishlari mumkin.
- **Loyihalar va tadbirlar tashkil etish:** Maktabdagi yoki texnikumdagi ijtimoiy, madaniy va ilmiy tadbirlarda ishtirok etish va ularni tashkil qilish, talabalar uchun yaxshi amaliy tajriba bo'ladi.
- **Mentorlar bilan ishlash:** Ustozlar va tajribali mutaxassislar bilan birga ishlash, ular bilan o'zaro fikr almashish, talabalar uchun foydali maslahatlar olish imkonini beradi.

Umuman olganda, texnikum talabalarida kommunikativlik va tashkilotchilik ko'nikmalarining rivojlanishi, ularning kelajakdagi kasbiy faoliyatida muvaffaqiyatga erishishlari uchun asosiy omil hisoblanadi. Bu ko'nikmalar nafaqat o'qish jarayonini yengillashtiradi, balki ularga professional sohada katta imkoniyatlar yaratadi.

Bugungi kunda talabalarda kommunikativ kompetentlikni rivojlantirish dolzarb vazifalardan biri bo‘lib qolmoqda. Shuning uchun ham kadrlar tayyorlash tizimida kommunikativ bilim va ko‘nikmalarni rivojlantirishni yangi bosqichga olib chiqish va bu boradagi ta’limiy islohotlarni jadallashtirishga doir ko‘plab ishlar amalga oshirilmoqda. Jamiyatimizning barcha sohalarida o‘tkazilayotgan islohotlar uzluksiz ta’lim tizimiga ham o‘z ta’sirini o‘tkazmoqda. Yangi O‘zbekistonda yosh avlodni muloqotchanlik va kreativlik asosida tarbiyalash davlat siyosati darajasidagi masalaga aylanishi bejiz emas.

Pedagogikadan atamalar lug‘atida “kompetensiya — u yoki bu soha

bo‘yicha bilimdonlik” sifatida tarif berilgan bo‘lsa, O‘zbekiston milliy ensiklopediyasida “kompetensiya 1) muayyan davlat organi (mahalliy o‘zini o‘zi boshqarish organi) yoki mansabdor shaxsning qonun, ustav yoki boshqa hujjat bilan belgilangan vakolatlari, huquq va burchlari doirasi; 2) u yoki bu sohadagi bilimlar, tajriba” sifatida tariflanadi.

Kompetensiya atamasi lug‘aviy jihatdan bevosita chuqur bilimga asoslangan qobiliyat, layoqatlilik darajasini anglatadi . Mazmunan esa faoliyatda nazariy bilimlardan samarali foydalanish, yuqori darajadagi kasbiy malaka, mahorat va iqtidorni namoyon eta olish”ni bildiradi. Umuman olganda, “kompetensiya” va “kompetentlilik” tushunchalariga berilgan ta’riflarda kompetensiya muayyan faoliyatda talab qilinadigan xulq-atvor, o‘zini tutish, kompetentlilik esa ushbu talabga moslik darajasi, ya’ni kompetensiyani namoyish qilishning pirovard natijasi deb talqin qilinadi.

Aslida kompetentlilik tushunchasi ta’lim sohasiga psixologlarning ilmiy izlanishlari natijasida kirib kelgan. Psixologik nuqtai-nazardan kompetentlilik “noan’anaviy vaziyatlar, kutilmagan hollarda mutaxassisning o‘zini qanday tutishi, muloqotga kirishishi, raqiblar bilan o‘zaro munosabatlarda yangi yo‘l tutishi, noaniq vazifalarni bajarishda, ziddiyatlarga to‘la ma’lumotlardan foydalanishda izchil rivojlanib boruvchi va murakkab jarayonlarda harakatlanish rejasiga egalik” ni anglatadi. Shuningdek, kompetensiyalar bilimlarni doimo boyitib borishni, yangi axborotlarni o‘rganishni, muhim ijtimoiy talablarni anglay olishni, yangi ma’lumotlarni izlab topish, ularni qayta ishlash va o‘z faoliyatida qo‘llay bilishni taqozo etadi. U bilimga asoslangan haqiqiy, shakllangan shaxsiy sifat hisoblanib, shaxsning intellektual va shaxsan aniqlangan ijtimoiy va kasbiy shakllanishidir. Shuningdek, u muayyan obyektlar va jarayonlar bilan bog‘liq holda aniqlangan va ularga nisbatan yuqori sifatli ishlab chiqarish faoliyati uchun zarur bo‘lgan o‘zaro bog‘liq xususiyatlar to‘plamini (bilim, ko‘nikma, faoliyat usullari) o‘z ichiga oladi . Demak, talabalarga nisbatan ularning ta’lim jarayonidagi tayyorgarligiga bo‘lgan ma’lum bir ajratib olingan, maxsus talab hisloblanadi.

Bugungi kunda biz kommunikativ kompetentlik deb ataydigan samarali muloqot qilish qobiliyati har doim ko‘plab olimlarni qiziqtirgan. Tilshunoslik, sotsiologiya, ijtimoiy psixologiya, pedagogika kabi fanlar va boshqa zamonaviy bilim sohalarida shaxslararo o‘zaro munosabatlarni, shaxsning kommunikativ xatti-harakatlarini nazariy o‘rganishga e’tibor qaratilgan.

Bugungi kunda kommunikatsiya tushunchasiga nisbatan berilgan qator ta’riflar mavjud bo‘lib, ularning ayrimlariga to‘xtalib o‘tish maqsadga muvofiq. Kommunikatsiya, umumiy ma’noda, xabar, har qanday ma’lumotni uzatishdir. Muloqot jarayoni inson va jamiyat hayotining muhim asoslaridan biri sifatida taqdim etiladi. Shu bilan birga, tadqiqotchilarning fikriga ko‘ra, muloqot jarayoni o‘zini ham, uning natijasini ham anglatadi. O‘z navbatida, shaxslararo muloqot ma’lumotni bir shaxsdan boshqa insonga maqsadli obyektga yoki ma’lum bir guruh obyektlariga o‘tkazish jarayonidan boshqa

narsa emasligidan dalolat beradi.

Kommunikativ kompetentlik borasida olimlar tomonidan olib borilgan izlanishlar shuni ko‘rsatadiki, aynan kompetensiyalar ta’lim va tarbiya jarayonida talabalarga nimani o‘rgatish va qanday o‘rgatish, nimalarni shakllantirish lozimligi muhim sanaladi.

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EXPLORING HOW SPORTS TERMS ARE INTEGRATED INTO EVERYDAY LANGUAGE

Abstract. *Sports terminology has transcended its original context to become a significant component of everyday language. This study explores the processes and mechanisms by which sports terms are incorporated into general discourse, their impact on communication, and the cultural implications of their widespread use. By analyzing linguistic patterns and cultural practices, the research identifies the ways in which sports terms enrich language and reflect societal values.*

Keywords: *sports terminology, everyday language, linguistic integration, metaphorical language, cultural dissemination, communication, media influence, language acquisition.*

Introduction. The language of sports has a unique dynamism, often reflecting the excitement and competitiveness of athletic activities. Over time, sports terms such as "home run," "kickoff," and "overtime" have moved beyond the playing fields to become common expressions in various social and professional contexts. This phenomenon raises questions about how and why these terms gain such popularity and how their usage influences everyday communication. This article seeks to examine the integration of sports terminology into daily language, its significance, and the factors driving its adoption.

Methods. To investigate the integration of sports terms into everyday language, a mixed-methods approach was employed:

1. **Corpus Analysis**: A linguistic corpus of spoken and written English was analyzed to identify the frequency and contexts of sports term usage.
2. **Surveys and Interviews**: Surveys and semi-structured interviews were conducted with 100 participants from diverse backgrounds to explore their familiarity with and usage of sports terms.
3. **Cultural Analysis**: A qualitative review of media, including advertisements, movies, and news articles, was performed to understand the cultural dissemination of sports terminology.

Results. The findings reveal several key insights:

1. **Prevalence of Sports Terms**: Common sports terms such as "level playing field," "game plan," and "team player" are frequently used in workplace and social settings.

2. **Contextual Adaptation**: Sports terms often acquire new meanings when applied outside their original context. For example, "overtime" is widely used to describe extended working hours.

3. **Cultural Dissemination**: Media plays a pivotal role in popularizing sports terms, often using them metaphorically to convey relatable ideas and emotions.

4. **Demographic Variations**: Younger generations and sports enthusiasts are more likely to use and understand sports terms, while older individuals may exhibit varied familiarity depending on exposure.

Discussion. The integration of sports terms into everyday language reflects the pervasive influence of sports in modern culture. These terms serve as metaphors, simplifying complex ideas and fostering shared understanding. For instance, "hitting a home run" is used to denote success, resonating universally regardless of one's familiarity with baseball. Moreover, the use of sports language highlights values such as teamwork, strategy, and perseverance, which align with societal ideals.

Cultural media act as powerful conduits for this integration, embedding sports terminology in advertisements, films, and digital content. This process normalizes their usage and enables their transition into common parlance. However, the study also identifies potential barriers to comprehension, particularly for individuals with limited exposure to sports culture, underscoring the importance of context in communication.

Conclusion. Sports terms have become an integral part of everyday language, enriching communication and reflecting cultural values. Their widespread adoption is driven by their metaphorical versatility, media influence, and alignment with societal ideals. Future research could further explore the global diffusion of sports terms and their role in intercultural communication.

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COMMUNICATION ACROSS CULTURES COMPETENCE IN ENGLISH LANGUAGE TEACHING

Annotation: *This study investigates the close association between cross-cultural communication and foreign language training, as well as the significant difficulties confronting the subject today, by researching the fundamentals of cross-cultural communication. It also emphasises the basic purpose of foreign language instruction: to promote cross-cultural communication. English cross-cultural communication is critical in global trade, technological circulation, and cultural exchange because not only does language differ between cultures, but knowledge requirements for cross-cultural communication are also higher.*

Key words: *cross-cultural communication, appropriate language, tone, and nonverbal, cultural contexts, real-life communication scenarios.*

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INGLIZ TILINI O'QITISHDA MADANIYATLAR BO'YICHA ALOQA KOMPETENSIYASI

Annotatsiya: *Ushbu tadqiqot madaniyatlararo muloqot va chet tilini o'rgatish o'rtasidagi yaqin bog'liqlikni, shuningdek, madaniyatlararo muloqot asoslarini o'rganish orqali bugungi kunda ushbu mavzuga duch keladigan muhim qiyinchiliklarni o'rganadi. Shuningdek, u chet tilini o'qitishning asosiy maqsadini ta'kidlaydi: madaniyatlararo muloqotni rivojlantirish. Ingliz madaniyatlararo muloqot global savdo, texnologik aylanma va madaniy almashinuvda muhim ahamiyatga ega, chunki til nafaqat madaniyatlar o'rtasida farq qiladi, balki madaniyatlararo muloqot uchun bilim talablari ham yuqori bo`lishligi maqolada keltirilgan.*

Kalit so'zlar: *madaniyatlararo muloqot, mos til, ohang va og'zaki bo'lmagan, madaniy kontekstlar, real hayotdagi muloqot senariylari.*

Introduction. It is beneficial to provide specific teaching on cross-cultural communication skills such as changing communication styles, recognising nonverbal clues, and overcoming language hurdles. Encourage students to reflect on their own communication styles and learn how to effectively negotiate cultural differences. Cross-cultural communication has received a lot of attention from professionals and scholars as economic, social, and cultural globalisation has rapidly increased.

Method. The main subjects in the field of cross-cultural communication generally include cross-cultural awareness, cross-cultural sensitiveness and cross-cultural communicative skills [Chen G, 2014, 1]. Cross-cultural sensitiveness is the crucial factor in deciding success or failure of cross-cultural communication [Zhiping, 2020, 2]. Absolutely, cross-cultural communication competence is a critical skill that learners develop in ESP classes. Here's how learners acquire this competence:

1. Understanding Cultural Differences: Learners gain awareness of cultural differences in communication styles, norms, values, and behaviors. They learn to recognize and respect these differences, avoiding misunderstandings and misinterpretations.
2. Adapting Communication Styles: Learners acquire the ability to adapt their communication styles and behaviors to suit the preferences and expectations of diverse interlocutors. This may involve using appropriate language, tone, and nonverbal cues that are culturally relevant and effective.
3. Overcoming Language Barriers: Learners develop strategies to overcome language barriers and communicate effectively with speakers of other languages. This may include using simplified language, employing visual aids, or utilizing communication tools and technology.
4. Building Relationships Across Cultures: Learners learn how to build relationships and establish rapport with individuals from different cultural backgrounds. They develop the skills needed to connect with others on a personal and professional level, fostering trust and mutual understanding.
5. Resolving Intercultural Conflicts: Learners acquire conflict resolution skills that are essential for navigating intercultural interactions. They learn how to identify and address potential sources of conflict, negotiate differences, and find mutually acceptable solutions.
6. Promoting Cultural Sensitivity and Respect: Learners develop a deep respect for cultural diversity and an appreciation for different perspectives and ways of life. They learn to approach intercultural communication with empathy, humility, and an open mind.
7. Enhancing Intercultural Competence: Through exposure to diverse cultural contexts and real-life communication scenarios, learners continuously enhance their intercultural competence. They become more confident and effective communicators in multicultural environments.

By acquiring cross-cultural communication competence, learners in ESP classes become better equipped to communicate and collaborate with colleagues, clients, and partners from diverse cultural backgrounds. This skill is invaluable in today's globalized world, where intercultural communication is essential for success in various professional fields.

Result. Formation of interpersonal and intercultural competence in English for Specific Purposes (ESP) classes is essential for preparing learners to effectively communicate and interact in diverse professional and cultural contexts. Here are some strategies to foster interpersonal and intercultural competence in ESP classes:

- **Cultural Awareness and Sensitivity**
- **Collaborative Learning**
- **Role-Playing and Simulation**
- **Cross-Cultural Communication Skills**
- **Language for Specific Social Contexts**
- **Critical Thinking and Reflection**
- **Authentic Materials and Resources**
- **Feedback and Self-Assessment**

Conclusion. By integrating these strategies into ESP classes, educators can help learners develop the interpersonal and intercultural competence needed to thrive in diverse professional environments and communicate effectively with colleagues and clients from different cultural backgrounds.

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TA’LIM JARAYONIDA BARQAROR HAMKORLIKNI TA’MINLASH BO’YICHA TAVSIYALAR

Annotatsiya: *Ushbu maqola ta’lim jarayonida barqaror hamkorlikni ta’minlashning nazariy asoslarini, uning ta’sir qiluvchi omillarini va samarali tavsiyalarni tahlil qiladi. Ta’lim tizimida barqaror hamkorlik, o‘quvchilarning bilim olish jarayonini samarali boshqarish va ta’lim sifatini oshirishda muhim ahamiyatga ega. O‘qituvchi va talabalar o‘rtasidagi munosabatlar, ta’lim muassasalarining jamiyat bilan hamkorligi va davlat-xususiy sektor o‘rtasidagi aloqalar ta’lim tizimining barqarorligini ta’minlashda asosiy rol o‘ynaydi. Maqola, barqaror hamkorlikni yaratishning amaliy usullari va uning ta’lim tizimiga ta’sirini o‘rganadi hamda ta’lim sifatini oshirishga xizmat qiluvchi tavsiyalarni ishlab chiqadi.*

Kalit so‘zlar: *Barqaror hamkorlik, ta’lim tizimi, o‘qituvchi va talabalar o‘rtasidagi munosabatlar, ta’lim muassasasi, jamiyat bilan hamkorlik, davlat va xususiy sektor.*

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RECOMMENDATIONS ON ENSURING SUSTAINABLE PARTNERSHIP IN THE EDUCATIONAL PROCESS

Annotation: *This article analyzes the theoretical foundations of ensuring sustainable cooperation in the educational process, its influencing factors and effective recommendations. Sustainable cooperation in the education system is of great importance for effective management of the learning process of students and improving the quality of education. The relationship between teachers and students, cooperation of educational institutions with society and relations between the public and private sectors play a key role in ensuring the sustainability of the education system. The article studies practical methods for creating sustainable cooperation and its impact on the education system and develops recommendations to improve the quality of education.*

Keywords: *Sustainable cooperation, education system, teacher-student relationships, educational institution, cooperation with society, public and private sector.*

Kirish. Ta’lim tizimida barqaror hamkorlik, o‘quvchilarning bilim olish jarayonini samarali boshqarish va ta’lim sifatini oshirishda juda muhim rol

o‘ynaydi. Barqaror hamkorlik faqat o‘qituvchi va talabalar o‘rtasidagi munosabatlarga emas, balki ta’lim muassasalari, jamiyat, davlat va xususiy sektor o‘rtasidagi keng ko‘lamli aloqalarga ham asoslanadi. Barqaror hamkorlikning ta’limga ijobiy ta’siri nafaqat o‘quvchilarning akademik muvaffaqiyatlariga, balki ijtimoiy ko‘nikmalarni rivojlantirishga, ijtimoiy mas’uliyatni oshirishga va ta’lim tizimining barqaror rivojlanishiga olib keladi. Ushbu maqola, ta’lim jarayonida barqaror hamkorlikni ta’minlashning nazariy asoslari, uning ta’sir qiluvchi omillari va samarali tavsiyalarni tahlil qiladi.

Metodologiya. Ushbu tadqiqot ilmiy adabiyotlarni tahlil qilish, amaliyotdagi misollarni o‘rganish va mavjud statistika asosida olib borilgan. Tadqiqotda quyidagi metodlar qo‘llanilgan:

1. **Nazariy tahlil** - ta’limda hamkorlikni ta’minlashning nazariy jihatlari, hamkorlik turlari va uning ta’lim tizimiga ta’siri o‘rganilgan.
2. **Adabiyotlar tahlili** - ilmiy maqolalar, kitoblar va tadqiqotlarning tahlili, hamkorlikni rivojlantirishda qo‘llaniladigan metodlar va strategiyalarni aniqlash.
3. **Amaliy misollarni tahlil qilish** - turli mamlakatlar va ta’lim tizimlarida barqaror hamkorlikni ta’minlashdagi muvaffaqiyatli misollar o‘rganildi.

Ushbu tadqiqotda hamkorlikni barqarorlashtirishning uchta asosiy omili ajratilgan: (1) o‘qituvchi va talabalar o‘rtasidagi munosabatlar, (2) ta’lim muassasalari va jamiyat o‘rtasidagi aloqalar, (3) davlat va xususiy sektor o‘rtasidagi hamkorlik.

Natijalar:

1. O‘qituvchi va Talabalar O‘rtasidagi Munosabatlar. O‘qituvchi va talabalar o‘rtasidagi munosabatlar ta’lim jarayonining asosi bo‘lib, bu hamkorlik o‘quvchilarning motivatsiyasini oshiradi va o‘qituvchilarning pedagogik yondashuvlarini yanada samarali qiladi. Pedagogik yondashuvlar ta’limda hamkorlikni rivojlantirishga katta ta’sir ko‘rsatadi. O‘qituvchilarning metodik yondashuvlaridagi innovatsiyalar, talabalar bilan individual ishlash va o‘quvchilarning bilimlariga javobgarlik hissini oshirish, ta’lim jarayonining sifatini yaxshilashga yordam beradi. O‘qituvchilar o‘z talabalarini faqat bilim olishda emas, balki ular o‘rtasidagi ijtimoiy ko‘nikmalarni rivojlantirishda ham qo‘llab-quvvatlashi lozim.

2. Ta’lim Muassasasi va Jamiyat O‘rtasidagi Hamkorlik. Ta’lim muassasalari va jamiyat o‘rtasidagi hamkorlik o‘quvchilarning ta’limga bo‘lgan yondashuvini shakllantiradi. Jamiyatning ta’lim jarayoniga jalb etilishi, o‘quvchilarni hayotga tayyorlashda ijtimoiy mas’uliyatni rivojlantirishga yordam beradi. Ota-onalar, mahalliy jamoatlar va boshqa ijtimoiy guruhlar bilan hamkorlik ta’lim tizimining samarali ishlashiga yordam beradi. Jamiyat bilan hamkorlik o‘quvchilarga o‘zining kelajakdagi ijtimoiy roli haqida ongli qarorlar qabul qilishda yordam beradi. Shuningdek, o‘quvchilarning ta’limda muvaffaqiyatli bo‘lishi uchun jamiyatdan ko‘mak olish imkoniyatlarini kengaytiradi.

3. Davlat va Xususiy Sektor O‘rtasidagi Hamkorlik. Davlatning ta’lim tizimiga qo‘shgan hissasi, xususiy sektor bilan hamkorlikda ilg‘or texnologiyalarni

joriy etish, ta’lim tizimini modernizatsiya qilishda katta ahamiyatga ega. Ta’limda innovatsiyalarni joriy etish, texnologiyalarning yangilanishi va ilm-fanning yangi istiqbollariga moslashish, davlat va xususiy sektor o‘rtasidagi samarali hamkorlikni talab qiladi. Xususiy sektor ta’lim tizimiga texnologiyalar, moliyaviy sarmoyalar va ta’lim dasturlarini yangilash orqali yordam beradi, davlat esa ta’limni keng qamrovli ravishda qo‘llab-quvvatlaydi. Barqaror hamkorlikni yaratishda davlat va xususiy sektorning o‘zaro bog‘liqligi o‘quv muassasalarining yangilanishiga va ta’lim tizimining rivojlanishiga xizmat qiladi.

Muhokama. Ta’lim tizimida barqaror hamkorlikni ta’minlash nafaqat ta’lim sifatini oshiradi, balki jamiyatdagi ijtimoiy rivojlanishga ham ijobiy ta’sir ko‘rsatadi. Barqaror hamkorlikni rivojlantirishda ba’zi muammolar ham mavjud. Masalan:

- O‘qituvchilarni yangiliklarga moslashtirish, ularning bilim va ko‘nikmalarini doimiy yangilab borish uchun resurslarning yetishmasligi.
- Jamiyatning ta’lim jarayoniga jalb qilinishida ba’zi hududlarda salbiy omillar mavjud.
- Davlat va xususiy sektor o‘rtasidagi resurs taqsimoti va o‘zaro kelishmovchiliklar.

Shu bilan birga, bu to‘siqlarni bartaraf etish uchun turli usullar va strategiyalar mavjud. Innovatsion pedagogik yondashuvlar, ota-onalar va mahalliy jamiyat bilan aloqalarni mustahkamlash, hamda davlat va xususiy sektor o‘rtasidagi samarali hamkorlikni rivojlantirish orqali bu muammolarni hal etish mumkin.

Xulosa. Ta’lim jarayonida barqaror hamkorlikni ta’minlash, nafaqat ta’lim sifatini oshirish, balki jamiyatning ijtimoiy va iqtisodiy rivojlanishini ta’minlashda muhim ahamiyatga ega. O‘qituvchi va talabalar o‘rtasidagi munosabatlar, ta’lim muassasasi va jamiyat o‘rtasidagi aloqalar, shuningdek, davlat va xususiy sektor o‘rtasidagi hamkorlik ta’lim tizimining barqarorligini ta’minlashda asosiy omillar hisoblanadi. Barqaror hamkorlikni ta’minlash orqali ta’lim tizimi yanada samarali va keng qamrovli bo‘lishi mumkin.

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CONCEPT, CONTENT AND CHARACTERISTICS OF LEGAL AWARENESS

Abstract: *The article presents opinions on the concept of legal awareness, one of the factors determining the legal thinking of our society, and its content and essence.*

Keywords: *Legal awareness, legal culture, duty, social awareness, society, legal feelings, emotions, ideas, views, assessments, vision, citizen, etc.*

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HUQUQIY ONG TUSHUNCHASI, MAZMUNI VA XUSUSIYATLARI

Annotatsiya: *Maqolada jamiyatimizning huquqiy tafakkurini belgilab beruvchi omillardan biri huquqiy ong tushunchasi, uning mazmun-mohiyati hususida fikr-mulohazalar bildirilgan.*

Kalit so‘zlar: *Huquqiy ong, huquqiy madaniyat, burch, ijtimoiy ong, jamiyat, huquqiy hissiyotlar, tuyg‘ular, g‘oyalar, qarashlar, baholar, yo‘l- tasavvur, fuqaro va h.k.*

Huquqiy ong ijtimoiy ong shakllaridan biri bo‘lib, ayni vaqtda nisbatan mustaqildir. U ijtimoiy turmushda mavjud bo‘lgan, jamiyatimizga xos turli-tuman holatlar yig‘indisini o‘zida mujassamlashtiradi. Huquqiy ong – huquqiy hissiyotlar, tuyg‘ular, g‘oyalar, qarashlar, baholar, yo‘l-yo‘riqlar, tasavvurlar va fuqarolarning O‘zbekiston Respublikasiga munosabatini ko‘rsatuvchi, bu munosabat esa amaldagi huquqqa, huquqiy amaliyotga, fuqarolar huquqlari va burchlariga nisbatan, shuningdek, boshqa orzu qilingan huquqlarga nisbatan bo‘lishi lozim holatlar tizimidir. Huquqiy ong tarkibini o‘rganishning asosiy jihatlari, ijtimoiy ong tarkibini o‘rganishda bo‘lganidek, gnoseologik va sotsiologik tomonlardir, chunki ular o‘zaro farqlansa-da, har holda bir-birini inkor etmaydi, aksincha to‘ldiradi.

Gnoseologik yondashilganda huquqiy ong, in’ikos, jamiyatni bilish shakllaridan biri sifatida, sotsiologik yondoshilganda esa ijtimoiy hodisalar orasida uning o‘rni va umuman, ijtimoiy taraqqiyot nuqtai nazaridan o‘rganiladi. Huquqiy ong tarkibi. Gnoseologik tomondan qaralgan huquqiy ong tarkibi, mavjud huquqiy holat in’ikosning ikki darajasi – huquqiy mafkura va huquqiy psixologiyadan tashkil

topadi. Huquqiy psixologiya atrofimizdagi mavjud huquqiy holatning bevosita ta’sirida shakllanadi va huquqiy ongning dastlabki empirik bosqichi hisoblanadi. Huquqiy ongning xuddi shu bosqichidan huquqiy borliqni idrok etish bilan birlamchi tanishish boshlanadi. Huquqiy psixologiyadan farqli ravishda, huquqiy mafkura, huquqiy ongning ancha yuqori, ilmiy-nazariy konsepsiyalashgan va odamlar tomonidan ijtimoiy hayotning huquqiy hodisalarini ancha chuqur idrok etish bosqichini tashkil qiladi. Huquqiy ongning g‘oyaviy tashkillanish jarayoni to‘plangan, muayyan his-tuyg‘ular bilan yo‘g‘rilgan material asosida g‘oyaning uzil-kesil namoyon bo‘lishi, huquqiy borliq haqidagi tasavvurning sayqallanish holatlari kechadi va bu odamlar irodasining shakllanishida katta o‘rin tutadi.

Huquqiy mafkura va huquqiy psixologiya, huquqiy ongning turli elementlari sifatida o‘zaro bog‘liq va bir-biridan kelib chiquvchi hodisalardir. SHu bilan birga, ular ancha farqlanadilar. Ular orasidagi asosiy farq ijtimoiy borliq va ob’ektiv huquqiy muhitni turli ijtimoiy vositalar: birinchisi – g‘oyalar, nazariyalar yordamida, ikkinchisi – ruhiy his tuyg‘ular yordamida aks ettiradi. Mazkur aks etishning turlicha darajasi va usuli mavjud. Agar, ijtimoiy borliqning huquqiy mafkurada aks etishi ilmiynazariy idrok, nazariy bilimlar va qonunchilik, huquq-tartibot, qonuniylik va boshqa huquqiy holatlarni baholash darajasida kechsa, u holda bunday in’ikos huquqiy psixologiyada, dastavval oddiy, kundalik turmush idroki darajasida kechadi. Shuning uchun ham huquqiy ong tuzilishidagi boshqaruvchi element huquqiy g‘oyalar majmuasi hisoblanadi. Biz ko‘rayotgan yo‘nalishda, huquqiy mafkura va huquqiy tizim rivojini tavsiflovchi, ichki birlikka ega bo‘lgan ilmiy qarashlar, g‘oyalar, nazariya va ta’limotlar sifatida qaraladi.

Huquqiy psixologiya esa his, tuyg‘u, kayfiyat va boshqa huquq psixologiyasi tarkibiy qismining yig‘indisi sifatida namoyon bo‘ladi. Ular ijtimoiy hayotning turli huquqiy jihatlarini aks ettiradi. Huquqiy ongning bu ikki tarkibiy qismi o‘zaro bog‘liq va doimo bir-birini to‘ldiradi. Huquqiy ong tuzilmasini sotsiologik tahlil qilish undagi uch tarkibiy qism – bilish, baholash va amaliy huquqiy ongni ajratib ko‘rsatish imkoniyatini beradi. Huquqiy ongning funksiyalari. Huquqshunos olimlar huquqiy ongning quyidagi funksiyalarini ko‘rsatadilar: - gnoseologik funksiya; -shakllantirish funksiyasi; - huquqiy ongning o‘zini o‘zi boshqarish funksiyasi. Gnoseologik funksiya ob’ektiv borliqdagi mavjud huquqiy holatlarni bilishni tavsif etadi. Boshqaruv – o‘z fe’l-atvorini huquq talablari bilan qiyoslash vositasida o‘z xatti-harakatlarini o‘zgartirishdir. SHakllantirish funksiyasi – o‘z xulqini, xatti-harakatlarini shakllantirishdan iborat bo‘lib, u juda zarur. Ayrim mualliflar huquqiy harakatlar orasidan huquqiy ongning bilish, baholash va boshqaruv funksiyalarini ajratib ko‘rsatadilar.

Huquqiy ongning bilish vazifasi ketma-ket paydo bo‘luvchi ruhiy hodisalardan tuzilgan: birinchidan, u asosan sezish, eshitish va ko‘rishdan tug‘iladi; ikkinchidan, qabul qilish, xotira, esda saqlash, xotiradagilarni qayta tiklash, tanish jarayonlari vositasida huquqqa oid bilimlarni to‘playdi va ularni har xil huquqiy tasavvurlar ko‘rinishida ifoda etadi; uchinchidan, tafakkur, oliy darajadagi bilish jarayoni hisoblanib, huquqiy g‘oyalar, tushuncha va e’tiqodlar shuning mahsulidir. Huquqiy ongning o‘zini boshqarish funksiyasi inson orzuumidlarini oqilona

ro‘yobga chiqarish huquqiy ongning amaliy tomoni hisoblanib, u iroda orqali amalga oshiriladi. U huquqiy bilimlarni aniqlash, ichki tuyg‘ular bilan mavjud huquqiy e’tiqodlar, mavjud ob’ektiv borliq, jamiyatda amal qilinayotgan huquqiy normalarni muvofiqlashtirish, maqsadni aniqlash, qaror qabul qilish va qarorni ijro etish kabilarni o‘z ichiga oladi. Huquqiy ongga tushayotgan huquqiy axborotni «qayta ishlash» va o‘zlashtirishda inson fe’l-atvorini boshqaruvchi murakkab mexanizmlar muhim o‘rin egallaydi, u manfaatni, maqsadni aniqlash, asoslar tizimi va xohishni namoyon etish kabi holatlarni o‘z ichiga oladi. Huquqiy ong va huquqiy madaniyat..Huquqiy ong – huquqiy madaniyatning muhim elementi. Huquqiy ong shaxs ongida, jamiyat g‘oyalarida namoyon bo‘lgan huqukdir. Huquqiy ong huquq va qonuniylikka munosabatdagi e’tiqodlar, tasavvurlar, baholar, histuyg‘ular va ma’naviyatning boshqa tarkibiy qismlari tizimidir. Huquqiy ong huquqiy madaniyatning davlat va jamiyatning boshqaruv ta’siriga eng kam uchragan elementidir. Tezlik bilan yangi qonun qabul qilish, davlat organini tuzish mumkin, ammo insonning huquqiy ongini tezda o‘zgartirib bo‘lmaydi. Yuksak huquqiy ongni shakllantirish ko‘p kuch hamda vaqt talab qiluvchi qiyin vazifa.

Huquqiy qadriyatlarni ma’naviy o‘zlashtirish oddiy insoniy madaniyat va savodxonlikning bo‘lishini taqozo etadi. U shaxsni umumiy tarbiyalash jarayonlari bilan uzviy bog‘liqdir. Huquqiy madaniyat jamiyat va shaxsning huquqiy holati timsolida qabul qilinishi mumkin bo‘lgan alohida ijtimoiy hodisadir. Jamiyatning huquqiy madaniyati huquqiy ongning, qonuniylikning, qonunlarni takomillashtirishning va huquqiy tajribaning muayyan darajasini aks ettiradigan hamda insoniyat huquq sohasida yaratgan butun boyliklarni qamrab oladigan ijtimoiy madaniyatning bir turi sifatida ko‘riladi. Huquqiy madaniyat insonsiz va uning dunyoqarashini belgilovchi faoliyatsiz, bunday faoliyat va tafakkurning progressiv yo‘nalishisiz mavjud bo‘la olmaydi. Huquqiy ong va xulq-atvor o‘rtasidagi qonun nuqtai nazaridan ahamiyatga molik munosabat ancha murakkab. SHu bilan birga odamlar fe’l-atvorining shakllanishida huquqiy normalarning katta ahamiyatini unutmaslik lozim.

Ijtimoiy hayotni demokratlashtirish va huquqiy davlat tuzish huquqiy ongdan inson fe’l-atvorini yuridik ahamiyatga molik yo‘nalishda boshqarishda foydalanishni taqozo qiladi. Birinchidan, huquqiy ong faqat fuqaro tomonidan yuridik ahamiyatga molik fe’l-atvor maqsadini anglashga ko‘maklashmaydi. SHu bilan birga, u huquqiy ongning asosiy manbai ham hisoblanadi. Boshqaruv imkoniyatiga ko‘ra, ongning bu ko‘rinishi bilan faqat ongning teran ko‘rinish shakli – ma’naviy ongni baravar qo‘yish mumkin. Huquqiy ong insonga vaziyatni har taraflama mushohada qilishga yordamlashadi. Ikkinchidan, huquqiy ong insonga yuridik ahamiyatga molik fe’l-atvorga erishish vositalarini ko‘rish va mana shu farazni vositalar orasidan muayyan keragini tanlashga ko‘maklashadi. Uchinchidan, shaxsning huquqiy ongi (ma’naviy va siyosiy ongi bilan birgalikda) unga yuridik ahamiyatga molik fe’l-atvorga erishish uchun tanlangan yo‘lning ijtimoiy ta’sirchanligini yoki aksincha, ta’sirchan emasligini baholashda yordamlashadi. Fuqarolarning ijtimoiy-huquqiy faolligi ularning huquqiy masalalarni echishda, qonunchilik va huquq-tartibotni mustahkamlashda, huquqbuzarlikka qarshi

kurashda shaxsan ishtiroki va shu kabilar fe’l-atvorning yuridik ahamiyatga molik oliy ko‘rinishi hisoblanadi. Shunday qilib, ijtimoiy-huquqiy faollikning, bir-biri bilan bog‘liq ikki qismdan tashkil topganligi ko‘rinadi. Birinchi qism – fuqarolarning jamiyatda qonuniylik va huquq tartibotni saqlashga bo‘lgan doimiy ichki tayyorgarligi; ikkinchi qism – amaliy tashabbuskorlik faoliyati.

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STUDENTS OF HIGHER EDUCATION INSTITUTIONS ASSESSMENT QUALITY EDUCATION CRITERIA

Abstract: *The article describes the principles of the competence development model of university students studying under the credit-modular system. In addition, the structure of improving the quality of the educational system was developed by the author as a model for organizing students' classes.*

Keywords: *Quality, element, material-technology, process, component, development, structure, credit module.*

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OLIY TA’LIM MUASSASALARI TALABALARI TA’LIM SIFATINI BAHOLASH MEZONLARI

Annotasiya: *Maqolada kredit modul tizimda ta’lim olayotgan oliy ta’lim talabalarning ta’lim sifat baholash ko‘nikmalarini rivojlantirish modeli tamoyillari yoritilgan. Bundan tashqari, muallif tomonidan talabalarning dars mashg‘ulotlarini tashkil etishda ta’lim tizimi sifatini oshirish strukturasi namuna sifatida ishlab chiqilgan.*

Kalit so‘zlar: *Sifat, element, moddiy-texnika, jarayon, tarkibiy qism, rivojlantirish, struktura, kredit modul.*

As a result of the creation of uniform educational spaces around the world, the mutual recognition of diplomas, scientific degrees and qualifications, the introduction of a uniform credit system for learning educational programs, and the creation of internationally recognized standards for the quality of education and its

evaluation are gaining urgent importance. The intellectual potential of modern societies is aimed at training specialists capable of creating and implementing innovative technologies in connection with the acquisition of new ways of thinking. In the process of training future specialists based on the integration of science and practice in higher education institutions, the importance of simultaneous development of activities such as training, scientific research, design and construction is increasing sharply.

The concept of "higher education quality" is interpreted in the scientific and pedagogical literature as a fundamental description of education directed to different goals, different consumers, different management influences. Ensuring the quality of higher education, according to researchers, requires maintaining the quality of higher education (quality of results, process and educational system) at a level not lower than the established norms, requirements and standards. Among the important factors, conditions and resources for achieving the quality goals are educational and methodological tools, material and technical base, abilities of the employees of the higher education institution, the level of motivation and preparation of students, financial support, information supply, in short, the sum of all the main elements of the educational activity of the higher education institution included.

Quality of education means compliance with the requirements of educational standards, quality of education is considered to be related to consistency of goals and results, measures to achieve the goals, and continuous monitoring of the development of the learner's capabilities. The degree of conformity of educational services with the needs of society and expected results serves to determine the essence of quality.

The components of the quality of education and their interrelation We consider three main components as an interrelated structure: the quality of the result, the quality of the process, the quality of the conditions. Because the assessment of the quality of the result leads to a change in the quality of the conditions and the quality of the process, or the assessment of the quality of the process determines the development of the quality of the conditions and affects the quality of the results. Therefore, the quality of one component affects the quality of other components.

Thus, the structure of improving the quality of the entire education system today:

The following elements (features) can be included in the quality of conditions:	1.	level of material and technical base;
	2.	the quality of teachers' work;
	3.	activities of management bodies;
	4.	personal qualities of students;
	5.	the level of educational and methodological support;
	6.	internal and external evaluation quality.
The main components of process quality:	1.	quality of educational content of educational programs;
	2.	management of the educational process;

	3.	quality of educational, methodological and material and technical support;
	4.	educational process technology;
	5.	quality composition of teachers;
	6.	quality of students.
The quality of the result can be considered as a system consisting of the following elements:	1.	quality of student learning;
	2.	the quality of the student's educational and cognitive activity;
	3.	student personality development;
	4.	level of preparation of the graduate;
	5.	qualification of the graduate;
	6.	competitiveness and graduate employment;
	7.	achievements and dynamics of career growth of graduates;
	8.	development of student personality.

This division of the components and elements of the quality of education can be considered conditional, because they are all interrelated and interrelated.

The interdependence of the elements is determined by the naturalness of the relationship between the components of the quality of education. At the same time, these elements are interrelated. Some elements have a significant influence on others and contribute to a certain extent to the formation of the quality of these elements.

The components of the quality of education have a specific structure and influence the formation of subsequent components. Thus, the quality of knowledge, the quality of educational and cognitive activity and the development of the student's personality affect the formation of the quality level of the graduate's training and qualifications, and the level of the graduate's qualifications and training increases and affects competitiveness. employment of graduates. Graduates' achievements and subsequent career growth reflect the quality of the results and, at the same time, the quality of the education.

Components, criteria and quality indicators of the educational process:

Components	Criteria	Indicators
1. Content of educational programs	Normative base	— Availability of documents from higher management structures; — Quality of educational programs; — Availability and nature of educational programs.
	Purpose of educational programs	— Ability to set goals; — Planning ability; — The ability to reflect the results from a point of view; — Achieving the goal.
	Priority areas	— Have a plan;

Components	Criteria	Indicators
		— Priorities of the educational program; — Effectiveness of plans.
	Curriculum quality	— Availability and quality of basic curricula; — Availability and quality of different curricula.
	A collection of additional educational programs	— Number of Additional Education Programs; — Implementation mechanisms.
2. Management of the educational process	School structure.	— Management apparatus; — Services, departments, commissions; — Lessons, shifts.
	Quality of management personnel.	— The ability to develop a long-term plan; — Ability to bring the plan to the attention of structures; — Ability to implement and control the educational process.
	Manual documentation	— Availability of functional tasks; — Existence of rules of activity; — Leadership style.
	Feedback	— The presence of a control system within the school; — The mechanism and nature of the information received about the educational process; — Availability of corrective actions.
3. Educational, methodological and material and technical support	Description of the educational and methodological base	— Availability of books, manuals, measuring instruments, audio and video materials, software; — Internet resources; — Efficiency.
	Description of the material and technical base	— Availability of laboratories, computer classes, classrooms, etc; — efficiency of their use.
4. Educational process technology	The quality of the teacher plan	— The nature of the goal; — Methodological components; — Management system; — Planning teaching methodology.

Components	Criteria	Indicators
	Modern teaching methods	— Availability of modern teaching methods used; — Their effectiveness.
	Evaluation system	— Availability of control and diagnostic, measurement tools in the educational process; — Knowledge assessment mechanism; — A mechanism for correcting students' knowledge.
	A mechanism for analyzing the results and correcting the training process	— Summarize the diagnosis; — A mechanism for; — Availability of further action plans.
5. Quality composition of teachers	Professional level of teachers	— Education, qualification; — Level of mastery of educational methods; — level of learning technology.
	Teacher motivation	— Attitude towards one's activity; — Reward system.
	The existence of a professional development system	— Professional development plans; — The number of teachers who have improved their qualifications.
	Competence in innovative methods	— Knowledge of innovative teaching methods; — Being able to use innovative methods in the educational process.
	staffing	— Number of employees; — Quality.
6. Student quality	Achieving learning outcomes	— Levels of knowledge; — Acquired skills; — Participation in the Olympics.
	Value directions	— Adherence to generally accepted human standards; — The ability to evaluate situations, express one's point of view; — Level of class and family relationships.
	Education of students	— Behavior and activity of students; — Influence of school, community and environment on education.

These criteria and indicators are not perfect. They can be supplemented with new content and components. The content of some criteria and indicators can be changed according to tasks and conditions.

Reforms of the educational system have been gradually developed, and in order to educate intellectually developed and competitive young people based on the principles of integrity and continuity, a new generation of state educational standards, qualification requirements, curriculum, academic science programs, and educational literature has been developed for the educational directions and specialties of the higher education system, as well as all types of education. put into practice.

Control of the quality of education is considered an integral part of the management system, and its main task is to ensure the quality of education in accordance with the requirements of state educational standards and to implement targeted and coordinated measures to organize control in order to increase the effectiveness of educational processes at the university.

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THIS ARTICLE DEALS WITH SYLLABIC STRUCTURE OF ENGLISH WORDS AS COMPARED WITH RUSSIAN AND UZBEK LANGUAGES

Abstract*:This article examines the syllabic structures of English words and compares them with the syllabic patterns found in Russian and Uzbek languages. The study explores the phonotactic rules, vowel and consonant combinations, and syllable formation processes characteristic of each language. It highlights the similarities and differences, offering insights into how these patterns influence pronunciation, word formation, and linguistic learning.*

Key words*: syllable, continuum, articulatory, acoustic, perceptual, classification, covered, closed, fully, initially, topologically.*

This article will be concerned with the syllable as a phonetic and phonological unit we will attempt to show what is included into the notion of the syllable and what are the approaches to the problem of the syllable. The syllable is the result of the natural segmentation of speech continuum. The definitions of the syllable differ greatly, as linguists choose the acoustic, articulatory and functional criteria. There are wrong conceptions as well, which state that the syllable, as a phonetic phenomenon, does not exist and that the grouping of phonemes in syllables is a more convention without any objective reality. Nonetheless, most linguists admit the existance and the articulatory-acoustic reality of the syllable. Being the smallest pronounceable units, the syllables form language units of greater magnitude, that is morphemes, words and phrases. Each of these units is characterized by a certain syllabic structure. Consequently, we might say that a meaningful language unit has two aspects; syllable formation and syllable division which form a dialectical unity.

Before we look at the English syllable in detail let us consider a fairly general problem of the syllable. Here we should note that the study of the syllable has for a long time occupied an important place in linguistics as a field of theoretical investigation. Besides, a considerable body of experimental work has been done. But though phonetics has progressed for enough the problem of the syllable is still an open question in phonetics. From the articulatory point of view the syllable may be regarded as a single uninterrupted unit of utterance which may coincide with a word (ex. cat /kaet/). Syllables consisting of two or more phonemes, joining the articulations, have a complex structure characterized by on-glides, retention and off-glides which is essential also for the ordinary combination of phonemes.

From the acoustic and perceptual point of view a syllable is a wave of loudness characterized by prosodic features such as stress, pitch, sonority and length. The acoustic- auditory shape of the syllable depends on sonority of the

sounds. The peak of the syllable is often formed by a vowel as in pet, act, see; less often by the sonants or sonorants (m,n,l), as in the second syllable of cable, tension, times. The peak of the syllable may be followed by less sonorous sounds (consonants). One sound, which is characterized by the great force of utterance (accent and pitch of voice), sonority and length, may function as a syllable. For example, I /aI/, little /lit-l/, rhythm /rid-m/.

From the functional point of view a syllable, like other phonetic units, fulfills four functions: 1) **constitutive function**, i, e a syllable or syllables act as material carriers of words, word-forms, word-combinations and phrases; 2) **distinctive function,** i, e, the syllables may serve to distinguish minimal pairs of words, word-combinations and phrases. For example: **an apron** / en `eipren/- **a napron** /e `neipren/ **an ice house** / en `ais`haus/- **a nice house** / e'nais'haus/, **its lips** /its`lips/- **it slips** /it slips/. **Is there any mistake here?- Is there any Miss take here?;** 3) **recognitive function**, i, e, the recognition of the right syllable formation and syllable division rules; 4) **delimitative function,** i, e, some syllables may occur only in initial or final positions in words.

Phonologically it is possible to distinguish two types of syllables: 1) genuine syllables, the phonemic structure of which has constant functional relevance: **bottle** /bot-l – **bottom** /bat-em/ **make** /meik/- **making** /meikin/; 2) the secondary syllables are unstable and their phonemas have not the same functional relevance as the phonemes or genuine syllables. There are two or more peaks of sonority in the secondary syllables. For example: **a black tie** /e`bleak`ti/- **a blacked eye** /e`blaekt` ay/, **ice-cream** /`ais`kri:m/- **I cream** /ai`skri:m/.

There are the various generally accepted classifications of syllables. According to the syllable division, i, e. from the viewpoint of whether a syllable begins and ends with a vowel or a consonant sound, syllables are classified into open, covered, uncovered. V.A. Vassilyev distinguished the following types of syllables:

V-uncovered, open;
VC-closed, uncovered;
CVC-closed, covered;
CV-covered, open.

G.P. Torsuyev gives the following types of syllables:

V-fully open;
CVC-fully closed;
CV-initially covered;
VC-finally covered.

Besides, he distinguishes the sub-types of syllables.

A fully open syllable consists of a vowel or a diphthong and therefore it has no other sub-types. A fully closed (CVC) syllable may be of the following twelve sub-types depending on the number of consonants: 1) CVC-**fat**, 2) CVCC-**fact**, 3) CVCCC-**facts,** 4) CCVC-**place**, 5) CCCVC-**street**, 6) CCVCC-**speaks**, 7) CCVCCC-**spinx,** 8) CCCVCC-**streets,** 9) CCCVCCC-(con)-**structs,** 10) CVCCCC-**sixths,** 11) CCVCCCC-**twelfth**, 12) CVCCCCC-**sixths.**

The initial covered syllable has three sub-types; 1) CV-**sea,** 2) CCV-**play**, 3) CCCV-**straw.**

The finally covered syllable also has three sub-types: 1) VC-**at,** 2) VCC-**apt**, 3) VCCC-**acts**. Thus, there are nineteen structural sub-types of syllables in modern English and their peak is formed by a vowel or sonorant when it follows or precedes constrictive consonants. For example, CS (S-indicates a sonorant); /(rI)-tn/ **written;** CSC / (`lai-sns/ **license;** CCSC: /(`saen)-kshns/ **sanctions;** CSCC: /(` skae)-fildz/ **scaffolds**; CCSCC: /(`en)-trnts/ **entrants.**

The above given classification represents the phonemic, to be more strict, the allophonic structure of syllables. An English syllable is the minimum unit of the phonetic structure of a monosyllabic word (e.g. /aI/, **I,** /it/ **it,** /buk/ **book** etc). Nevertheless it can also explain the allophonic structure of polysyllabic English words, i, e. words with two or more syllables. The English word may contain from one to eight syllables. There are more than eight syllables in Uzbek word as agglutination tendency is strong (it is possible to add a number of suffixes) in it.

Typologically the following types of syllables exist in English, Russian and Uzbek (including borrowings):

The universal type of syllable for English is CVC-closed and covered, which is the most frequently used in it.

Ne	The type of the syllable	English	Russian	Uzbek
1.	V	I /ai/ awe /o:/|	о-а-зис, А!	U, E! A!
2.	CV	He /hi:/ me /mi:/	он, тема	ke-ma, bu, shu
3.	VC	It /it/ art /a:t/	ум, ил	un, o't, o'r-oq
4.	CVC	Bed /bed/, take /teik/	сон, дом,парта	bo'sh, say-ramoq
5.	VCC	Act /aekt/, old /ould/	акт, иск, -ость	akt, axd,
6.	VCCC	Ants/aents/, asks/a:sks/	искр-, астр-	ust astr-,
7.	VCCCC	Ernst/a:nst/, entry/entri/	Ернст	Ernst
8.	CCV	Try/trai/, stay/stei/	Сто, три, сна-	sme-ta, tri-o
9.	CCCV	Straw/stro:/	Вста-вать, мгла	Brno
10.	CCVC	Prize/praiz/, stop/stop/	Стол, стул. стой	Sta-kan, sta-dion
11.	CCVCC	Speaks/spi:ks/	Столб, праст-	Plast-,
12.	CCVCCC	Stamps/staemps/	Спектр, сфиникс	Spektr
13.	CVCC	Tent/tent/, mend/mend/	Мост, серп	Mard, qand, g'isht
14.	CCCVC	Strength/strengd/	Скрип-ка, страх	Shtraf, skrip-ka
15.	CVCCC	Facts/faekts/,tends/tendz/	Пункт, фильтр	Tekst, filtr
16.	CCCCVC	-	Взгляд, встреч	
17.	CCCCV	-	Вспле- /ски/	

18.	CCCCVCC	-	Всплеск взблеск	
19.	CCCVCC	(con)-structs/ken-strakts/	Страсть вскольз	
20.	CVCCCC	Sixths /siksds/	Монстр, /свиде/	

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EFFECT OF LASER RADIATION ON SEMICONDUCTORS

Abstract. *This article extensively studies the effects of laser radiation on semiconductor materials. The study analyzes how laser parameters (wavelength, power, and pulse duration) influence the electrical, optical, and structural properties of semiconductors. The results demonstrate the potential of using lasers to optimize semiconductors and develop highly efficient devices.*

Keywords: *laser radiation, semiconductors, material modification, optoelectronics, nanostructural analysis, physical properties.*

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LAZER NURLANISHINING YARIM O‘TKAZGICHLARGA TA’SIRI

Annotatsiya. *Ushbu maqolada lazer nurlanishining yarim o‘tkazgich materiallariga ta’siri keng ko‘lamda o‘rganilgan. Tadqiqotda lazer parametrlarining (to‘lqin uzunligi, quvvati, impuls davomiyligi) yarim o‘tkazgichlarning elektr, optik va struktura xususiyatlariga ta’siri tahlil qilingan. Olingan natijalar lazer yordamida yarim o‘tkazgichlarni optimallashtirish va yuqori samarali qurilmalar yaratishda qo‘llanilishi mumkinligini ko‘rsatadi.*

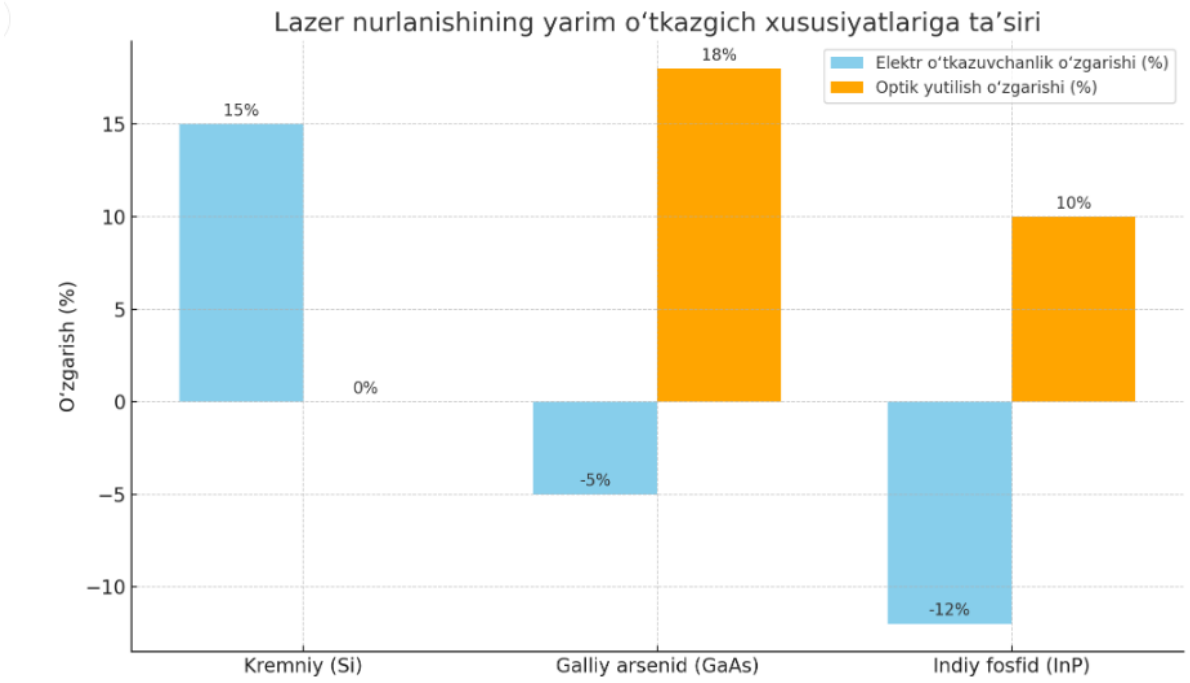
Kalit so‘zlar: *lazer nurlanishi, yarim o‘tkazgichlar, material modifikatsiyasi, optoelektronika, nanostrukturaviy tahlil, fizik xususiyatlar.*

Kirish. Yarim o‘tkazgichlar zamonaviy texnologiyalarda, jumladan, optoelektronika va datchiklar ishlab chiqarishda asosiy komponentlar hisoblanadi.[1] Ushbu materiallarning xususiyatlarini lazer yordamida o‘zgartirishning afzalligi, bu jarayonning nozikligi va materiallarning yuzaki qatlamlarini aniq nazorat qilish imkoniyatidir. Lazerning har xil parametrlarini qo‘llab, yarim o‘tkazgichlarning elektr va optik xususiyatlarida sezilarli o‘zgarishlar keltirib chiqarish mumkin.[2,4]

Hozirgi tadqiqotlarda lazerning yarim o‘tkazgichga ta’sirini o‘rganishda to‘liq mexanizmlarni aniqlashga e’tibor qaratilgan.[3] Tadqiqotning maqsadi lazer nurlanishining kuchi, to‘lqin uzunligi va ta’sir muddati kabi parametrlarning yarim o‘tkazgichlarning fizik-kimyoviy xususiyatlariga ta’sirini aniqlashdir.

Metodlar. Tadqiqotda kremniy (Si), galliy arsenid (GaAs) va indiy fosfid (InP) kabi materiallar qo‘llanildi. Lazer nurlanishi sifatida to‘lqin uzunligi 532 nm va 1064 nm bo‘lgan uzluksiz lazer, shuningdek, 800 nm to‘lqin uzunlikdagi femtosekund impulsli lazer ishlatildi. Materiallar lazer ta’siridan oldin va keyin bir qator tahlil usullari yordamida o‘rganildi:
Rentgen diffraktsiyasi (XRD): materiallarning kristallik holatini aniqlash uchun.
Raman spektroskopiyasi: vibratsion holatlarni baholash uchun.
Atom-kuch mikroskopiyasi (AFM): yuzaki tuzilmalarni tahlil qilish uchun.
UV-Vis spektroskopiyasi: optik xususiyatlarni o‘lchash uchun.
Elektr xususiyatlar: kontaktli va kontaktiz usullar yordamida elektr o‘tkazuvchanlikni aniqlash uchun.
Har bir o‘lchov 10 martadan takrorlangan va olingan ma’lumotlar dispersiya tahlili (ANOVA) yordamida qayta ishlangan.

Natijalar. Tadqiqot natijalari lazer nurlanishining yarim o‘tkazgich materiallariga turli xil ta’sirini ko‘rsatdi:
Strukturaviy o‘zgarishlar:
Kremniy panjarasida lazer nurlanishidan keyin deformatsiya kuzatildi ($\Delta d = 0.05$ Å).
GaAs materiali yuzasida amorf qatlam hosil bo‘ldi.
InP materialida lazer nurlanishi qisman fazaviy o‘tishlarga olib keldi.
Optik xususiyatlar:
Kremniyning teshilish energiyasi 1,12 eV dan 1,08 eV gacha pasaydi.
GaAs materialida optik yutilish koeffitsiyenti 18% ga oshdi.
Elektr xususiyatlar:
Kremniy materialining elektr o‘tkazuvchanligi 15% ga oshdi.
GaAs materialida lazer nurlanishidan keyin o‘tkazuvchanlik biroz pasaydi.(Rasm 1.)



Rasm 1. Lazer nurlanishining yarim o`tkazgich xususiyatlariga ta`siri.

Muhokamalar. Lazer yordamida yarim o‘tkazgich materiallarining fizik va kimyoviy xususiyatlarini nazorat qilish mumkinligi aniqlandi. Strukturaviy o‘zgarishlar asosan lazerning to‘lqin uzunligi va quvvatiga bog‘liq bo‘lib, bu yarim o‘tkazgichlarning o‘ziga xos xususiyatlarini moslashtirishga imkon beradi.[5] Shuningdek, lazerning impuls rejimlaridan foydalanish materiali chuqur qatlamlariga ta’sir qilish imkonini beradi, bu esa yangi texnologiyalar yaratishda amaliy ahamiyatga ega.

Xulosa. Mazkur tadqiqot lazer nurlanishining yarim o‘tkazgich materiallariga sezilarli ta’sir ko‘rsatishini tasdiqladi. Lazer yordamida materiallarni modifikatsiya qilish yuqori aniqlik talab qiluvchi optoelektron qurilmalar yaratishda samarali yondashuv bo‘lib xizmat qiladi.[7,8] Keyingi tadqiqotlar boshqa materiallar va lazerning turli parametrlarini kengroq tahlil qilishni maqsad qilishi lozim.

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PIANO TEACHERS RECOMMENDATIONS AND SUGGESTIONS FOR

Annotation: *In this article, there are recommendations and suggestions on the piano instrument, and the technique of performing exercises and the principle of taking into account specific students are closely related to the educational methodology that develops.The success of education depends on the comprehensibility of the material, the setting of practical tasks and the use of similar methods of solving them, as well as the fact that the teacher takes into account not only the existing, potential, but also the "scope of future maturity" of the student opinions related to receiving are stated.*

Keywords: *recommendations, suggestions, piano, instrument, technique, pedagogy, instructional material, principle of activity, artistic performance, quality, advantages, exercises.*

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FORTEPIANO CHOLG'USI O'QITUVCHILARI UCHUN TAVSIYA VA TAKLIFLAR

Annotatsiya: *Ushbu maqolada fortepiano cholg'usida tavsiyalar va takliflar o'rin olgan hamda mashqlarni bajarish texnikasi va o`ziga xos o'quvchilarni hisobga olish printsipi rivojlantiruvchi ta'lim usuliyatiga chambarchas bogliqligi. Ta'limning muvaffaqiyati materialning tushunarli bo'lishiga, qo'ldan keladigan vazifalarni qo'yishga va ularni hal qilishning o'xshash usullaridan foydalanishga, shuningdek, o'qituvchi o'quvchnning faqat mavjud, imkoniyatni emas, balki "kelajakdagi kamoloti doirasini" ham hisobga olish bilan bog'liqligi haqida fkirlar bayon qilingan.*

Kalit so'zlar: *Tavsiyalar, takliflar, fortepiano, cholg'u, texnika, pedagogika, instruktiv material, faollik printsipi, badiiy-ijrochilik, sifatli, afzallik, mashqlar.*

Ijodiy faoliyatning umuman aytganda badiiy did estetik tarbiyaning ilmiy nazariy mohiyati o'quvchi talabalarda obrazli, g'oyaviy hisiy idrokni san'at hodisalari va voqiylikka munosabatni, ijodiy qobiliyatni, badiiy didni "gozallik qonunlari bo'yicha" faoliyat xati harakat ko'nikmalari hamda malakalarini shakllantirish varivojlantirish maqsadga muvofiqdir.

Fortepiano sinfida bolalarga ijrochilikni o'rgatish asosiy vazifa hisoblansada, o'quvchilarning faoliyati faqat ijrochilikdan iborat bo'lib qolishi mumkin emas. Hozirgi usuliyat mashg'ulotlarda fortepiano ta'limining tor maxsus vazifalarigina

hal qilinadigan an’anaviy sistemadan farqli ravishda o’z oldiga asosan bolalarni musiqaga qiziqtirish, fortepiano chalishga rag’batlantirish, ularga musiqa bilan fortepiano sinfidagi o’quvchilar musiqiy faoliyatning o’zaro bog’liq har xil turlariga va xilma-xil shakldagi ishlarga jalb etiladi.
Musiqachi uchun xotira ham katta ahamiyatga ega. Bu tushuncha kompleks bo‘lib, eshitish, mantiq, ko‘rish va harakat xotiralarini o‘z ichiga oladi. Musiqachi uchun eng zararli odat faqat barmoqlar bilan (aqlni ishlatmay) yodlashdir. Bunday yodlash estradada ijro etishda ko‘pincha ko‘ngilsiz natijaga olib boradi: hayajonlanish tufayli qo‘llar itoat etmaydi, aql va eshitish esa o‘quvchiga hech narsa bermaydi va u yordam-siz qoladi, muvaffaqiyatsizlikka uchraydi.Asar esda qolishi uchun «o‘zidan-o‘zi o‘rganilishini» kutmay, maxsus yodlanishi kerak. Bunda asarning turli joylaridan boshlab alohida qo‘llar bilan ovozlar bo‘yicha, tovush va mantiqiy tahlilni ishga solib o‘rganish yaxshi yordamchi vosita hisoblanadi.Fortepano ijrochilik pedagogikasining o’quvchi talabalar bilan ishlashda doimo zamonaviy kompozitor va bastakorlarning asarlaridan foydalanish zarurligi haqidagi fikrlar shubxasis to’g’ri talaba va bolalarni ana shu asarlar bilan tanishtirishda ularga yangi voqealar va qonuniyatlarni tushuntirib berish yanada zarurroq ish hisoblanadi.Musiqiy ma'lumotlar rivojidagi ushbu yo’nalishning ijobiy natijalari maktabgacha davr bilan cheklanmaydi. Ta'limning keyingi davrida ham mazkur printsiplarni izchil amalga oshirish ijroning uzluksizligi, yaxlitligi va mazmundorligi kabi muhim sifatlar shakllanishiga, shuningdek, texnik rivojlanishning yo’l va usullariga ta'sir qilishi mumkin.Bolalarni musiqiy kamol toptirish uchun asosan musiqiy ma'lumotlarning elementlari: yaxlit va yorqin kuyga bog’lanmagan alohida tovushlar yoki tovush komplekslari yoki ohanglar mashqqilinadigan (ya'ni musiqiy ma'lumotlar musiqiy taassurot va hissiy kechinmalarga bog’lanmay, alohida rivojlantiriladigan joylarda mutlaqo boshqacha holat vujudga keladi. Ishga bunday yondashishda intonatsiyaning, ritmning aniqligida, shuningdek, xotirani rivojlantirishda ko’pincha katta natijalarga erishiladi.Ana shunday mashg’ulotlar jarayonida bolaning diqqati to’planishini ham, hatto o’ziga xos qiziqishini ham aniqlash mumkin.Qisqasi, tabiiy jarayonning deyarli barcha komnonentlari vujudga keladi. Faqat bir narsa musiqaning hissiy ta'siriva kechinma yetishmaydi. U balki keyinchalik paydo bo’lar? Bunday bo’lishi ehtimoldan uzoq. Boladahissiy kechinma, hatto, mukammal detallar bo’lsada, uzuq-yuluq holda vujudga kelmaydi. U yaxlit kuyning bevosita ta'siri natijasi sifatida hamda tinglangan narsalarga birinchi javob sifatida paydo bo’ladi. Agar diqqatning birinchi javobi bir-biridan ajralgan alohida tovushlarga yo’nalsa, diqqat qisqa turtkilarga bo’linadi va bu hol yaxlit hamda bog’lanishli idrokka xalaqit beradi. Mana shu usulda tarbiyalangan bola uyg’un yaxlitlikka bog’lanmagan alohida elementlar bo’yicha anglashga o’rganadi. U yaxlit jo’shqin kuyni bevosita idrok etish o’rniga alohida tovushlardan vujudga keltiradi.

Biz «Fortepiano cholg’u ijrochiligida innovatsion maxsus mashqlar hamda pedagogik ilmiy-metodlarni musiqaviy keng tarzda rivojlantirish» mavzusidagi tadqiqotimizda boshlang’ich fortepiano ta’limi mazmuni, innovatsion maxsus mashqlar, musiqa asarlari ustida ishlash, o’quvchilarning egallash lozim bulgan

bilimlar haqida ma’lumotlar to’plash o’quvchilarning ijodiy qobiliyatlarini rivojlantirishda ijobiy natijalar beradi. Shu tufayli ijobiy natijalarga erishish yo’llarini izlashga harakat qildik.

1.Fortepiano ta’limning mazmuni o’quvchilarining fortepiano cholg’usiga bo’lgan qiziqishga, musiqiy qobiliyatiga, musiqa asarlarining harakaterini badiiy mazmunini anglab olish masalalarini rivojlantirishga bog’liqdir.

2.Barcha cholg’u asboblari qatori. Fortepiano cholgusi ijrochiligi oldida ham zamonaviy talablar, darslarga o’ziga xos ijodiy yondashuvlar, yangi pedagogik texnologiya asosida darslarni loyihalashtirish kabi pedagogik talablar amalga oshiriladi. Shu sababli bu talablarni amalga oshirishda fortepiano sinf o’qituvchisi oldiga qo’yilgan vazifalari haqida fikr bildirdik. O’quvchilarning qobililiyatlarini toifalarga ajratib chiqqan xolda dastur tuzilsa o’quvchilarning o’quv materiallarini o’zlashtirishlarida yaqindan yordam beradi.

3.Fortepiano sinf o’qituvchisi har bir o’quvchiga yakka tartibda ish reja tuzish lozim. Buning uchun har bir o’quvchining musiqaviy qobiliyatlarini aniqlangan xolda dastur tuzish maqsadga muvofiqdir, shu sababli fortepiano sinfida kategoriyalarga ajratilgan tizimni ishlab chiqildi. Fortepiano sinfda bir qancha faoliyat turlari bajarishdi.

Shu muhim vazifani ya’ni o’quvchiga musiqa asari ustida ishlashdan ko’zlangan maqsadni bilish zarurligini uqtirishdir.

4. Musiqa asari ishlash vazifasini amalga oshirish uchun muayan tizim va vositani qo’llash kerak. Shulardan biri sifatida bosqichma-bosqich ishlash hakida fikr bildirishdek xullas fortepiano ta’limi ijrochiligi mazmuni savodli, chuqur bilimli o’qituvchi shaxsiga bog’liqdir.

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BOSHLANG'ICH SINFLARDA FORTEPIANO O'RGATISH TEXNOLOGIYALARINI TAKOMILLASHTIRISH

Annotatsiya: *Ushbu maqolada boshlang'ich sinflarda fortepiano o'rgatish texnologiyasi va o'quvchilarda musiqiy qobiliyatlarni rivojlantirish haqida. Musiqa bilan shug'ullanish umumiy va maxsus qobiliyatlarning muayyan majmuini talab qiladi. Qobiliyat deganda kishining biror ijtimoiy foydali faoliyat turini muvaffaqiyatli bajarishga layoqatini ifodalaydigan xususiyatlari yoki sifatlari tushuniladi. Tabiiyki, fan iste'dodning sifati har xil bo'lishnni va shular asosida musiqiy qobiliyatlar ham turli darajada rivojlanishini inkor etmaydi, ammo u tabiiy xususiyatlar bilan bog'liq cheklanishlarga emas, balki har bir kishining ta'lim va tarbiya jarayonida ro'yobga chiqadigan imkoniyatlariga e'tibor berish haqida fkirlar yuritilgan.*

Kalit so'zlar: *Texnologioyalar,fortepiano, qobiliyat, boshlang'ich sinf, psixolog, layoqat, pedagogika, musiqa, texnologiya.*

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IMPROVING TECHNOLOGIES OF TEACHING PIANO IN PRIMARY CLASSES

Annotation*: This article is about the technology of teaching piano in elementary school and the development of musical skills in schoolchildren. Music requires a certain set of general and specific skills. Abilities are a set of qualities or attributes that determine a person's ability to successfully perform socially useful activities. Of course, science does not deny that the quality of talent is different, and on this basis, musical abilities develop at different levels, but this is not limited to the limitations of natural features, but to the opportunities that arise in the learning process. and education. thoughts of attention.*

Keywords: *Piano, skill, primary school, psychologist, skill, pedagogy, music, technology.*

Qobiliyatlar muammosi psixologiyaning eng muhim muammolaridan biridir. Qator olimlar qobiliyatlarni dialektik materialistik tushunishga tayanib ularni «peshonaga yozilgani» kabi loqayd talqin qilishga qarshi kurashib keladilar. Psixologlarining ko'p asarlarida musiqiy qobiliyatni biron bir darajada rivojlantirishning imkoniyatlari borligiga ishonmaslik sezilib turadi. Bunday qarashlar rivojlanish umuman ta'lim va tarbiya jarayonlariga bog'liq emasligi, bu

jarayonlar go‘yo tug‘ma iste’dodlarni aniqlashga xizmat qiladigan tashqi shartlar ekani haqidagi nazariy qoidalar bilan to‘ldiriladi.

Bizninig psixologiya-pedagogika fanimiz mana shu masalaga boshqacha nuqtai nazardan yondashadi va qobiliyatlarning mohiyatini tushuntirishda: insonni kamol toptirish unIng qobiliyatlarini rivojlantirishdir, degan asosiy metodologik qoidani olg‘a suradi.

Shunga ko‘ra «qobiliyatlar masalan kamol topish masalasi bilan, aqliy qobiliyat masalasi esa aqliy barkamollik masalasi bilan qo‘shilishi kerak».

Barcha psixologlarimiz qobiliyatga inson shaxsininig o‘ziga xos psixologik xususiyatlari sifatida faoliyat bilan chambarchas bog‘liq holda qaraydilar va tegishli faoliyatsiz umuman qobiliyat bo‘lishi mumkin emas, deb hisoblaydilar. Shu sababli qobiliyatni shakllantirshi va rivojlantirish uchun yashirin qobiliyatlarni yuzaga chiqarishi va ularni yuksak darajaga yetkazishi mumkin bo‘lgan faoliyatni tashkil etish zarur:

Qobiliyatlarning yashirin va aktual qobilnyatlarga bo‘linishi ularning shakllanishi va o‘sishini tahlil qilish imkonini beradi. Bunda shaxsning shakllanishi dialektikasi o‘z ifodasini topadn: ijtimoiy shaxsni shakllantiradi va unda kishining u yoki bu yashirin psixik xususiyatlari mavjudligining haqiqiy daliliga aylantiradi.

Shaxsning yashirin qobiliyatlariga kishining o‘ziga xos xususiyatlari sifatida qaraladi va bu xususiyatlar uning yanada kamol topishiga asos bo‘ladi, unda o‘ziga xos fe’l-atvorni vujudga keltiradi, har bir kishi o‘zining psixik tabiatiga eng muvofiq faoliyatni tanlashida yaqqol ko‘rinadi.

Pedagogika mana shu xulosalarga asoslanib bola ta’lim va tarbiya natijasida psixik rivojlanadi, degan asosiy fikrni olg‘a suradi. Lekin musiqa mashg‘ulotlari psixik faoliyat namoyon bo‘lishining shakllaridan biri ekani sababli musiqa pedagogikasi umumiy pedagogika va oliy nerv faoliyati fiziologiyasi fanlarnning qoidalarini, ilmiy yutuqlarini va xulosalarini nazarda tutishi lozim.

Qobiliyatlar hayotda, iste’dodlar asosida shakllanadi. Shuning uchun ham tug‘ma va o‘zlashtirilgan qobiliyatlarning muvofiqligi masalasi keng muhokama qilinadi. Qobiliyatning rivojlanishida organizmning anatomik-fiziologik xususiyatlari, nerv sistyomasining tuzilishi, nerv jarayonlarining harakatchanligi, miya faoliyatining xususiyatlari katta ahamiyatga ega. Avloddan avlodga mustahkamlanib kelgan mana shu shartlarning hammasi qobiliyatlarning rivojlanishi uchun iste’dod snfatida xizmat qiladi.

Taniqli olim B. M. Teplov musiqiy qobiliyatlar muammosini chuqur tadqiq etib, hech qanday psixologik xususiyat tug‘ma bo‘lmasligini faqat iste’dod tug‘ma bulishi mumknnligini qayd qildi. U iste’dodlar asosida musiqiy qobiliyatni yaxshi rivojlantirishnnng sharti kishini mazkur qobiliyat uzluksiz asqotadigan faoliyatga jalb qilish ekanini isbotladi.

Tabiiyki, fan iste’dodning sifati har xil bo‘lishnni va shular asosida musiqiy qobiliyatlar ham turli darajada rivojlanishini inkor etmaydi, ammo u tabiiy xususiyatlar bilan bog‘liq cheklanishlarga emas, balki har bir kishining ta’lim va tarbiya jarayonida ro‘yobga chiqadigan imkoniyatlariga e’tibor beradi.

I.Pavlovning ta’riflashicha, kamol topish jarayonida vujudga keladigan har bir xususiyat tug‘ma va o‘zlashtirilgan xususiyatning «qotishmasi» bo‘ladi. Mana shu «qotishma»dagi tug‘ma va o‘zlashtirilgan xususiyatlar nisbati mazkur xususiyatning xarakteriga, murakkabligi va o‘ziga xos kamol topishda vujudga kelishiga bog‘liq holda har xil bo‘ladi. I. Pavlov oliy nerv faoliyati turli bog‘lanishlar uchun imkoniyat yaratadigan bo‘lishini ifodaladi. U shunday yozadi: «Hech narsa harakatsiz, qotib qolmaydi, balki doimo o‘sishi, yaxshi tomonga o‘zgarib borishi mumkin, buning uchun faqat tegishli sharoit yaratilsa, bas»

Musiqachi-pedagog uchun umumii va maxsus xususiyatlar, ularning o‘zaro bog‘lanishi, shuningdek, iste’dodning sifatini aniqlash masalalari muhim ahamiyatga molikdir. Psixologiyada iste’dod faoliyat qobiliyatiga nisbatan umumiyroq tushuncha bo‘lib, maxsus qobiliyatlar unib chiqadigan zamin sifatida talqin qilinadi. B.Teplovning ta’riflashicha, maxsus qobiliyatlar faoliyatning ayrim maxsus sohalariga munosabatda namoyon bo‘ladi, shu bilan birga u yoki bu maxsus qobiliyatlar ichida umumiy iste’dod ham bo‘lishi mumkin. Muayyan faoliyatga moyillik qobiliyat paydo bo‘lishining dastlabki belgisl hisoblanib, qobiliyatning rivojlanishi uchun sharoit mavjudligini bildiradi

Musiqiy qobiliyatlarning eng muhimlaridan biri musiqani anglashdir. Uni psixologiyada musiqani idrok etish, uning go‘zalligi va ifodaliligini his qilish, muayyan badiiy mazmunini ko‘z oldiga keltirish va uni o‘z hissiyotlari hamda kechinmalariga bog‘lash deb tushuniladi.

Musiqani anglashni tarbiyalash mumkin va uning rivojlanishi musiqa mashg‘ulotlarining qanday tashkil etilishiga bog‘liqdir. Musiqani anglash yorqin obraz va bolalar tushunadigan yuksak badiiy material-lar asosida tarbiyalanadi. Bolada musiqa mashg‘ulotlariga ishtiyoq uyg‘otish, musiqaning bo‘yoqlaridan, musiqiy asarlarning obrazliligidan zavqlanishni vujudga keltirish kerak.

Agar bolalarda musiqiy ma’lumotlarniig tabiiy, erkin rivojlanishi tahlil etilsa, bu rivojlanish tovushlarga qiziqish asosida amalga oshishini yaqqol his qilish mumkin.

Musiqachi uchun xotira ham katta ahamiyatga ega. Bu tushuncha kompleks bo‘lib, eshitish, mantiq, ko‘rish va harakat xotiralarini o‘z ichiga oladi. Musiqachi uchun eng zararli odat faqat barmoqlar bilan (aqlni ishlatmay) yodlashdir[8]. Bunday yodlash estradada ijro etishda ko‘pincha ko‘ngilsiz natijaga olib boradi: hayajonlanish tufayli qo‘llar itoat etmaydi, aql va eshitish esa o‘quvchiga hech narsa bermaydi va u yordam-siz qoladi, muvaffaqiyatsizlikka uchraydi.

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FORTEPIANO CHOLG'USIDA KUYLASH

Annotatsiya: *Ushbu maqolada fortepiano cholg'usida kuylash rang barang ijro,tavsiyalar va takliflar o'rin olgan hamda mashqlarni bajarish texnikasi va o`ziga xos o'quvchilarni hisobga olish printsipi rivojlantiruvchi ta'lim usuliyatiga chambarchas bogliqligi. Ta'limning muvaffaqiyati materialning tushunarli bo'lishiga, qo'ldan keladigan vazifalarni qo'yishga va ularni hal qilishning o'xshash usullaridan foydalanishga, shuningdek, o'qituvchi o'quvchnning faqat mavjud, imkoniyatni emas, balki "kelajakdagi kamoloti doirasini" ham hisobga olish bilan bog'liqligi haqida fkirlar bayon qilingan.*

Kalit so'zlar:*Kuylash,ohanglar,tavsiyalar, takliflar, fortepiano, cholg'u, texnika, pedagogika, instruktiv material, faollik printsipi, badiiy-ijrochilik, sifatli, afzallik, mashqlar.*

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SINGING ON THE PIANO

Annotation:*In this article, singing on the piano instrument is closely related to the educational method that develops colorful performance, recommendations and suggestions, as well as the technique of performing exercises and the principle of taking into account specific students. The success of education depends on the comprehensibility of the material, the setting of practical tasks and the use of similar methods of solving them, as well as the fact that the teacher takes into account not only the existing, potential, but also the "scope of future maturity" of the student. opinions related to receiving are stated.*

Key words: *Singing, melodies, recommendations, suggestions, piano, instrument, technique, pedagogy, instructional material, principle of activity, artistic performance, quality, advantage, exercises,*

Ijodiy faoliyatning umuman aytganda badiiy did estetik tarbiyaning ilmiy nazariy mohiyati o'quvchi talabalarda obrazli, g'oyaviy hisiy idrokni san'at hodisalari va voqiylikka munosabatni, ijodiy qobiliyatni, badiiy didni "gozallik qonunlari bo'yicha" faoliyat xati harakat ko'nikmalari hamda malakalarini shakllantirish varivojlantirish maqsadga muvofiqdir.

Ushbu maqolada biz fortepianoda cholg'usida " kuylash" kantilena haqida batafsilroq gaplashamiz. Ammo tan olishingiz kerakki, kantilena haqida tovush (piano ovozi), eshitish, imo-ishora, ijro apparati erkinligi va boshqalar haqida gapirmasdan gapirish juda qiyin. Savollarning qaysi biri "birinchi" va qaysi biri

"o'ninchi" ekanligi juda aniq emas. Hammasi maqsadli, asar mazmuni, badiiy obraz, davr, uslub, janr, akustika va dinamikaga va hokazolarga uzviy bog'liq.

Nega bizning o'quvchilarimizning ijrolari ko'pincha bir xil? Axir, fortepiainoning ovoz kengligi va qobiliyati juda katta.Fortepainoda tovush chiqarishning minglab

usullari va mos keladigan minglab turli tembrlari va tovushning xarakterli soyalari mavjud.Iste'dodli pianinochining barmoqlari ostida ushbu cholg'u asbob boy va rang-barang tembr imkoniyatlarini ochib beradi. Har bir badiiy uslubning o'ziga xos ovoz standartlari mavjud.Betxovenning fortesi, Shopenning fortesi emas,yoki Skarlattining forte va pianosi Motsart, List va boshqalarnikidan farq qiladi.

Fortepiano ovoziga mehr uyg'otish asosiy muammolardan biridir.Ular fortepiano tovushining barcha muhim xususiyatlarini bilishlari kerak.Ko'pincha yosh pianinochilarda siz kuchli urib taqillatishini va fortepianoni qattiq bosib ijrosini eshitishingiz mumkin.

Deyarli barcha taniqli musiqachilar va o'qituvchilar fortepianoning tovush imkoniyatlarini nafaqat vokal, balki kvartet va orkestr sifatida ham hisobga olish tamoyilining tarafdorlaridir.Masalan, Betxoven, Shuman, List, Prokofyevlarni faqat "piano" tovushi bilan ijro etish mumkin emas."Orkestr tasavvuri" har doim fortepiano palitrasining rang-barangligini boyitadi.Ammo biz har doim esda tutishimiz kerakki, fortepiano o'ziga xos ovoz go'zalligiga , o'zining "men"iga ega, uni dunyodagi hech narsa bilan o'xshashtirib bo'lmaydi.Uning tovushlarini oxirigacha o'rganish va ularni o'zlashtirish uchun uni sevishingiz kerak.

Agar Neugausning so'zlariga ko'ra,"Musiqa-bu tovush san'ati" bo'lsa, har qanday ijrochining birinchi va eng muhim mas'uliyati ovoz ijrosi ustida ishlashdir. Ammo ko'pincha tor ma'noda texnologiyaga g'amxo'rlik bunday ishni fonga qo'yadi.Bunday holda, bunday ijrochining eshitish qobiliyati yetarlicha rivojlanmagani, tasavvurga ega emasligi, u o'zini (ya'ni musiqa ijrosini) atrofdan,tashqaridan eshita olmaydi.

Ovoz (eng yaxshi) muayyan tarkibni ifodalaydi.Shuning uchun ham (asar mazmunini tushunib yetgan holda) yaxshi pianinochi pianinoni umuman olganda professional ijroda keng his qilib ijro etish maqsadga muviffiqdir.Biz

doimo yodda tutishimiz kerak: tovush tushunchasi mavhumlik emas, maqsad emas, balki vositadir .

Tovush ustida ishlashda tajribali o'qituvchi o'z oldiga quyidagi vazifalarni qo'yadi:

1.Badiiy obraz (ma'nosi, mazmuni).

2.O'z vaqtida ovoz ("tarkibli materiallashtirish").

1.Yaxlit sifatida texnologiya vositalari to'plami sifatida, ya'ni mushak-skilet sistemangizni va asbob mexanizmini o'zlashtirish.

Shuni ta'kidlash kerakki, polifoniya ovoz xilma-xilligiga erishishning eng yaxshi vositasidir,"fortepianoda kuylashni" o'rgatish uchun "qo'shiq kuylash" qismlari kerak.Bundan tashqari ,"toccata" fortepiano murakkab teksturasini ijroda

yengish uchun qo’l barmoqning shu holatiga o'tishlarni, kerakli aniqlik va aniqlik bilan bajarish uchun "barmoq kuchi ", "kuchli zarba" ni rivojlantirish lozim.

Buni amalga oshirish uchun siz yelkadan barmoqlarning uchigacha bo'lgan qo'lning "erkin vaznini" eslab qolishingiz kerak, agar kerak bo'lsa, butun tanangizni bo'shating.Ammo,Perelmanning chuqur mulohazani eslashimiz kerak: “Ijrochiga bo'sh qo'llar kerak va bu ijrochiga zarar yetkazadi.Musiqani ijro etish elektronikalashtirishni va shuning uchun keskinlikni talab qiladi.Ijrochini taranglikdan xalos qilmaslik kerak,lekin taranglikni musiqa va qo'llar uchun eng qulay joylariga o'tkazish kerak.

Ovoz haqida gapirganda, uning ekstraktsiyasi haqida gapirish mumkin emas, ya'ni. "Texnika", texnologiya haqida gapirganda, tovush haqida gapirmasdan iloji yo'q, xuddi tovushdan ajratilgan pedallar va boshqalar haqida ularni tashkil etish printsipidan - musiqiy tushunchadan ajralgan holda gapirish mumkin emas. Xulosa qilib aytadigan bo'lsak, "umuman" ovozsiz.

"Yaxshi ovoz" (professional) haqida gapirganda, biz ijrochining "shaxsiyati", individualligi haqida unutmasligimiz kerak.Siz buyuk rassomlar orasida rang va

yorug'likni solishtirishingiz mumkin.Misol uchun, Vrubel va Serov, Rembrandt va Titian va boshqalar.Shuningdek, pianinochilar haqida, ularning insoniy va professional fazilatlari haqida gapirishingiz mumkin.Ijrochining badiiy saviyasi qanchalik past bo'lsa, uning individualligi qanchalik past bo'lsa, u shunchalik monoton bir xillik ovozli tasvirni beradi.

Ko'pincha o'qituvchilar talabaning cheklovlarini (ko’p ma'noda) qayd etadilar.Ehtimol, bunday talabalar sof pianistik muammolar doirasida "cheklangan". Ehtimol, ular o'zlarining ufqlari kengligidan mahrumdirlar.San'at va fanda yangi narsalar ko'pincha boshqa bilim sohasidan kiritilishi allaqachon aksiomaga aylangan.Madaniyatning uzoq ko'rinadigan sohalari tutashgan joyda fan va san'atda yangi narsa tug'iladi.Ko'pincha, talabalarimiz haqida gapirganda, biz turli xil san'at turlarining "birikishi" haqida emas, balki "piano hayoti"ning haddan tashqari izolyatsiyasi haqida gapirishimiz kerak.Bu cheklangan repertuardan kelib chiqadi (o'qish yillari davomida ular bir nechta insholarni oladilar), talabalar barcha ma'noda yomon ma'lumotga ega.Eng muhimi, o‘quvchilarda tashabbuskorlik, ishda mustaqillik, ijodida izlanish va shubha yo‘q va shuning uchun ularning umumiy musiqa madaniyatida o'sish kuzatilmaydi.

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FORTEPIANO CHOLG'USIDA F.SHOPEN ETYUDLARI USTIDA ISHLASH VA IJRO QILISH TASNIFI

Annotatsiya: *Buyuk kompozitor F.Shopenning fortepiano uchun yaratgan etyudlaridan ijroda samarali foydalanish va uslublari o'rin olgan hamda ijro mashqlarni bajarish texnikasi va o`ziga xos talabalarni hisobga olish printsipi rivojlantiruvchi ta'lim usuliyatiga chambarchas bogliqligi.Ta'limning muvaffaqiyati materialning tushunarli bo'lishiga, qo'ldan keladigan vazifalarni qo'yishga va ularni hal qilishning o'xshash usullaridan foydalanishga, shuningdek, o'qituvchi talabaning faqat mavjud, imkoniyatni emas, balki "kelajakdagi kamoloti doirasini" F.Shopen ijro uslubidan aniq foydalanishi hisobga olish bilan bog'liqligi haqida umumiy fikrlar bayon qilingan.*

Kalit so'zlar: *tekstura,kuylash,kantilena,fortepiano, cholg'u, texnika, pedagogika, instruktiv material, faollik printsipi, badiiy-ijrochilik, sifatli, afzallik,mashqlar,kuylash,ohanglar.*

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CLASSIFICATION OF WORKING AND PERFORMING ON THE ETUDES OF F. CHOPIN ON THE PIANO INSTRUMENT

Annotation:*The effective use and styles of the piano etudes created by the great composer F. Chopin are closely related to the educational methodology that develops the technique of performance exercises and the principle of taking into account specific students. The success of education is the comprehensibility of the material. to be, to set possible tasks and to use similar methods of solving them, as well as to teach the student not only the current, opportunity, but "future general opinions about F. Chopin's clear use of the performance style" are stated.*

Key words: *texture, singing, cantilena, piano, instrument, technique, pedagogy, instructional material, principle of activity, artistic performance, quality, advantage, exercises, singing, tones.*

F.Shopen etyudlari buyuk polshalik bastakor ijodida muhim o'rin tutadi va g'oyaviy-emotsional mazmunining chuqurligi va o'z davri uchun mutlaqo yangi instrumental ekspressivlik vositalari bilan ajralib turadi. Ma'lumki, Shopen etyudlari fortepiano adabiyotining eng murakkab namunalarini ifodalasa ham, virtuozlikni rivojlantirish uchun o'quv materiali sifatida qaralmasligi kerak. Fortepiano taqdimotining murakkab usullari har doim dizaynning chuqur o'ziga xosligi va she'riy tasavvurlari bilan bog'liq.Mahorati va ijodining mazmunliligi

shunchalik kattaki, u ma'lum bir virtuoz vazifadan boshlayotgandek tuyulsa ham, tashqi voqea maqsaddan fikrni ifodalash vositasiga aylanadi.Shopen asarlarini tahlil qilar ekanmiz, kompozitsion texnikaning o'ziga xosligini, ko'pincha eskizga o'xshashligini ta'kidlaydi.Shuni esda tutaylikki, si bemol minordagi sonataning finali ritmik va ohangdor harakatning bir xil tuzilishi va xarakterida saqlanadi. Qizig'i shundaki, bu final es-minordagi ijodiy o'zgartirilgan preludiyaga o'xshaydi. Ehtimol, etyudlarni yaratish uchun dastlabki turtki yoki bahona, pianinochi Shopen uchun uning virtuoz yutuqlarining xususiyatlarini qandaydir tarzda tizimlashtirish va yozib olish istagi bo'lgan. Ammo natija hozirgacha ijodning sifat jihatidan yangi sohasini ochgan dastlabki maqsadning badiiy ahamiyatidan oshib ketdi.Shopen fortepiano ijodida yangi janr yaratdi.

F.Shopen asarlari ,F.Shopenning ajoyib va yuksak mahoratining inkor etib bo‘lmas isboti edi. Faqat ajoyib ijrochi ijodiy tasavvur va ilhom impulslarini to'liq ifodalovchi pianizm usullarini topadi. Shopenning fortepiano cholg‘u asboblari bevosita o‘zi tomonidan yaratilgan va bastakor kontseptsiyasi bilan birga rivojlangan.Shubhasiz, etyud parchalarining eng murakkab turlari ham improvizatsiya jarayonida vujudga kelgan.Axir, Shopenning ijodiy g'oyasi deyarli hech qachon turli xil timsollarga ega emas, ba'zi nashrlarda kichik tafovutlar bundan mustasno. Shu sababli, ko'plab pianinochilar va muharrirlarning Shopen nota matnini "to'g'rilash" ga bo'lgan barcha urinishlari bema'ni , qoida tariqasida, ularning o'ziga xos past badiiy darajasini ochib beradi.

Shopenning ko'plab eng qiyin parchalari barmoqlarning o'zgarishiga ham yo'l qo'ymaydi. Ba'zi pianinochilarning, masalan, etyudlarni tubdan farqi barmoqlar bilan ta'minlashga urinishlari biroz qiziqish uyg'otishi mumkin, lekin odatda sun'iy va uzoq.Ko'rinishidan, musiqaning o'zi qo'l va barmoqlarning ma'lum bir harakatiga turtki beruvchi sababdir. Bu beqiyos komillik, tushunchasi va ifoda vositalari uyg‘unligi.Shopen asarlarini talqin qilishning to‘g‘ri yo‘lini topish

uchun uning ijrochilik san’atining xususiyatlari haqida hech bo‘lmaganda ma’lumotga ega bo‘lish zarur. Murakkab va teksturali etyudlarni ijro etishga yondashuvi Shopen pianizmining kengroq muammosining bir qismi sifatida ko'rib chiqilishi kerak.Asarlarning g'oyaviy va hissiy yo'nalishini ochib berish uchun Shopenning pianino uslubining barcha xususiyatlarini, muallifning ijro ko'rsatmalarini va ijroning xarakterli xususiyatlarini bilish kerak.Ijrochi Shopen siymosi biz uchun buyuk, ko'p jihatdan tengsiz pianinochi uchun qanday paydo bo'lgan?Bizgacha yetib kelgan zamondoshlarining taassurotlari, ijrochilik san’ati haqidagi o‘z fikrlari va o‘z asarlarida pianino ijrosi uslubini taqqoslab, biz Shopenning ijrochilik san’atini o‘zining uzviy uyg‘unlashuvi namunasi sifatida ko‘rish kerak degan xulosaga kelish mumkin, mazmun va shakl, texnikaning barcha jihatlari (ovoz ishlab chiqarish, teginish, dinamik jihatlar va boshqalar) kompozitorning badiiy vazifalariga bog'liqligi. Agar Shopen ijrosida oldindan o'ylangan, qat’iy, ijro maktabiga o'xshash narsa bo'lmasa,unda tasodifiy hech narsa yo'q edi: spektakl musiqiy g'oyalarning rivojlanish mantig'iga bo'ysunadi.

Shopenning chalishi asarning ichki ruhiyatini ochib beradi. Fortepiano asbobiga faqat o'ta "pianoga o'xshash" va boshqa hech qanday tovush bilan yetarli

darajada yetkazilmaydigan narsa tayinlangan. Aytishimiz mumkinki, Shopenning ijrosi uning lirik maqsadi namoyon bo'lgan haykaltaroshlik bilan aniq bir shakl edi. Shopen o'z kompozitsiyalarini ba'zan batafsil, ba'zan esa tejamkorlik bilan taqdim etgan dinamik, temp va boshqa ijro ko'rsatmalarida u jonli va noyob ijro jarayonini tasvirlashga intilgan. Bu ko'rsatmalar, bir tomondan, Shopenning ijro g'oyasi uchun, ikkinchi tomondan, to'g'ri talqin qilish uchun ko'p narsani beradi.

Shopen o'rnatgan terminologiyadan foydalanadi. Ba'zan "Doppio movimento" kabi atama yordamida tempga aniqlik berishga harakat qiladi.

Ba'zan u tovushning tabiati haqida umumiy ma'lumot beradi, masalan, andante spianato. Ko'pincha bastakor sotto ovoz, mezzo ovozning kuchini pasaytirishni talab qiladi. Shopenning ko'rsatmalari musiqiy matnni chalkashtirmaydi va keraksiz pedallik tafsilotlar bilan ijro etish erkinligiga xalaqit bermaydi.

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PROBLEMS IN EDUCATION DEVELOPMENT AND FACTORS AFFECTING IT

Abstract. *This article discusses the importance of developing the education sector and ensuring its quality, theories of developing and improving the quality of higher education, the main stages of the evolution of quality assurance in higher education, trends and problems, educational models, and considers multifaceted problems.*

Keywords: *education, quality, development, human capital, competition, labor market, educational services.*

Introduction. As we examine the complexities of the 21st century, we see that the quality of higher education institutions directly affects our ability to solve global problems, adapt to emerging technologies, and build inclusive and just societies.

Several principles demonstrate that the development and improvement of the quality of higher education is essential for economic, social, cultural, and scientific progress. In particular, a well-educated workforce is essential for economic competitiveness in the global market. For example, countries with strong higher education systems, such as the United States, Germany, and the United Kingdom, have thriving economies due to their skilled workforce. The fact that quality higher education contributes to innovation and technological progress is demonstrated by the development of Stanford University's Silicon Valley and its impact on the technology industry, which shows how higher education drives innovation. The great impact of quality higher education institutions on cultural and scientific progress can be seen in the contribution of the University of Oxford to literature and the great achievements of the University of Cambridge in science. Harvard Medical School research has contributed to medical advances that benefit humanity. As new fields emerge, higher education has adapted to train professionals with the necessary skills. The rise of data science has prompted universities around the world to develop relevant programs to meet industry demand.

Literature analysis. It views education and training as investments in the economic well-being of individuals and societies. It has influenced the allocation of resources in education and training programs and emphasizes their importance for skill development, productivity, and economic growth. Gary S. Becker (1930–2014): American economist and Nobel Prize laureate Gary Becker is often considered a central figure in the development of human capital theory. His work,

particularly his book Human Capital: A Theoretical and Empirical Analysis, provided a foundation for the economic analysis of education and workforce skills. Nobel Prize laureate Theodore Schultz (1902–1998) made significant contributions to the theory by emphasizing the role of education and training in improving agricultural productivity and economic development in rural areas.

Analyzes and main results. In modern society, education is becoming a key factor affecting the level of development of human capital, as well as the country as a whole. Such a role significantly changes the requirements for the activities of educational institutions, which necessitates the introduction of new teaching methods, increasing the activity of involving students in the creative process, the formation of moral and cultural values, etc. When education is understood as the property of a person, a means of his self-realization, the need for innovative education is becoming increasingly important. All this leads to the development of the education sector and the creation of a market for educational services, taking into account the competitiveness of human capital. Educational services are one of the areas that any country in the world should pay primary attention to in any situation. In particular, the governments of developing countries are paying great attention to bringing their educational services into line with the education systems of already developed countries. Uzbekistan is also paying great attention to this area in order to develop its education system and bring it into line with global standards. In particular, the fourth priority area in the Development Strategy of Uzbekistan for 2022-2026 is aimed at developing the education sector, and human capital in general.

Today, attention to higher education services is being assessed at the level of state policy. The main goal of the attention and efforts paid to higher education is, first of all, to bring the quality of higher education into line with global standards, and in turn, to improve the position of higher education institutions operating in the country in the world rankings. In accordance with the Resolution of the President of the Republic of Uzbekistan No. PQ-2909 dated April 20, 2017 "On measures for the further development of the higher education system", in order to form healthy competition among higher education institutions operating in our country, further improve the quality of education, and comprehensively contribute to raising the rating of higher education institutions to an international level, the State Inspectorate for Quality Control of Education has been publishing the National Rating of higher education institutions operating in Uzbekistan every year in recent years. In addition, the Concept for the Development of the Higher Education System of our country by 2030 sets the goal of including at least 10 higher education institutions operating in the Republic in the top 1000 rankings of several internationally recognized agencies, including Quacquarelli Symonds World University Rankings, Times Higher Education or Academic Ranking of World Universities, including the National University of Uzbekistan and Samarkand State University in the top 500 lists of higher education institutions.

A competitive economy requires specialists of a high professional level, capable of constantly improving it in accordance with the needs of a post-industrial

society, the basis of which is the knowledge economy. New requirements of society, the state, and the labor market require changes in the content of higher education, since science and technology are developing at a pace that increases the need for new knowledge today.

In the context of post-industrial development of the economy, education becomes its main resource, which significantly changes the requirements for the activities of educational institutions. The modern education system requires new teaching methods, the creation of a high level of activity, the involvement of students in the creative process, the formation of moral and cultural values, and the development of new forms of educational organizations.

Conclusions and suggestions. Education, as a center of science and culture, is a creative collaboration of professors, teachers, staff and students who see their goal as the realization of truth, the establishment of justice and goodness for the happiness of man, the Motherland and world civilization.

The main tasks of education are:

-to satisfy the need for higher professional education and qualifications in the chosen field of activity for the spiritual, intellectual, cultural and moral development of the individual;

-to satisfy the needs of society for qualified specialists with higher professional education, highly qualified scientific and scientific-pedagogical personnel, brought up in the spirit of the idea of independence of the Republic of Uzbekistan, patriotism, respect for the moral principles of man;

-to provide daily care and necessary conditions for talented and active students in their studies;

-organize and conduct fundamental and exploratory, applied scientific research and other scientific-theoretical, experimental and design work, including work on educational problems;

-promote knowledge among the population, raise its educational and cultural level.

The concept of “quality” in education is multifaceted and dynamic, encompassing a wide range of dimensions that together determine the effectiveness and value of educational institutions and programs. “The main indicator of quality education is measured by the degree to which learners have mastered it. This is reflected in the assessment of learners by teachers in accordance with established curricula, as well as in the satisfaction of teachers with their work in the work environment.” In an ever-changing educational environment, understanding these dimensions is crucial for educational institutions and stakeholders.

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METHODOLOGY FOR SELECTING INNOVATIVE INVESTMENT PROJECTS FOR MODERNIZATION OF PLANT GROWING

Abstract. *This article discusses the methodological features of assessing the effectiveness of investments, the development of technical and technological innovations in plant growing, the economic principles of forming and developing the technical and technological base of plant growing. Also, an assessment and analysis of the economic effectiveness of investments in the implementation of a differentiated fertilizer application system by agricultural enterprises are presented.*
Keywords: *investment, efficiency, plants, agriculture, principles, technical and technological.*

Introduction. Successful solution of the tasks of ensuring food security of the country, formation and increase of its export potential for entering the world markets of agricultural raw materials and processed products requires increase in the volume of agricultural production in a short time, improvement of its quality, reduction of production costs, which determine the cost price and competitiveness of products in the domestic and foreign markets.

Crop production is the basic branch of agriculture, on the sustainable functioning and development of which the efficiency of the entire agricultural production depends to a decisive extent. In turn, the efficiency of crop production is largely determined by the state of its material and technical base, the basis of which is the machine and tractor fleet of agricultural organizations and the agricultural technologies for cultivating agricultural crops implemented with its help. The market transformation of the domestic agricultural economy in the 90s of the last century and the beginning of the 2000s was accompanied by a number of negative processes, the main ones being a sharp weakening of state support for commodity producers, high prices and low availability of borrowed capital, fragmentation of large collective forms of management and the formation of numerous small peasant (farmer) households on their basis that do not always function effectively, low financing of domestic agricultural science and insufficient support for agricultural machinery, food and processing industry enterprises. All of the above disrupted the reproduction processes in the country's agriculture, led to the weakening and destruction of its material and technical base, and held back the introduction of modern achievements of scientific and technical progress in agricultural production. The fastest possible restoration of the material and technical base of the main branch of agriculture - crop production and its effective innovative development require significant capital investments. Therefore, research aimed at

substantiating priority areas for innovative development of the technical and technological base of plant growing is timely and relevant.

Literature analysis. The economic aspects of the formation, organization of effective functioning, reproduction and development of the material and technical base of plant growing are the subject of the works of domestic agricultural economists A. I. Altukhov, V. P. Alferyev, V. M. Bautin, V. T. Vodyannikov, V. I. Dragaytsev, Yu. A. Konkin, A. P. Kurnosov, A. A. Polukhin, I. S. Sandu, K. S. Ternovykh, A. V. Tolmachev, I. G. Ushachev, I. F. Khitskov and others. The issues of reproduction of fixed assets of agricultural producers are considered in the works of V. V. Garkavy, A. V. Gladilin, G. K. Kosachev, V. V. Kuznetsov, I. A. Minakov and other authors. The economic aspects of the formation and organization of the effective use of the machinery and tractor fleet of agricultural enterprises are described in the studies of Yu. I. Bershitsky, L. S. Orsik, P. F. Paramonov, A. I. Trubilin, K. E. Tyupakov, A. V. Ulezko, A. V. Shpilko and other scientists.

A fundamental contribution to the development of the methodology for assessing the effectiveness of investments in real assets of enterprises was made by the works of D. Bailey, G. Birman, T. S. Khachaturov and other authors.

The listed works constitute the theoretical and methodological basis of the problem under consideration. At the same time, they do not sufficiently disclose, and therefore require clarification, deepening and development, such important components as determining the place and role of modern mechanized technologies in the system of crop production, developing methodological approaches to the economic justification of priority areas of innovative development of the technical and technological base of the industry, adapting existing methods for assessing the effectiveness of investments to the specifics of the innovative transformation of the applied agricultural technologies and the technical means implementing them.

The above determined the choice of the topic of this dissertation, and also allowed us to formulate the goal and objectives of this research.

Analyzes and main results. The implementation of technical and technological modernization of the plant growing industry is possible only with the implementation of an innovation-oriented model of development of the entire agriculture and individual economic entities. The limited volume of investment resources that can be directed to the implementation of technical and technological innovations, objectively determines the need to increase the reliability of the assessment of the effectiveness and riskiness of investments in the implementation of specific innovative solutions.

The methodological approach to the selection of innovative investment projects for technical and technological modernization of the plant growing industry proposed in the work is based on the following provisions:

- each innovative investment project should be considered in the context of the general paradigm of the development of the agro-economic system, taking into account the impact on its organizational and economic, technical and technological, social and environmental characteristics and the possibility of realizing the development potential;

- when selecting innovation and investment projects, priority should be given to integrated solutions that provide organizational and technical capabilities for the implementation of new technological solutions that allow for sustainable competitive advantages by minimizing the cost of production and increasing its production volumes;

- the selection of innovation and investment projects should be carried out on the basis of an assessment of the effectiveness of alternative projects, taking into account ensuring optimal utilization of universal and specialized agricultural machinery, and minimizing the costs of its maintenance and maintaining operability, as well as the asynchrony of investment costs;

- the costs of implementing specific innovation and investment projects should take into account the costs of forming an adequate system of infrastructure support necessary to maintain the operability of a set of technical means and implement the selected technological process;

- the assessment of the effectiveness of each innovation and investment project should take into account the complex influence of the entire set of factors that shape the environment for the functioning of agro-economic systems (natural, institutional, macroeconomic, organizational, social, technical, technological, etc.);

- the composition of the machinery and tractor fleet of an economic entity should be formed taking into account the totality of all implemented innovation and investment projects based on the total size of land use and the average size of working plots, the prospective structure of crop areas and the optimal timing of optimal technological operations;

- the long term of implementation of innovation and investment projects in crop production requires the introduction of an additional block describing the process of reproduction of the material and technical base of the industry and determining the level of investment and operating costs to ensure the reproduction process;

- forecasting of cash flows for each innovative investment project should be carried out based on the cash flows of projects already being implemented or planned for implementation, taking into account the total financial obligations of economic entities and their participation in state support programs; assessment of the effectiveness of each innovative investment project should take into account the level of general and specific (natural and climatic, production and technological, socio-demographic, marketing, financial, administrative, political, etc.) risks.

Innovative renewal of the technical and technological base of plant growing should be carried out taking into account the individual characteristics of specific commodity producers, determining the choice of mechanized innovative agricultural technologies and the complexes of technical means required for their implementation. The program of innovative transformation should be developed on the basis of a technical and economic analysis of the current system of managing the plant growing industry, including diagnostics and assessment of the applied agricultural technologies of cultivated agricultural crops, as a result of which the

most resource-intensive field operations subject to priority improvement will be identified.

In the course of the study, it was established that the introduction of innovative technologies in plant growing is impossible without the restoration and development of the domestic agricultural engineering industry. At the same time, the author identified systemic problems in the agricultural engineering industry, the main ones being: high interest rates on bank loans, rising production costs in the industry due to the outstripping increase in prices for raw materials and energy resources, low investment in upgrading fixed assets, lack of sufficient and stable demand in the domestic market, etc.

Conclusions and suggestions. Currently, the innovation market for the agricultural sector offers a wide range of technological solutions that provide both a comprehensive solution to the problem of increasing the growth of efficiency in the crop production sector as a whole and individual elements of production processes designed for agricultural producers with different levels of financial capabilities and technical and technological development. Most business entities in the agricultural sector define the transition to the mass use of "precision" farming technologies as a priority direction for modernizing the technical and technological basis of crop production. At the same time, the implementation of the strategy for the transition to a new level of crop production is possible only under the condition of comprehensive digitalization of agro-economic systems. Large integrated agro-industrial formations have begun to widely implement land sensing technologies, form systems of geoinformation support and global positioning of units, allowing to create conditions for the effective use of parallel driving technologies, differentiated application of mineral fertilizers and chemical plant protection products, etc. But for economic entities that are not ready to implement such a strategy for the development of the crop production sector and have limited investment opportunities, technical and technological solutions that allow to increase the competitiveness of crop products by minimizing operating costs (in the cost structure, depending on the type of product, their share reaches from 40% to 70%) and increasing the use of the potential of productive lands are becoming especially relevant.

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SOCIAL-EMOTIONAL LEARNING IN FOREIGN LANGUAGE TEACHING: A HISTORICAL PERSPECTIVE

Abstract: *This article explores the historical evolution of Social-Emotional Learning (SEL) in the context of foreign language teaching. Tracing its roots from early educational philosophies to contemporary classroom practices, the study examines how SEL principles have shaped approaches to language acquisition. It highlights pivotal moments in educational history, such as humanistic psychology's influence in the 20th century, and discusses how these milestones inform present-day methodologies.*

Keywords: *Social-Emotional Learning (SEL), foreign language teaching, historical evolution, educational philosophies, humanistic psychology, communicative language teaching (CLT), emotional engagement, cultural sensitivity, pedagogy, language acquisition.*

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CHET TIL O'QITISHDA IJTIMOIY-EMOTSIONAL O'RGANISH: TARIXIY PERSPEKTIVA

Abstrakt: *Ushbu maqola chet tillarini o'qitish kontekstida Ijtimoiy-hissiy ta'limning (SEL) tarixiy evolyutsiyasini o'rganadi. Ilk ta'lim falsafasidan tortib zamonaviy sinf amaliyotlarigacha bo'lgan ildizlarini izlab, tadqiqot SEL tamoyillari tilni o'zlashtirishga yondashuvlarni qanday shakllantirganini o'rganadi. U XX asrdagi gumanistik psixologiyaning ta'siri kabi ta'lim tarixidagi muhim lahzalarni ta'kidlaydi va bu bosqichlar bugungi metodologiyaga qanday ta'sir qilishini muhokama qiladi.*

Kalit so'zlar: *Ijtimoiy-hissiy o'rganish (SEL), chet tillarini o'qitish, tarixiy evolyutsiya, ta'lim falsafalari, gumanistik psixologiya, kommunikativ tilni o'rgatish (CLT), hissiy jalb qilish, madaniy sezgirlik, pedagogika, tilni o'zlashtirish.*

Introduction. Social-Emotional Learning (SEL) has emerged as a critical framework in education, addressing the need to develop students' emotional intelligence alongside academic skills. While widely discussed in general education, its application in foreign language teaching has historical precedents that warrant examination. This article traces the historical trajectory of SEL in language education, from the Socratic method's emphasis on emotional connection to the

student, to the humanistic approaches of the 20th century, and the integration of SEL into modern communicative language teaching.

This study aims to illuminate how historical developments have influenced SEL's role in foreign language education and its contemporary relevance.

Methods. A historical analysis was conducted to map the evolution of SEL in foreign language teaching:

1. **Primary Sources**: Analysis of educational texts, curricula, and instructional materials from different historical periods.
2. **Secondary Sources**: Review of scholarly articles, books, and historical accounts of language teaching methodologies.
3. **Framework**: The study applied a chronological lens to examine shifts in pedagogical approaches and their alignment with SEL principles.

Results. The analysis revealed three significant historical phases in the development of SEL within foreign language education:

1. **Classical Foundations**:
   - Socrates and later Roman educators like Quintilian emphasized interpersonal connection and empathy in teaching rhetoric, a precursor to SEL.
   - Language teaching in this era prioritized dialogic methods that required emotional engagement.
2. **Humanistic Psychology and the 20th Century**:
   - The rise of humanistic education, influenced by Carl Rogers and Abraham Maslow, brought SEL principles to the forefront of language pedagogy.
   - The Silent Way and Suggestopedia emphasized emotional safety and learner autonomy, embedding SEL concepts into teaching methods.
3. **Contemporary Approaches (Post-1980s)**:
   - Communicative Language Teaching (CLT) incorporated SEL implicitly, focusing on authentic communication, cultural awareness, and empathy.
   - Modern SEL frameworks explicitly integrate emotional regulation, collaboration, and cultural sensitivity into language instruction.

Discussion. The findings demonstrate that SEL in foreign language teaching has deep historical roots. Ancient and humanistic philosophies laid the foundation for integrating emotional and social dimensions into pedagogy, which resonate with contemporary SEL practices. For example:

- The Socratic emphasis on dialogue parallels the role of collaborative tasks in CLT.
- Humanistic methods' focus on creating a safe, student-centered environment aligns with SEL's emphasis on emotional well-being.

While progress has been made, gaps remain in integrating SEL into foreign language curricula. Historical insights suggest that teacher training and curriculum design can benefit from revisiting these foundational principles.

Conclusion. The historical evolution of Social-Emotional Learning in foreign language teaching highlights its enduring relevance. From ancient rhetoric to modern pedagogies, the interplay of emotional and social dynamics has been central to effective language learning. Understanding these historical roots provides

valuable insights for educators aiming to create holistic, engaging language classrooms.

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REGIONAL PROBLEMS OF KASHKADARYA: A REGION IN TRANSITION

Absract: *The article explores main features of regional problems in one of the regions of Uzbekistan – Kashkadarya. Key issues are looked through services and agricultural image of the region. Tourism is chosen as one of the effective tools to reduce the level of unemployment and increase income in rural areas. Municipal regulations are illustrated as an example of how existing problems are being addressed. Here, preferences and privileges are the main approach of issue solving. Additionally, transition in regional economics is exemplified with state regulation methods. Overall process of changing is outlined.*

Key words: *rural economy, transition, legislation, rural problems, tourism, local development of tourism, privileges, preferences*

Introduction. Historically, macroeconomics was the main sphere and tool of economic analysis and finding out the data on the development of the country. Regions were not considered as a separate or unique unit as well as the potential of the region was not taken into account before introducing any sector of economy. Gradually, this has developed and after microeconomics had appeared, the way was given to the emerge of regional economics. So, regional economics is a “child” of macro- and microeconomics. It means that regional economics included all the features of those two fields.

Methods. Today, regional economics focus not only on socio-economic aspects of development, but also on legislative and political ones. On municipal level The decree of the President of the Republic of Uzbekistan on “Measures for the rapid development of the services sector” dating May 11 2021 was adopted to provide the development in service sectors and according to experts there are several sectors to be refurbished [1]. As the main matter to solve ready-made business plans and projects are suggested to provide the population. This could help to employ more people. Indeed this is one of the major problems of regional development. Unified service slots are also created to ease the process of start-ups and reduce bureaucracy. To eliminate excessive bureaucratic obstacles in the service sector, the types of services based on the specific characteristics of each region, the scope of transport, financial, as well as banking, tourism and trade services in the regions, especially in rural areas should be expanded. According to A.E. Ishmukhamedov, the region has more aging infrastructure. Much of the region's infrastructure, including roads, bridges, and irrigation systems, is outdated and in need of repair or replacement [2]. There is also limited access to utilities: many rural areas still lack reliable access to clean water, electricity, and natural gas.

Environmental issues are the next aspect of regional problem. Overexploitation of water resources, particularly for agriculture, has led to declining water levels in rivers and underground aquifers. Since ex-Soviet Union periods, the matter has been under constant anxiety. Today drip watering has been introduced to improve the ecological problem with irrigation. Trees were planted even in the place which did not use to be plant-friendly. Next problem is soil erosion which is contributing to land degradation reducing agricultural productivity. Years of heavy exploitation has presented similar condition to the most developed countries where the soil is steeped in fertilizers and chemicals. All these problems require the optimum of approach. For example, the consistency of the soil includes only 0,29 - 1,2% of humus[3] which is extremely scarce for good harvest.

So, there are many legislative regulations to solve these problems and many of them are being processed. In fact, The decree of the President of the Republic of Uzbekistan “On additional measures for the development of the services sector” was conducted and as one of the main drivers decreasing taxes was found to be the most appropriate one. For instance, single social tax has been reduced to 1% if the whole staff is not hidden from legislative control or the decrease of taxes on real estate of small business by 90% are seen as sufficient privileges for entrepreneurs [4]. To improve the development of large businesses some customs privileges and preferences have been given to certain kind of communication products. Even some optic memory storages are freed from fees. Special accent has been done on tourism businesses i.e. organization which is involved in tourism is freed from revenue tax even. this could be illustrated by the fact that 500 billion soums (almost 4 million dollars) are allocated to projects in the field of service provision primarily to finance projects for the establishment and repair of family guest houses, hostels, complexes of tent camps, autocamps, eco-home complexes, container towns and tent camps. These may help to provide local people with extra income and employ more workers. Both internal and external tourism are paid much attention as agriculture is facing more and more challenges day by day.

The transition to market relations determines the market specifics of state regulation of the social services sector, adapted mechanisms of influence, forms and methods of their implementation. In social policy, the state partially moves away from the use of methods of administrative influence of social services. In the regulation of the development of social services, in the modern period, the following economic methods are used: the establishment of paid and free types of social services, new social standards, accumulative pension insurance, social contracts and others. These methods are controlled by the activities of licensing, socio-economic standards, benefits. In addition, licenses, social, environmental and other economic standards, social benefits, etc. are widely used. At present, state regulation does not fully use the available resources, mechanisms and principles that can provide conditions for sustainable socio-economic development of the national economy. In our opinion, the regulation of the development of social services in rural areas should be understood as targeted nationwide measures and systemic actions to ensure sustainable and balanced functioning of the social services sectors, the main

target of which is to improve the quality and increase the standard of living of the rural population and the environment. Thus, an important feature of state regulation of the development of social services in rural areas of the country is the support of strategic priorities that ensure positive dynamics of the standard of living of the population.

Results. State regulation of social services concerns areas that perform tasks and other state functions that are within the competence of public administration. These include: bodies that develop social policy; institutions for the development of various programs for the development of social services in the sphere; structures that determine the legal norms of the activities of social infrastructure; bodies that conduct tax policy and differentiation of incomes of the population, etc.

The mechanisms of action of state regulation can often act directly and indirectly. In addition, there are mechanisms of state regulation in the form of selective support for economic development. State selective support can be understood as a set of selective organizational, political, legal, social, financial and economic measures that are aimed at:

1. Stimulating the development and improvement of the management of social services by involving private capital.

2. Formation of conditions for increasing the efficiency of production and provision of social services.

3. Ensuring the legal basis for the free functioning of social infrastructure facilities. 4. Timely response to acute situations, minimization of negative factors, full satisfaction of social needs of the rural population.

State regulation of the development of social services in rural areas is characterized by having certain goals:

1. As an initial goal - ensuring conditions for public safety and necessary living conditions for the population. In the medium term, acquiring pre-crisis stereotypes of using significant social services. In the long term - improving the standard and quality of life of the rural population.

2. As a global goal - in accordance with regional characteristics, the formation of modern mechanisms for the development of the social sphere based on the introduction of innovative types of social services.

3. As a strategic goal - development of innovative, industrial, social policies.

Conclusions. The basic principles of state regulation of the country, taking into account the formation of network forms of social service institutions, include the following: dosed combinations of state and market regulation mechanisms, compliance with the level and conditions of adaptation of rural settlements to them; development and implementation of state mechanisms for regulating the activities of the social infrastructure of the village, increasing responsibility for the provision of social services.

In conclusion, it is clear that without state assistance and provision it is fairly challenging to develop the whole region in these circumstances. Not just privileges can help to enhance the service sectors. This requires complex approach by both government and social institutions.

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OPTIK TOLALARDA SIGNALLARNI YO‘QOLISHINI OLDINI OLISH VA AXBOROT XAVFSIZLIGI TA’MINLASH

Annotatsiya: *Ushbu maqola optik tolali aloqa tarmoqlarida optik signal yo'qotish ehtimolini kamaytirish va xavfsizligini ta’minlash usullarini taqdim etadi. Hozirgi vaqtda signalni yo'qotmasdan optik tolalar orqali ma'lumotlarni uzatish muhim omil hisoblanadi. Maqolada optik signallarning yo'qolishining oldini olish usullari va optik ma'lumotlarni uzatish tizimida yo'qotish ehtimolini kamaytirish usullarini tahlil qilindi. Shuningdek, optik ma'lumotlarni uzatish tizimining ishonchliligiga ta'sir qiluvchi omillar o'rganildi va tegishli xulosalar chiqarildi.*

Kalit so‘zlar: *optik tola, optik signal, axborot xavfsizligi, yo‘qotishlar, burchak aperturasi, so‘nish, sochilish, DWDM qurilmasi.*

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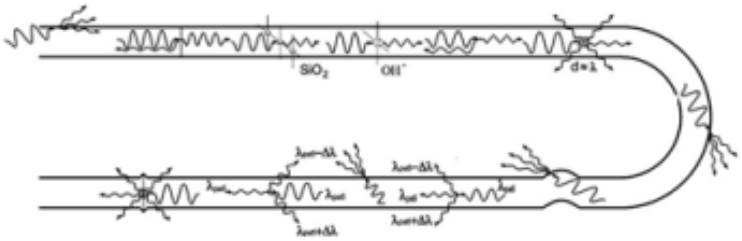
PREVENT SIGNAL LOSS IN OPTICAL FIBERS AND ENSURE INFORMATION SECURITY

Annotation: this article provides ways to reduce the likelihood of optical signal loss and ensure safety in fiber-optic communication networks. Currently, the transmission of data through optical fibers without losing the signal is an important factor. The paper analyzed methods to prevent the loss of optical signals and methods to reduce the likelihood of loss in the optical data transmission system. Also, factors affecting the reliability of the optical data transmission system were studied and relevant conclusions were drawn.

Keywords: optical fiber, optical signal, information security, losses, angular aperture, dimming, scattering, DWDM device.

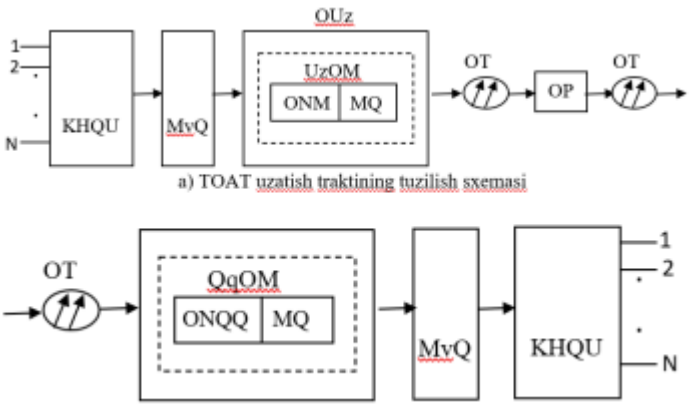
Kirish. Bugungi kunda insoniyatni axborotga bo‘lgan talablarni ortishi, ulardan uzatilayotgan axborotlarni himoyasiga qo‘yiladigan talablarni kuchayishiga sabab bo‘lmoqda. Optik tolali aloqa liniyalarida axborotlarni himoyalashning turli xil metodlari mavjud. Optik tolali aloqa liniyalarida signallarning yo‘qolishiga sabab bo‘ladigan ko‘plab omillarni keltirish mumkin. TOUL bo‘yicha uzatiladigan optik signal to‘liq ichki qaytish qonuniga muvofiq tarqaladi, shuning uchun TOUL yuqori darajada himoyalanganlikka ega. Shu bilan birga optik tola (OT) butun bir qator sabablarga ko‘ra vujudga kelgan so‘nishga ega: frenel akslanishi, xususiy

yutilish, ON ionlarda yutilish, mikro va makro egilishlarda nurlanish va boshqalarni keltirish mumkin. Mikrobukilish bu ishlab chiqarish jarayonida tola o‘zagi geometriyasining mikroskopik o‘zgarishi, ya’ni tolani mukammal emasligidir. Mikrobukilishlar ishlab chiqarish jarayonida tolani yetarli tekis bo‘lmagan tashqi ximoya qoplamalari bilan qoplanishi natijasida o‘zakni o‘q markazida joylashmasligi, o‘qqa nisbatan qiyshiq joylashishidan yuzaga keladi. Mikrobukilishlar kabel yo‘qotishlarini oshiradi. Bu yo‘qotishlar juda katta bo‘lishi va ba’zi hollarda 100 dB/km dan ham oshishi mumkin. Minimal ruxsat etilgan radiusdan oshgan katta bukilishlarga makrobukilishlar deyiladi. Bir modali tolalarni bukishni ruxsat etilgan minimal radiusi 10 sm ni tashkil etadi. Bunday bukilishda yorug‘lik impulslari kuchsiz buzilish bilan tarqaladi. Bukilish radiusini kamayishi, tolani ruxsat etilgandan ortiq bukish optik impulslarni tola qobig‘i orkali sochilish effektini oshiradi. Adabiyotlar tahlili va metodologiya. Ishlab chiqarilgan optik tolani mukammal emasligi, tola geometriyasining o‘zgarishlari tolalarni oson, tez va sifatli payvandlanmasligiga olib keladi. Payvandlashda, tolalarni ulashda yo‘qotishlarga olib keladigan sabablar quyidagilar: - tola o‘zagining o‘lchamlarini moslashmaganligi; - tolaning sindirish ko‘rsatkichlarini farqlanishi; - tolalarning ulashda uzunasiga o‘qlarni chatishmasligi; - tolalarning burchak aperturalarini farqlanishi; - tolalarni zich ulamaslikdan havo puffakchalarini hosil bo‘lishi. Bu omillarni barchasi optik signallar so‘nishni, yo‘qotishlarni oshiradi.



1-rasm. Optik tolalarda signallarni yo‘qolishiga sabab bo‘luvchi omillar.

Tolali optik uzatish liniyasi (TOUL) tushunchasi to‘plovchi hisoblanadi. U o‘z ichiga tolali optik kabellarni, qabul qilgichlarini, optik signallar uzatkichini, regeneratorlarni va boshqa qurilmalarni oladi. Komponentlardan har biri u orqali ruxsat etilmagan ta’sirni o‘tkazish manbai bo‘lishi mumkin.

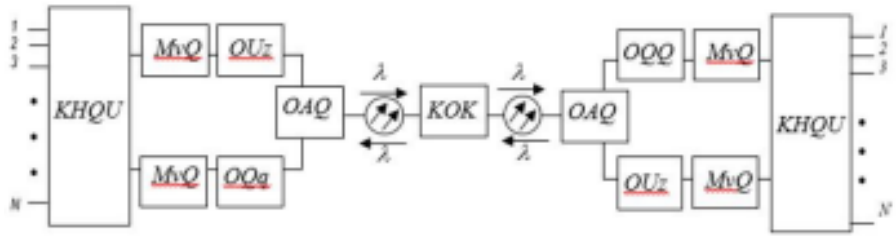


2 – rasm. TOATning tuzilish sxemasi.

Optik tolalarda axborotlarni uzatishda optik modulyatsiyani intensivlik (jadallik) usulidan foydalaniladi. Bunda nol va bir raqamli signallar lazerning optik quvvati bo‘yicha o‘zgarishi asosida uzatiladi. Agar optik toladan uzatilayotgan optik signal biror sabab bilan yo‘qolib qolsa uni amalda tiklashni iloji mavjud emas.

Yuqoridagi rasmdan ko‘rinib turibdiki uzatilayotgan raqamli signallar ketma – ketligida optik signallar uzatiladi.

Zamonaviy aloqa tizimlarida bir tola orqali ikki tamonlama signallar uzatilmoqda.

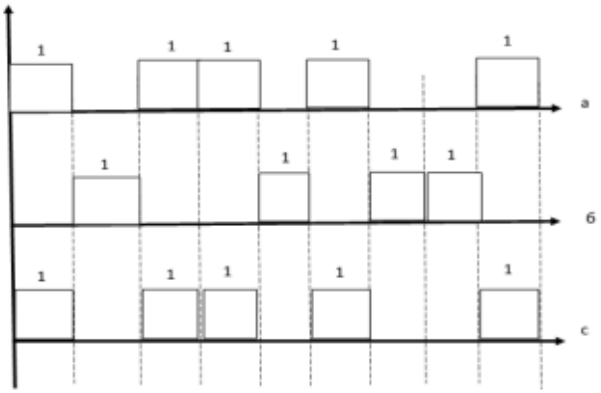


3-rasm. Bir tola orqali ikki tamonlama signallarni uzatish.

Yuqorida keltirilgan yo‘qotishlar sababli optik signallarni yo‘qolishini oldini olish muhim masalalardan biridir. Shu maqsadda bitta optik tola orqali raqamli signallarni ikkiga ajratib uzatish prinsipini keltirish mumkin.

4-rasm. Bitta optik tola orqali raqamli signallarni ikkiga ajratib uzatish prinsipial sxemasi.

Muhokama. Raqamli qurilmadan tushayotgan raqamli 0 va 1 signallarni ajratgich qurilmasi yordamida ajratilib olinadi, va 1 signallari optik lazer λ2 ga beriladi, 0 signallari esa invertir orqali o‘tib mantiqiy 1 signallariga aylanadi so‘nga optik lazer λ1 qurilmasi uni optik signallarga aylantiridi. Multipleksor qurilmasi yordamida optik tolaga optik signallar kiritiladi. Qabul qilish qismida aksincha jarayon bajariladi. Bizning asosiy maqsadimiz qurilmasi yordamida optik tolaga optik signallar kiritiladi. Qabul qilish qismida aksincha jarayon bajariladi. Bizning asosiy maqsadimiz uzatilayotgan optik signallarni bir – biriga nisbatan tiklab olish imkoniyatini beradi.



5-rasm. Optik signalni ajratib uzatish vaqt diagrammasi.

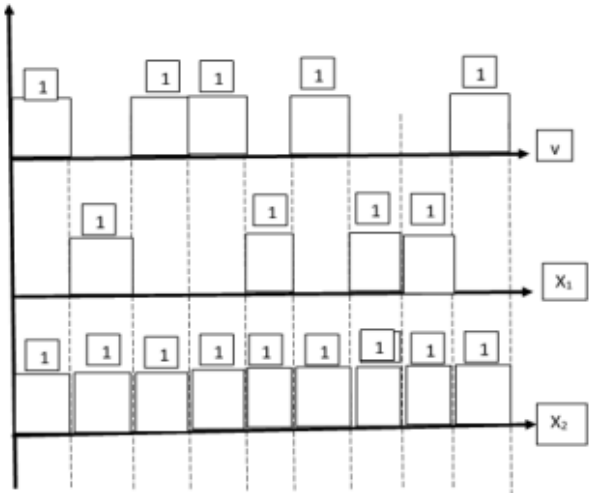
A koordinata o‘qida berilayotgan raqamli signallar. B koordinata o‘qida berilayotgan raqamli signallarning 0 lari uchun invertordan keyingi signallar, mantiqiy 1 signalar S koordinatada berilgan. Qabul qilish tizimida summator kelib tushayotgan signallarni to‘g‘riligini tekshirib oladi. Masalan optik lazer λ2 dan kelib tushayotgan signallar yo‘qolib qolsa uni optik lazer λ1 signallariga asoslangan holda tiklab olish mumkin.

Bundan tashqari uzoq masofalarga optik signallar uzatilganda optik tolada xosil bo‘lgan shovqin signallari va dispersiya ta’sirida optik signallarni buzilishlari vujudga keladi. Signallarni sinxronlash natijasida o‘zoro signallarni farqidan ulardan foydali signallarni ajratib olish mumkin bo‘ladi.

Natijalar. Bu usul bilan optik tolalarda axborot xavfsizligini ham ta’minlash mumkin. Buning uchun quydagi mantiq bo‘yicha jadval hosil qilib olish mumkin.

X_1	X_2	Y
0	0	0
0	1	1
1	0	1
1	1	0

Raqamli signallarni 0 va 1 larni yuqoridagi jadval asosida shakillantirib olinadi va uzatiladi. Qabul qilish tizimida shu mantiq jadval asosida qayta tiklanadi.



6-rasm. Optik tola axborot xavfsizligini ta’minlashning vaqt diagrammasi.

Xulosa. DWDM zamonaviy optik tarmoqlarning uzatish tizimi sifatida keng qo‘llanib kelinmoqda. DWDM qurilmasi 40 tagacha optik signallarni to‘lqin uzunligi bo‘yicha multipleksorlaydi. Shu kanallar orqali biz 20 kanal hosil qilishimiz mumkin bo‘ladi. DWDM da kanallar juftliklarini tasodifiy belgilash orqali foydali signallarni yashirish imkoniga ega bo‘lamiz (7-rasm).

7-rasm. DWDM qurilmasi asosida axborot xavfsizligini ta’minlash.

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HAVODAGI CHANGNING O‘SIMLIKLAR BARGIGA CHO`KISH MIQDORINI ANIQLASH

Annotatsiya : *Havodagi changning tirik organizmlarga ta`sirining ortib borishi va shamolning tezligi hamda yo‘nalishi chang zarrachalarining o’simliklar barglariga yopishgan miqdorini aniqlash.*

Kalit so’zlar: *Chang miqdori, o‘simliklar bargida chang yig‘ilishi, yomg‘irning yo‘qligi, transport vositalaridan ko‘tarilgan yo’l changi, Surxondaryo viloyatida chang bo’ronlari.*

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DETERMINATION OF DUST DEPOSITION ON PLANT LEAVES

Abstract: *The increasing impact of airborne dust on living organisms and the speed and direction of the wind determine the amount of dust particles adhering to plant leaves.*

Keywords: *Dust amount, dust accumulation on plant leaves, lack of rain, road dust from vehicles, dust storms in Surkhandarya region.*

Atmosfera havosidagi ifloslantiruvchi moddalarning ruxsat etilgan maksimal kontsentratsiyasi - bu odamning butun hayoti davomida ta’sirida uning sog‘lig‘iga va keyingi avlodlariga bevosita yoki bilvosita salbiy ta’sir etadi.

O‘simliklar bargida chang yig‘ilishining sabablari juda ko‘p va ular asosan atrof-muhit omillariga bog‘liq holda sodir bo‘ladi. changning bo‘ronlarga asosiy sabablariga quyidagilarni keltiramiz.

1.Atrof-muhit omillari.

Shamolning ta`siri: Shamolning tezligi va yo‘nalishi chang zarrachalarini o‘simliklarning barglariga va havoda changning miqdori ortishlariga sabab bo‘ladi.

Quruq iqlimning ta`siri: Namlik past bo‘lganda, chang zarrachalari havoda uzoqroq muddat osilib turadi va o‘simliklarda to‘planadi bu esa barcha tirik organizmlar uchun xafli hisoblandi, harorat qancha yuqori bo‘lsa chang zarrachalari shuncha ko‘p parchalanishga uchraydi va uchuvchanligi shuncha oradi.

Yomg‘irning yo‘qligi: Yomg‘ir changni yuvib tushiradi, uchuvchanligini pasaytiradi. Agar uzoq vaqt yog‘ingarchilik bo’lmasa, chang miqdori ortadi.

2.Inson faoliyati.

Qurilish ishlari: Qurilish maydonlarida ko‘p chang ko’tariladi va atrofdagi o‘simlik barglariga cho‘kish hosil qiladi.

Transport vositalari: Avtomobil va boshqa transport vositalaridan ko‘tarilgan yo‘l changi o‘simlik barglariga yopishadi natijada boshqa organizmlar uchun ham xavf tug`diradi.

Sanoat chiqindilari: Zavod va fabrikalardan chiqqan chang va tutun zarrachalari havoni ifloslantiradi va o‘simliklarda to‘planadi, bu jarayonda kiyoviy changli birikma hosil bo‘ladi.

Qishloq xo‘jaligi faoliyati: Yerga ishlov berish, texnika harakati va o‘g‘itlarni ishlatish jarayonida chang ko‘tariladi.

3. Tabiiy manbalar

Tuproq eroziyasi: Quruq ob-havo sharoitida tuproq shamol bilan ko‘chib, chang hosil qiladi.

Vulkanik faollik: Vulkan otilishi natijasida chang va kulning havoga chiqaradi, bu esa keng hududga yoyilishi mumkin.

O‘simlik chiqindilari: Gullash, urug’larning yoyilishi yoki qurigan barglarning parchalangan qoldiqlari ham chang manbai bo‘lishi mumkin.

4. Geografik joylashuv

Shahar hududlari: Shahar atrofidagi havo ifloslanishi sababli chang miqdori ko’proq bo’ladi. Surxondaryo viloyatida kuzatiladigan changlarga ham geografik joylashuvu juda katta ahamiyat kasb etadi.

Tadqiqotning natijalari.

Ba’zi o‘simliklarning barg yuzasida tukchalar yoki yopishqoq qatlam mavjud bo‘lib, chang zarrachalarini oson ushlab qoladi. Shu sababdan ham havodagi chang kamaytirish uchun o‘simliklarni ekish yaxshi yechim sifatida ko‘riladi.

Tadqiqot jarayonida katta yuzali, yirik bargli o‘simliklar tut daraxtining chang bo‘ronlari vaqida qancha chang ozida tutib qolishi o‘rganildi.

Tadqiqot jarayonida gravimetrik usulda olib borildi. O‘simlik sog‘lom barglaridan namunalar olindi o‘simlik bargi dastlanki chang holatida quritilib analitik elektron tarozida og‘irligi o‘lchab olindi va qayt qilib olindi. Kiyingi jarayonda changdan tozalanibqaya o‘lchandi va natija aniqlandi.

Olingan natijalar quyudagi birinchi jadalda kelirilgan.

1-jadval

Tut bargi (TB)	Chang miqdori (mg)
TB1	0,98
TB2	0,88
TB3	1,02
TB4	0,09
TB5	0,19
O`rtacha chang miqdori	0,632

1-rasm

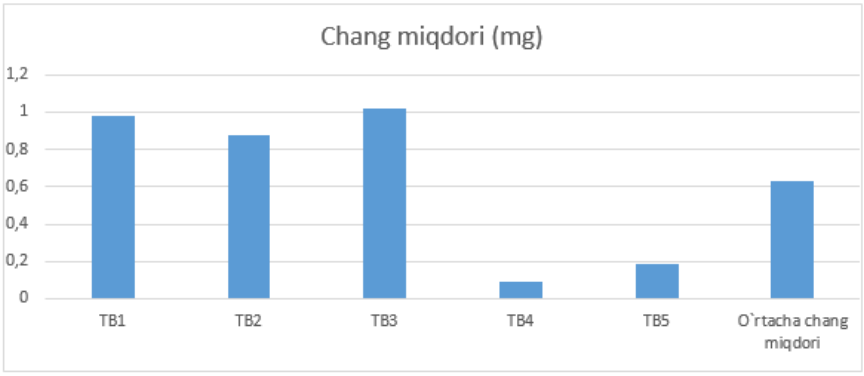
2-rasm

1-rasmda 2024-yil 19-avgust kuni Surxondaryo viloyatida chang bo‘ronlari kuzatilgandan kiyin olingan tut barglari ta`siri keltirilgan.

Termiz shahri, Termiz tumani va unga tutash tumanlar hududlari bo‘ylab kuzatilgan chang bo‘ronlarining o‘simliklarga aynan tut barglariga cho‘kgan miqdori o‘rganildi.

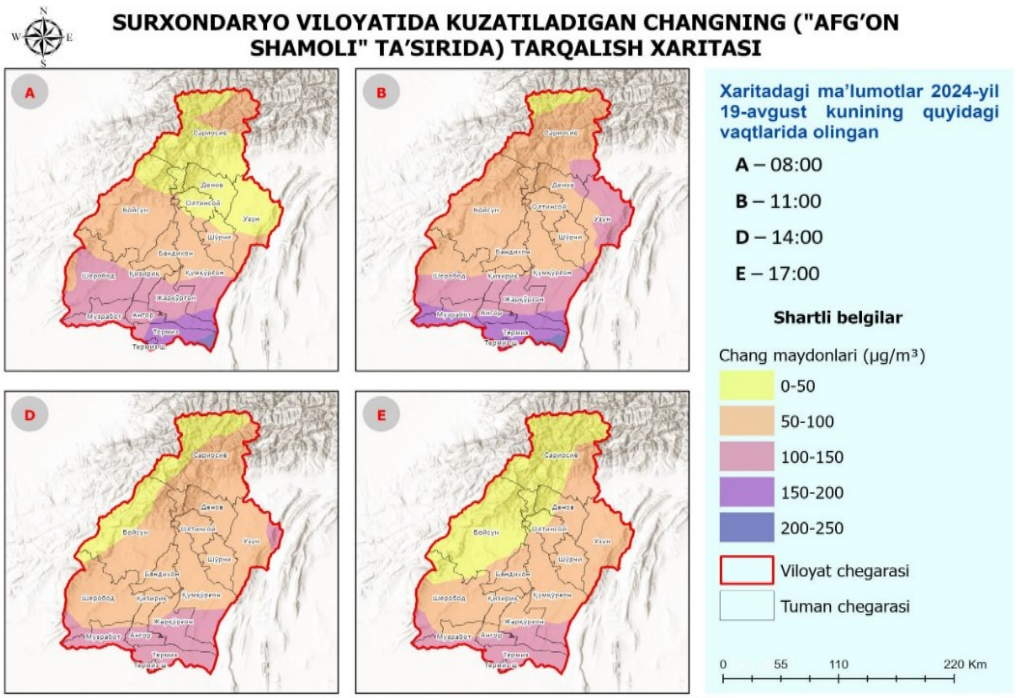
2-rasmda 2024-yil 19-avgust kuni Surxondaryo viloyatida kuzatilgan chang bo‘ronlari ta`sirida tut bargiga cho‘lib qolgan chang miqdirining gravimetrik usulda tut bargidagi changning o‘lchab olingan holati.

3-rasm



3-rasmda 2024-yil 19-avgust kuni Surxondaryo viloyatida chang bo‘ronlarining tut bargiga cho‘kindi xosil qilganlik miqdorining diagrammasi keltirib o‘tilgan.

4-rasm



4-rasm 2024-yil 19-avgust kuni Surxondaryo viloyatida kuzatilgan chang bo‘ronlarining tarqalish kengligi keltirilgan.

Surxondaryoda kuzatiladigan changlarning ta`siri yildan yilga ortib bormoqda. Chang hayvonlar harakatiga, o‘simliklar va insonlarning salomatligiga jiddiy ta`sirini aytish mumkin bo‘ladi.

Changning jiddiy ta`sirlari o‘simliklarning fotosintez jarayoniga salbiy ta’sir ko‘rsatishi, ularning o‘sish va rivojlanishiga zarar yetkazishi mumkin. Shuning uchun changni nazorat qilish muhim hisoblanadi.

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CHORVACHILIKNING O‘ZBEKISTON RESPUBLIKASI IQTISODIYOTIDA TUTGAN O‘RNI

Annotatsiya. *Maqolada chorvachilikning mamlakat iqtisodiyotida tutgan o‘rni, oziq-ovqat xavfsizligi, iqtisodiy barqarorlikni ta’minlashdagi ahamiyati yoritib berilgan. Tarmoqni rivojlantirishga ta’sir etuvchi tabiiy, iqtisodiy, ijtimoiy, ekologik omillarga e’tibor qaratilgan.*

Kalit so‘zla:r *Chorvachilik, qishloq xo‘jaligi, oziq-ovqat xavfsizligi, yaylovlar, pichanzorlar, hayot sifati, kooperativlar.*

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THE ROLE OF ANIMAL HUSBANDRY IN THE ECONOMY OF THE REPUBLIC OF UZBEKISTAN

Abstract. *This article examines the role of animal husbandry in the country's economy and its importance in ensuring food security and economic stability. Special attention is given to the natural, economic, social, and environmental factors that affect the development of this sector.*

Keywords: Livestock, agriculture, food security, pastures, haymaking, quality of life, cooperatives.

Kirish. Chorvachilik O‘zbekiston iqtisodiyotida muhim ahamiyatga ega bo‘lib, YAIMning 13% ini, qishloq xo‘jaligi mahsulotlari ishlab chiqarish hajmining 50 foizi shu tarmoqqa to‘g‘ri keladi. Bu tarmoq oziq-ovqat xavfsizligini ta’minlash bilan birga qishloq joylarda aholini ish joylari bilan ham ta’minlaydi, qishloq tumanlarining rivojlanishiga turki beradi va mahalliy aholining an’anaviy turmush tarzini yaxshilaydi. Globallashuv va iqlim o‘zgarishi sharoitida O‘zbekiston chorvachiligi bir qator chaqiriqlarga duch kelmoqda, bu esa tarmoqni majmuali tahlil qilishni, hamda samarali yechimini topishni talab qiladi.

Mavzuning dolzarbligi chorvachilikning bugungi kundagi holatini atroflicha o‘rganish va kelajakdagi rivojlanish imkoniyatlarini aniqlash zarurligi bilan bog‘liq.

Keyingi yillarda qishloq xo‘jaligini barqaror rivojlantirishga e’tibor kuchayib bormoqda, bu esa sohani tadqiq qilishning zarurligini ko‘rsatadi. Shu bilan birga aholi sonining ortishi, oziq-ovqat mahsulotlariga bo‘lgan talabning ko‘payishi bu sohaning samaradorligi va barqarorligini oshirishga yordam beradigan innovatsion yondashuvlarni joriy etish yo‘llarini ko‘rib chiqish lozim.

Shu bilan birga tarmoq rivojlanishining bugungi holati, tarmoq va hududiy tarkibi, ishlab chiqariladigan asosiy mahsulotlar dinamikasiga e’tibor qaratish lozim. Bu tarmoqning mamlakat iqtisodiyotidagi ahamiyatini ko‘rsatib beradi. Chorvachilik sohasini rivojlantirishdagi muammolar, zamonaviy chaqiriqlar, iqlim o‘zgarishi, tabiiy, iqtisodiy-ijtimoiy omillar ko‘rib chiqiladi. Chorva mahsulotlari yetishtirishda mulkchilik shakllarining tutgan o‘rniga alohida e’tibor qaratish lozim, chunki ular mahalliy darajadagi oziq-ovqat xavfsizligini ta’minlashda alohida o‘rin tutadi, shu bilan birga ularning mamlakat ishlab chiqarishidagi ulushini oshirish uchun qanday qo‘llab-quvvatlash kerakligini ko‘rib chiqish kerak.

Chorvachilikni ekologik jihatlarini ham ko‘rib chiqmay, tarmoqning atrof muhitga ta’sirini o‘rganmasdan turib, sohani barqaror rivojlantirib bo‘lmaydi. Chorvachilikni hududiy joylashtirish va rivojlantirishga tabiiy omillar bilan birgalikda iqtisodiy va ijtimoiy omillarning o‘rni ham kattadir. Bugungi kunda xalqaro va mahalliy raqobat ham chorvachilikning rivojlanishiga bevosita ta’sir ko‘rsatadi, mahsulot sifatini yaxshilash va xarajatlarni optimallashtirishni rag‘batlantiradi, bu o‘z navbatida joylashtirishga ta’sir ko‘rsatadi. Quyidagi jadvalda chorvachilik tarmoqlarini joylashtirish va ishlab chiqarishga ta’sir etuvchi omillar tahlili keltirilgan.

1-jadval

Chorvachilik tarmoqlarini joylashtirish va ishlab chiqarishga ta’sir etuvchi omillar

Omillar	Tavsifi	Joylashtirishga ta’siri
Tabiiy sharoitlar	Iqlim (harorat, yog‘ingarchilik), relef(tog‘lik, tekislik), tuproq sifati, suv havzasining mavjudligi.	Chorvachilik turlarini (qoramolchilik, qo‘ychilik, parrandachilik va b.) va fermalarni joylashishini belgilaydi.
Iqtisodiy omillar	Ozuqa narxlari, yerlarning narxi, kreditlarning mavjudligi, sarmoya kiritish imkoniyati.	Xarajatlarning yuqoriligi ishlab chiqarishning kam xarajatli hududlarda to‘planishiga olib keladi.
Ijtimoiy omillar	Ishchi kuchiga ega bo‘lish, qishloq joylar aholisining turmush darajasi, madaniy an’analar.	Turmush darajasi yuqori bo‘lgan hududlarda sifatli mahsulotlarga bo‘lgan talabning ortishi ixtisoslashgan xo‘jaliklarning shakllanishiga turtki bo‘ladi.
Transport infratuzilmasi	Yo‘llar, savdo bozorlariga yaqinlik, omborlar.	Logistika va bozorlarga kirishni osonlashtiradi, bu esa fermer xo‘jaliklarining joylashishiga ta’sir ko‘rsatadi. Yaxshi transport tarmog‘i mahsulotlarni bozorga tez yetkazib

		berish imkonini beradi, bu esa uning raqobatbardoshligini oshiradi.
Qonunchilik jihatlari	Ekologiya, hayvonlarni himoya qilish, veterinariya va aholi salomatligiga oid me'yorlar va qoidalar.	Muayyan yo'nalishlarning rivojlanishini cheklashi yoki rag'batlantirishi mumkin.
Ilmiy-texnika taraqqiyoti	Oziqlantirish, seleksiya, avtomatlashtirish, hayvonlar kasalliklarini diagnostika qilish.	Yangi texnologiyalar ishlab chiqarish samaradorligini oshiradi va joylashtirishni o'zgartirishi mumkin.Zamonaviy texnologiyalardan foydalanish ishchi kuchiga bo'lgan ehtiyojni qisqartirish va yirik ixtisoslashgan xo'jaliklarni tashkil etishga olib kelishi mumkin.
Mahsulotga bo'lgan talab.	Sog'lom turmush tarziga bo'lgan intilish, organik mahsulotlarga bo'lgan talabni kuchaytiradi.	Ishlab chiqarish strategiyasi va fermalarning joylashishiga ta'sir ko'rsatadi. Ekologik toza mahsulotlarga bo'lgan talabning ortishi kichik fermer xo'jaliklarning ortishiga sababchi bo'ladi.
Iqlim o'zgarishi	Temperatura rejimining o'zgarishi, ekstremal ob-havo sharoitining ko'payishi (qurg'oqchilik, sellar)	Qishloq xo'jaligini yuritish sharoitlariga va chorvachilikning moslashishiga sezilarli ta'sir ko'rsatishi, ishlab chiqarish hududlarini o'zgartirishi mumkin.
Xalqaro tendensiya va eksport.	Bozorning globallashuvi, yangi eksport imkoniyatlarining ochilishi.	Mahsulotlarni sotish uchun yangi bozorlarning ochilishi, ishlab chiqarish hajmini ko'paytirish maqsadida hududlarga kiritilayotgan sarmoyalar hajmini ko'payishiga ta'sir ko'rsatishi mumkin.
Raqobat	Mamlakat ichida va xalqaro maydonda ishlab chiqaruvchilar o'rtasidagi raqobat.	Mahsulot sifatini yaxshilash va xarajatlarni optimallashtirishni rag'batlantiradi, bu o'z navbatida joylashtirishga ta'sir ko'rsatadi.

Chorva mollarini hosildorligiga ular saqlanadigan fermalardagi sharoitlar ham bevosita ta'sir ko'rsatadi.

"Mamlakatllarda o'tkazilgan ko'plab tadqiqotlar natijalariga ko'ra, фермалардаги қониқарсиз микроиқлим туфайли сигирларнинг сут маҳсулдорлиги 10 foizga, ozuqadan foydalanish samaradorligi esa, ayniqsa qish mavsumida 20-30 foizga pasayadi. Hayvon organizmi bilan atrof-muhit o'rtasidagi muvozanatning buzilishi (nomutanosiblik) hayvonlarning salomatligi yomonlashishiga va mahsuldorligi pasayishiga olib keladi."[27]

Chorva mollarini turiga, moslashuvchanligiga qarab, turli sharoitlarda boqiladi. O'zbekiston chorvachiligi boqish texnologiyasiga ko'ra ikki qismga bo'linadi. Yirik shoxli qoramollar deyarli fermalarda, yopiq binolarda boqiladi.

[27] Научный журнал молодых ученых.2020г.
Научные основы оптимизации условий содержания сельскохозяйственных животных и птицы.

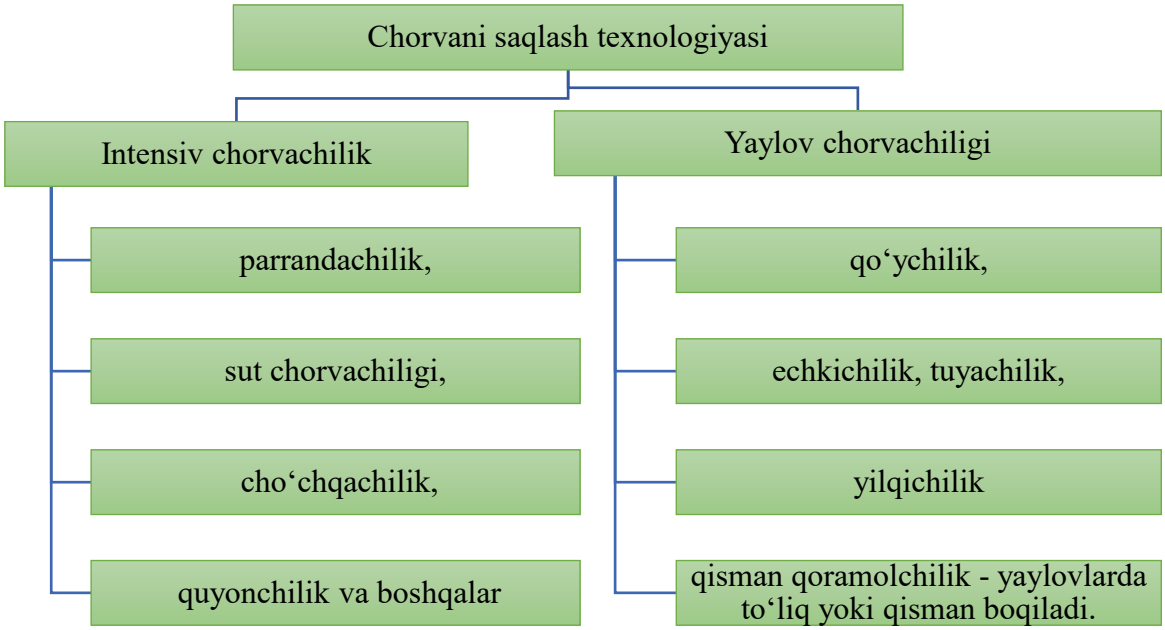
Mayda shoxli qoramollar, yilqi, tuya, echki va boshqalar ko‘proq yaylovlarda boqiladi.(**1-rasm.)**

Yaylov chorvachiligining rivojlanishi yaylovlarning ozuqa bazasi bilan bevosita bog‘liq.

Qurg‘oqchil zonadagi yaylov chorvachiligi ozuqa bazasi, asosan, uch manbadan tashkil topadi:

-cho‘l va tog‘ etaklaridagi tabiiy yaylovlar;

-ekilgan va yaxshilangan yaylovlar;



1-rasm. Chorva mollarini saqlash usullari.

-sug‘oriladigan maydonlarda yetishtirilgan hamda chorva mollarini saqlashning og‘ir davrlarida qo‘shimcha oziqlantirish uchun sotib olinadigan ozuqalar.[28]

O‘zbekistonda cho‘l va chala cho‘l yaylovlar 23,3 million gektarni tashkil etib, qo‘ychilikning asosiy ozuqa bazasi hisoblanadi. Bu yerda 5 million boshdan ortiq mayda shoxli chorva boqiladi.

Yaylov chorvachiligi butun qishloq xo‘jaligining an’anaviy va muhim tarkibiy qismi hisoblanib, 3 milliondan ortiq aholining tirikchilik manbai bo‘lib xizmat qilmoqda. Oila byudjetida yaylov chorvachiligidan olinadigan daromad 75 foiz va undan yuqorini tashkil etadi. Bu sohada deyarli barcha qorako‘l teri, jun hamda ishlab chiqarilayotgan go‘shtning yarmiga yaqini yetishtiriladi.[29]

Yaylov va pichanzorlarni tabiiy sharoitiga qarab quyidagicha ajratish mumkin:

- ❖ Cho‘l-tekislik yaylov-pichanzorlar;

[28] Арифджанов Г., Толипов Х.,Мукимов Т., Саттаров С., “Улучшение использования пастбищных угодий” Журнал "Экономическое обозрение" №9/2023

[29] Арифджанов Г., Толипов Х.,Мукимов Т., Саттаров С., “Улучшение использования пастбищных угодий” Журнал "Экономическое обозрение" №9/2023

- ❖ Tekislik-tepalikdagi yaylov-pichanzorlar;
- ❖ Tog‘ oldi-tog‘ yaylov-pichanzorlar.

Cho‘l-tekislik va tekislik-tepalikdagi pichanzorlardan bahorda va kuzda, tog‘ oldi,tog‘-yaylov pichanzorlardan faqat yozda chorvani boqishda foydalanish mumkin.

O‘zbekiston Respublikasi bo‘yicha pichanzorlar va yaylovlarning umumiy maydoni 2011-yildagi 20756,1 gektardan 2024-yilda 21190.4 gektarga (434,3) oshgan. Sug‘oriladigan pichanzorlar maydoni esa barcha viloyatlarda qisqargan.

2-Jadval.

Pichanzor hamda yaylovlarni Qoraqalpog‘iston Respublikasi va viloyatlar bo‘yicha taqsimlanishi (ming ga.)

	Hududlar nomi	Jami pichanzor va yaylovlar		Shundan sug‘oriladigani	
		2011 yil	2024 yil	2011	2024
	O‘zbekiston Respublikasi	20756,1	21 190,4	43.0	42,0
1	Qoraqalpog‘iston Respublikasi	4780,9	5261,8	36.6	35.8
2	Andijon	21,3	21	0.9	0.8
3	Buxoro	2579,6	2 550,3		
4	Jizzax	758,0	702,0		
5	Qashqadaryo	1455,8	1 405,2	0.1	0.1
6	Navoiy	8763,6	8887,6		
7	Namangan	152,6	163,8		
8	Samarqand	793,8	793,2		
9	Surxondaryo	861,2	824,5		
10	Sirdaryo	22,0	19,9		
11	Toshkent	433,7	442,5	1.4	
12	Farg‘ona	23,5	9,5	4.0	3,9
13	Xorazm	110,1	109,1		

Yaylovlarda chorva mollarini boqish quyidagi xususiyatlardan iborat:

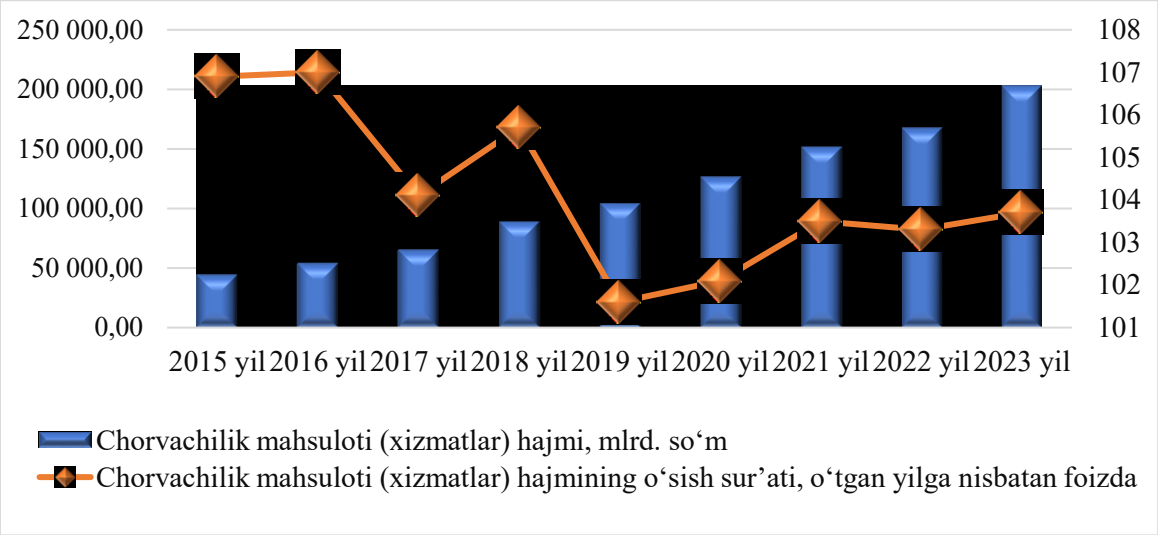
- ❖ chorvani yaylovlarda saqlash va yaylovdagi ozuqadan mavsumiy foydalanish;
- ❖ yaylovlardan foydalanishda yillar va mavsumiylikning hosildorlikning o‘zgarishiga ta’siri;
- ❖ yaylovlardan foydalanish samaradorligining hududning suv ta’minotiga bog‘liqligi;
- ❖ noqulay sharoitlarda chorva mollarini qo‘shni hududlarga ko‘chirish tizimining qo‘llanilishi.

Bugungi kunda qurg‘oqchil yaylovlarning holati chorva mollarini boqish talablariga to‘liq javob bera olmaydi. Yaylovlarning 40% i degradatsiyaga uchragan bo‘lib, u yerlarning hosildorligi 20 % ga pasayib ketgan. Bu ko‘rsatkichlar chorvachilikning keyingi rivojlanishiga salbiy ta’sir ko‘rsatadi.

Yaylov chorvachiligidan tashqari intensiv chorvachilik ham rivojlangan bo‘lib, chorva fermalarda, dehqon xo‘jaliklarining tomorqalarida boqiladi.

Chorvalik mahsulotlari dehqon xo‘jaliklari, fermerlarning asosiy daromad manbalari hisoblanadi. Tomorqa xo‘jaliklarining oziq-ovqat ta’minoti ko‘proq chorva mollarini boqish bilan bog‘liq bo‘lib, yirik shoxli qoramol, qo‘y va echkilar mahsulotlarini sotish bilan daromad oladilar.

Quyidagi diagrammada O‘zbekiston Respublikasida 2015-yildan-2023-yilgacha bo‘lgan davrda chorvachilik mahsulotlari ishlab chiqarish hajmi milliard so‘mda ko‘rsatilgan. Bu chorvachilik tarmog‘ining rivojlanishini tahlil qilish imkoniyatini yaratadi. 2015-yildan 2023-yilgacha bo‘lgan davrda chorvachilik sohasida xizmat ko‘rsatishning barqaror o‘sish dinamikasi kuzatiladi. 2015- yilda 44,175.4 mlrd. so‘mlik mahsulot ishlab chiqarilgan bo‘lsa, 2023-yilga kelib 202,335.3 mlrd. so‘mga yetdi.



2-расм.Chorvachilikning asosiy ko’rsatkichlari[30]

Chorvachilik sohasi bo‘yicha ixtisoslashgan fermer xo‘jaliklari 2024- yil 1-yanvar holatiga ko‘ra 9 688 tani, shundan, baliqchilik 3 395 ta, asalarichilik 210 ta, parrandachilik 937 tani tashkil qildi.

Respublikamizda 2024-yil 1-yanvar holatiga ko‘ra, ularga ajratib berilgan umumiy yer maydoni 4 621,5 ming gektarni, shu jumladan, yaylov va pichanzorlar 911,8 ming gektarni tashkil qildi.

Yirik shoxli qoramolchilik ham ikki yo‘nalishga bo‘linadi. Go‘sht-sut, sut-go‘sht yo‘nalishi. Bu tarmoqlarni joylashtirishda avvalo iste’mol omili ko‘proq e’tiborga olinadi. Aholi ko‘p yashaydigan hududlarda sut va sut mahsulotlariga bo‘lgan talab yuqoriroq bo‘ladi. Mamlakatimizga ham chet ellardan zotli mollarning olib kelinishi natijasida ixtisoslashgan fermalar ko‘paymoqda.

“Jahon tajribasi tahlili shuni ko‘rsatadiki, ixtisoslashgan go‘sht chorvachiligini jadal rivojlantirmasdan mol go‘shtiga bo‘lgan to‘lovga qodir talabni to‘liq qondirish mumkin emas. G‘arb mamlakatlarida sut yo‘nalishidagi qoramolchilik Rossiyaga qaraganda ancha oldin intensiv rivojlanish yo‘liga o‘tgan, shuning uchun sut

[30] O'zbekiston Respublikasi Prezidenti huzuridagi Statistika agentligi маълумотлари, 2024 йил.

yo‘nalishidagi sigirlar sonining kamayishi bilan bir vaqtda go‘sht yo‘nalishidagi sigirlar soni mutanosib ravishda ko‘paytirilgan: bir sut yo‘nalishidagi sigirga 1,1-1,2 ta go‘sht yo‘nalishidagi sigir to‘g‘ri kelgan. Natijada, yirik shoxli qoramollarning umumiy bosh sonida ixtisoslashgan go‘shtli qoramollar ulushi quyidagicha bo‘lgan: Yevropa Ittifoqi mamlakatlarida - 40-50%, Avstraliyada - 85%, AQSh va Kanadada - 70-75% тенг.”[31]

Parrandachilik ham intensiv chorvachilik tarmog‘iga kirib, parrandachilik mahsulotlariga talabning yuqoriligi sababli mamlakatimizning yirik shaharlari atrofida jadal rivojlanmoqda.

“Bunga davlatning turli ishlab chiqaruvchilarni qo‘llab-quvvatlashi va ularning o‘zaro integratsiyalashuvi katta yordam bermoqda. Shunga qaramay, parrandalarni inkubatsiya qilish, ularning mahsuldorligini oshirish hamda ozuqa va veterinariya preparatlari bilan ta’minlash masalalarida hali ham ayrim qiyinchiliklar mavjud”.[32]

Rivojlanayotgan davlatlar qishloq xo‘jaligi rivojlanishining tahlili shuni ko‘rsatadiki, barcha hududlarda qishloq xo‘jaligiga xos xususiyatlar mavjud bo‘lib, bu xususiyatlar O‘zbekiston uchun ham xos.

. “Chorvachilikning past daromadi, yoshlarning chorvachilikdan tashqari ishlarga moyilligi, yaylovlarda chorvani sig‘imidan ko‘proq o‘tlatish oqibatida yem-xashak yetishmasligi va qurg‘oqchilikning oldini olish uchun taklif qilinishi mumkin bo'lgan yechimlardan biri qishloq joylarda chorvachilik kooperativlarini tashkil etish bo'lib, bu chorvadorlarning moliyaviy va texnik imkoniyatlarini oshirishi mumkin. Qishloq joylarda aholi farovonligi, dam olish maskanlari va ta’lim muassasalarini yaxshilash, shuningdek, chorvachilikning an’anaviy usullariga yangi texnologiyalarni joriy etish kasbni yanada jozibador qilish va turg‘unlikning oldini olish imkonini beradi.”[33]

O‘zbekiston Respublikasida chorvachilikning rivojlantirish istiqbollari quyidagi omillar bilan bevosita bog‘liq.

✓ Aholi sonining ortishi va turmush darajasining yaxshilanishi natijasida sut, go‘sht mahsulotlariga talab ortib boradi;

✓ Hukumatning turli dasturlar va subsidiyalar orqali qo‘llab-quvvatlashi;

✓ Zamonaviy texnologiyalarning joriy qilinishi, veterinariya xizmati va oziqlantirishning yaxshilanishi mahsuldorlikni oshiradi;

✓ Qo‘shni mamlakatlarga go‘sht va sut mahsulotlarini eksporti daromadni ko‘paytiradi;

✓ Barqaror xo‘jalik yuritish usullari va ekologiyaga e’tibor qaratish mahsulot sifatini yaxshilashi hamda resurslarni saqlashga yordam berishi mumkin;

[31] А.Н. Лубков, Стратегия ускоренного развития мясного скотоводства: Проблемы и решения. Аграрный вестник Урала.№ 6 (60), 2009.

[32] Юлдашев Д.К. Динамика производства продукции животноводства в Республике Узбекистан // Техника и технологии в животноводстве. 2022. № 4(48). С. 32-36.

[33] Mehdi Moameri, Ardavan Ghorbani Factors affecting the downturn of traditional livestock husbandry in local communities of northwestern rangelands of Iran.
Scientific Reports July 2024 14(1)

✓ Kooperativlar va fermerlar uyushmalarini tashkil etish yem-xashak va veterinariya xizmatlarini birgalikda xarid qilish hamda mahsulotlarni sotishda yordam beradi, bu esa iqtisodiy samaradorlikni oshiradi;

✓ Transport va qayta ishlash infratuzilmasini yaxshilash orqali mahsulotni samarali taqsimlash isrofni kamaytiradi.

Davlat tomonidan qo‘llab-quvvatlash, zamonaviy texnologiyalarni joriy etish va barqaror xo‘jalik yuritish usullarini qo‘llashni inobatga olgan holda, O‘zbekistonda chorvachilikni yanada rivojlantirish va agrar sektordagi o‘z o‘rnini mustahkamlash uchun barcha imkoniyatlar mavjud. Chorvachilikni samarali rivojlantirish iqtisodiy o‘sishga hissa qo‘shadi, шу билан бирга mamlakatning ijtimoiy va ekologik barqarorligini ta’minlайди.

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EFFORTS IN TOURISM DEVELOPMENT IN UZBEKISTAN

Abstract: *Uzbekistan, with its rich cultural heritage and strategic location along the ancient Silk Road, holds vast potential as a tourism destination. Over the past decade, the Uzbek government has introduced numerous initiatives to develop its tourism sector, focusing on infrastructure modernization, visa reforms, digital transformation, and sustainable tourism practices. This article examines these key initiatives and analyzes the current challenges and future opportunities for Uzbekistan in the global tourism market.*

Keywords: *Uzbekistan, tourism development, infrastructure modernization, visa reforms, digital transformation, sustainable tourism, cultural heritage, eco-tourism, hospitality industry, Silk Road, adventure tourism, gastronomic tourism, economic growth, sustainable practices, tourism marketing, historical preservation.*

Introduction

Uzbekistan, located at the heart of Central Asia, is a country known for its deep historical roots, stunning architectural landmarks, and vibrant cultural heritage. With cities such as Samarkand, Bukhara, and Khiva, Uzbekistan is home to numerous UNESCO World Heritage Sites, attracting millions of visitors interested in its ancient monuments, Islamic architecture, and diverse traditions. Despite its potential, the country's tourism industry has long been underdeveloped due to various limitations, including outdated infrastructure, restrictive visa policies, and a lack of international marketing.

However, over the past several years, Uzbekistan has recognized tourism as a key sector for economic growth and national development. With the aim of revitalizing its tourism industry and increasing global visibility, the Uzbek government has implemented a series of strategic reforms and initiatives aimed at enhancing the country's appeal to international travelers.

Government Initiatives and Policy Reforms

One of the most important actions taken by the government to promote tourism is the reform of visa policies. The introduction of electronic visas (e-visas) in 2018 and visa-free regimes for citizens of over 90 countries have drastically simplified the process for foreign travelers. This initiative has contributed to a significant increase in tourist arrivals, particularly from countries in Europe, Asia, and the Middle East.

Moreover, Uzbekistan's commitment to improving the ease of travel is also reflected in its investments in infrastructure. The government has heavily invested in modernizing airports, rail networks, and road systems, particularly in major tourist hubs like Tashkent, Samarkand, and Bukhara. The introduction of high-speed trains connecting key cities such as Tashkent, Samarkand, and Bukhara has made it easier and faster for tourists to explore Uzbekistan's historical sites. This

modernization of transport infrastructure is crucial for enhancing the overall tourist experience and ensuring easy access to the country's cultural treasures.

In addition, the Uzbek government has prioritized the improvement of the hospitality sector, encouraging both domestic and international investors to build new hotels and resorts. New accommodations, ranging from luxury hotels to guesthouses, have increased the capacity for tourism in key destinations. These investments have been paired with the introduction of tourism incentives and tax breaks for the hospitality industry, designed to stimulate growth and attract more investment.

Digital Transformation in Tourism

Uzbekistan's tourism sector is also embracing digital transformation. In recent years, the government has launched a series of online platforms that provide vital information on travel, accommodations, tours, and cultural events. The development of a comprehensive tourism portal allows both local and international tourists to easily plan their visits, book hotels, and access digital guides for exploring the country's landmarks. Furthermore, the use of social media platforms and digital marketing campaigns has helped promote Uzbekistan globally, attracting tourists from markets that were previously underrepresented.

The introduction of mobile applications has further improved the tourist experience. These apps provide visitors with practical tools such as interactive maps, multilingual guides, and booking services, allowing them to better navigate the country's attractions and services. In addition, digital technologies such as virtual and augmented reality are being explored to enhance visitors' experiences of historical sites, offering immersive ways to engage with Uzbekistan's rich cultural heritage.

Promotion of Sustainable and Diversified Tourism

Uzbekistan's tourism strategy goes beyond traditional historical tourism to include eco-tourism, adventure tourism, and cultural tourism. The government is promoting national parks and nature reserves, such as the Ugam-Chatkal National Park, as eco-tourism destinations. These areas are being developed with an emphasis on sustainable practices to preserve the country's natural beauty while offering opportunities for outdoor activities like hiking, birdwatching, and eco-friendly travel.

Additionally, Uzbekistan is investing in rural tourism by promoting local traditions, handicrafts, and rural lifestyle experiences. This type of tourism not only benefits local communities but also allows visitors to experience the authentic culture of Uzbekistan in a more intimate and sustainable way. The government is encouraging the development of cultural villages and organizing cultural events that showcase traditional music, dance, and cuisine.

In terms of gastronomic tourism, Uzbekistan's rich culinary traditions are being marketed as a key attraction. Dishes such as *plov*, *samsa*, and *shashlik* are increasingly being highlighted in international tourism promotions. Specialized food tours and cooking classes are gaining popularity, and food festivals are being

organized to celebrate Uzbek cuisine, which is renowned for its unique flavors and techniques.

Challenges and Future Directions

While Uzbekistan has made significant strides in developing its tourism sector, several challenges remain. One major issue is the environmental impact of increased tourism, particularly in ecologically sensitive areas. As tourism numbers rise, there is a need for greater emphasis on sustainable tourism practices that protect the natural and cultural resources of the country.

Another challenge is the need to further improve the global awareness of Uzbekistan as a tourist destination. Despite its rich heritage and modern developments, the country still faces obstacles in attracting tourists from markets outside of its immediate region. To overcome this, further investment in international marketing and participation in global tourism fairs will be necessary to elevate Uzbekistan's profile on the world stage.

Conclusion

Uzbekistan is undergoing a transformation in its tourism sector, driven by government reforms, infrastructure development, digital advancements, and a focus on sustainable tourism practices. The country's rich cultural heritage, modern amenities, and diverse tourism offerings make it an increasingly attractive destination for travelers. With continued investment and strategic promotion, Uzbekistan has the potential to become a leading tourism hub in Central Asia, contributing to the country's economic growth and cultural exchange on the global stage.

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INITIATIVES FOR THE DEVELOPMENT OF TOURISM IN UZBEKISTAN

Annotation: *Uzbekistan, with its rich historical and cultural heritage, has become a focal point for tourism development in Central Asia. This article examines the initiatives and policies implemented by the government to foster the growth of the tourism sector, focusing on infrastructure development, visa reforms, digital transformation, and promotion of diverse forms of tourism. It highlights key projects such as the modernization of airports, rail networks, and the hospitality industry, alongside efforts to preserve cultural heritage through sustainable tourism practices. Despite challenges like environmental concerns and global awareness, Uzbekistan is emerging as a prominent destination on the international tourism map. This study provides an overview of the country's efforts to position itself as a leading travel destination in the region, emphasizing the potential of tourism to drive economic and cultural development.*

Key Words: *Uzbekistan, tourism development, infrastructure, visa reforms, cultural heritage, eco-tourism, digital transformation, sustainable tourism, hospitality industry, Silk Road, cultural tourism, adventure tourism, gastronomic tourism, economic growth, sustainable practices.*

Introduction

Uzbekistan, a landlocked country in Central Asia, boasts a rich history shaped by its position as a pivotal hub along the ancient Silk Road. The region has long been a center of cultural exchange, connecting diverse civilizations and serving as a crossroads for traders, travelers, and conquerors. Its historical cities—Samarkand, Bukhara, and Khiva—are home to architectural wonders that reflect centuries of Islamic, Persian, and Central Asian influences. These cities, along with the country’s vibrant traditions, ancient monuments, and unique landscapes, provide a solid foundation for tourism development.

Despite these attractions, Uzbekistan’s tourism sector remained underdeveloped for many years, hindered by factors such as limited infrastructure, strict visa regulations, and a lack of international exposure. However, recognizing the potential of tourism as a catalyst for economic growth and cultural exchange, Uzbekistan's government has embarked on ambitious reforms and strategies aimed at revitalizing the industry.

In recent years, the Uzbek government has made substantial investments in improving tourism infrastructure, simplifying visa processes, and enhancing marketing efforts. This includes the modernization of transportation networks, the introduction of e-visas, and the promotion of Uzbekistan as a safe and attractive destination for international tourists. Additionally, the focus has shifted to

embracing sustainable tourism practices, ensuring that the country's cultural and natural heritage is preserved while catering to a growing number of visitors.

This article explores the key initiatives undertaken by Uzbekistan to develop its tourism sector, with a particular focus on infrastructure development, visa reforms, digital transformation, and the diversification of tourism offerings. By analyzing these efforts, this paper aims to provide an in-depth understanding of how Uzbekistan is positioning itself as a rising destination in global tourism, balancing economic growth with cultural preservation, and promoting sustainable practices for the long-term future of the industry.

Through these efforts, Uzbekistan seeks not only to attract tourists but also to foster global awareness of its rich cultural heritage and unique contributions to the world's history. The country's journey towards becoming a top-tier tourism destination holds significant promise, offering a blend of historical allure and modern convenience that is increasingly drawing the attention of travelers from around the world.

Uzbekistan, a nation at the crossroads of the ancient Silk Road, boasts an unparalleled cultural and historical heritage. Its unique position as a gateway between East and West has endowed the country with rich traditions, architectural marvels, and diverse landscapes. Recognizing tourism as a vital component of economic diversification, the government of Uzbekistan has undertaken extensive measures to transform the country into a global tourism hub.

Historical and Cultural Context

Uzbekistan's cultural wealth stems from its role as a key node on the Silk Road, which facilitated trade and cultural exchanges between Asia and Europe. Cities like Samarkand, Bukhara, and Khiva are UNESCO World Heritage Sites, featuring stunning Islamic architecture, ancient madrasahs, mausoleums, and bazaars. However, the country's potential in the tourism sector remained underutilized for decades due to limited infrastructure, strict visa policies, and minimal international outreach.

Infrastructure Development

Modernizing transportation and accommodation infrastructure has been central to Uzbekistan's tourism strategy.

- **Air Travel:** Major airports, including those in Tashkent, Samarkand, and Urgench, have undergone upgrades to meet international standards. New international routes have also been introduced, connecting Uzbekistan to Europe, Asia, and the Middle East.
- **Rail Connectivity:** The high-speed rail network, featuring trains like the *Afrosiyob*, links key tourist destinations, enabling quick and comfortable travel between Tashkent, Samarkand, Bukhara, and Khiva.
- **Hospitality Sector:** Between 2016 and 2024, the number of hotels in Uzbekistan more than doubled, with an emphasis on both luxury accommodations and affordable guesthouses.

Promotion of Diverse Tourism Types

Uzbekistan's tourism strategy extends beyond historical and cultural tourism to include niche markets such as eco-tourism, adventure tourism, and gastronomic tourism.

- **Eco-Tourism:** Investments in national parks and nature reserves, such as the Ugam-Chatkal National Park, provide opportunities for hiking, birdwatching, and other outdoor activities. Efforts to promote sustainable tourism practices aim to preserve the natural environment while accommodating growing tourist numbers.
- **Cultural Tourism:** Rural areas are being developed into cultural tourism hubs, where visitors can engage with traditional crafts, music, and cuisine. For instance, the *Boysun Bahori* cultural festival showcases the unique heritage of the Boysun region.
- **Gastronomic Tourism:** Uzbekistan's renowned culinary traditions, including dishes like *plov*, *samsa*, and *lagman*, are being marketed as key attractions. Specialized food tours and cooking classes are gaining popularity among international visitors.

Challenges and Opportunities

Despite these advancements, several challenges remain. Maintaining the integrity of historical sites while accommodating increasing tourist numbers requires careful planning and investment. The environmental impact of large-scale tourism, particularly in ecologically sensitive areas, needs to be managed through sustainable practices. Additionally, raising awareness in less familiar global markets remains a priority for long-term growth.

Conclusion

Uzbekistan's efforts to develop its tourism industry exemplify a comprehensive approach to economic diversification and cultural preservation. The combination of policy reforms, infrastructure development, digital transformation, and sustainable practices has laid a solid foundation for long-term growth. As the country continues to invest in its tourism sector, it is poised to become a leading destination in Central Asia, offering visitors an unparalleled journey through history, culture, and natural beauty.

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“PREZI” DASTURI YORDAMIDA TA’LIM JARAYONINI TASHKIL ETISH

Annotatsiya: *Mazkur maqolada Prezi dasturining ta’lim jarayonidagi roli va undan foydalanish usullari yoritilgan. Shuningdek, maqolada Prezi dasturidan foydalanish bo‘yicha yo‘riqnoma keltirilgan va uning geografiya darslarida qo‘llanilishi ham o‘rganilgan. Ushbu texnologiya ta’lim samaradorligini oshirish va innovatsion yondashuvlarni joriy etish imkonini beradi.*

Kalit so‘zlar*: Prezi dasturi, ta’lim texnologiyalari, interfaol taqdimot, geografiya darslari, innovatsion yondashuv, multimedia texnologiyalari, o‘quv samaradorligi, ijodiy fikrlash, tahliliy fikrlash, dars ishlanmalari, elektron resurslar*

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ORGANIZING THE EDUCATIONAL PROCESS USING “PREZI” SOFTWARE

Annotation: *This article explores the role of the Prezi platform in the educational process and its usage methods. The paper includes a guide on using Prezi and examines its application in geography lessons. This technology enhances learning efficiency and supports the integration of innovative approaches in education.*

Keywords*: Prezi software, educational technologies, interactive presentation, geography lessons, innovative approach, multimedia technologies, learning efficiency, creative thinking, analytical thinking, lesson planning, electronic resources.*

Kirish. Ta’lim ta’limini zamonaviy texnologiyalar asosida tashkil etish hozirgi eng dolzarb masalalardan biridir. Fanlarni o‘qitishda multimedia texnologiyalaridan foydalanish ta’lim jarayonini interfaol va qiziqarli qilishga yordam beradi [4]. Elektron dars ishlanmalar, videomateriallar va didaktik materiallarning keng qo‘llanilishi o‘quvchilar faolligini oshiradi hamda ijodkorlik va tahliliy fikrlash ko‘nikmalarini rivojlantirishda muhim ahamiyat kasb etadi. Shu jumladan, Prezi dasturining ta’lim jarayonidagi o‘rni ham alohida e‘tiborga loyiqdir.

Asosiy qism. Prezi dasturi 2009-yilda Zui Labs kompaniyasi tomonidan ishlab chiqilgan boʻlib, qisqa vaqt ichida global miqyosda mashhur boʻldi. Prezi'ning asosiy gʻoyasi an'anaviy taqdimotlardan farqli oʻlaroq, chiziqli boʻlmagan tuzilmani joriy qilishdan iborat edi [12]. Bu yondashuv foydalanuvchilarga taqdimotlarni vizual tarzda yangi usulda tashkil qilish imkoniyatini berdi. Prezi dasturining nomi lotin tilidagi prae- (“oldindan”) va video (“koʻrish”) soʻzlaridan kelib chiqqan, ya’ni materiallarni oldindan koʻrish va taqdimotning umumiy tuzilishini tasavvur qilish imkonini beradi.

2015-yilda Prezi dasturi 60 milliondan ortiq foydalanuvchiga ega boʻlib, bir milliarddan ortiq taqdimot yaratilgani haqida xabar berdi. Buning natijasida Prezi oʻz platformasiga yangi funksiyalar qoʻshib, taqdimot yaratish jarayonini yanada qulay va intuitiv qilishni maqsad qildi [7]. Prezi dasturi nafaqat taqdimotlar yaratish, balki oʻquv jarayonini yangi, interfaol shaklda tashkil etishga imkon beradi.

Prezi dasturi ta’lim sohasida keng qoʻllaniladi va oʻquv jarayonini yanada samarali qilish uchun muhim vosita hisoblanadi. Ayniqsa, geografiya darslarida Prezi'ning imkoniyatlaridan foydalanish orqali dars materiallari jonli, tushunarli va qiziqarli koʻrinishga ega boʻladi. Prezi yordamida oʻquvchilar uchun geografik obyektlar, tabiiy resurslar yoki ekotizimlarning uch oʻlchamli modellarini vizual tarzda koʻrsatish mumkin. Bu metod oʻquvchilarning e’tiborini jalb qilishga, oʻquv materiallarini yanada qiziqarli va interfaol tarzda taqdim etishga yordam beradi.

Shuningdek, Prezi dasturining oʻquv jarayoniga moslashuvchanligi oʻquvchilarning ta’limdagi ishtirokini va samaradorligini oshirishga imkon yaratadi. Prezi yordamida darslar interfaol va jozibador tarzda tashkil etiladi, bu esa oʻquvchilarning oʻqishga boʻlgan qiziqishini yanada kuchaytiradi [6].

Hozirgi kunda mazkur dastur orqali tayyorlangan fanga oid multimediali taqdimotlar keng tarqalmagan [2]. Chunki, texnologik infratuzilmaning yetarli emasligi, oʻqituvchilarning dasturdan foydalanish boʻyicha malaka va tajribasining yetishmasligi, an’anaviy dasturlarga koʻproq moyillik, moslashtirilgan resurslarning cheklanganligi hamda dasturning ba’zi funksiyalari pulli ekanligi ushbu dasturdan keng foydalanishga oʻz ta’sirini koʻrsatmoqda.

Yuqorida keltirib oʻtilgan muammolarning ayrimlarini bartaraf etish uchun oʻqituvchining oʻzida xohish istak yetishmayotgan boʻlsa ba’zilarida xorijiy tilni bilmaslik bunga toʻsiq boʻlmoqda. Biz aynan ushbu muammoni bartaraf etish va dasturdan foydalanuvchilar auditoriyasini kengaytirish maqsadida ushbu dasturdan foydalanish yoʻriqnomasini quyida qisqacha keltirib oʻtamiz.

Prezi dasturidan foydalanish yoʻriqnomasi

Prezi dasturidan foydalanish uchun avvalo prezi.com saytiga tashrif buyurib, roʻyxatdan oʻtiladi va tizmga kiriladi. Kirganingizdan soʻng, ekraning yuqori oʻng burchagidagi “Create New Presentation” tugmasini bosiladi. Prezi sizga turli xil shablonlar (ta’lim, biznes, marketing va boshqalar) taqdim etadi. Kerakli shablonni tanlanadi yoki “Blank” ni tanlab, boʻsh bir taqdimot yaratish ham mumkin. Tanlangan shablon orqali taqdimotning umumiy dizayni avtomatik tarzda shakllanadi. Siz kerakli elementlarni oʻzgartirish yoki yangi dizayn yaratishingiz mumkin. Taqdimotga rasm, video, grafikalar yoki animatsiyalar qoʻshish uchun

menyudagi “Insert” (Qo‘shish) tugmasini bosiladi. Bu yerda kerakli shakldagi fayllarni yuklab olish mumkin. “Text” tugmasi orqali yangi matnlarni qo‘shish va har bir matnni o‘zgartirib, kerakli ko‘rinishga keltirish mumkin (masalan, shrift turi, o‘lchami, rang). Rasm yoki grafikani qo‘shish uchun “Insert” → “Image” tugmasidan foydalaniladi. Taqdimotga animatsiyalar qo‘shish uchun “Animate” bo‘limini tanlab, slaydlar orasidagi o‘tish effektlarini va obyektlarga animatsiyalarni sozlash mumkin. Prezi’ga video va audio fayllarni qo‘shish uchun “Insert” → “Video” yoki “Audio” menyularidan foydalanish mumkin, bunda videolar YouTube yoki lokal fayllardan yuklab olinadi. Agar taqdimotda diagrammalar yoki chizmalar yaratmoqchi bo‘lsangiz, “Insert” → “Shapes” tugmasi orqali bu ishni amalga oshirasiz. Bularni matn bilan birga tartiblashtirish imkoniyatini beradi.

Taqdimot yaratishni tugatganingizdan so‘ng uni saqlash uchun yuqori burchakdagi “Save” tugmasini bosiladi. Prezi bulutli saqlash tizimidan foydalanganligi sababli, barcha taqdimotlar avtomatik ravishda saqlanadi. Taqdimotni boshqalar bilan ulashish uchun, “Share” tugmasidan foydalaniladi. Bu orqali taqdimotni havola yoki ijtimoiy tarmoqlar orqali ulashish mumkin.

1-rasmda mazkur dastur asosida Geografiya faniga oid mavzuda tayyorlangan taqdimotning saytdagi ko‘rinishi keltirilgan.

1-rasm

Prezi dasturida Atlantika mavzusi bo‘yicha tayyorlangan taqdimot

Taqdimotni onlayn ko‘rish uchun havola: https://prezi.com/view/SSiW6x8CADFG5CIFa4ky/

Xulosa. Prezi dasturidan foydalanish ta’lim samaradorligini oshirishda katta ahamiyat kasb etadi. Bu texnologiyalar o‘quvchilarning ijodiy va tahliliy fikrlash

qobiliyatlarini rivojlantirish, mavzuni chuqurroq tushunish va ta’lim jarayonini qiziqarli qilish imkonini beradi. Shu bilan birga, bunday yondashuv zamonaviy texnologiyalarni ta’lim jarayoniga integratsiyalash va ta’limni axborotlashtirishga xizmat qiladi.

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ARNASOY TUMANI AHOLISI VA UNING DEMOGRAFIK SALOHIYATI

Annotatsiya: *Ushbu maqolada Arnasoy tumani aholisi va tumanning demografik salohiyati hamda imkoniyatlari yoritilgan. Maqola Arnasoy tumanining statistik axborotnomasi, shuningdek, aholi geografiyasi va geodemografiyaga oid adabiyotlar asosida yozilgan.*

Kalit so‘zlar: *Arnasoy tumani, aholi, aholi soni dinamikasi, demografiya, demografik jarayonlar, aholi zichligi, urbanizatsiya darajasi, tabiiy o‘sish, tug‘ilish, o‘lim, nikoh, ajralish, mehnat resursi, migratsiya.*

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POPULATION OF ARNASOY DISTRICT AND ITS DEMOGRAPHIC POTENTIAL

Annotation: *This article covers the population of the Arnasoy district and the demographic potential and capabilities of the district. The article is based on the Statistical Bulletin of the Arnasoy district, as well as literature on population geography and geodemography.*

Keywords: *Arnasoy district, population, population dynamics, demography, demographic processes, population density, urbanization rate, natural growth, birth, death, marriage, divorce, labor resource, migration.*

Kirish. Aholi ijtimoiy ishlab chiqarishning egasi yoki subyektdir, u bu jarayonning boshida va ayni vaqtda uning oxirida turadi. Chunki, ishlab chiqaruvchi kuch ham, iste’molchi ham aholidir. {5}

Har bir hududning, davlatning ijtimoiy-iqtisodiy rivojlanishida aholi sonining ortib yoki kamayib borishi, aholining umumiy tarkibida mehnat yoshidagi aholi guruhining salmog‘i, ularning demografik shakllanib borishi, shuningdek, bolalar va mehnat yoshidan yuqori bo‘lgan qariyalar salmog‘i ham juda muhimdir. Shuningdek, inson resurslarining miqdori va sifati mamlakatning iqtisodiy o‘sish sur’atlarini, turmush darajasi ko‘rsatkichlarini, jahon bozoridagi kuchi va raqobatbardoshligini belgilaydi.

Mavzuga oid adabiyotlar tahlili (Literature review). O‘zbekiston aholi geografiyasi, hududlardagi demografik holatlar va o‘zgarishlar haqida ko‘plab olimlar tadqiqotlar olib borganlar. Z.M.Akramov, A.S.Soliyev, O.Ata-Mirzayev, Q.X.Abduraxmonov, M.Bo‘riyeva va Z.N.Tojiyeva shular jumlasidandir.

Yuqorida keltirilgan tadqiqotlarda mamlakatimiz aholisi va demografik holati ko‘plab jihatdan o‘rganilgan, ammo Arnasoy tumani aholisi va tumanning demografik salohiyati o‘rganilmagan. Mazkur maqola aynan shu masalaga bag‘ishlanganligi bilan yuqoridagi ishlardan farq qiladi.

Tadqiqot metodologiyasi (Research Methodology). Tadqiqotni olib borishda statistik ma’lumotlar tahlili, kartografik, geografik axborotlar tizimi (GIS), adabiyotlar va fond materiallari bilan ishlash kabi metodlardan foydalanildi.

Tahlil va natijalar:

O‘zbekiston Respublikasi aholi soni bo‘yicha dunyo miqyosida o‘rtacha demografik salohiyatga ega bo‘lgan davlat hisoblanadi. Uning aholisi, 2024 yil 1 yanvar ma’lumotlariga ko‘ra 36,8 mln kishini tashkil etadi. Bu borada, u jahon mamlakatlari orasida 43- va Markaziy Osiyo davlatlari orasida esa birinchi o‘rinni egallaydi.

O‘zbekiston Respublikasining markaziy viloyatlaridan biri bo‘lgan Jizzax viloyati mamlakatimizning iqtisodiy va demografik salohiyati shakllanishida o‘ziga xos o‘rinni egallaydi. Garchi, aholi soni bo‘yicha mamlakatda so‘nggi o‘rinlardan birini (Sirdaryo va Navoiy viloyatlaridan oldingi) egallagan bo‘lsa-da, uning mamlakat mehnat taqsimotida tutgan o‘rni, xo‘jaligining tarmoq va hududiy tarkibi, ixtisoslashuvi hamda demografik vaziyati o‘ziga xos hududiy xususiyat kasb etadi.

Jizzax viloyati aholisining son jihatdan ko‘payish sur’atlari har doim ham bir xil bo‘lmagan. Mutaxassislarning hisob-kitobiga ko‘ra oxirgi o‘ttiz yil ichida viloyat aholisi salkam to‘rt barobarga ko‘paygan. Buni qulay ijtimoiy-iqtisodiy va demografik omillar bilan bog‘lashimiz mumkin. {2}

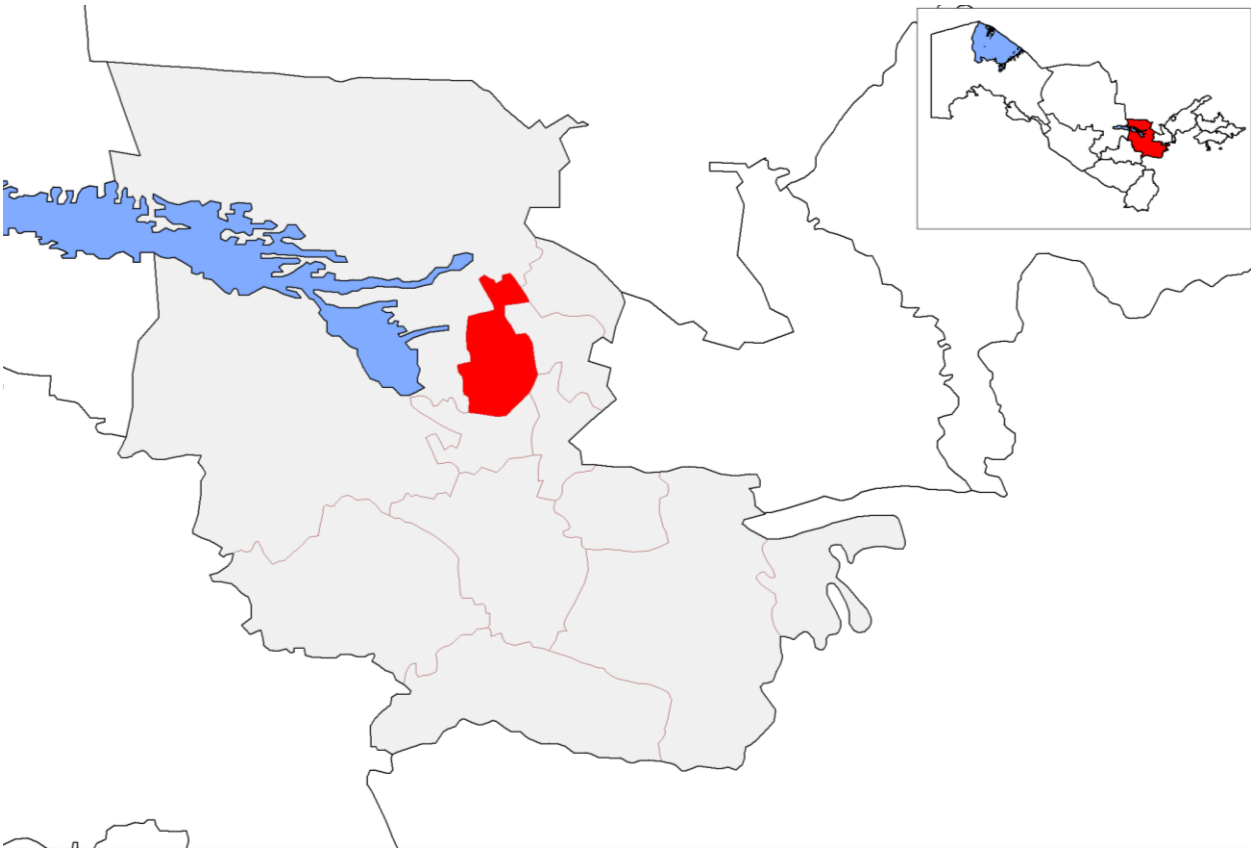
Viloyatning sug‘orma dehqonchilikka ixtisoslashgan shimoli-sharqiy tumanlarida aholi soni dinamikasi va demografik jarayonlar dolzarb ahamiyat kasb etadi. Xususan, Arnasoy tumanida demografik jarayonlarni o‘rganish muhim ahamiyatga ega. Shuningdek, tumanning aholi soni va tarkibidagi o‘zgarishlarni aniqlash tuman rivojlanishini rejalashtirishda katta ahamiyatga ega.

Arnasoy tumani Jizzax viloyatining shimoli-sharqiy qismida, Tuzkon ko‘lining g‘arbiy qismida joylashgan bo‘lib, 1975-yil 26-noyabrda Forish va Do‘stlik tumanlari hududlari o‘rnida tashkil etilgan.

Arnasoy tumani shimol va shimoli-g‘arbda Forish, janubda Zafarobod, janubi-sharqda Paxtakor, sharqda Do‘stlik, shimoli-sharqda Mirzacho‘l tumanlari bilan chegaradosh (1-rasm).

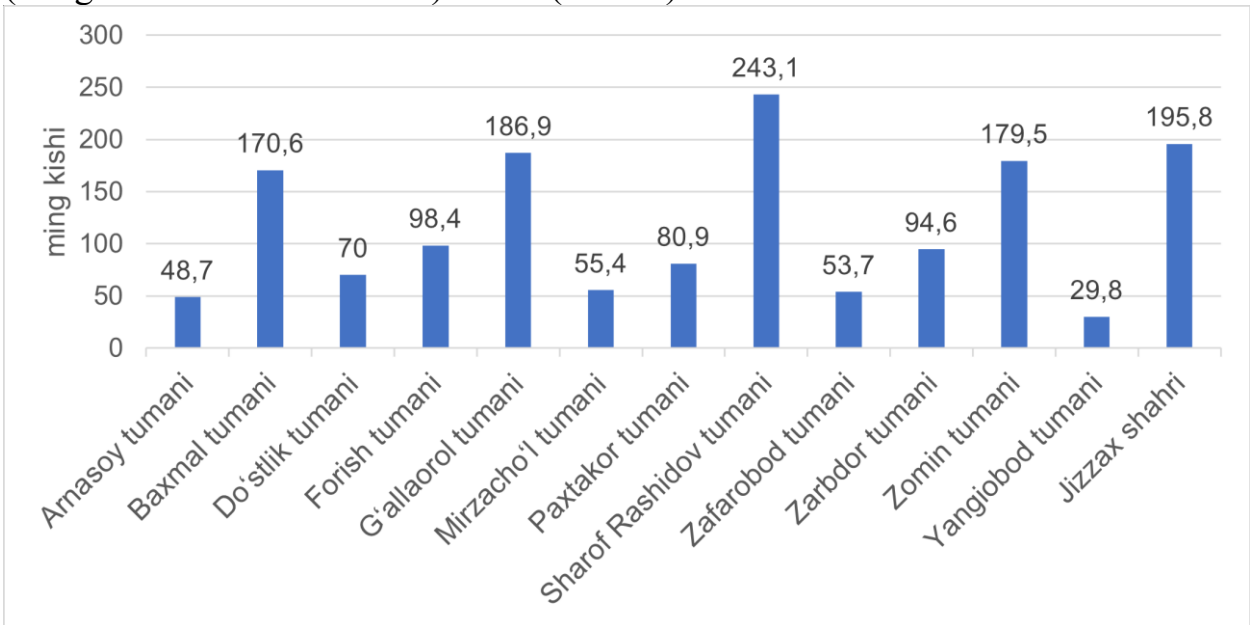
Tumanning maydoni 0,49 ming km^2 ni, aholisi esa 48,7 ming (01.01.2024 y.) kishini tashkil etadi.

Arnasoy tumani 13 ta mahalla fuqarolari yig‘inidan (Baxtli, Bobur, Bo‘ston, Do‘stlik, Gulbahor, Oltin Vodiy, Tinchlik, Yangibo‘ston, Zarafshon, G‘oliblar, G‘ofur G‘ulom, Chinobod, Cho‘lquvar) iborat. Tuman markazi – G‘oliblar shaharchasi tumanning janubi-g‘arbiy qismida joylashgan.



1-rasm. Arnasoy tumanining Jizzax viloyatida tutgan o‘rni

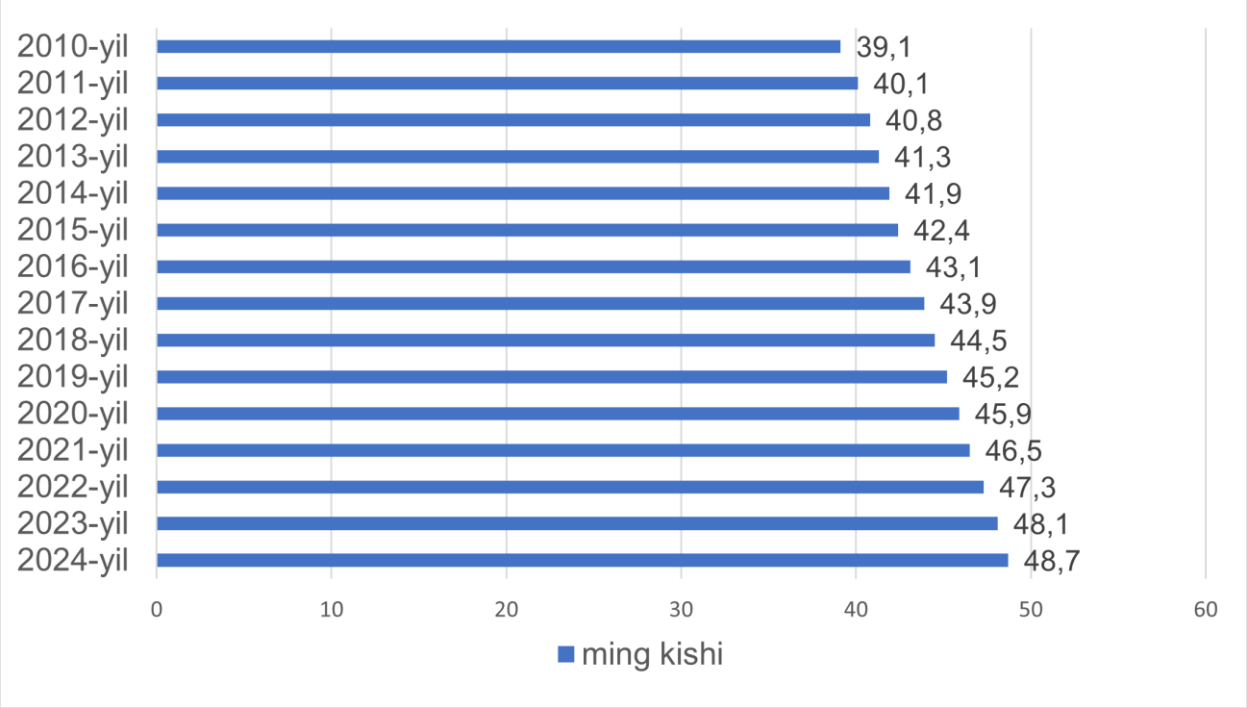
2024 yilning 1 yanvar holatiga ko‘ra, Arnasoy tumani doimiy aholi soni 48,7 ming kishini tashkil qildi va yil boshidan 0,6 ming kishiga yoki 1,24 foizga ko‘paydi. Tuman ushbu ko‘rsatkichga ko‘ra viloyatda so‘nggi o‘rinlardan birida (Yangiobod tumanidan oldin) turadi (2-rasm).



2-rasm. Jizzax viloyati tumanlarining doimiy aholi soni *(01.01.2024 y)*

2024 yilning 1 yanvar holatiga ko‘ra tuman aholisining 50,7 foizi erkaklar va 49,3 foizini ayollar tashkil etadi. Demak, Arnasoy tumanida erkaklar soni ayollar soniga nisbatan ko‘proq ekanligini kuzatishimiz mumkin.

Arnasoy tumanida doimiy aholi soni 2010 yilda 39,1 ming, 2015 yilda 42,4 ming, 2020 yilda 45,9 ming va 2024 yilda 48,7 ming kishini tashkil etdi. Tuman aholi soni dinamikasini tahlil qiladigan bo‘lsak, 2010 yildan hozirgi davrgacha aholi soni kichik miqdorda (yiliga 1000 kishi atrofida) oshib borgan (3-rasm).



3-rasm. Arnasoy tumani doimiy aholi soni *(2010-2024 yillar orasida)*

Tug‘ilish darajasi. 2023 yilning yanvar-dekabr holatiga Arnasoy tumanida tug‘ilganlar soni 1 102 kishini tashkil qildi va 2022 yilning shu davriga (1 158 kishi) nisbatan minus 56 kishiga kamaydi. Tug‘ilish koeffitsienti mos ravishda 22,6 promilleni tashkil qildi va 2022 yilning shu davriga (24,1 promille) nisbatan minus 1,5 promillega kamaygan.

O‘lim darajasi. 2023 yilning yanvar-dekabr holatiga Arnasoy tumanida o‘lganlar soni 232 kishini tashkil qildi va 2022 yilning shu davriga (190 kishi) nisbatan 42 kishiga o‘limlar soni ko‘paydi. Mos ravishda o‘lim koeffitsienti 4,8 promilleni tashkil qildi (2022 yilning tegishli davrida 3,9 promille).

Tabiiy o‘sish. Yuqoridagi jadvaldan shuni ko‘rish mumkinki 2023 yilning yanvar-dekabr holatiga Arnasoy tumanida 870 kishini tashkil qildi va 2022 yilning shu davriga (968 kishi) nisbatan kamayganini ko‘rish mumkin.

Nikohlar va ajralishlar. 2023 yilning yanvar-dekabrida FHDYO organlarida 305 ta nikohlar va 44 ta ajralishlar ro‘yxatga olindi. Ming kishiga nisbatan 6,3 ga nikoh (2022 yilning tegishli davrida 6,4 ga) va 0,9 ga ajralishlar (2022 yilning tegishli davrida 1,1 ga) to‘g‘ri keladi.

Migratsiya. 2023 yilning yanvar-dekabr oylarida Arnasoy tumani bo‘yicha ko‘chib kelganlar soni 167 kishini, shu davr mobaynida ko‘chib ketganlar soni esa

389 kishini tashkil qildi. Migratsiya qoldig‘i minus 222 kishiga (2022 yilning shu davrida minus 209 kishi) tashkil etadi.

1-jadval

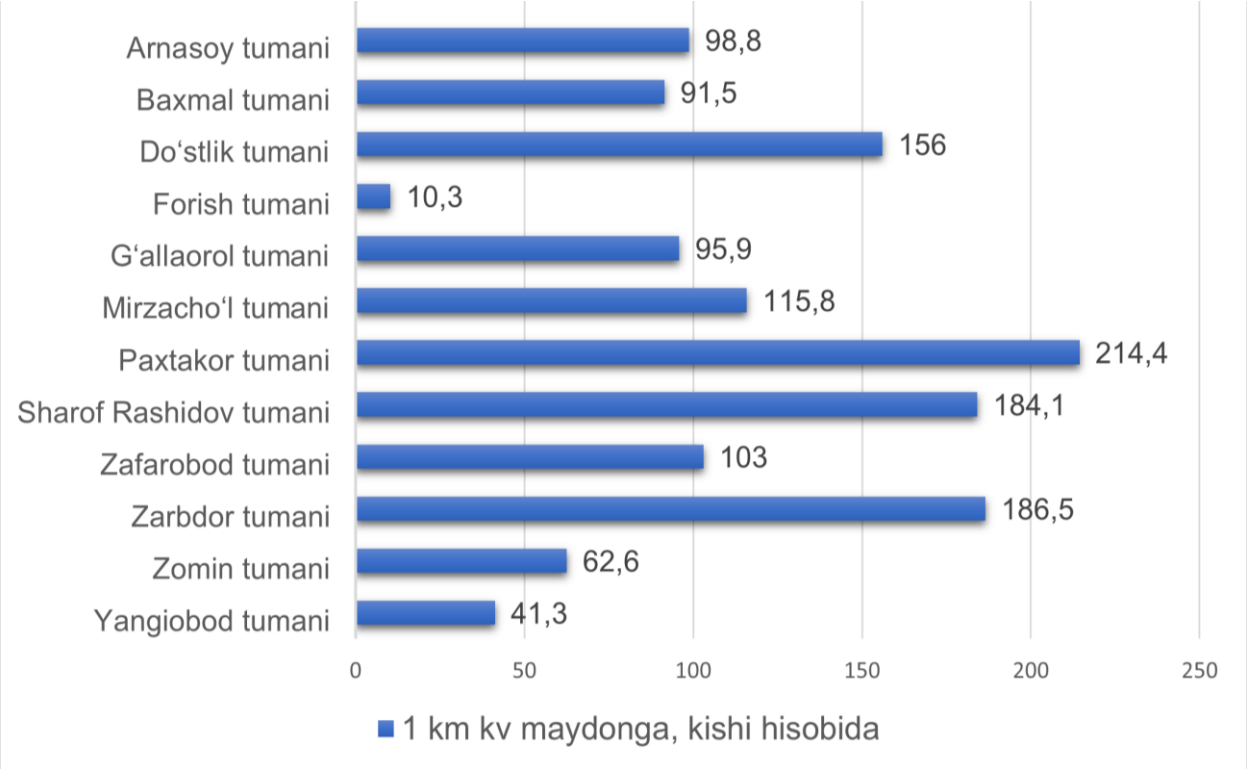
Arnasoy tuman aholisining demografik ko‘rsatkichlari

(2022-2023 yillar yanvar-dekabr oylarida)

	kishi			**har 1000 aholiga, nisbatan**		
	2022 yil	**2023 yil**	**o‘sish, kamayish**	**2022 yil**	**2023 yil**	**o‘sish, kamayish**
Doimiy aholi soni	48 100	48 700	+600	-	-	-
Tug‘ilganlar	1 158	1102	-56	24,1	22,6	-1,5
O‘lganlar	190	232	+42	3,9	4,8	+0,9
Tabiiy o‘sish	968	870	-98	20,1	17,9	-2,2
Nikohlar	309	305	-4	6,4	6,3	-0,1
Ajralishlar	52	44	-8	1,1	0,9	-0,2
Ko‘chib kelganlar	171	167	-4	3,6	3,4	-0,2
Ko‘chib ketganlar	380	389	+9	7,9	8,0	+0,1

Aholi zichligi va urbanizatsiya darajasi. 2024 yilning 1 yanvar holatiga ko‘ra tuman aholisining zichligi 98,8 kishini tashkil etdi. Tuman ushbu ko‘rsatkich bo‘yicha Jizzax viloyatida o‘rta o‘rinlarda turadi (4-rasm).

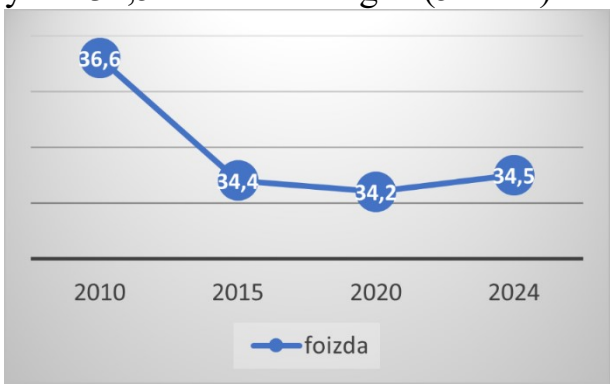
Tuman aholi zichligi viloyat (71 kishi) va mamlakatimiz (81,9 kishi) aholi zichligiga qaraganda birmuncha yuqoriroq turadi.



4-rasm. Jizzax viloyati tumanlarining aholi zichligi *(01.01.2024 y)*

Arnasoy tumanida urbanizatsiya darajasi birmuncha past hisoblanadi. Bunga sabab tumanning qishloq xo‘jaligiga ixtisoslashganligi va sanoatning rivojlanishi past darajada ekanligini keltirishimiz mumkin.

Tumanning urbanizatsiya darajasi 2010 yilda 36,6%, 2015 yilda 34,4%, 2020 yilda 34,2% va 2024 yilda 34,5%ni tashkil etgan (5-rasm).



5-rasm. Arnasoy tumani urbanizatsiya darajasi *(2010-2024 yy)*

Xulosa va takliflar:

Xulosa qilib aytganda, Arnasoy tumani Jizzax viloyatidagi aholi soni eng kam bo‘lgan tumanlardan biri bo‘lishiga qaramay, aholining tabiiy o‘sish sur’atlari viloyatning ko‘plab tumanlariga qaraganda birmuncha yuqori hisoblanadi. Lekin, tumanda migratsiya jarayonlari salbiy ko‘rsatkichga ega bo‘lgani tufayli aholining o‘sishi past holatda bo‘lishiga olib kelmoqda.

Tumanda xo‘jalik tarmoqlari, shuningdek, infratuzilmani rivojlantirish va yaxshilash natijasida ko‘chib ketuvchilar sonini kamaytirishga erishish mumkin.

Umuman olganda, Arnasoy tumanidagi demografik vaziyat aholining o‘sishi, tabiiy o‘sishning yuqoriligi, mexanik o‘sishning pastligi bilan boshqa hududlardan ajralib turadi. Ushbu holat esa tumanning iqtisodiy va ijtimoiy rivojlanishiga sharoit yaratib beradi.

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OPTIMIZATION OF NON-INVASIVE AND MORPHOLOGICAL METHODS FOR EARLY DETECTION OF GALLSTONE DISEASES

Abstract: *The article presents the literature reviewed by the authors. They describe various anomalies of the gallbladder, diseases of the biliary tract and morphological and histological changes in this organ during its course. It is very important to have basic knowledge of the development and normal anatomy of the biliary tract, which allows us to better understand anatomical and embryological anomalies. Improving surgical and diagnostic methods requires detailed information about various anomalies.*
Keywords: *Gallbladder, bile ducts, cholecystectomy, anomaly.*

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O'T TOSH KASALLIKLARINI ERTA ANIQLASH UCHUN INVAZIV BO'LMAGAN VA MORFOLOGIK USULLARNI OPTIMALLASHTIRISH

Annotatsiya: *Maqolada mualliflarlar tomonidan o'rganilgan adabiyotlar ma'lumotlari keltirilgan. Ularda o't pufagining turli xil anomaliyalari, o't yo'llari kasalliklari va kasallanishda ushbu organda bo'ladigan morfologik, gistologik o'zgarishlar keltirilgan. O't yo'llarining rivojlanishi va normal anatomiyasi bo'yicha asosiy bilimga ega bo'lish juda muhim, bu bizga anatomik va embriologik anomaliyalarni yaxshiroq tushunish imkonini beradi. Operatsiya va diagnostika usullarini takomillashtirish turli xil anomaliyalar haqida batafsil ma'lumotni talab qiladi.*
Kalit so'zlar: *O't pufagi, o't yo'llari, xoletsistektomiya, anomaliya.*

Relevance of the study. Laparoscopic cholecystectomies are common, and it is important to be aware of changes in the gallbladder. However, there is very little literature on morphological changes in the gallbladder and their occurrence. These changes are usually asymptomatic and often lead to complications and, therefore, should be clinically significant (Prakash AV, Joshi DS 2013).[10] Therefore, awareness of noninvasive and morphological methods for early detection of gallstone disease will reduce the incidence and help re-examine such patients.

Materials and methods. Archive materials, dissertations, theses, scientific journal articles, abstracts of scientific and practical conferences and Internet data.

Methodology. The results of the scientific work are studied through comparative analysis, scientific conclusions are analyzed.

Results obtained. James Buxbaun, in his dissertation Biliary sarcoidosis: early diagnosis reduces the need for surgery, states, “We would like to share our recent experience with three cases of biliary sarcoidosis, which are important in the differential diagnosis of biliary obstruction. Granulomatous liver involvement is seen in 50–79% of sarcoidosis patients, but it is usually asymptomatic. Pathological involvement of the bile ducts is very unusual, mimicking primary biliary cirrhosis (PBC), primary sclerosing cholangitis (PSC), or extrahepatic biliary obstruction. Although the clinical presentation of biliary sarcoidosis is similar to these diseases, its natural history and response to therapy are markedly different, and correct diagnosis may preclude surgical evaluation.” They also studied the first case, a 51-year-old white man with sarcoidosis and primary sclerosing cholangitis. He presented with profound jaundice and pruritus. He was referred for evaluation for expedited liver transplantation. He had been diagnosed with sarcoidosis five years earlier, and noncaseating granulomas were found during a splenectomy for lymphoma. His B symptoms resolved when prednisone was started at 10 mg/day. One year later, he presented with jaundice, and endoscopic retrograde cholangiopancreatography (ERCP) showed bile duct beads, dilatation, and strictures. He was diagnosed with PSC and was subsequently maintained on ursodiol with normal liver function tests. Two weeks before admission, his prednisone dose was reduced to 8 mg/day. At presentation, his total bilirubin was 13.5, alkaline phosphatase 613, and perinuclear neutrophil cytoplasmic antibodies (p-ANCA) were negative. ERCP was performed, which revealed an area of small beads in the left intrahepatic ductal system. Given the relatively mild cholangiographic abnormalities in the setting of markedly abnormal liver tests, he was considered to have biliary sarcoidosis rather than primary sclerosing cholangitis. Their findings suggest that a correct diagnosis of biliary sarcoidosis minimizes the need for surgery. They encountered a patient initially diagnosed with primary sclerosing cholangitis, a patient suspected of having strictures secondary to bile duct stones, and a third patient with a malignant tumor. Two of the patients were initially referred for major surgery, but the clinical course, response to steroids, and cholangiography allowed the correct diagnosis of biliary sarcoidosis and allowed them to be managed nonoperatively.

In addition, the Russian Candidate of Medical Sciences Sharifgaliev, Ildar Askhadulovich, also conducted a research on the topic "Morphofunctional features of the gallbladder neck in cholecystitis". Despite the achievements of modern medical science and practical healthcare, their number is constantly growing. The causes of gallbladder neck obstruction are represented by a wide list of diseases and conditions of a congenital and acquired nature. Among them, the most common are stones in the gallbladder, hyperplastic processes of the mucous membrane, including tumors, sclerosis of the outlet of the organ as a result of chronic inflammation, congenital anomalies, as well as changes in the structure of the gallbladder and its duct. Thanks to this scientific work, an improved protocol (standard) for morphological diagnosis of cholecystitis provides for preoperative ultrasound examination of the hepatobiliary zone, a comprehensive macro-,

microscopic examination of surgical material and allows improving the quality of diagnostics of inflammatory diseases of the gallbladder. [2]

In her dissertation titled “Hybrid Methods of Surgical Treatment of Patients with Cholelithiasis Complicated with Choledocholithiasis,” Ozerova Daria Sergeevna aimed to improve the treatment outcomes of patients with cholelithiasis complicated with choledocholithiasis by performing laparoscopic cholecystectomy at the optimal time after endoscopic retrograde choledocholithoextraction using hybrid surgical techniques.

Next, Galiullin Artur Rifovnch in his doctoral thesis “Clinical and Functional Characteristics of Gallbladder and Biliary Tract Diseases in Young People and Ways of Prevention” optimized the system of measures for assessing the clinical, functional and psycho-emotional characteristics of gallbladder and biliary tract diseases in young people and their prevention. The dissertation study included young people aged 18-35. Patient selection was carried out in two stages. At the first stage, a screening questionnaire for diseases of the biliary tract (BD) was developed, the questions were agreed with sociologists to eliminate conflicts with the criteria of sociological research. A total of 1262 people were interviewed, of which 346 (27.4%) had clinical signs of a specific disease of the gastrointestinal tract. At the second stage, a selection was made: individuals with signs of damage to the BD. This group included 96 (7.6%) people, who subsequently underwent a comprehensive examination. The first group consisted of 32 patients with dyskinetic diseases of the biliary tract (BD) according to the classification adopted by the Rome Consensus (1999). The second group included 64 individuals diagnosed with “Chronic noncalculous cholecystitis” (CNCC) according to the classification of Ya.S. Zimmerman (2002). As a result of this work, the clinical and functional characteristics of biliary diseases in young people were studied. When studying the subjective picture of the disease, it was noted that the leading manifestation of biliary pathology in patients was pain syndrome in combination with dyspeptic (100%) and asthenovegetative (76.6%) syndromes.[4]

The article “Morphological spectrum of gallbladder lesions and their relationship with cholelithiasis” by Digvijay Singh Dattal and his co-authors is presented. According to them, cholelithiasis is a chronic recurrent disease of the hepatobiliary system. Disorders of cholesterol, bile acids and bilirubin metabolism are responsible for the formation of stones in the gallbladder. Gallstones are a major cause of morbidity and mortality worldwide.

Lezhnev D.A., and Chukeyev I.V. In the article "Diagnosis of stenotic lesions of the bile ducts", it is noted that currently the number of patients with diseases of the gallbladder and bile ducts is 26-30% of patients with pathologies of the digestive tract requiring surgical treatment.

A study by Brian Ngure Kariuki et al., published in the journal “The Effect of Age on Gallbladder Morphometry,” concluded that “Morphometric characteristics of the gallbladder, such as length, diameter, and volume, are determinants of gallbladder function. These parameters change with age and may explain the age-related decrease in gallbladder contractility.

Zaprudnov A. M., Kharitonova L. A. (2008) noted a high percentage (21%) of cholelithiasis formation in children with sludge over a 5-year period, especially against the background of anomalies in the development of the biliary tract. Dynamic echocholecystography allows for an objective assessment of the motor-evacuator function of the biliary tract. For this, an ultrasound examination of the gallbladder is performed on an empty stomach and after a choleretic breakfast, until the minimum volume is reached and the filling phase begins.

This is how Ruban Alexander Petrovich describes cholelithiasis in his scientific work entitled "Features of vegetative regulation and quality of life in patients with cholelithiasis before and after cholecystectomy in the outpatient phase". Cholelithiasis ranks third after cardiovascular diseases and diabetes.

Mironova Ekaterina Dmitrievna in her scientific study entitled "Optimization and prediction of the effectiveness of litholytic drug therapy in patients with cholelithiasis based on clinical, instrumental, laboratory and immunomorphological data" noted the relevance of cholelithiasis. Cholelithiasis (gallstone disease) is one of the most important medical and social problems of modern society. Cholelithiasis is accompanied by a decrease in the quality of life of patients, the development of various complications and an increase in the number of surgical interventions, which imposes a significant financial burden on the global healthcare system.

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SURXONDARYO VILOYATI LANDSHAFTLARIDA *ANOPHELES* CHIVINLARINING TARQALISHI

Annotatsiya. *Maqolada 2008-2023 yillar davomida Surxondaryo viloyatining turli tabiiy landshaftlarida Anopheles chivinlarining faunistik tarkibi va sonining o'zgarishilari bo'yicha olib borilgan tadqiqotlar asosida to'plangan ma'lumotlarning tahlil natijalari keltirilgan.*

Kalit so'zlar: *Anorheles chivinlari, landshaft, anofelogen, An. superpictus, An. pulcherrimus, An. hyrcanus, An. claviger turlari.*

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DISTRIBUTION OF ANOPHELES MOSQUITOES IN THE LANDSCAPES OF SURKHANDARYA REGION

Abstract: *The article presents the results of the analysis of data collected on the basis of research on the changes in the faunistic composition and number of Anopheles flies in various natural landscapes of Surkhandarya region during the period 2008-2023.*

Keywords: *Anopheles flies, landscape, An. superpictus, An. pulcherrimus, An. hyrcanus, An. claviger species.*

Surxondaryoning iqlimiy sharoiti quruq (kontinental), quyosh nurlariga boy, kunlik va yillik havo haroratida keskin o'zgarishi, yoqin sochin esa kam bo'lishligi bilan ajralib turadi. Viloyatning murakkab xususiyatlaridan biri, bu havo harorati va yog'ingarchilikning taqsimotining va boshqa agro iqlim omillarining keskin farq qilishi bilan ifodalandi. U O'rta Osiyoning sharqiy va shimoliy qismlaridan tog' tizmalari bilan qamrab olingan bo'lgan. Tog'li va yarim cho'l iqlimi bo'lgan hududlariga ega. Viloyatning markaziy va janubiy qismlari tekisliklardan iborat bo'lib, shimolda G'isor tog' tizmasi qamralgan, g'arb va shimoliy g'arbida uning tarmoqlari bo'lgan Boysuntog' (dengiz sathiga nisbatan 4425 metr balandlikda joylashgan) va Ko'g'itang tog'i (3139 m), sharqda Bobotog' tizmasi (2290 m), janubda Amudaryo vodiysini qamrab logan hududlarni o'z ichiga qamrab oladi. Tadqiqot hududida 10 ta daryo suv resurslari mavjud, ulardan faoydalaniladigan suv resurslarining umumiy hajmi yiliga 4270 mlrd. kub metrni tashkil etadi. Bunda asosiy daryolari bo'lgan Amudaryo, Surxondaryo, To'palang, Qoratog', Sangardak, Xo'jaipok va Sherobod daryolari hissasi kattadir [2; 156-b.].

An. superpictus diyarli barcha turdagi landshaftlarda ommaviy tarzda keng tarqalgan. *An. pulcherrimus* suvli toshqin daryo bo'ylari, ariqli suvlar bilan

sug‘oriladigan tekisliklar landshaftlarida ko‘psonli darajada uchragan. Pastki tog‘ adir, tog‘li daryo bo‘ylari landshaftlarida kam sonli holatda uchradi. *An. hyrcanus* turlari tog‘li daryo bo‘ylaridan tashqari diyarli barcha landshaftlarida oddiy darajada tarqalgan, tog‘li daryo bo‘ylari landshaftida kamsonli darajada uchradi [3; 103-b.].

***Anopheles* chivin turlari tarqalgan zoogeografik xaritalar, www.gbif.org**

1-rasm. ***Anopheles superpictus***

2-rasm. ***Anopheles pulcherrimus***

3-rasm. ***Anopheles hyrcanus***

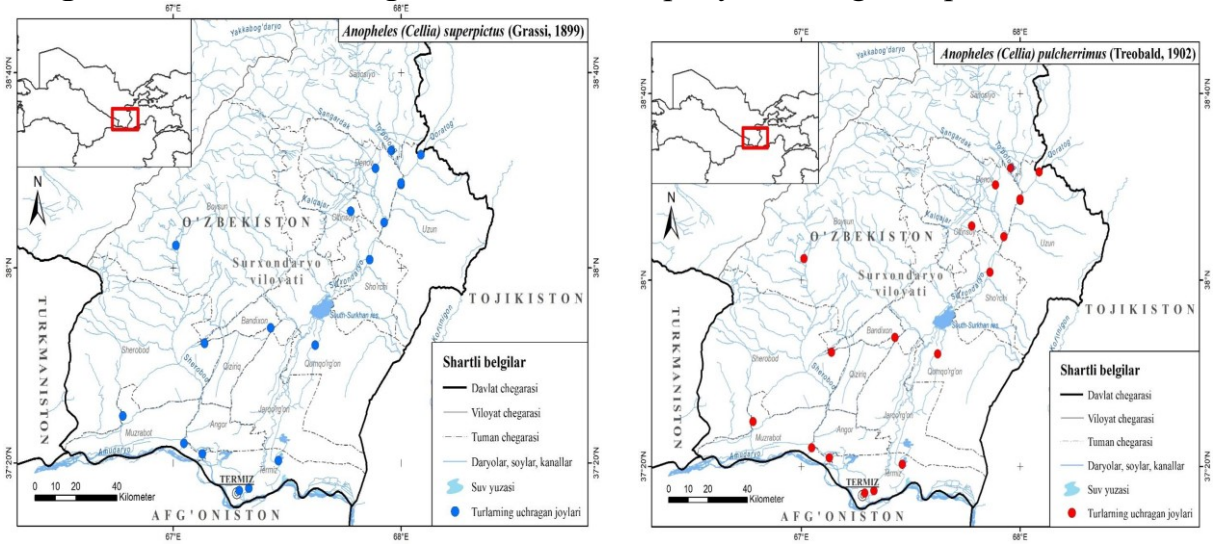
4-rasm. ***Anopheles claviger***

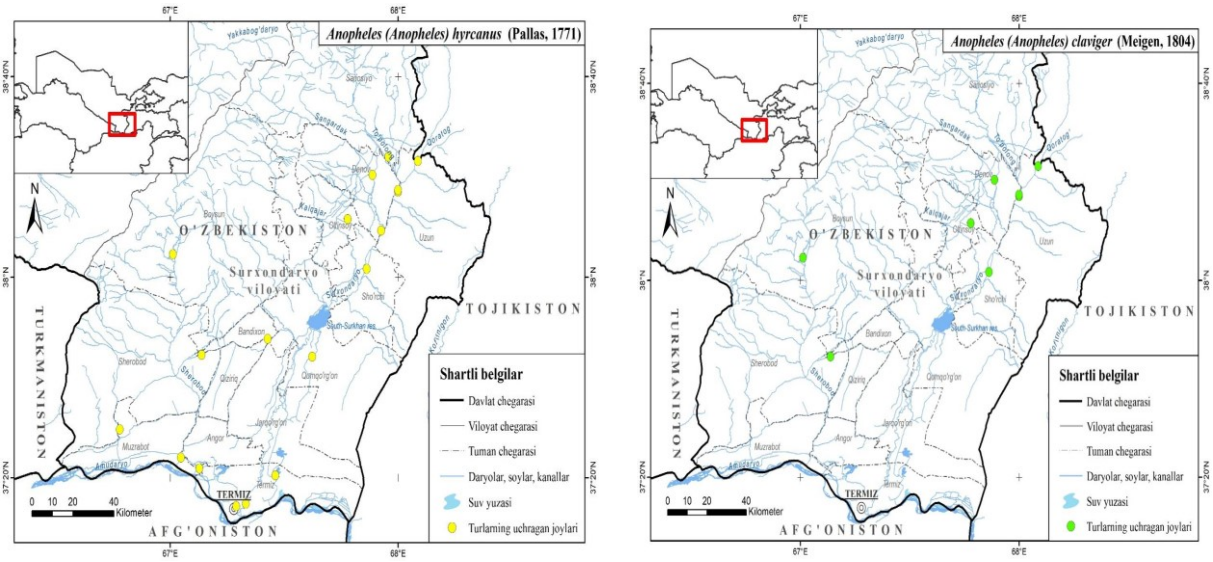
Anopheles avlodi chivin lichinkalari ko‘proq Termiz shahridagi hamda Denov, Sariosiyo, Uzun, Sho‘rchi, Muzrobod, Angor, Termiz, Oltinsoy, Boysun,

Sherobod, Qumqo‘rg‘on, Qiziriq va Bandixon tumanidagi Surxondaryosi qirg‘oq bo‘yning atrofidagi jing‘il bilan o‘ralgan vaqtinchalik mayda suv ko‘lmaklarida qirg‘oqlari o‘simliklar bilan qoplangan yaxshi yoritilgan turg‘un va past oqimli suv havzalarida *An. superpictus, An. pulcherrimus* va *An. hyrcanus* chivin lichikalari topildi.

5-rasm. **Surxondaryo viloyati hududidagi buloq va chashma suvlarida uchrovchi *Anopheles* chivin lichinkalari tarqalgan landshaftlar**

Anopheles superpictus lichinkalarining rivojlanishi uchun optimal suv harorati 30 °C, *Anopheles pulcherrimus* o‘rtacha harorat 31-32 °C, *Anopheles hyrcanus* lichinkalarning rivojlanishi uchun optimal harorat 25-30°C va *Anopheles claviger* esa 12-20 °C bo‘lgan suv havzalari qulay bo’shligi aniqlandi.





6-rasm. ***Anopheles*** **chivin turlari tarqalgan joylarining**

Surxondaryo viloyati xaritalari

Olingan natijalarga ko‘ra har uch tur *Anopheles* chivinlari Genbank bazasidagi ma’lumotlar bilan tasdiqlangan va ularning o‘xshashligi 99,85 % tashkil qilgan. *An. hyrcanus* turi bilan *An. pulcherrimus* turlarining nukleotidlari o‘rtasidagi farq 10,8 %, *An. hyrcanus* turi bilan *An. superpictus* turi o‘rtasida 11,2 % va *An. pulcherrimus* va *An. superpictus* turi bilan esa 9,9 % farqlanishi aniqlandi

Xulosalar. Surxondaryo viloyatining o'ziga xos tabiiy iqlim sharoitlarida releflarning xilma-xilligi, pastteksliklar, tog' va tog'oldi hududlarga qadar bo'lgan vertikal, gorizantal kengliklar bo'ylab shakllangan landshaftlarining mavjudligi *Anopheles* avlodi chivinlarining o'ziga xos faunasining shakllanishiga asos bo'ldi.

Surxondaryo viloyati hududidagi tabiiy geografik landshaftlar bo’yicha olib borilgan tadqiqotlar shuni ko'rsatdiki, eng xavfli bezgak kasalligini tarqalishi xavfi bo’lgan hududlarga ariq suvlar bilan sug'oriladi landshaftlar, keyin esa tog’ suvli daryolar bo’y landshaftlar ekanligi aniqlandi. Bularda asosiy bezgak kasalligining tarqatuvchilari sifatida *An. superpictus* va *An. pulcherrimus* bo’ldi. Bu hududlarda aholi punktlari mavjudligi bilan ahamiyatlidir.

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O‘ZBEKISTONDA MUSTAQILLIK YILLARIDA QISHLOQ XO‘JALIGI SOHASIDA TADBIRKORLIKNI RIVOJLANTIRISH

Annotatsiya: *O‘zbekiston mustaqillikka erishganning ilk yillaridanoq uzoq yillar davomida agrar sohaga ixtisoslashib qolgan respublikada, ijtimoiy –iqtisodiy inqiroz sharoitida ko‘p ukladli iqtisodiyotni barpo etish, agrar munosabatlarning yangi tipini yaratish jarayonlari amalga oshirilishi juda zarur edi. O‘zbekistonda eng avvalo aholini ish bilan ta’minlaydigan, ularni iste’mol tovarlari bilan ta’minlaydigan soha tadbirkorlikni rivojlantirish dolzarb va ustuvor vazifa edi. Ushbu maqolada O‘zbekistonda mustaqillik yillarida qishloq xo‘jaligi sohasida tadbirkorlikni rivojlantirish yo‘lida amalga oshirilgan ishlar tahlil qilingan.*
Kalit so‘zlar: *agrar soha, tadbirkorlik, innovatsiya, ko‘p ukladli iqtisodiyot, agrar munosabatlar, ishlab chiqarish, sanoat, islohotlar.*

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ENTREPRENEURSHIP IN FERGANA REGION IN THE FIRST YEARS OF INDEPENDENCE: REFORMS, PROBLEMS, INNOVATIONS

Abstract: *In the first years of independence of Uzbekistan, the republic, which for many years specialized in agriculture, in the context of socio-economic crisis, it was necessary to build a diversified economy, to create a new type of agrarian relations. The development of entrepreneurship in Uzbekistan, which primarily provides employment and consumer goods, was an urgent and priority task. This article analyzes the work done in Uzbekistan during the years of independence to develop entrepreneurship in agriculture.*
Keywords: *agrarian sector, entrepreneurship, innovation, multi-sectoral economy, agrarian relations, manufacturing, industry, reforms.*

Yagona xalq xo‘jaligining tarkibiy qismiga aylanib qolgan O‘zbekistonda mustaqillikning dastlabki yillaridan iqtisodiyotda katta islohotlarni amalga oshirishni talab etdi. Buning uchun avvalo qishloq xo‘jaligida mulkchilik shaklini o‘zagartirish, mehnatning tashkil etishning dehqon uchun tushunarli bo‘lgan turlarini vujudga keltirish lozim edi. Bu borada mulkni isloh qilish va mulkchilikning turli shakllarida o‘tish masalalari muhim bo‘lgan bir paytda respublikada tobora xususiy sektor salohiyatini ko‘tarish muhim masalalardan biriga aylandi. Ammo uzoq yillar mobaynida asosan, agrar sohaga ixtisoslashib

qolgan respublikada, ijtimoiy –iqtisodiy inqiroz shaoroitida ko‘p ukladli iqtisodiyotni barpo etish, agrar munosabatlarning yangi tipini yaratish jarayonlari amalga oshirilishi juda zarur edi. Binorbarin, bozor iqtisodiyotiga o‘tish sharoitida aholining xalq iste’mol tovarlariga bo‘lgan talabining ortib borishida asosiy vazifa tabiiyki aholini oziq – ovqat mahsulotlariga, sanoat tarmog‘ini xom ashyoga bo‘lgan talabini qondirish asosiy vazifa bo‘lib qoldi. Buning ustiga aholi sonining yildan - yilga oshib borishi, sanoat va qurilish tarmoqlarining tez rivojlanishi, ayniqsa qishloq xo‘jaligiga yaroqli bo‘lgan erlarga bo‘lgan talabning ortib borishi natijasida respublikada bir kishi hisobiga to‘g‘ri keladigan erlar maydoni tobora kamayib bordi. Respublika qishloqlarida eri yo‘q oilalar soni 240 ming nafar, uy-joy qurilishi va qishloq xo‘jaligi mahsulotlarini etishtirish uchun erni kengaytirishga muxtoj oilalar soni 1,8 mln.dan ko‘proq edi [1]. Agar 1976 yilda respublika miqyosida bir kishi hisobiga 0,27 gektar haydaladigan er to‘g‘ri kelgan bo‘lsa, 1995 yilda 0,16 gektarni tashkil etdi yoki 41.2 foizga qisqartirildi. SHu davrda respublika aholisi soni 14.2 mln. kishidan 1996 yil boshiga kelib 23 mln. kishiga oshdi [2]. Bu tabiiyki muammolarni ham keltirib chiqardi.

O‘zbekiston Oliy Soveti Prezidiumining 1989 yil 19 avgust “Kolxozchilar, sovxozlarning ishchilari, fuqarolarning shaxsiy yordamchi xo‘jaliklarini va yakka tartibdagi uy – joy qurilishini rivojlantirish to‘g‘risida”gi Qaror qabul qilingandan so‘ng aholini er bilan ta’minlash maqsadida o‘tkazilgan tadbirlar o‘z natijasini berdi, Bu qonun qabul qilingandan so‘ng 181 ming gektar er maydoni aholiga tomorqa uchun ajratib berildi. Biroq islohotlar davomida o‘ylamasdan, shoshma – shosharlik bilan erlarni ajratish holatlari ham bo‘lib o‘tdi. Masalan, 1993-1995 yillarda Farg‘ona vodiysida aholi zich yashayotganligi, er maydonlarining boshqa viloyatlarga nisbatan juda chegaralanganligi, jumladan bir kishiga vodiyda 0,9 geatr, Farg‘ona viloyatida 0,7 gektar, Andijon viloyatida – 0,6 gektar er maydoni to‘g‘ri kelganligi xususiyatlarini hisobga olmay jamoa va shirkat xo‘jaliklaridagi mustaqil fermalarni kredit olish bilan fermerlikka aylantirish oqibatida 1996 yil sentyabrdan boshlab, ular yana juda zaiflashib bordi, mollar soni kamayib, chorva mollarni saqlash va em-xashak bilan ta’minlash sharoiti yomonlashdi, dehqon (fermerlar)dan fermalar jamoa xo‘jaliklariga qaytarib olish hollari yuz berdi. Masalan, Farg‘ona viloyati Beshariq tumani “Rapqon” jamoa xo‘jaligi fermani 5 mln. so‘mga kreditga fermerlika olingan er katta zarar bilan qaytarib berildi. Bunday holatlar Oltiariq, Farg‘ona, Toshloq tumanlarida ham bo‘ldi [3].

1991 yil 11 yanvarda “Aholining shaxsiy yordamchi xo‘jaliklarini yanada mustahkamlash to‘g‘risida”gi Farmon chiqib, unga muvofiq 516.6 ming gektar er maydoni aholining shaxsiy yordamchi xo‘jaliklariga muddatsiz foydalanish uchun ajratib berildi. Natijada 1993 yilga kelib aholining shaxsiy yordamchi xo‘jaliklaridagi ekin maydonlari 343,6 ming gektarga etib, ulardan unumli foydalanish hisobiga 210 ming tonna don, 1843,6 ming tonna sabzavot, 198,5 ming tonna kartoshka, 363.5 ming tonna poliz mahsulotlari hamda 281,5 ming tonna meva etishtirildi. 1995 yilga kelib respublikada etishtirilayotgan donning 10 foizi, kartoshkaning 42 foizi, sabzavotning 62 foizi, polizning 65 foizi,

sutninng 75 foizi, tuxumning 43 foizi, junning 64 foizi aholining shaxsiy yordamchi xo‘jaliklarida etishtirildi [4].

1991 yil mustaqillik qo‘lga kiritilgach, tabiiyki muammolar ham kelib chiqa boshladi. Iqtisodiy tang ahvolda bo‘lgan O‘zbekistonda aholini ish bilan ta’minlash muhim muammolardan hisoblandi. Aholining 61 fioizdan ortiqrog‘i qishloq joylarda yashagan O‘zbekistonda esa avvalo mulkchilikni davlat tasarrufidan chiqarib, uning turli shakllarini rivojlantirish dolzarb bo‘lib qoldi. Aholini ish bilan ta’minlash, oila byudjetini yaxshilash va kishilarni xalq iste’mol mollariga bo‘lgan talabini qondirishning asosiy yo‘llaridan biri qishloq joylarida turli sanoat korxonalarini tashkil etish edi. Bu muhim ijtimoiy va iqtisodiy ahamiyatga ega bo‘lib, bu birinchidan, qishloq xo‘jaligidagi mavjud xom ashyo bazalaridan unumli foydalanish imkonini berar, ikinchidan, aholini ish joylari bilan ta’minlashi, ularning oila byudjetlari, turmush darajasini yaxshilash, uchinchidan, jamoa xo‘jaliklarining daromadini oshirish, iqtisodiyotni mustahkamlashi, to‘rtinchidan, qishloq joylarida qurilish industriyasini rivojlantirish imkonini berar edi.

Aholisi zich joylashgan mintaqalardan biri Farg‘ona viloyati edi, bu erning qariyib 70 foiz aholisi qishloqlarda istiqomat qilgan. 1995 yilda viloyatda aholi soni 2444 ming kishini tashkil etib, yiliga aholi o‘sishi 2.5 foiz yoki 50-60 ming kishiga ko‘paygan. Mavjud aholining 1165,2 mingi mehnatga layoqatli bo‘lib, 869,3 ming kishi jamoat sektorlarida, 143,7 ming kishi esa uy xo‘jaligida band bo‘lganlar. Mehnat resurslarining yillik o‘sishi 23,0 ming kishini tashkil qilib, shundan 10 mingi qishloq joylarga to‘g‘ri kelgan [5]. SHu maqsadda yangi tuzilgan fermer xo‘jaliklarining o‘rni qishloq xo‘jaligi ishlab chiqarishdagi o‘rni yuqori bo‘lib bordi. Masalan, Qoraqalpog‘iston Respublikasining Taxtako‘pir tumanida N.Bog‘lonov, Samarqand viloyatining Urgut tumanida V.Bozorov, Surxondaryo viloyatining Qumqo‘rg‘on tumanidan S.Qoraboev, Farg‘ona viloyatining Uchko‘prik tumanidan M.Ahmedov boshliq fermer xo‘jaliklari har gektar erdan 50 sentnerdan g‘alla etishtirishga muvaffaq bo‘lganlar. Huddi shuningdek, Qooraqalpog‘iston Respublikasi To‘rtko‘l tumanida A.Abdullaev, Namangan viloyati CHortoq tumanidan N.Temirov, Farg‘ona viloyati Oxunboboev tumanidan M.Mahmudovalar rahbarlik qilgan fermer xo‘jaliklari 75-85 tonna sut, 15-20 tonna go‘sht tayyorlashga muvaffaq bo‘lganlar [6]. 1996 yilning ikkinchi yarimida respublikada kichik korxonalarning soni 7622 taga ortgan bo‘lsa, shularning 90 foizi xususiy korxonalar xissasiga to‘g‘ri kelgan [7].

Aynan Farg‘ona viloyati haqida gapirsak, mustaqillikning dastlabki yillarida Farg‘ona viloyatida yordamchi xo‘jaliklar O‘zbekiston, Buvayda, Beshariq, Quva va Toshloq tumanlaridagi xo‘jaliklar alohida o‘rnak ko‘rsatdi. Beshariq tumanidagi shirkatlar uyushmasida 15 dan ortiq yordamchi xo‘jaliklar faoliyat ko‘rsatgan bo‘lsa, ularda g‘isht sexi, tikuvchilik, ohak, qandolatchilik, kulolchilik, gilam to‘qish, duradgorchilik mahsulotlari ishlab chiqarildi. Bu sexlarda 100 mingdan ortiq kishi mehnat qildi. Bunday xo‘jaliklarga Beshariq tumanidagi “Rapqon”, “O‘zbekiston” jamoa xo‘jaliklari, Bog‘dod tumanidagi “Namuna” jamoa xo‘jaligi, Buvayda tumanidagi “Buvayda”, “YAngiqo‘rg‘on” jamoa xo‘jaliklari, Toshloq tumanidagi “YAkkatut” va “Zarkent” jamoa xo‘jaliklarini kiritish mumkin edi. Bu

xo‘jaliklarning har birida o‘nlab yordamchi xo‘jaliklar bo‘lib, ularda qishloq yoshlari mehnat qilishdi.

1994-1995 yillarda Beshariq tumani “Rapqon” jamoa xo‘jaligida teri oshlash va undan har xil oyoq kiyimlari hamda kurtkalar tikish sexi ishga tushirildi. Bu jamao xo‘jaligi har yili paxta, pilla, meva – sabzovot etishtirish rejalarini bajarib kelgan. Bu erda 13 ta yordamchi va kichik korxonalar barpo etilgan. Ularda 308 nafar qishloq yoshlari mehnat qildi. Toshloq tumani “Zarkent” jamoa xo‘jaligida konserva sexi va nutriya terisidan telpak tikish sexlari ishga tushirildi [8].

O‘zbekiston tumanidagi G‘ofur G‘ulom nomli jamoa xo‘jaligining aholisi zich joylashgan bo‘lib, har bir jon boshiga 0,09 gektardan ekin maydoni, har bir ishlovchi hisobiga esa 0,6 gektardan ekin maydoni to‘g‘ri kelar edi. Bu xo‘jalikda dehqonchilikning boshqa tarmoqlari qatori chorvachilik ham rivojlantirildi. Xo‘jalikning jami er maydoni 3.612 gektar, aholi soni esa 24.500 kishini tashkil qilgan bo‘lsa, shundan 3.250 nafari jamoa xo‘jaligida ishladi. Xo‘jalik o‘zida etishtirgan xom – ashyoni qayta ishlab, mahsulot holiga keltirib ishlaydigan g‘isht, konserva, atlas, gilam, sharf va ro‘mol to‘qish, tikuvchilik, ohak ishlab chiqarish, kulolchilik, ipak tolasi ishlab chiqarish, sholcha to‘qish, telpak tikish, makoran sexlari ishlab chiqaruvchi korxonalar sonini ko‘paytirishi natijasida ularning soni 16 taga etdi. 1993 yilda esa paxta tozalash sexi ishga tushirilib, Nursux qishlog‘ining 30 nafar yoshlarini ish bilan ta’minlagan. Zavod kompleksiga kirgan to‘qimachilik sexida 3 mahsulot: paypoq, gazlama va tayyor kiyim –kechak ishlab chiqarish yo‘lga qo‘yilgan va 86 nafar kishi ish bilan ta’minlangan, atlas to‘qish sexida 35 kishi mehnat qildi [9].

1995 yilda belgilangan 61000 korxona tuzilishi o‘rniga 64428 ta kichik va o‘rta korxonalar tashkil topdi. Farg‘ona vodiysining o‘zida Andijonda 5272 ta, Farg‘onada 5005 ta, Namanganda 5010 ta kichik korxonalar tuzilib, o‘z faoliyatini olib borganlar [10].

Bunday korxonalarni rivojlantirish, xalqaro bozorda raqobatbardosh mahsulotlar ishlab chiqaradigan yangi korxonalar barpo etish va mavjud quvatlarni modernizatsiya qilish tizimli ravishda davom ettirildi. Eksport qiluvchi korxonalar har tomonlama qo‘llab –quvvatlanib, kichik biznes va xususiy tadbirkorlik sub’ektlari eksport faoliyatiga keng jalb qilindi. SHuningdek, sarmoya kirituvchi korxonalar, tashkilotlar bilan ham hamkorlik yo‘lga qo‘yildi.

Umuman. Mustaqillik yillari O‘zbekistonda sovet davlatidan so‘ng qolgan murakkab iqtisodiy ahvolni izga solish borasida bir qator tadbirlar amalga oshirilsada, tang ahvolda qolgan qishloq xo‘jaligi, sanoatni izga solib olishda o‘ziga xos murakkab vaziyatlar kelib chiqdi. O‘zbekiston, ayniqsa Farg‘ona viloyati tumanlarining qishloq xo‘jaligiga moslashganligi bu erda asosan dehqonchilik bilan shug‘ullanish lozimligini ko‘rsatdi. Biroq, mustaqillikning dastlabki yillari bu o‘ziga xos qiyinchilar bilan amalga oshirildi.

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O‘ZBEK MILLIY HUNARMANDCHILIGINING TARIXIY ASOSLARI

Annotatsiya: *Ajdodlarimiz tomonidan yaratilgan hunarmandchilik va amaliy san'atning zardo'zlik, gilam to'qish, kulolchilik, misgarlik, pichoqchilik, yog'och o'ymakorligi, zargarlik, kashtachilik va ko'plab boshqa tur namunalari jahonning bir qator mamlakatlari muzeylarida, ko'rgazma zallarida, shahsiy kolleksiyalarda namoyish qilinganligi va xorijiy xalqlarning e'tirofiga sazovor bo'lgani fikrimizning dalili desak xató bo'lmaydi.*

O'zbekiston Respublikasi mustaqillikni qo'lga kiritganidan so'ng o'zbek xalqi o'zining qadimiy milliy hunarmandchilik sohalarini qayta tiklash va rivojlantirish uchun ulkan imkoniyatlarni qo'lga kiritdi. Chunonchi, mustaqillik yillarida O'zbekiston hukumati milliy hunarmandchilik merosiga xalqning milliy madaniy boyligi sifatada e'tibor qaratdi. Aynan shuning uchun ham xalqimiz o'z qo'li, mehnati, tafakkuri bilan yaratgan hunarmandchilik merosini asrab-avaylash, qadrlash va unga bunyodkor xalkimizning umumjaxon tamadduniga qo'shgan hissasi sifatida qarash, uni o'rganish, qayta tiklash hozirgi kunning muxim va dolzarb vazifasiga aylandi.

Kalit so‘zlar: *arxeologik topilmalar, qadimgi asrlar, o‘rta asr tosh, suyak, yog‘och, kulolchilik, tasviriy san'at, o‘rta asr kulolchiligi, Rishton, yozuv materiallari, o‘zbek qog‘ozi, Samarqand qog‘ozi, Qo‘qon qog‘ozi, yozuv materiallari, xattotlik, rangtasvir, ustaxonalar, asboblar, metallga ishlov berish , pichoqchilik, misgarlik, kashtachilik, zargarlik buyumlari yasash*

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HISTORICAL FOUNDATIONS OF UZBEKISTAN NATIONAL CRAFTS

Abstract: *It would not be wrong to say that the fact that the crafts and applied arts created by our ancestors, such as goldsmithing, carpet weaving, pottery, coppersmithing, cutlery, wood carving, jewelry, embroidery and many other types, are exhibited in museums, exhibition halls, private collections of a number of countries of the world and have received recognition from foreign peoples, is evidence of our opinion.*

After the Republic of Uzbekistan gained independence, the Uzbek people received great opportunities to restore and develop their ancient national crafts.

For example, during the years of independence, the government of Uzbekistan paid attention to the heritage of national crafts as the national cultural wealth of the people. That is why preserving, appreciating, and viewing the heritage of craftsmanship created by our people with their own hands, labor, and thought as a contribution of our creative people to the global civilization, studying it, and restoring it has become an important and urgent task of our time.

***Keywords**: archaeological finds, ancient centuries, medieval stone, bone, wood, ceramics, fine arts, medieval ceramics, Rishton, writing materials, Uzbek paper, Samarkand paper, Kokand paper, writing materials, calligraphy, painting, workshops, tools, metal working, knife art, coppersmithing, embroidery, jewelry making.*

Kirish.

Arxeologiya ma'lumotlariga ko'ra, hunarmandchilik tarixi juda qadim o'tmishga borib taqaladi. Olimlarning e'tirof etishlaricha, insoniyat tarix ibtidosida dastavval, tosh, suyak va ayrim hollarda yog'ochdan mehnat hamda kundalik ehtiyoj uchun qurollar yasab hunarmandchilik tarixini boshlagan bo'lsa keyinroq esa (so'nggi paleolit, mezolit) qoyatosh va daralarga har xil manzaralarni tasvirlab tasviriy san'atga asos solgan. Qadimgi va o'rta asrlar davri O'zbekiston, umuman, O'rta Osiyo hunarmandchiligi, san'ati, qolaversa madaniyati tarixi bo'yicha juda ko'plab tadqiqot ishlari amalga oshirilgan bo'lib, bu yo'nalish tarixshunoslikda aloxida mavzu hisoblanadi.

Methods and materials.

O'zbek milliy hunarmandchiligining tarixiy ildizi haqida gap ketganda o'zbek qog'ozining tarixiga to'xtalib o'tish joizdir. Olib borilgan tadqiqotlar shuni ko'rsatadiki o'zbek qog'ozi tarixi o'rta asrlarga borib taqaladi.

O'rta Osiyoda qog'oz dastlab Samarqanda tayyorlangan. O'n asrdan ko'proq vaqt davomida mashhur bo'lgan Samarqand qog'ozi qachondan boshlab tayyorlanganligi haqida manbaalarda turli ma'lumotlar beriladi. Keng tarqalgan manbalardan birida 751-yilda Talasda bo'lib o'tgan arab va xitoy qo'shini o'rtasidagi jangdan keyin arablar Samarqandda birinchi qog'oz tayyorlash ustaxonasini tashkil qilgani qayd etilgan[1: 12].

Arab tarixchisi Ibn an-Nadim "Fexrest ul-ulum" asarida yozilishicha, arablar 706-yilda Samarqandni istilo qilganida bu shaharda qog'oz ishlab chiqarish korxonalari borligini ko'rib hayratda qolishgan. Arablar Samarqandga yetib kelguncha, boshqa biror joyda qog'ozni ko'rishmagan ekan. Ibn an-Nadim Samarqand qog'ozi Xonbaliq (hozirgi Pekin) qog'ozidan tekis va mayin ekanligini ta'kidlaydi[2: 37].

Demak, O'zbekiston hududida qog'oz V–VIII asrlardayoq tayyorlana boshlangan. Samarqandda tayyorlangan qog'oz o'zining och novvot rangi, pishiq yupqa sathida siyohning tekis yotishi va siyohni oz shimishi kabi bir qator jihatlari bilan boshqa o'lkalarda tayyorlangan qog'ozlardan ajralib turgan. Samarqand qog'ozi Ipak yo'li orqali Yevropa mamlakatlariga eksport qilingan. IX asrdan XIX

asr boshigacha yozuv ashyosi sifatida Samarqand qog'ozi Sharq va G'arb davlatlarida juda ommalashgan.

Mahalliy nizolar tufayli Samarqand ustalari boshqa shaharlarga ko'chib borishi natijasida Buxoro, Toshkent, Qo'qon shaharlarida ham qog'oz tayyorlovchi ustaxonalar ochilgan. XIX asrga kelib Qo'qon qog'ozlari ham mashhur bo'lgan.

Tayyorlangan qog'oz xattot yoki naqqosh qo'liga borguncha, ko'p jarayondan o'tgan. Jumladan, yozishga qulay bo'lishi uchun grunt qilingan. Qog'ozni gruntlashning turli usullari bo'lib: u guruch, bug'doy, tuxum oqi yoki achchiqtosh bilan ohorlangan. Ishlov berilgan qog'oz silliq tosh yoki shisha shar yordamida silliqlanib, salkam bir yil quruq, soya, tekis joyda saqlangan. Uzoq vaqt shunday joyda saqlangan bunday qog'oz xattotning yozishi uchun yaxshi manbaga aylangan[3: 37-38].

Vaqtlar o'tib, Qo'qonda qog'ozgarlik rivoj topa boshladi. Bu yerga Samarqandlik ustalar ko'chib o'tdilar. Shu tariqa Samarqand ustaxonalarida qog'oz ishlab chiqarish to'xtab, asta-sekin Farg'ona vodiysi ustaxonalari butun O'rta Osiyoda, ya'ni Turkistonda – Orol dengizidan to Xitoy chegaralarigacha qog'oz ta'minotiga egalik qila boshladilar.[4: 47]

XVIII asrning II yarmi hamda XIX asrga oid qo'lyozmalar, qaydnomalarning aksariyati Qo'qon qog'oziga yozilganligi ma'lum bo'ldi. Chunki, qog'oz ishlab chiqarish bir butun mahallaga birlashtirildi. Qog'oz sifati, miqdori va narxi uchun mas'ul shaxslar tayinlangan. Natijada tez orada Samarqand va Xuroson qog'ozlari Markaziy Osiyoda iste'moldan siqib chiqarila boshlandi. A. Fedchenko Qo'qon qog'ozgarlik usuli Xitoy qog'ozgarlik usuliga juda o'xshashligini ta'kidlab o'tadi. Ushbu masalaga tadqiqotchi N. Habibullayev o'z fikr-mulohazalar bildirib shunday yozadi: «O'rta Osiyolik qog'ozgar ustalar juda qadim zamonlardayoq orttirgan Xitoycha qog'oz tayyorlash usuli, an'ana va ko'nikmalarini asrab qolganliklariga hayratlanishning hojati yo'q. Chunki, o'z ustaxonalari va asbob-uskunalari, qo'l mehnatiga asoslangan uslublarining nihoyatda eskiligiga qaramay, ular bu hunarni san'at darajasida ko'tara olganlar hamda a'lo sifatli qog'oz tayyorlash usullarini saqlab qolganlar. Bu ham bo'lsa, bir nechta oilalarda avloddan avlodga o'z hunarini o'rgatish usuli bilan ham amalga oshib kelganligidir[5: 21-22].

Kulolchilik hunarmandchiligi O'rta Osiyoda eng qadimgi hunarlardan biri sanaladi. Darhaqiqat, bu haqida arxeologik topilmalar ashyoviy dalil sifatida guvohlik beradi. Jumladan, E. M. Pesherova o'z tadqiqotlarida O'rta Osiyo hududidagi kulolchilik idishlari tarixini o'rganishga e'tibor qaratib, qadimgi va o'rta asrlardagi kulolchilik ishlari tarixiga baho bergan. N. A. Dimitriyeva va L. I Akimovalar qadimgi dunyo tarixida bu san'atning tutgan o'rnini tahlil qilib, antik davr kulolchiligiga ham baho bergan.

Katta Farg'ona kanalini qazish paytida miloddan avvalgi I ming yillikka oid xumlarning qoldiqlari, Quva shaxridan V-VI asrlarga oid uzunligi 120 sm, diametri 26 sm bo'lgan quvurlar topilgan. Bu quvurlar 4 km uzunlikda ko'milgan va bundan suv o'tkazilganligi aniqlangan.[7: 12]

O'ta asrlar davrida IX-XI asrlarda ham O'zbekiston hududida kulolchilik ravnaq topganligini Binkent kulolchilik sanati namunalaridan ham bilib olsa

bo’ladi.[8: 4] Ushbu sirlangan idishlar qisman ko’rib chiqilgan bo’lsada, shuning o’zi o’rta asrlarda o’zbek kulolchilik san’ati taraqqiyotining umumiy manzarasiga yangi muhim chizgilar qo’shadi.

Temuriylar davrida O’zbekiston hududida kulolchilik yangicha tus oldi va rivojlandi. Bu davrda temuriylar davlati poytaxti bo’lmish Samarqand yirik kulolchilik markazi sifatida tanildi. Aynan shu davrda o’zbek kulolchilik bezagining yangi uslubi shakillandi. Bu uslub keyinchalik Toshkent, Buxoro, Shahrisabz, Marv, Niso kabi boshqa kulolchilik markazi uslublariga ham ta’sir o’tkazdi.[9: 29]

XVIII-XIX asr boshlarida M. S. Hamidova Qashqadaryo vohasi hunarmandchiligi tarixshunosligiga oid tadqiqotlari O’zbekiston hududida kulolchilik qadim tarixiy ildizga ega ekanligini ko’rsatdi va voha tarixini yorituvchi manbalar va ilmiy adabiyotlarni tahlil qilib berdi.

Keyingi davrlarda O’rta Osiyoda jumladan, O’zbekiston hududida kulolchilik qadimdan rivojlanganligini Termizda olib borilgan tadqiqotlarda ham o’z isbotlaydi. Bunga Yunon-Baqtriya, Kushonlar davriga oid Termiz kulolchilik tarixini o’rganishda to’plangan materiallarni keltirishimiz mumkin. Xususan, o’rta asr kulolchiligini o’rganishda birmuncha muvaffaqiyatlarga erishilgan.[10: 24-25]

XVIII-X1X asrlarda O’rta Osiyo aholisining katta qismini kulolchilik mahsulotlaridan keng foydalanishi bu sohani yanada rivojlanishiga turtki bo’lgan.

Farg’ona vodiysining yirik kulolchilik markazi bulgan Rishton qishlog’ida yasalgan yuqori sifatli buyumlar butun O’rta Osiyoda mashhur bo’lib ketgan edi. Jumladan, 1899-yili Parijda ish boshlagan butunjahon ko’rgazmasi uchun O’rta Osiyodan Rishton buyumlarini tanlab olinishi bu fikrimizni tasdiqlaydi. Tadqiqotchi Y. Golovin o’z xotiralarida bu yerda ustalarning mahsulot ishlab chiqarish sharoitlarini yaxshilash evaziga buyumlarni hatto Yevropa bozorlariga ham chiqarish mumkinligi haqida yozgan edi.

Pichoqchilik san’ati deganda biz pichoq yasash kasbini tushunamiz. Nodir pichoqlar yasashda o’zbek pichoqsoz ustalarining oldiga tushadigan usta kam topiladi. Pichoq yasash boshlang’ich paleolit davridan ma’lum bo’lgan. Temir davrida hunarmandchilik paydo bo’lgan va rivojlangan. Mis va bronzadan pichoq yasash bronza davriga kelib avj olgan. Temirning kashf etilishi pichoqchilik san’ati taraqqiyotida katta burilish yuz berdi. O’rta asrlarda pichoqchilikning eng rivojlangan joyi arab mamlakatlari bo’lgan, Ispaniya va Italiyada esa tez o’sib rivojlanib ketgan. XVI asrda Germaniya, Angliya, Avstriya, Fransiyalarda pichoqchilikni kasb sifatida ta’qiqlab, pichoqni oshxonalarda ishlatishgan. XVII asr boshlarida pichoqning ochib yopiladigan, pakki, ustara va boshqa cho’ntakda saqlanadigan pakkilar yuzaga keldi. Arxeologik topilmalardan ma’lumki, O’rta Osiyo territoriyasida million yil avval 2-ming yillikga oid pichoq namunalari topilgan. Bolaliktepa, Afrosiyob, Varaxsha devorlariga ishlangan rasmlardan ma’lum bo’ldiki, pichoq uy-ro’zg’ordan tashqari harbiy qurol sifatida ishlatilgan. VI—XII asrlarda pichoq yasash rivojlanib uni bezash texnologiyalari o’zgargan. XV—XVII asrlarda yonga osib yuriladigan pichoqlarning turli xillari paydo bo’ldi. Buni Navoiy, Bobur asarlarida ishlangan miniatyuralardan ko’rish mumkin. Keyinchalik pichoqchilikning o’ziga xos maktablari paydo bo’ldi.[11: 248]

Farg’ona vodiysi, Samarqand, Buxoro, Tashkent, Xorazm, Qashqadaryo, Surxondaryo qadimdan pichoqchilik markazlari bo’lib, ular o’zining ishlash texnologiyasi, shakli, katta-kichikligi va bezaklari bilan farq qilgan.

O’rta Osiyoda qadimdan metallni qayta ishlash, ya’ni hunarmandchilik qurollari ishlab chiqarish uchun sharoit deyarli mavjud edi. Misning tabiiy zapaslari, kumush,qurg’oshin alyuminiy kabi materiallar juda ko’p edi. Hunarmandlar qadimdan bir-biri bilan birikib bir mahallada yashaganlar, shuning uchun mahallalarining komi ko’pchilik qaysi hunar bilan shug’ullansa shu nom bilan yurgizilgan. Masalan, zargarlik bilan shug’ullansa zargarlik (zargaron), misgarlik bilan shug’ullansa misgarlik (misgaron) va hokazo mahallalar deb yuritilgan. Buxoroda «Sufikordgar» qishlog’ining komi hali ham saqlanib qolgan. U yerda hozir ham pichoqsozlar avlodi yashaydi. O’rta Osiyo territoriyasidagi viloyatlarda bunday mahallalar ko’p bo’lgan. Pichoqdan kesuvchi asbob tariqasida kunda foydalanilsa, qadimda O’rta Osiyoda erkaklarning eng zarur ish quroli, bezagi tariqasida foydalanilgan. Pichoqlarni badiiy bezash ham katta rol o’ynagan. Shuning uchun ham Sharq madaniyatining eng yaxshi an’analarini qayta tiklash va o’zlashtirish natijasida O’zbekiston jumhuriyatidagi pichoqsozlar milliy pichoqni san’at darajasiga ko’targanlar. Mashhur venger sayyohi A. Vamberi o’zining ajoyib “O’rta Osiyo bo’ylab sayohat” asarida Qashqadaryoning pichoqchiligi haqida bunday deydi: “Bir xillari sifat jihatidan hisorlilarnikidan ustun bo’lmasa ham, ammo, butunlay O’rta Osiyoga tarqalgan bo’lib, xo’jalar tomonidan hatto Eron, Arabiston, Hindistonga olib bordilar va o’z mahalliy joyidan ko’ra, chet ellarda pichoqlar 3-4 baravar qimmat sotilar edi”.

Pichoq O’rta Osiyoda, pichoqning oshxonada ishlatiladigan. XVII asr boshlaridan esa ochib-yopiladigan (cho’ntakda saqlanadigan-pakki, ustara va b.) xillari ham yuzaga kelgan. O’zbekiston territoriyasidan millodan avvalgi 2-ming yillikka oid pichoq namunasi topilgan. Afrosiyob, Bolaliktepa, Varaxsha devorlariga chizilgan rasmlardan pichoqning uy-ro’zg’ordan tashqari harbiy qurol sifatida foydalanilganligini ham anglash mumkin. VI-XVI asrlarga oid pichoq namunalari metall tarkibining, pichoq yasash texnikasining va bezaklarining o’zgarib, taraqqiy eta borganligini tasdiqlaydi.[12: 77]

Navoiy, Bobur asarlariga ishlangan miniatyuralarda (XV-XVII-asrlar) yonga o’sib yuriladigan pichoqlarning turli xil namunalari ko’rsatilgan. Farg’ona vodiysi, Buxoro, Samarqand, Xorazm, Toshkent, Surxondaryo va Qashqadaryoda pichoqning qadimiy markazlari bo’lgan. Hozir O’zbekistonda 20 ga yaqin pichoq markazlari bor. Parkent, Shahrixon, Chust, Qorasuv, Qo’qon, Chimyon, Boysun, Buxoro va x. k. Chust, Shahrixon, Qorasuvda (Farg’ona vodiysi) ishlangan pichoqlar milliy shaklining nafisligi, ixcham va o’tkirligi bilan qimmatlidir. Bu pichoqlar respublikamizda va uning tashqarisida muhim sovg’a sifatida ham qadrlanadi.[13: 78]

Qadimdayoq kashtachilik hunari san’at darajasiga ko’tarilgan bo’lib, buni badiiy kashtachilik deb ham yuritish odat tusiga kirgan. Kashta – (Fors - chizilgan, tortilgan) – amaliy bezak san’atining keng tarqalgan turi hisoblanadi. Igna bilan tikib tushurilgan gul, tasvir, naqsh matoga tushirib tikiladi. Kashta tikish turli

usullarda avvaldan andoza yordamida tushirilgan gul naqsh asosida, ba’zan matodan iplari sug’urilib tayyorlangan asosda sanama uslubida bajariladigan xalq amaliy san’at turlaridan biri hisoblanadi. [14: 7]

Results

Hozirgacha buyumlar o`ziga xos go`zallik, nafis bezaklarning rang-barangligi bilan kishilarni hayratga solib kelmoqda. Badiiy kashtachilik uzoq tarixga ega. Buni arxeologik topilmalar va yozma manbalar isbotlab bermoqda. O`zbek kashtachiligi iqlimi, tabiiy sharoit, muhit bilan bog`liq holda barcha kasb-hunarlari bilan birgalikda rivoj topgan. XIV-XV asrlarga mansub miniatyuralar orqali kashtachilikning juda qadimdan rivojlanganligini ko`rish mumkin. Ispan elchisi Rui Gonsales de Klavixo Amir Temur saroyida o`zbek milliy kashta bezaklarini ko`rganini kundaligida yozib qoldirgan. Kamoliddin Behzod "Zafarnoma"ga ishlagan. "Temur taxtda" miniaturasida chodirga ishlangan kashtani ham aks ettirgan.

Kashtachilik o’zbek amaliy bezak san’ati turlari orasida o’zining qadimiy an’analariga ega bo’lgan san’at turi sifatida savdo-hunarmandchilik shaharlarida va yirik qishloqlarda keng tarqalib kelgan. San’atning ushbu turi o’zining poetik rang-barangligining saqlab qolishi bilan birga xalq orasida qadrlanib, o’z mohiyatini boyitib bordi. O’zbek kashtachiligi qo’shni xalqlar kashtachiligi ta’sirida boyidi va rivojlandi. O’zbek kashtalariga e’tibor berilsa, unda hind, xitoy, rus, qozoq, qirg’iz va tojik kashtachiligi usullarini uchratish mumkin.

Kashtachilik san’atida har bir millatning o’ziga xos eng ko'p qo’llaydigan naqshlari bo’ladi. O’zbek kashtalarida o’simliksimon va geometrik naqshlar ko’p qo’llaniladi. O‘zbek kashtado‘zlari buyum bezaklarida amaliy bezak san’atining boshqa turlaridagi naqshlardan andoza olganlar, kashtalarda o‘simliksimon tasvirlar, shox, gulband, guldastalar ko‘p uchraydi.

Kashtachilik san'atida har bir millatning o`ziga xos eng ko`p qo`llaydigan naqshlari bo`ladi.

O‘zbek kashtachilik mahsulotlarining qadimiy xillari deyarli saqlanmagan. Muzeylardagi palak, so‘zana, choyshab, kirpech, zardevor singari badiiy buyumlar va kashtali kiyimlar faqat XIX asrga mansub.

Hozirgi paytda an’anaviy kashtachilik O’zbekistonning barcha hududida va hatto, bu tur mavjud bo’lmagan Xorazmda ham qayta tiklanmoqda (bugun Xivadagi Ichanqal’a majmuasida yosh tikuvchi qizlar O’rta va Yaqin Sharq me’moriy bezaklari bo’yicha kitoblardan olingan eskizlar bo’yicha o’ziga xos kashtachilik mahsulotlarini ishlab chiqarmoqda). Shu bilan birga, zamonaviy kashtachilik rivojida ko’proq badiiy maktablarning ilgarigi mahalliy xususiyatlari bilan emas, balki bozor omillari talablari bilan bog’liq o’ziga xos xususiyat vujudga keldi.

Bugungi kunda kashtalarni tayyorlash va sotish bo’yicha ikki yo’nalish, guruh mavjud. Birinchi yo’nalish eksportga, keng bozor ehtiyojiga yo’naltirilgan bo’lib, unda mualliflar tashabbusi kuchli ekani seziladi. Ikkinchi yo’nalish uncha katta bo’lmagan hududda (qishloq, tuman) mahalliy xususiyatga ega bo’lib, u XX asr ikkinchi yarmida vujudga keldi. Bu yo’nalish mahsulotlaridan mahalliy an’analarda foydalaniladi.[15: 62]

Kashtachilik mahsulotlarini ishlab chiqarish bo'yicha bu ikki guruh mahsulotlari o'rtasidagi farq ularning sifatida ko'rinadi va shunga ko'ra, ularning xarid qilinish qobiliyati ham belgilanadi. Tabiiyki, XIX asr eng yaxshi an'anaviy kashtachiligini qayta tiklashga intilgan birinchi guruh ustalarining mahsulotlari yetakchi o'rin egallaydi.

Discussion

Qadimdan O'rta Osiyo hunarmandlari metalldan qanday buyumlar tayyorlagan?

O'rta Osiyoda qadimdan metallni qayta ishlash, ya'ni hunarmandchilik qurollari ishlab chiqarish uchun sharoit deyarli mavjud edi. Misning tabiiy zapaslari, kumush,qurg'oshin alyuminiy kabi materiallar juda ko'p edi. Hunarmandlar qadimdan bir-biri bilan birikib bir mahallada yashaganlar, shuning uchun mahallalarining komi ko'pchilik qaysi hunar bilan shug'ullansa shu nom bilan yurgizilgan. Masalan, zargarlik bilan shug'ullansa zargarlik (zargaron), misgarlik bilan shug'ullansa misgarlik (misgaron) va hokazo mahallalar deb yuritilgan. Buxoroda «Sufikordgar» qishlog'ining komi hali ham saqlanib qolgan. U yerda hozir ham pichoqsozlar avlodi yashaydi.

Qadimdan O'rta Osiyo hunarmandlari matodan nimalar tayyorlagan?

Qadimdayoq kashtachilik hunari san'at darajasiga ko'tarilgan bo'lib, buni badiiy kashtachilik deb ham yuritish odat tusiga kirgan. Kashta – (Fors - chizilgan, tortilgan) – amaliy bezak san'atining keng tarqalgan turi hisoblanadi. Igna bilan tikib tushurilgan gul, tasvir, naqsh matoga tushirib tikiladi. Kashta tikish turli usullarda avvaldan andoza yordamida tushirilgan gul naqsh asosida, ba'zan matodan iplari sug'urilib tayyorlangan asosda sanama uslubida bajariladigan xalq amaliy san'at turlaridan biri hisoblanadi.

Xalqimizning ming yillar davomida azaliy qadriyatlarimizni o'zida mujassam etib, ajdodlarimizdan bizga meros bo'lib kelayotgan o'zbek kandakorligi san'atining barcha turlari qatorida alohida ahamiyat kasb etadi.

Kandakorlik forscha "Kandakorn" so'zndan olingan bo'lib, kesma degan ma'noni bildiradi. Kandakorlik ganch, yog'och o'ymakrligi va miskarlikdan tub-dan farq qiladi. Kandakorlik miskarlik bilan chambarchas bog'langan sohadir. Miskarlikda mis buyumlarni miskarlar yasasalar, kandakorlar esa mis buyumlarga naqshlarni po'lat qalamlar bilan kesib yaratadilar. Kandakorda miskarda bo'lgani kabi o'choq ham, dam ham bo'lmaydi.[16: 3-4]

Conclusion

Izlanishlar shuni ko'rsatadiki, O'zbekistonning ko'plab hududlarida mis buyumlarga naqsh o'yish sohasini kandakorlik, naqsh o'yuvchi ustani esa kandakor deb talaffuz qilingani aniqlandi.

Tadqiqotlar davomida Arxeologlar yurtimiz hududidan eramizdan avvalgi IV ming yillikka mansub misdan yasalgan buyumlarni topishgan. Mis va bronzada buyumlar yasash eramizdan avvalgi II - I ming yillikdan keng yoyila boshlagan.

Arxeologlar bu davrga mansub qadimiy yodgorliklar joylashgan hududda olib borgan qazilmalar chog'ida qilich, xanjar, nayza uchi singari qurol-aslaha namunalari, turli uy-ro'zg'or buyumlari, taqinchoqlar (jumladan, munchoqlar),

otning bronzadan yasalgan anjomlari va boshqa metall ashyolar topishgan. Bronza va misdan buyumlar yasash keyingi asrlarda ham davom etgan. XI asrdan boshlab esa arablarning O'rta Osiyoni bosib olishi bilan bog'liq holda, metall buyumlarni o'simliksimon va handasaviy motivlar hamda epigrafika bilan bezatish keng yoyilgan.

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TA'LIM JARAYONIGA RAQAMLI TEXNOLOGIYALAR INTEGRATSIYASI

Annotatsiya: *Ushbu maqolada ta'lim jarayoniga raqamli texnologiyalar integratsiya orqali oliy ta'lim tizimida ta'lim sifat va samaradorligini oshirish usullari yoritib berilgan.*

Tayanch tushunchalar: *raqamli texnologiya (RT), To'ldirilgan borliq (AR), Virtual borliq (VR), электрон таълим учун платформа (LMS- Learning Management System)*

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INTEGRATION OF DIGITAL TECHNOLOGIES INTO THE EDUCATIONAL PROCESS

Abstract: *This article discusses ways to improve the quality and effectiveness of education in the higher education system through the integration of digital technologies into the educational process.*

Keywords*: digital technologies (RT), augmented reality (AR), virtual reality (VR), e-learning platform (LMS-Learning Management System*

Raqamli texnologiyalar o'quv jarayonini samarali va interaktiv qilishda muhim ro'l o'ynaydi. Raqamli dasturiy mahsulotlar o'quvchilarga turli masalalarini vizual tarzda ko'rish, modellashtirish va yechish qiladi. Innovatsion texnologiyalarni joriy etish dolzarb masalalardan biri bo'lib, ta'lim sifati va samaradorligini oshirishga katta hissa qo'shmoqda. Zamonaviy texnologiyalar, internetning keng tarqalishi va raqamli resurslarning mavjudligi ta'lim jarayoniga yangi usullar, vositalar va uslublarni qo'llash imkonini yaratdi. Ushbu maqolada innovatsion texnologiyalarning ta'lim tizimidagi o'rni, ularning afzalliklari va ta'lim jarayoniga qanday integratsiya qilinishi haqida ma'lumotlar keltirilgan[34].

Innovatsion texnologiyalarning ta'lim tizimidagi ahamiyati

[34] SH.M.Mirziyoyev. Tanqidiy tahlil, qat'iy tartib-intizom va shaxsiy javobgarlik-har bir rahbar faoliyatining kundalik qoidasi bo'lishi kerak. T.: "O'zbekiston"-2017 yil.14 yanvar.104 bet.
SH.M.Mirziyoyev. Buyuk kelajagimizni mard va loijanob xalqimiz bilan birga quramiz. T.: "O'zbekiston"2017 486 bet.

Innovatsion texnologiyalar ta’lim sifatini oshirish, o‘quvchilarning darsga qiziqishini kuchaytirish va bilim olish jarayonini osonlashtirishga qaratilgan. Elektron darsliklar, onlayn platformalar va mobil ilovalar orqali o‘quvchilar mavzularni istagan vaqtda o‘rganish imkoniyatiga ega bo‘ladi. Shuningdek, multimedia resurslari (videolar, grafiklar, animatsiyalar) orqali murakkab mavzularni vizual tarzda tushuntirish imkoniyati mavjud. Bu o‘quvchilarning tushunishini osonlashtiradi va o‘qituvchi bilan o‘quvchi o‘rtasidagi interaktivlik hamda innovatsion faoliyatni yuzaga keltiradi.[35]

Ta’lim jarayonida innovatsion texnologiyalarni qo‘llash usullari

Ta’lim jarayonida LMS

- Onlayn ta’lim platformalari orqali hozirgi kunda Moodle, Coursera, Udemy kabi platformalar orqali o‘quvchilar o‘z bilimlarini mustaqil ravishda oshirish imkoniyatiga ega. Bu platformalar o‘quv materiallarini internet orqali taqdim etib, o‘quvchilarga bilim olishda erkinlik beradi.
- Elektron darsliklar va raqamli resurslar.
- Virtual va kengaytirilgan reallik (VR/AR). Bu
- Gibrid ta’lim.

Innovatsion texnologiyalarning ta’limga integratsiyasining afzalliklari va qiyinchiliklari

Hozir yoshlar qiziqishlari va talablari asosida ta’lim jarayonini primitiv darslardan kreativ ta’lim jarayonini tashkil etishda online interaktiv saytlardan maqsadli foydalanish uchun http://canva.com, http://adobe sparce.com, http://renderforest.com, http://piktochart.com va boshqa ko’plab saytlarni misol keltirishimiz mumkin bo’ladi.

Innovatsion texnologiyalar ta’lim jarayoniga ko‘plab ijobiy o‘zgarishlar olib kelsa-da, ularni joriy etishda ayrim qiyinchiliklar ham mavjud.

Afzalliklari:

Interaktivlik. O‘quvchilar dars jarayoniga faol jalb qilinib, o‘qituvchi bilan yanada yaqin muloqotda bo‘lish imkoniga ega bo‘ladilar.

Moslashuvchanlik. Innovatsion texnologiyalar yordamida o‘quv jarayonini har xil darajadagi o‘quvchilar uchun moslashtirish mumkin.

Resurslarning qulayligi. Elektron materiallar va onlayn resurslar o‘quvchilarga darslardan tashqari ham o‘z bilimlarini oshirish imkonini beradi.

O‘quvchilarning qiziqishini oshirish. Raqamli vositalar va interaktiv kontent ta’limni qiziqarli va qamrab oluvchi qilib, o‘quvchilarning darslarga jalb etilishini oshiradi.

Qiyinchiliklari:

Texnik cheklovlar. Ba’zi maktablarda internet va kompyuterlarning yetishmasligi innovatsion texnologiyalarni to‘liq qo‘llashga to‘sqinlik qilishi mumkin. Abduganiyeva Gulira’no Alijon kizi

[35] Adashboyev SH “Pedagogik faoliyatda raqamli kompetensiyalar” .T.:2023yil O’quv uslubiy majmua.

O‘qituvchilarning tayyorgarligi. Texnologiyalarni samarali qo‘llash uchun o‘qituvchilar o‘zlarini doimiy ravishda yangilab borishlari, yangi dasturiy ta’minot va platformalarni o‘rganishlari zarur.

Talabalarni nazorat qilish qiyinligi. Masofaviy va onlayn ta’lim jarayonida o‘quvchilarni dars jarayonida to‘liq nazorat qilish va ularning darsga e’tiborini jamlash qiyin bo‘lishi mumkin. Bu platformalarda foydalanish imkoniyatidan tashqari ta’lim jarayonida primitive o’quv jarayonidan kreativ o’quv jarayonini tashkil etishda https://kahoot.com, https://quiz.com viktorina saytlaridan gipermurojatlardan foydalanish mumkin bo’ladi.

Xulosa

Ta’lim jarayoniga innovatsion texnologiyalarni integratsiya qilish zamonaviy ta’lim tizimining ajralmas qismiga aylanib bormoqda. Ushbu texnologiyalar o‘quv jarayonini jonlantiradi, ta’lim samaradorligini oshiradi va o‘quvchilarning bilim olish jarayonini qiziqarli qiladi. Kelajakda ta’lim tizimida innovatsion texnologiyalarning yanada keng qo‘llanilishi ta’lim sifatini yangi bosqichga olib chiqishiga ishonch komil. Shu bilan birga, texnologiyalardan foydalanishda texnik va tashkiliy masalalarni hal qilish ham muhim ahamiyatga ega bo‘lib qoladi.

Foydalanilgan adabiyotlar:

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2. SH.M.Mirziyoyev. Buyuk kelajagimizni mard va loijanob xalqimiz bilan birga quramiz. T.: “O‘zbekiston”2017 486 bet.
3. Adashboyev SH “Pedagogik faoliyatda raqamli kompetensiyalar” .T.:2023yil O’quv uslubiy majmua.

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EKOLOGIK TURIZMNING TAVSIFI VA TURLARI

Annotatsiya. *Mazkur maqolada ekologik turizmning mohiyati, asosiy prinsiplari va turlari batafsil tahlil qilinadi. Ekologik turizm atrof-muhitni muhofaza qilish, tabiiy resurslardan oqilona foydalanish va mahalliy aholining farovonligini oshirishga yo'naltirilgan turizm turi sifatida ko'rib chiqiladi. Shuningdek, maqolada ekologik turizmning tabiatni kuzatish, ekotizimlarni o'rganish, madaniy va an'anaviy tajribalarni qo'llab-quvvatlash, faol ekologik sayohatlar va agrar turizm kabi turlari o'rganiladi. Ushbu maqola ekologik turizmning ijtimoiy, iqtisodiy va ekologik ahamiyatini yoritishga qaratilgan bo'lib, uning barqaror rivojlanishdagi o'rni alohida ta'kidlangan.*

Kalit so‘zlar. *Ekologiya, ekoturizm, ekologik ta’lim, turistik resurslar, turoperator, rekreatsiya, texnogen omillar.*

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DESCRIPTION AND TYPES OF ECOLOGICAL TOURISM

Annotation. *This article provides a detailed analysis of the essence, main principles, and types of ecotourism. Ecotourism is considered a type of tourism aimed at protecting the environment, rational use of natural resources, and improving the well-being of the local population. The article also examines types of ecotourism, such as nature observation, ecosystem study, support for cultural and traditional experiences, active ecotourism, and agrotourism. This article aims to highlight the social, economic, and ecological significance of ecotourism, emphasizing its role in sustainable development.*

Key words. *Ecology, ecotourism, environmental education, tourist resources, tour operator, recreation, and anthropogenic factors.*

XXI asrning boshi insoniyat tarixida global muammolar va ijtimoiy ziddiyatlarning keskinlashuv davriga aylandi, desak mubolag‘a bo‘lmaydi. Bu borada, zamonaviy ekologik inqiroz alohida o‘ringa ega bo‘lib, jamiyat nafaqat tabiiy resurslardan oqilona foydalanish orqali atrof-muhitga salbiy ta’sirni minimallashtirish, balki qadriyatlar tizimini o‘zgartirish, jamiyat va tabiat o‘rtasidagi o‘zaro munosabatlarning yangi shakllarini rivojlantirish zarur. Shu nuqtayi nazardan bugungi kunda, har qanday davlatning ichki va tashqi siyosatining

asosiy tamoyillaridan biri insonning buguni va kelajagi uchun atrof-muhitni va uning tarkibiy qismlarini asrab-avaylash hisoblanadi.

Jahonda global muammolar: suv tanqisligi, iqlimni o‘zgarishi, havoning ifloslanishi,ozon qatlamini yemirilishi, o‘rmonlarni qisqarishi, aholini va avtomobillarni ko‘payishi kabilar yuzaga kelmoqda. Ushbu zamonaviy inqirozli hodisalarni hisobga olgan holda, "inson-tabiat" tizimidagi munosabatlarni uyg‘unlashtirishga imkon beradigan rivojlanishning ustuvor yo‘nalishlaridan biri bu ekoturizm bo‘lib, u so‘nggi yillarda tez sur’atlarda rivojlanmoqda.

Xususan, O‘zbekiston Respublikasi Markaziy Osiyo hududidagi davlatlar orasida ekologik turizmni rivojlantirish bo‘yicha katta imkoniyatlariga ega bo‘lgan va bu borada raqobatbardoshligi yuqori mamlakatlardan hisoblanadi. Yuksak tog‘ cho‘qqilarimiz, uch ming yillik insoniyat tamadduniga guvoh shaharlarimiz, cho‘l va yashil vodiylarimiz, ming bir dardga shifo zilol suvlarimizning borligi ushbu sohani rivojlantirish uchun ulkan imkoniyatlar yaratib beradi. Mavjud imkoniyatlarda to‘g‘ri foydalanish uchun esa mamlakatimiz tabiatining xilma-xil va boy turistik-rekreatsiya resurslari salohiyatidan samarali foydalanish, tabiat va madaniyat meroslarini asrash va muhofaza qilish, mahalliy aholini ish bilan ta’minlash bo‘yicha tegishli dasturlar ishlab chiqish zarur.

O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning "O‘zbekiston Respublikasining turizm sohasini jadal rivojlantirishni ta’minlash chora-tadbirlari to‘g‘risida" gi 2016-yil 2-dekabrdagi PF-486-sonli Farmoni mamlakatimizda turizmni rivojlantirishda tub burilishni, yangi bosqichning zaminini, turizmda istiqbolli islohotlarning sharoitlarini yaratdi. Prezident farmonida: “Mamlakatda turizmi jadal rivojlantirish, mavjud ulkan turizm salohiyatdan yanada to‘liq va samarali foydalanish, an’anaviy madaniy-tarixiy turizm bilan birgalikda turizmning boshqa salohiyatli turlarini ekologik turizmni ichki, kirish va chiqish turizmini kompleks rivojlantirishning milliy va hududiy dasturlarini ishlab chiqish va amalga oshirish” belgilangan.

Bugungi kunda ilmiy va ommabop adabiyotlar, shuningdek, ommaviy axborot vositalarida ekoturizmning o‘rni va ahamiyatini ochib berishga qaratilgan ko‘plab qarashlar olg‘a surilmoqda. Xalqaro maqomdagi tashkilot va muassasalarning ma’lumotiga ko‘ra, ko‘pgina turizm turlari yiliga o‘rtacha 5 foizga ortib borayotgan bo‘lsa, ekoturizm yiliga o‘rtacha 20-30 foizga o‘sib bormoqda. Aksariyat mutaxassis va tadqiqotchilarning ilmiy tajriba va xulosalari shuni ko‘rsatmoqdaki, ekoturizm turizmning yangi va yosh yo‘nalishi bo‘lishiga qaramasdan, ommalashuvi boshqa turistik yo‘nalishlarga nisbatan 2-3 barobar jadal kechmoqda[36].

Ekologik turizm (eko-turizm) so’ngi yillarda jadal rivojlanayotgan turizm turlaridan biri hisoblanadi. Ushbu turizm turi atrof-muhitni saqlash, tabiiy resurslardan oqilona foydalanish va mahalliy aholining farovonligini oshirishga

[36] O'zbekistonda ekologik turizmni rivojlantirish Konsepsiyasi, Ekologik xabamomasi, j. N 6, 2007, Toshkent 8-14-bb

yo‘naltirilgan. Eko-turizm odatiy turizmga nisbatan mas'uliyatliroq va barqarorlikni ta'minlashni maqsad qiladi.

Ekoturizm (yashil turizm) - antropogen ta’sirga nisbatan ta’sirlanmagan tabiiy hududlarga tashrif buyurishga qaratilgan barqaror turizmning bir shaklidir[37]. Ekologik turizm - tabiiy hududlarga mas’uliyatli sayohat bo‘lib, u atrof-muhitni asraydi va mahalliy aholi farovonligini oshiradi. Bu shunchaki tabiatga chiqish emas, balki atrof-muhitni saqlashga qaratilgan ongli munosabatdir. Bu tabiat bilan o‘zaro aloqada bo‘lishning mas’uliyatli usuli hisoblanadi.

Ekologik turizmning asosiy maqsadi tabiiy muhitni saqlash va himoya qilishdir. U ekologik barqarorlikni ta'minlash, biologik xilma-xillikni qo‘llab-quvvatlash va turizm faoliyatining atrof-muhitga salbiy ta’sirini minimallashtirishga qaratilgan. Bu turizm turi ekologik ta’lim va ongni oshirishda ham muhim ahamiyatga ega. Eko-turizm tabiatni his qilish, yangi tajribalar orttirish va mahalliy madaniyatni o'rganish imkoniyatini beradi.

Ekologik turizmning asosiy prinsiplari

1. **Barqarorlik:** Turizm faoliyati natijasida tabiiy resurslar va ekotizimlarga zarar yetkazmaslik.
2. **Mahalliy aholining qo‘llab-quvvatlanishi:** Turizm daromadlarining mahalliy jamiyatga qaytarilishi va ularning farovonligiga xizmat qilishi.
3. **Ta'limiy ahamiyat:** Turistlarni ekologik masalalar bo‘yicha xabardor qilish va ularning ekologik ongini oshirish.
4. **Tabiiy va madaniy merosni saqlash:** Ekologik va madaniy boyliklarni asrab-avaylash.

Ekologik turizm bo‘yicha dunyo olimlari ikkita asosiy maktabga bo‘linadi.Ulardan biri Amerika qit’asi va ingliz tilida so‘zlashadigan mamlakatlar.Ikkinchisi Yevropa,Nemis tilida so‘zlashuvchi davlatlar. Birinchi maktab vakillari AQSh, Kanada, Avstraliya, Buyuk Britaniya maktablarining o‘ziga xos xususiyati bu: tabiiy va muhofaza qilinadigan landshaftlar bilan inson faoliyati tabiatga uzviy bog‘liq hamda sayohat va dam olish g‘oyasidir. Bu maktabining yana asosiy g‘oyalaridan ekologik turizmni ekologik ta’lim bilan birgalikda an’anaviy madaniyatlarga hurmat qilishdir deya tasniflashadi[38].

Germaniya, avstriyalik va shveysariyalik olimlarning qarashlarini aks ettiruvchi yevropa ekologik turizm maktabi ham birinchi navbatda ekologik turizmni ekologik tabiatga asoslashadi. Va har qanday inson faoliyati, shu jumladan turistik faoliyat ham, ma’lum chegaralardan oshmasligi va tabiiy ekologik tizimlarning o‘zini barqaror holatda saqlash qobiliyatiga ega bo‘lish kerak deya nazariy qarashlarni ilari surishadilar. Bu maktab olimlarning qarashlarini umumlashtirgan holda biz Ekologik turizmni:turistlar uchun tashrif buyurilgan mintaqalarning madaniy qadriyatlari tabiiy boyliklariga hurmat qilgan holda mintaqa iqtisodiyotiga foyda keltirish deya nazariy tomondan baholadik.

Zalatan A. ekoturizmni quyidagi 4 yo‘nalishdagi turlarga bo‘lishadi[39]:

[37] R.Xaitov “Ekologik turizm” o`quv qo`llanma. – Toshkent: 2018. -248 b
[38] Туризм”. Сост. Е.Л. Пименова. - Ижевск: Издательство“Удмуртский университет”, 2012. - 78 с.50.п
[39] Zalatan A. and A. R. Gaston. Soft Ecotourism: the Substitution Effect. The Tourist Review, 4, 1996

1. Ilmiy ekoturizm.
2. Tabiat tarixi ekoturizmi.
3. Tabiat qo‘riqxonalari va rezervatsiyalari ekoturizmi.
4. Sarguzasht ekoturizmi.

Ilmiy ekoturizm, ekologik turizm asosiy turlaridan biri bo‘lib, u atrof-muhit, ekotizimlar va hayvonot dunyosini kuzatish, o‘rganish va o‘rganish maqsadida tabiiy hududlarga borishni o‘z ichiga oladi. U tabiatni muhofaza qilish, ta’lim va ilmiy tadqiqotlar muhimligini ta’kidlaydi, bu esa barqaror amaliyotni targ‘ib qilish va tabiiy resurslarni muhofaza qilish muhimligi haqida xabardorlikni oshirish bilan birga atrof-muhitga ta’sirni minimallashtirishga qaratilgan. Ilmiy ekoturizm ko‘pincha mutaxassislar boshchiligidagi ekskursiyalarni o‘z ichiga oladi, bu tashrif buyuruvchilarga tabiiy dunyoni chuqurroq tushunishga imkon beradi va davom etayotgan tadqiqot va tabiatni muhofaza qilish harakatlariga hissa qo‘shadi.

Ekologik turizmning turlari Ekologik turizm bir qancha turlarga bo'linadi, chunki u turli xil tabiiy va madaniy muhitlar bilan bog‘liqdir. Quyida ekologik turizmning asosiy turlari keltirilgan:

1. **Tabiatni kuzatish turizmi:** Bu turdagi turizmda turistlar tabiatning go‘zalligidan bahramand bo‘lish, hayvonot va o‘simlik dunyosini kuzatish bilan shug‘ullanadi. Milliy bog'lar, qo'riqxonalar va biosfera rezervatlari ushbu turizmning asosiy manzillari hisoblanadi.
2. **Ekotizim turizmi:** Turistlar o‘ziga xos ekotizimlarni, masalan, cho‘llar, tog‘lar, o‘rmonlar yoki dengiz qirg'oqlarini o‘rganadilar. Ushbu turizm turi orqali ekotizimlarning o'zaro bog‘liqligi va muhofazasi haqida ko'proq ma'lumot olishadi.
3. **Madaniy va an’anaviy turizm:** Mahalliy aholi madaniyati va an’analarini o'rganish, ular bilan yaqin muloqot qilish orqali turistlar mahalliy jamiyat hayotini chuqurroq tushunishga imkon topadilar.
4. **Faol ekologik turizm:** Bu turizm turi faol dam olishni yoqtiruvchilar uchun mos keladi. Masalan, piyoda sayohatlar, velosipedda yurish, suv sporti yoki qushlarni kuzatish kabi faoliyatlarni o'z ichiga oladi.
5. **Agrar turizm:** Bu turdagi ekologik turizmda turistlar qishloq xo'jaligi faoliyatiga yaqinroq bo'lib, mahalliy dehqonchilik va chorvachilik jarayonlarini o'rganadilar. Bu turizm turi mahalliy iqtisodiyotni qo'llab-quvvatlashda muhim rol o'ynaydi.

Ekologik turizmning ahamiyati Ekologik turizmning ijtimoiy, iqtisodiy va ekologik ahamiyati juda katta. Ijtimoiy jihatdan u mahalliy aholi uchun yangi ish o'rinlari yaratadi va ularning yashash darajasini oshiradi. Iqtisodiy tomondan esa turizm faoliyatidan tushgan daromad ekologik loyihalarni moliyalashtirishga yo'naltiriladi. Ekologik jihatdan esa bu turizm turi tabiiy resurslarni muhofaza qilish va ular bilan oqilona foydalanish imkonini beradi.

Jamiyat rivojlanishi hozirgi bosqichining xarakterli xususiyatlaridan biri atrof-muhit ifloslanishining texnogen omillarining ortishi bo‘lib, bu favqulodda holatlarda birinchi navbatda turistik resurslarning ekologik krizisiga olib keladi. Ekologik vaziyatning zo‘rayishi butun dunyoda muammo darajasidagi holatdir.

Shuning uchun bugungi kunda dolzarb vazifalardan biri tabiiy muhitni saqlash masalalarini hal qilishga yangicha yo‘nalishlarni ishlab chiqishdir. Bunday yondashuvni kompleks darajada murakkab ijtimoiy-iqtisodiy va ekologik tizim sifatida qaralishi muhimdir. Ushbu muammolarni hal qilishda yetakchi o‘rinni turizm egallaydi va buning asosiy sabablari quyidagilardan iborat:

1. Turizm dunyo xo‘jaligida dinamik rivojlanayotgan tarmoqlardan biridir. U jahon milliy yalpi mahsulotida samarali o‘rin egallaydi, jahon investitsiyalarining 7% ni o‘ziga jalb qilgan holda katta miqdorda yangi ishchi o‘rinlari yaratishi ko‘p mamlakatlarda soliq tushumlarining muhim manbasi hisoblanadi.

2. Turizm zamonaviy davlat iqtisodiyotining barcha muhim bo‘g‘inlariga, rivojlangan jamiyat hayotining barcha tomonlariga ta’sir ko‘rsatadi. Turizm iqtisodiyotni tarkiban qayta qurishni ta’minlaydi va ijtimoiy taraqqiyot ustuvor almashuvining samarali vositalaridan biri hisoblanadi.

So‘nggi bir necha o‘n yilliklarda dunyoning turli mamlakatlarida ekologiya, tabiiy muhit va turizm o‘rtasidagi munosabatlarni uyg‘unlashtirishga qaratilgan dasturlar ishlab chiqilgan. Amalda bu dasturlar va turizmni rivojlantirishning muqobil variantlari yangi turistik obyektlarni qurishni cheklash va mahalliy joylashtirish vositalaridan keng foydalanish, ekologik toza transport turlarini targ‘ib qilish, shuningdek, turistlar va mahalliy aholining ekologik ongini oshirishga qaratilgan. Ko‘kalamzorlashtirishning mohiyati ko‘p miqdorda an’anaviy energiya resurslarini iste’mol qilish hisobiga turizm faoliyatining atrof-muhitga salbiy ta’sirini minimallashtirishdan iborat.

Xulosa qiladigan bo‘lsak, ekologik turizm barqaror rivojlanishning muhim qismi hisoblanadi. U nafaqat atrof-muhitni muhofaza qilishga xizmat qiladi, balki madaniy merosni saqlash va jamiyatlar o'rtasida ekologik ongni rivojlantirishga yordam beradi. Shunday ekan, ekologik turizmni yanada rivojlantirish va uning barqarorligini ta'minlash har birimizning zimmasimizdagi vazifadir.

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IMPROVING THE MANAGEMENT STRATEGY OF FRUIT AND VEGETABLE ENTERPRISES

Abstract:*Fruit and vegetable enterprises play a crucial role in the agro-industrial complex of the country. Their efficient operation is vital not only for supplying the domestic market with high-quality food products but also for increasing export volumes and foreign currency earnings. This article is dedicated to the issues of improving the management strategy of fruit and vegetable enterprises. It provides recommendations on optimizing production processes under modern market conditions, introducing innovative technologies, developing the cluster method, and establishing international cooperation.*

Keywords*: fruit and vegetable products, export, market, innovative technologies, agro-industrial complex, management, efficiency, competitiveness, marketing*

Introduction

The production and processing of fruit and vegetable products are among the most important sectors of the global and local economies. Enterprises in this field are not only essential for providing the population with quality and affordable food but also for strengthening the nation's food security. Additionally, increasing the production volumes of fruit and vegetable products and delivering them to the global market is one of the strategic directions in the country’s foreign economic activity.

Particularly, critical issues such as resource-saving, improving product quality, employing environmentally friendly technologies, and adopting innovative approaches have gained significant importance in this sector. In the current era of globalization, ensuring the competitiveness of fruit and vegetable products in the global market requires improving their quality in accordance with international standards and effectively managing production processes.

Referring to global experience, data from the Food and Agriculture Organization of the United Nations (FAO) indicate that global fruit and vegetable production reached 10 billion tons in 2023, with 22% being exported. These figures demonstrate that the efficiency of production processes, processing technologies, and marketing strategies play a decisive role in global market competitiveness.

In Uzbekistan, fruit and vegetable production is also one of the priority sectors of the economy. In 2023, the production volume of these products in the country amounted to 19.8 million tons, with 20% being exported. Uzbekistan's products are primarily exported to markets in Russia, China, and the European Union. These indicators highlight the high potential for developing Uzbekistan’s fruit and vegetable sector. However, increasing the efficiency of production processes, introducing modern processing methods, and producing products that

meet international standards remain the main challenges for the sector's future development (Table 1).

Table 1

Activities of fruit and vegetable enterprises

Specification	World indicators (2023)	Uzbekistan indicators (2023)
Volume of fruit and vegetable production	10 billion tons	19.8 million tons
Exported product size	22%	20%
Main export destinations	World Market (different countries)	Russia, China, European Union
Current tasks	Saving resources, improving quality, participation in the world market	Improving product quality and volume, expanding exports

The table clearly indicates that Uzbekistan needs to undertake more efforts to improve the operations of fruit and vegetable enterprises and enhance their competitiveness in the market by building on global experience. In particular, the adoption of resource-saving technologies and the increase in export volumes are of critical importance.

Therefore, this article discusses the issues of effective management of production processes in fruit and vegetable enterprises, the introduction of modern technologies, the organization of clusters and the supply of competitive products in the world market.

Analysis

As a result of an analysis of these problems in the activities of fruit and vegetable Enterprises, a deeper understanding of the causes and consequences of their origin is possible. To these we can mention the inadequacy of digitization of the production process, the lack of application of modern technologies in processing processes, the inefficiency of marketing strategies and the increase in competitiveness of fruit and vegetable enterprises, improving the quality of products and expanding their market share due to this result in a highly effective approach.

The main reasons for the inadequacy of digitization of the production process are the lack of sufficient financial resources for the introduction of digital technologies, lack of knowledge and skills on the advantages of the digitization process in enterprises, lack or insufficient development of modern digital infrastructure.

The reasons for the lack of application of modern technologies in processing processes are the lack of sufficient investment in the procurement of modern technologies, the low level of qualification of personnel for the use of technologies in processing processes, insufficient understanding of the demand for technological modernization of enterprises.

The reasons for the inefficiency of Marketing strategies are the lack of professional personnel in the field of marketing, the lack of an approach based on

scientific research to market the product, the lack of use of modern marketing tools, especially digital platforms (Table-2).

Table-2

Consequences and solutions to the problems of fruit and vegetable enterprises

T/p	Муаммо	Оқибатлар	Ечимлар
1	Insufficient digitization of the production process	- The impossibility of automating the product quality control process. - Low production efficiency. - Reduced competitiveness.	-Support for state programs aimed at digitization. - Special education programs for enterprises. - Implementation of a digital data analysis system.
2	Lack of application of modern technologies in processing processes	- Reduction in the volume of processed products. - The impossibility of producing a product that meets international standards. - Loss of competitive market position.	- Development of technological innovation programs. - Attracting foreign investments. - Expansion of automation of processing processes.
3	Inefficiency of Marketing strategies	- Inability of the product to meet market demand. - Low brand image. - Reduced export volume.	- Cooperation with Professional marketing agencies. - Product promotion on digital marketing platforms. - Participation in regional and international exhibitions.

This table can be used in the analysis of the main problems in the activities of fruit and vegetable enterprises and specific measures for their solution.

Conclusion

Fruit and vegetable enterprises are one of the strategic sectors in the agricultural sector, they play an important role in ensuring the food security of the country, providing the population with quality products, increasing the volume of exports and increasing foreign exchange revenues. The main requirement of today is to increase their effectiveness in fruit and vegetable enterprises by digitizing production processes, technological modernization and applying effective marketing strategies.

But there are many problems in this area: insufficient digitization, low application of modern technologies and inefficiency of marketing strategies. To solve these problems, it is necessary to eliminate such factors as lack of financial resources, unskilled personnel and underdevelopment of infrastructure.

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MODERN DIAGNOSTIC METHODS FOR THE DIAGNOSIS OF CHRONIC CYSTITIS IN WOMEN

Abstract: *This article analyzes modern diagnostic methods used to diagnose chronic cystitis in women. Chronic cystitis is a common urological disease in women, the diagnosis of which is complex and requires many procedures. The article reviews the effectiveness and importance of modern methods for the diagnosis of chronic cystitis, such as urological examinations, urinalysis, ultrasound, cystoscopy, and special tests. The article also discusses the importance of modern research and new approaches to the diagnosis and treatment of chronic cystitis.*

Keywords: *Chronic cystitis, women, modern methods of examination, urological diseases, cystoscopy, ultrasound examination, urinalysis, diagnostics, infections, clinical problems*

Introduction: Chronic cystitis is a common urological disease in women, mainly the result of inflammatory or infectious conditions in the urinary tract. Chronic cystitis, if not detected in time, can have a significant impact on a person's life, therefore, the use of modern methods in the diagnosis and treatment of this disease is of great importance. In this article, we will focus on modern methods of examination in the diagnosis of chronic cystitis and their importance.

Chronic cystitis is a common disease of the urinary tract. It is widespread in women and leads to inflammation of the tissues in the body and conditions associated with infections. To understand the importance of treating chronic cystitis, the following factors should be considered:

The most important reason for treating chronic cystitis is the impact of this disease on a person's quality of life. In women, anxiety, pain, symptoms that cause a constant need to urinate, and the appearance of traces of blood affect the medical and psycho-emotional state. These symptoms can seriously affect a person's daily activities, work, and social life, so treatment is important.

If chronic cystitis is not treated, infections can become more severe and worsen. The spread of infection and the proliferation of uncontrolled cystitis pathogens can directly lead to nephritis (kidney inflammation), pyelonephritis, and other serious problems. Treatment helps prevent these problems.

Long-term chronic cystitis can lead to structural changes in the organs. For example, swelling of the sun visor, tissue injuries, or the appearance of pathologies in the chronology may occur. If these conditions are not treated, the problems may worsen after the disease has progressed. Therefore, prompt treatment is important to restore damaged tissues and preserve the structure of the organs.

Another reason to treat chronic cystitis is to reduce the psychoemotional impact of the disease. Because this disease causes constant pain and anxiety, worsening the woman's mental state. Treatment helps to heal both the body and the mind, which improves the patient's overall condition.

Chronic cystitis can have complications that last for a long time. Therefore, its treatment is necessary not only to prevent acute situations, but also to prevent long-term complications, including effects on fertility and long-term problems with the urinary tract.

Treatment of chronic cystitis is important not only for women, but also for their overall health and quality of life. Treatment of this disease helps to prevent problems, helps to maintain organ function, reduces the spread of infections, and improves the patient's mental state. Delayed treatment of chronic cystitis can lead to major problems, so it is important to start the treatment process immediately after diagnosis.

Symptoms and diagnosis of chronic cystitis:

Among the main symptoms of chronic cystitis are frequent urination, pain during urination, unpleasant sensations, blue or bloody urine. These symptoms can seriously affect the patient's life and make it difficult to carry out daily activities. Therefore, it is very important to use modern and effective diagnostic methods to accurately diagnose this condition.

Modern diagnostic methods:

1. Urinalysis (urinalysis): Urinalysis is the first and most important step in diagnosing chronic cystitis in women. This method helps to identify signs of infection in the urine, which include bacteria, leukocytes, erythrocytes and protein. If bacteria or other elements indicating infection are detected in the urine, then chronic cystitis can be considered. This method is used at the initial stage of diagnosis, as it is quick and inexpensive.

2. Ultrasound (US): Ultrasound is one of the methods of diagnosing cystitis, and it also helps to check the condition of internal organs. This method allows you to observe swelling of the bladder, abnormalities that occur during urination, and the process of preparing the bladder. Ultrasound is a non-invasive and effective method that can give very quick results. When diagnosing chronic cystitis, ultrasound is used to identify problems with the bladder or the urethra or kidneys.

3. Cystoscopy: Cystoscopy is another important method in diagnosing cystitis. This method is performed using a special cystoscope device to view the internal organs of the urinary system. Cystoscopy is important in conducting an examination based on the symptoms of chronic cystitis. This method allows urologists to detect any abnormal changes in the ureter or urinary tract. Cystoscopy provides a clear view of swollen joints or damaged tissues, which is important in choosing treatment methods.

4. Urine culture and special tests: Urine culture is one of the effective methods for diagnosing chronic cystitis, as this method helps to identify bacteria in the urine. If bacteria are detected in the urine, it becomes possible to find out their type and antibiotic resistance. Also, PCR (polymerase chain reaction) tests and

immunological tests play an important role in identifying microbes and infections in the urine. These methods, in doubtful cases, help to determine the cause of chronic cystitis.

Diagnosis and treatment methods of chronic cystitis:

Modern diagnostic methods are of great importance in making an accurate diagnosis of chronic cystitis. After the diagnosis is made, antibiotics and antibacterial drugs are used in the treatment process. In addition, it is important to pay attention to drinking water and diet, as well as to strengthen the body's immunity. Depending on the infectious pathogens, treatment methods and drugs are prescribed individually. In modern medicine, physiotherapeutic methods and medical treatment may also be necessary in the treatment of chronic cystitis.

Conclusion:

Chronic cystitis is a urological disease that is widespread among women and has profound clinical symptoms. Modern examination methods, including urinalysis, ultrasound examination, cystoscopy and special tests, are effective and reliable methods for diagnosing chronic cystitis. These methods play an important role in the diagnosis and treatment of the patient.

These methods play an important role in the diagnosis and treatment of the patient. Modern diagnostic methods are also an important factor in the future successful treatment of chronic cystitis.

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TRANSPORT VOSITALARINING TEZLIGIGA YO‘L SHAROITINING TA’SIRINI O‘RGANISH VA TAVSIYALAR ISHLAB CHIQISH

Annatatsiya:*Multimodal transportda raqamli platforma texnologiyalari ishlab chiqilgan va modellashtirilgan bo'lib, bir nechta ulanish variantlari tufayli tashvishlarni ajratish katta ahamiyatga ega bo'lganligi sababli, muayyan muammolarga aniq echimlar, ma'lumotlarni tahlil qilish va aniqroq biznes qarorlarini qabul qilish imkonini beradi.*

Kalit so'zlar: *Transport, texnologiyalar, raqamli platforma, innovatsion xizmatlar, Bulut, Infratuzilma, boshqaruv to'siqlari.*

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STUDYING THE IMPACT OF ROAD CONDITIONS ON THE SPEED OF VEHICLES AND DEVELOPING RECOMMENDATIONS

Annotation: *Transport, digital platform technologies are developed and modeled, and since the separation of concerns due to multiple connection options is of great importance, it allows for specific solutions to specific problems, data analysis and more accurate business decisions.*

Key words: *Transport, technologies, digital platform, innovative services, Cloud, Infrastructure, management barriers.*

O‘zbekiston respublikasi mustaqilligа erishgandan so‘ng ijtimoiy – iqtisodiy va siyosiy o‘zgarishlar hayotga izchil joriy etila boshladi. Respublika bozor iqtisodiyotiga o‘tib borishi, xususiy mulkchilikda avtomobil sanoatining vujudga kelishi, chet davlatlar bilan teng huquqli iqtisodiy aloqalarning yo‘lga qo‘yilishi, fuqorolar moddiy farovonligi ortib borishi tabiiy ravishda avtomobil yo‘llarida va shahar ko‘chalarida harakat miqdorining ortib borishiga olib kelayapti. Mustaqillikdan avval har 1000 nafar aholiga 35 dona yengil avtomobil to‘g’ri kelgan bo‘lsa. Bugungi kunda bu ko‘rsatkich yanada ortib borayapti. O‘zbekistonda har 1000 nafar doimiy aholiga o‘rtacha 87 dona yengil avtomobil to‘g‘ri kelmoqda. Ma’lumotga ko‘ra, 2022 yilning 1 yanvar holatiga respublikada jismoniy shaxslarga tegishli jami yengil avtomobillar soni 3 051 734 tani tashkil etgan.

Harakat xavfsizligi va qulayligi talablariga javob beradigan yechimlar.

Yo‘llar va yo‘l harakatini muvofiqllashtiruvchi qoidalar yetarlicha mukammal ishlab chiqilmagan, shu bilan bir qatorda ko‘plab haydovchilar yo‘lda harakatlanish ko‘nikmalarini to‘liq o‘zlashtirimasdan avtomobil boshqarish jaryonlarini boshlab yuboradi. Shu boisdan ham ko‘plab yo‘l transport hodisalari vujudaga kelmoqda.

Haydovchining harakat muhiti bilan o'zaro ta'sirining asosiy qoidalari.

Yo'lda harakatlanish sharoitlarini ergonomik baholash haydovchining o'zaro ta'siri nazariyasiga asoslanadi.

atrof-muhit harakatining ta'siri 90% axborot maqsadlarida;

10% haydovchining ushbu vaziyatga yanukiy qarori;

Axborot deganda kuzatish yoki o‘rganish natijasida olingan har xil turdagi ma’lumotlar, tushuniladi.

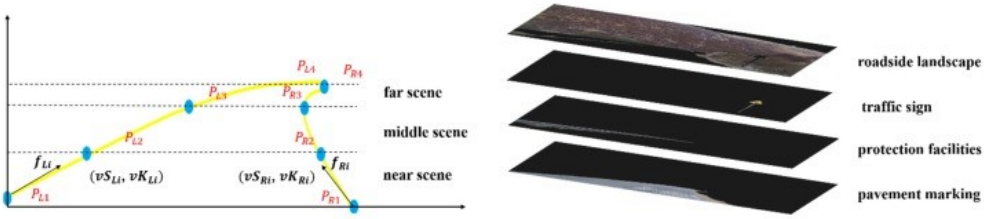
To‘rtinchidan haydovchining tezligi va transport vositasining traektoriyasining faoliyati. Avtotransportning tezligi va traektoriyasini o'zgartirish,

Bu jarayonlarda haydovchining harakat muhiti bilan o'zaro ta'sirining mohiyatidir. Ko'rinib turibdiki, transport vositasining harakati haydovchining sub'ektiv maqsadli faoliyati natijasidir. Atrof-muhit harakati bilan o'zaro munosabatda bo'lgan haydovchi tufayli o'z xatti-harakatlari tamoyillarini amalga oshiradi. Haydash rejimlarini tanlash.

- murakkablik darajasi;
- tashkilotchilik darajasi;
- haydovchining harakat muhiti bilan o'zaro ta'siri indekslari.

Murakkablik darajasi va harakat a'zolarining transport muhiti bilan o'zaro ta'siri haydovchining haydash paytidagi funktsional holatiga qarab baholanishi mumkin. Atrof-muhit harakatining elementlari, ma'lumot drayverini yuklab olish, uning funktsional holatiga ta'sir qiladi, bu esa o'z navbatida ishonchliligining ko'rsatkichidir. Haydovchining faoliyati. Axborot yuklash drayverining past va juda yuqori darajasi xatolar va favqulodda vaziyatlarga olib keladi.

(a) (b)



(c) (d)

Atrof-muhit harakatining ergonomik talablari mezonlari mexanizmlarning normal ishlashidir. Haydovchini faoliyat sharoitlariga moslashtirish. Atrof-muhit harakatining maqsadi bo'lishi kerak. Haydovchining faoliyati tananing fiziologik tizimlarining o'zgarishi bilan baholanadi, bu o'zgarishlarga olib keladi. Haydovchining faoliyati sifatida tananing funktsional holatini baholashga imkon beradigan ko'rsatkichlardir.

Bu yerda Vn2, Vn3,, Vn, - xavfsizlik, harakat erkinligi va maksimal tezlik uchun tezlik normasi.

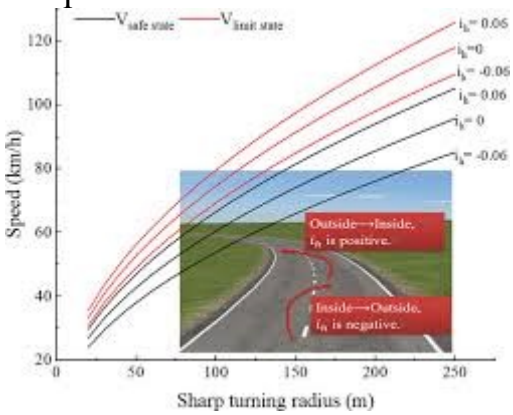
ruxsat etilgan tezlik ko'rsatkichlari haydovchisi;

V3 - avtomobil tezligini o'rnatish (hisoblash);

Hm0 - maksimal entropiya maydoni

Xavfsiz masofani saqlash yo'l harakati xavfsizligini yaxshilash bo'yicha ko'plab nashrlarda tasvirlangan. Bu masala bo'yicha bir nechta yondashuvlar mavjud. Eng mashhuri ikki soniya qoidasidir. Haydashdan keyin 2 soniya ichida oldinda turgan transport vositasidan xavfsiz masofani saqlash.

U masofani saqlashdan iborat, avariya yoki boshqa hodisa sodir bo'lganda favqulodda tormozlash imkonini beradi



Statistika ma’lumotlariga ko‘ra ko‘plab avtohalokatlar to‘xtash jarayonida yengil to‘qnashishda sodir bo‘lishi aytilgan. Ya’ni yo‘lda harakatlanayotgan avtomobil hech qanday chiroqlarni yoqmasdan burilishi, katta tezlikda harakatlanib hech qanday belgi bermasdan to‘xtash yoki sfetafor, piyodalar yo‘laklariga kelayotganda tezlikni pasaytirmaslik natijasida tormoz beriladi, natijada turli xil nosxush holatlar yuzaga keladi.

Yo'l belgilarining avtonom ishlashi ularning avtonom ishlashi imkoniyatidir, chunki belgilar orqali bildirilgan tezlik chegarasi ularning harakatini o'lchash natijasidir. Tavsiya etilgan tezlik uni o'zgaruvchan xabar belgisida ko'rsatish orqali bog'lanadi.

Tavsiya va mulohazalar:

Sayohat vaqtini o'lchash bilan bog'liq tajribalar ham bir nechta tezlik chegarasi gradatsiyasining, ham belgilar orasidagi masofaning o'rganilayotgan parametrga aniq ta'sirini ko'rsatdi.

Umuman olganda, yo'l xususiyatlarining haydovchilarning tezligini tanlashga ta'sirini tushunish yuqorida aytib o'tilgan tadqiqotning umumiy mavzusi bo'lib, u harakatlanish kalitidir. Psixologik tadqiqotlar yo'llarning umumiy tartibidan boshlanadi va haydovchilarning sub'ektiv mulohazalarini kamaytirish uchun ishlatilishi mumkin bo'lgan ma'lumotlarga qaratiladi.

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PROFESSIONAL TA’LIM MUASSASALARI O‘QUVCHILARINING KASBIY KOMPETENTLIGINI TAKOMILLASHTIRISHNING PEDAGOGIK SHART-SHAROITLARI

Annotatsiya*: Ushbu maqolada professional ta’lim mazmunini modernizatsiya qilishning asosiy yo‘nalishlaridan biri sifatida ta’limda kompetensiyaviy yondashuvni joriy etish masalasiga asosiy e’tibor qaratilgan, professional ta’lim jarayonini kompetensiyaviy yondashuv va zamonaviy usullar asosida loyihalash, professional ta’lim mazmunini ta’lim natijalariga asoslangan holda takomillashtirish, kompetensiyaga asoslangan ta’lim dasturlarini ishlab chiqish va amalga oshirish modeli hamda uning mazmuni to'g'risida qisqa ma'lumotlar keltirilgan.*

Kalit so'zlar*: kasb standartlarini, kompetensiyaviy yondashuvni , xususiy metodikalar Kasbiy modul klassifikator,mehnat muhofazasi, xavfsizlik texnikasi, model, modul,*

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PEDAGOGICAL CONDITIONS FOR IMPROVING PROFESSIONAL COMPETENCE OF STUDENTS OF PROFESSIONAL EDUCATIONAL INSTITUTIONS

Annotation: *this article focuses on the issue of introducing a competency approach to education as one of the main directions of modernizing the content of professional education, design the process of professional education on the basis of a competency approach and modern methods, improving the content of professional education based on educational results, developing and implementing a model of competency-based educational programs*

Keywords: *occupational standards, competency approach, private methodologies professional module classifier, labor protection, safety techniques, model, module.*

Kirish

Dunyoning rivojlangan davlatlarida professional ta’lim mazmunini modernizatsiya qilishning asosiy yo‘nalishlaridan biri sifatida ta’limda

kompetensiyaviy yondashuvni joriy etish masalasiga asosiy e’tibor qaratilmoqda. Professional ta’lim jarayonini kompetensiyaviy yondashuv va zamonaviy usullar asosida loyihalash, professional ta’lim mazmunini ta’lim natijalariga asoslangan holda takomillashtirish, kompetensiyaga asoslangan ta’lim dasturlarini ishlab chiqish va amalga oshirish hamda rivojlantirishning ilmiy asoslangan tizimini yaratish dolzarbligicha qolmoqda. Xususan, kompetensiyaviy yondashuv asosida professional ta’lim mazmunini takomillashtirish va professional ta’lim muassasalarida bo‘lajak mutaxassislarning kasbiy kompetentligini shakllantirishga oid tadqiqotlar olib borilayotgan Princeton University (AQSh), Manchesters University (Angliya), National Advice on Pedagogical Technology (Angliya), Belfield Pedagogical University (Germaniya), Ta’lim texnologiyalari navigatori axborot-metodik markazi (Rossiya) va Seoul Cyber University (Janubiy Koreya) kabi nufuzli ilmiy tadqiqot ta’lim markazlarida salmoqli amaliy natijalarga erishilgan.

Jahonning yetakchi oliy ta’lim muassasalari va ilmiy markazlarida, jumladan: AQShning Garvard universitetida tashkil etilgan “Career Services” markazi tomonidan malakali mutaxassisning kasbiy kompetentliligini belgilovchi mezonlar sifatida pedagogik va nostandart tafakkur tarzi, kasbiy-pedagogik mediakompetentligini o‘zaro integrallash (Oslo Metropolitan University), raqamli kompetensiyalarning rivojlanganlik monitoringi mexanizmlari (University of Limerick), mediakompetentlikni intellektual va psixoemotsional rivojlantirish tizimi (University of Valencia), Campbellsville University (AQSh), Indiana University of Bloomington (AQSh), SRH Hochschule fur Gesundheit Gera (Germaniya), Fliedner University of Applied Sciences Dusseldorf (Germaniya), University of Leipzig (Germaniya), University of Plymouth (Buyuk Britaniya), University of Hull (Buyuk Britaniya), Aichiy University of education, Seigakuin University (Yaponiya), Joetsu University of Education (Yaponiya), Korea National University of Education (Janubiy Koreya), Bucheon university (Koreya), Joetsu University of Education (XXR), Beijing Normal University (XXR), Singapurning Nan’yan texnologiya universiteti Biznes maktabida esa, kreativ qobiliyatlar muhim omil sifatida talqin etilgan.

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Xorijiy mamlakatlar olimlari A.K.Ellis, Lixiang Yan, Roberto Martinez, C.Paulus, Aroma Dabas, Annalena Felber Allais, G.Bereiter, C.Scardamalia, M.Fullan va boshqalarning ishlarida ta’lim natijalari (Learning Outcomes)ga doir nazariy va amaliy tahlillar o‘z ifodasini topgan.

Olib borilgan izlanishlar va tahlillar shuni ko‘rsatadiki, professional ta’limga kompetensiyaviy yondashuvni joriy qilish bo‘yicha ko‘plab ilmiy-tadqiqot ishlari olib borilgan bo‘lsada, kompetensiyaviy yondashuv asosida professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlash metodik tizimini takomillashtirish masalasi dolzarb muammo bo‘lib qolmoqda.

Professional ta’lim tizimida olib borilayotgan islohotlarni qo‘llab-quvvatlash, turli yoshdagi ta’lim oluvchilarda mehnat bozoriga yo‘naltirilgan bilim ko‘nikma va kompetensiyalarini shakllantirish orqali ularni iqtisodiyot tarmoqlarida munosib ish o‘rinlarini topish imkoniyatlarini kengaytirish bugungi kunning dolzarb vazifalaridan biridir.

Professional ta’limning yangi paradigmasini shakllantirishning o‘zagini kompetensiyalar atamalarida ifodalangan o‘quv natijalari tashkil etadi. Asosiy e’tibor o‘quv jarayonining o‘ziga emas, balki ta’lim oluvchilar tomonidan ko‘rsatiladigan kompetensiyalarda ifodalangan natijalarni baholashga qaratiladi.

Ta’lim natijalarini aniqlash ta’lim dasturini ishlab chiqishdagi birinchi qadamdir. Shu bilan birga, ta’lim natijalarini aniqlash barcha keyingi bosqichlar uchun asosiy jarayon bo‘lib xizmat qiladi. Ta’lim natijalarining aniq ta’rifisiz ta’lim mazmunini aniqlash imkonsizdir.

Shundan kelib chiqib tadqiqotimizda natijaga yo‘naltirilgan ta’lim tushunchasiga ishchi ta’rif berdik va tadqiqotlarimizda ushbu ta’rifga tayandik. Natijaga yo‘naltirilgan ta’lim – bu o‘quv jarayonini aniq, oldindan belgilangan maqsad va natijalarga erishishga qaratilgan pedagogik yondashuv bo‘lib, uning asosiy maqsadi o‘quvchilarda zarur bo‘lgan bilim, ko‘nikma va kompetensiyalarni shakllantirishdir. Bu ta’lim turida o‘quv jarayoni va metodlari shu tarzda tashkil etiladiki, o‘quvchilar olgan bilimlarini hayotiy va kasbiy vaziyatlarda samarali qo‘llay olish imkoniga ega bo‘ladilar. Ushbu yondashuv ta’lim jarayonida o‘quvchilarning faol ishtirokiga, mustaqil fikrlashga va mas’uliyatni o‘z zimmasiga olishga undaydi, shuningdek, ularda mustaqillik va innovasion fikrlash ko‘nikmalarini rivojlantiradi.

Mutaxassisning mehnat vazifalaridan kelib chiqib, ta’lim natijalarini aniqlashzarur bo‘ladi. Bundan tashqari, zamonaviy ta’lim dasturlarida o‘quv natijalari kompetensiya (malaka) sifatida ta’riflangan.

Shuni ta’kidlash kerakki, “kompetentlik” atamasining bir nechta ta’riflari mavjud bo‘lib, masalan, Xalqaro Mehnat Tashkiloti “kompetentlik” deganda, mutaxassisning biror vazifani sifatli bajarishi uchun zarur bo‘lgan mahorat, bilim, ko‘nikma hamda mutaxassisning munosabati tushuniladi. Ta’lim dasturini ishlab chiqishda “kompetentlik” atamasini qo‘llashning kamida ikkita afzalligi mavjud. Birinchidan, bilim, ko‘nikma va qobiliyatlarni farqlashning hojati yo‘q. Ikkinchidan, har qanday hayotiy vaziyatni, shu jumladan, kasbiy vazifalarni sifatli bajarishni hal qilish uchun ko‘nikma, bilim, qobiliyat va munosabatlarning butun majmuasi zarurdir. Aynan mana shu kompleks “kompetentlik” atamasini ifodalaydi.

Kasbiy kompetensiyalar professional ta’limning tayyorlov yo‘nalishlari, kasblar va mutaxassisliklar klassifikatoridagi kasb va u bo‘yicha beriladigan kvalifikatsiyalar malaka darajasi ushbu kasb bo‘yicha ishlab chiqilgan kasbiy standartdagi belgilangan malaka darajasi o‘zaro mos bo‘lishi kerak.

Kasbiy standartdagi mehnat funksiyalari va ushbu mehnat fuksiyalarini bajarish uchunzarur mehnat harakatlari kasbiy kompetensiyalar sifatida aks etadi.

Ta’lim dasturlarida kasbiy kompetensiyani shakllantirish uchun o‘qitish natijalari va baholash mezonlarini o‘z ichiga olgan professional modul aniqlanadi (1-rasm). Kasbiy standartlarda mehnat funksiyasi mehnat natijasiga erishishga qaratilgan o‘zaro bog‘liq mehnat harakatlari majmuasi sifatidir.

Kasbiy kompetensiya – bilim, ko‘nikma, malaka va shaxsiy fazilatlariga asoslangan holda mutaxassisga kasbiy faoliyatini samarali amalga oshirishimkoniyatini beradigan mehnat vazifalari majmuasini hal qilish qobiliyatidir.

Metodologiya

Tadqiqot natijalarining ishonchliligi qo‘llanilgan yondashuv, usullar va nazariy ma’lumotlarning rasmiy manbalardanolingani, keltirilgan tahlillar va tajriba-sinov ishlari samaradorligining matematik-statistika metodlari vositasida asoslanganligi, xulosa, taklif va tavsiyalarning amaliyotga joriy etilganligi, olingan natijalarning vakolatli tashkilotlar tomonidan tasdiqlangani bilan izohlanadi.

Ta’lim natijalari (kompetensiyalari)ga o‘tish dunyodagi deyarli barcha rivojlanishga yo‘naltirilgan kasbiy ta’lim va o‘qitish tizimlarini tavsiflovchi asosiy prinsipial o‘zgarishdir. Pedagogika fani rivojining borishi shuni ko‘rsatadiki, agar o‘quv-tarbiyaviy jarayonni ta’minlash tizimli bo‘lsa va bu tizim o‘qitish hamda tarbiyalash jarayonlarining barcha jihatlarini va bevosita ifodalanishini qamrab olgan bo‘lsa, kadrlar tayyorlash va uni og‘ishmay takomillashtirishni boshqarishning samarali quroli bo‘ladi. U shunday bo‘lishi uchun uning tavsifida loyihalanayotgan metodik tizimning barcha elementlarini aks ettirish zarur. Bo‘lg‘usi metodik tizimning tavsifi turli xil pedagogik hujjatlar: rejalar, dasturlar, o‘quv qo‘llanmalar va h.k.lar shaklida amalga oshiriladi.

Muhokamalar va natijalar

Tadqiqot natijalarining ilmiy ahamiyati natijaga yo‘naltirilgan ta’lim asosida professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlashning pedagogik shart-sharoitlari aniqlanganligi, kompetensiyaga asoslangan professional ta’lim dasturlarini ishlab chiqishning tashkiliy didaktik modelini takomillashtirilganligi hamda kompetensiyaga asoslangan professional ta’lim dasturlarini ishlab chiqish metodikasi ishlab chiqilganligi bilan izohlanadi. Tadqiqot natijalarining amaliy ahamiyati tadqiqot natijalari asosida kompetensiyaga asoslangan professional ta’lim dasturlari yaratilganligi, professional ta’lim jarayonini takomillashtirish bo‘yicha huquqiy-me’yoriy hujjatlar va chora-tadbirlar ishlab chiqilganligi, professional ta’limning kompetensiyaga asoslangan metodik ta’minotini yaratish texnologiyasi ishlab chiqilganligi va amaliyotga tatbiq etilganligi bilan izohlanadi.

Professional ta’lim muassasalari o‘quvchilarining kasbiy kompetentligini takomillashtirishda quyidagi vazifalar bajarilsa, amaliy natijalarga erishish mumkin:

natijaga yo‘naltirilgan ta’lim asosida professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlash metodik tizimini takomillashtirishning zamonaviy pedagogik shart-sharoitlarini ishlab chiqish;

natijaga yo‘naltirilgan ta’lim asosida professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlash modelini takomillashtirish;

professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlash metodikasini natijaga yo‘naltirilgan ta’lim samaradorligini ta’minlovchi simulyatsion ta’lim texnologiyasi asosida takomillashtirish; natijaga yo‘naltirilgan ta’lim muhitida professional ta’lim muassasalari o‘quvchilarining kasbiy faoliyatga tayyorgarlik darajasini baholash metodikasini takomillashtirish.

Professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlashning pedagogik shart-sharoitlari kasbga o‘qitish natijalari va o‘qitish natijasida shakllanadigan kompetensiyalarni uyg‘unlashtirish, kasbga o‘qitish va mehnat bozorining malakalarga ehtiyojlari orasida o‘zaro aloqadorlikning mustahkam tizimini shakllantirish hamda kasbga o‘qitish va mehnat tajribasi natijalarining malaka talablariga va kasb standartlariga mosligini ta’minlash asosida takomillashtirilgan.

Professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlash modeli o‘quv maqsadlarini aniq belgilab olish va natijaga erishishni ta’minlashning metodik tizimi elementlari o‘rtasidagi aloqalarni va funksional yuklanishni ta’lim natijasi (Learning Outcomes)ga yo‘naltirish asosida takomillashtirilgan.

Professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorlash metodikasi maqsadga yo‘naltirilganlikni ta’minlash va ta’lim natijalari (Learning Outcomes)ni aniq belgilash hamda debrifing orqali o‘quvchilarning refleksiv fikrlashini faollashtirish asosida takomillashtirilgan; professional ta’lim muassasalari o‘quvchilarini kasbiy faoliyatga tayyorgarlik darajasini baholash metodikasi o‘quvchilarning kasbiy kompetentligini xolis va haqqoniy baholash

(objective assessment)ni kasbiy standartlarda talab etilgan kasbiy tayyorgarlik darajasiga muvofiqligini ta’minlovchi demo-imtihonlar asosida takomillashtirilgan.

Professional ta’lim muassasalari o‘quvchilarining kasbiy kompetentligini takomillashtirish maqsadida quyidagi amaliy ishlar bajarilgan:

“Kompetensiyaga asoslangan ta’lim dasturlarini ishlab chiqish” deb nomlangan metodik qo‘llanma yaratilgan.

“Kasb standartlari asosida ta’lim dasturlarini ishlab chiqish bo‘yicha metodik tavsiyanoma” yaratilgan.

“Kompetensiyaga asoslangan dual ta’lim dasturlarini ishlab chiqish bo‘yicha uslubiy tavsiyanoma” yaratilgan.

“O‘zbekiston Respublikasida ta’lim sohasida kasb standartlarini ishlab chiqish bo‘yicha metodik yo‘riqnoma” yaratilgan.

Xulosa

Shunday qilib, mutaxassisning mehnat vazifalari majmuasini hal qilish qobiliyati kasbiy kompetensiyadir, ya’ni kasbiy kompetensiya mehnat funksiyasini bajarish sifatida belgilanadi.

Kasbiy modul – bu o‘quv dasturining mustaqil va to‘liq bo‘limi bo‘lib, talabalarning kompetensiyalar asosida kasbiy vazifalar to‘plamini hal qilish qobiliyatini egallashiga qaratilgan.

Odatda kasbiy standartning mehnat funksiyalariga keltirilgan ma’lumotlar asosida o‘quvchilarning ta’lim jarayonida egallashi kerak bo‘lgan kasbiy kompetensiyalari shakllantiriladi. Lekin ko‘p hollarda mehnat funksiyalarini kasbiy kompetensiyalar sifatida to‘g‘ridan-to‘g‘ri ko‘chirib qo‘yib bo‘lmaydi. Kasbiy kompetensiyalarni shakllantirish uchun har bir umumlashtirilgan mehnat funksiyasi doirasidagi mehnat funksiyalari va mehnat harakati mantiqiy tahlilqilinib ma’lumotlarni umumlashtirish orqali amalga oshiriladi. Tahlil qilish jarayonida shunga ahamiyat berish kerakki, ta’lim dasturi qaysi ta’lim darajasiga ishlab chiqilayotgan bo‘lsa, kasbiy standartning o‘sha malaka darajalariga tegishli toifalarni talablaridan foydalanish lozim.

Mehnat harakatlari asosida kasbiy kompetensiyani aniqlab olgandan keyin kasbiy standartdan mehnat harakati, ya’ni kompetensiyani bajarish uchun talab etiladigan bilim va ko‘nikmalar ajratib olinadi. Mazkur bilim va ko‘nikmalar o‘qitish natijasida sifatida aks etadi. Demak, kasbiy kompetensiyani bajara olish uchun talab etiladigan bilim va ko‘nikmalar o‘qitishning natijasi hisoblanadi. Bitta kasbiy kompetensiyada bir yoki bir nechta o‘qitish natijasi bo‘lishi mumkin. Bitta kompetensiya doirasida shakllanadigan o‘qitish natijalarining maksimal miqdori 7 tadan ko‘p bo‘lmasligi tavsiya etiladi.

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KICHIK MAKTAB YOSHIDAGI O‘QUVCHILARDA MULOQOTCHANLIK KO‘NIKMALARINI RIVOJLANTIRISH

Annotatsiya: *Ushbu maqolada kichik maktab yoshidagi o‘quvchilarda mustaqil fikrlashni rivojlantirishda muloqotdan foydalanishning ahamiyati yoritilgan. Shuningdek, kichik maktab yoshidagi o‘quvchilarning muloqotchanligi va mustaqil fikrlash qobiliyatlarini rivojlantirish hamda ma’naviy yetuk barkamol avlodni tarbiyalashda maktabdagi o‘quv faoliyatining roli masalalari haqida so‘z yuritilgan.*

Kalit so‘zlar: *muloqot, muloqotchanlik ko‘nikmalari, nutq, bolalar nutqini rivojlantirish, o‘quv faoliyati.*

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DEVELOPMENT OF COMMUNICATION SKILLS IN STUDENTS OF JUNIOR SCHOOL AGE

Annotation:*This article covers the importance of using communication in the development of independent thinking in students of a small school age. Issues of the role of educational activities in the school in the development of communicative and independent thinking skills of students of a small school age and the upbringing of a spiritually mature harmonious generation were also discussed.*

Keywords: *communication, communication skills, speech, development of children's speech, educational activities.*

Kirish

Bola kichik maktab yoshiga yetganda ularning bir-birlariga nisbatan munosabatlari yangicha mazmun kasb etadi. Bola ilgari ota-onasi, guruhdagi tengdoshlari, tarbiyachi bilan muloqotda bo‘lgan bo‘lsa, endi maktab o‘qituvchisi, sinf rahbari bilan ham muloqotda bo‘ladi. Bolalarda bu davrda mas’uliyat hissi shakllanadi. Shu o‘rinda, bolalarning maktabga tayyorgarligi masalasiga alohida to‘xtalib o‘tish joiz deb hisoblaymiz. Psixologiyada «7 yosh inqirozi» - deb yuritiladigan inqiroz davri mavjuddir. Bu davr bolaning o‘z «men»ligini tengdoshlari orasida tasdiqlashi bilan bog‘liq. Bundan tashqari, 7 yoshda bolaning bilish jarayonlarida (sezgi, idrok, xotira, xayol, diqqat) sifat o‘zgarishlari sodir bo‘ladi. Boladagi bo‘linuvchan beqaror diqqat o‘rniga barqaror diqqat shakllana boshlaydi, xotirasi mustahkamlanadi, tafakkur jarayonlari rivojlanadi. Gohida 6 yoshli bolada mana shu sifat o‘zgarishlari yuz bermaganligi tufayli ularni maktabga

qabul qilish jarayonida « maktabga tayyor emas», degan xulosa chiqarish mumkin bo‘ladi[1]. Shu tufayli ota-onalar bolani maktabga berish chog‘ida albatta, mutaxassis maslahatini olishlari maqsadga muvofiqdir. Maktabgacha yoshning yettinchi yilida bilan muomala uslubini pedagog bolalar xulq atvoridagi o‘ziga xos jihatlar, uning o‘z tengdoshlari va kattalar bilan o‘zaro muloqotga kirisha olish malakalariga qarab tanlaydi, tengdoshlari orasida jamoa bilan muloqot qilish jarayonida turli darajadagi qiyinchiliklarni his qiladigan o‘quvchilar bor: gipermuloqotchan (sergap) bolalar; sinf- dars holatidan qo‘rqadigan bolalar; javob berishga uyaladigan, shuning uchun hech narsani bilmaydigan yoki quloq solmayotgan o‘quvchi bo‘lib ko‘rinadigan bolalar. Ularning har biriga nisbatan o‘qituvchi sabr-toqat va xayrixohlik bilan turli xilda yondashishi kerak bo‘ladi. Tarbiyachi pedagogning tarbiyalanuvchilari bilan avtoritar uslubda ish olib borishiga yo‘l qo‘yib bo‘lmaydi, unga nisbatan mehribonlik bilan ijobiy munosabatda bo‘lishi o‘ta muhimdir. Tarbiyachining bolaga munosabati faqat uning aniq muvaffaqiyati evaziga bo‘lmasligi kerak[2].

Bolalar nutqining o‘sishida ularning maktabda o‘qishi katta rol o‘ynaydi. Bola maktabgacha yoshda o‘ylamasdan gapiradi, maktabda esa bola gaplashayotgan til o‘qitiladigan va o‘rganiladigan ilm bo‘lib qoladi. Grammatikani o‘qib o‘rganish jarayonida bola nutqining fonetik jihati to‘g‘ri bo‘lib boradi, nutqning sintaksis tuzilishi takomillashadi. Maktabda o‘qitilayotgan hamma fanlarni o‘rganish jarayonida o‘quvchi nutqining lug‘ati boyiydi, so‘zlarning mazmuni chuqurlashadi va kengayadi [3].

Bolalarning yozma nutqni egallashlari ular nutqining o‘sishida muhim bosqich bo‘ladi. Bola o‘z fikrlarini yozma nutqda bayon qilishga harakat qiladi. O‘quvchi o‘qituvchining topshirig‘iga binoan yozma ishlar bajarayotganda o‘zining shu ishiga baho berilishini, o‘z fikrining qanday til bilan bayon qilinganiga qarab baho berilishini oldindan bilib turadi. O‘quvchi maktabda berilgan topshiriqni tayyorlash vaqtida shu topshiriqni o‘ziga - o‘zi gapirib berishni mashq qilib turishi o‘quvchi nutqining o‘sishiga katta tahsir qiladi. Bolalar nutqining o‘sishida tarbiyachining nutqi katta ro’l o‘ynaydi, chunki uning nutqi bolalar uchun namunali nutq hisoblanadi.

Adabiyotlar tahlili va metodologiya

O‘zbekiston Respublikasining “Ta’lim to‘g‘risida”gi orqali yo‘lga qo‘yilgan zamonaviy boshlang‘ich ta’lim uchun istiqbolli, ustuvor yo‘nalishlardan biri bu shaxsni umuminsoniy va milliy qadriyatlar ruhida tarbiyalash asosida rivojlantirishdan iboratdir, ya’ni har tomonlama rivojlangan shaxsni tarbiyalashga yo‘naltirilgan tarbiya jarayonidir. Bugungi kunda o‘zida ta’lim-tarbiya elementlarini mujassamlashtirgan boshlang‘ich ta’lim jarayonini tashkil etish dolzarb mavzulardan biridir. Kichik maktab yoshidagi bolalarni o‘qitish va ularga milliy hamda umuminsoniy tarbiya elementlarini singdirish yo‘li amaliy jihatdan tatbiq qilinishi lozim.

Z.A. Xolmatova “boshlang’ich sinf o’quvchilarining o’zaro muloqot mavzulari doirasi keng, so’z zahiralari nihoyatda boy bo’lsa-da, ularda dialogga kirishish ko’nikmlari yetarlicha shakllanmagan. Buni ayniqsa boshlang’ich sinf

o’quvchilari muloqotida munozara tarzidagi dialoglar vujudga kelganda yaqqol ko’rish mumkin”[4], deb ta’kidlaydi.

X.A. Yulbarsova o’z tadqiqotlarida “nutq bir vaqtning o’zida qandaydir ma’lumotning manbai vazifasini bajarishi, shu bilan bir qatorda, o’z suhbatdoshiga ta’sir ko’rsatish jarayonini to’liq tavsiflash uchun faqat kommunikativ akt strukturasini bilish kamlik qiladi”[5] deb izohlaydi.

Natijalar

O‘quv materiallari shaklida berilgan ta’limiy matnlarda o‘quvchilarda turli shakllarda axloqiy – ma’naviy tarbiya va milliy nafosat me’yorlarini, diniy hamda umuminsoniy qadriyatlarni singdirish nazarda tutiladi. Shunga ko‘ra kichik maktab yoshidagi o‘quvchilarda muloqotchanlik ko‘nikmalarini shakllantirishda quyidagi vazifalarni ta’lim jarayoniga tadbiq qilish muhimdir:

- kichik maktab yoshidagi o’quvchilarda muloqotchanlik ko’nikmalarini rivojlantirishning diagnostik vositalari ishlab chiqish;
- kichik maktab yoshidagi o’quvchilarda muloqotchanlik ko’nikmalarini rivojlantirishga doir darsdan tashqari mashg’ulotlar dasturi ishlab chiqish;
- kichik maktab yoshidagi o’quvchilarda muloqotchanlik ko’nikmalarini rivojlantirishning pedagogik mexanizmi takomillashtirish.

Muhokama

Boshlang‘ich ta’lim mazmuni istiqbolda konkretlashtirishni nazarda tutganda ta’lim vositalari alohida ahamiyat kasb etadi. O‘quv jarayonining “bilim” komponenti bunda muhim rol o‘ynaydi. Bilim komponenti esa “rivojlanish” komponenti asosida shakllanadi. “Rivojlanish” komponenti. Rivojlanish” butun o‘quv jarayonining asosiy tarkibiy qismidir. Bu boshlang‘ich maktabda o‘qish darslari uchun nimani anglatadi? Eng avvalo, o‘qish fanida bunga o‘zgarishlar kiritilishni nazarda tutadi, ya’ni fanning mohiyatini, uslub va metodlarini takomillashtirish demakdir. Shuni ham ta’kidlash kerakki, bunday rivojlanish bosqichi o‘z ichiga mustaqil shug‘ullanishni ham qamrab oladi. Ikkinchidan, kitoblardan kerakli ma’lumotlarni (bosma va ekran matni) olishga qodir, olingan bilimlarni amaliyotda qo‘llay oladigan barkamol kitobxonni shakllantirish adabiy o‘qishning ajralmas qismiga aylanadi. Shu bilan birga, kichik yoshdagi maktab o‘quvchilarida o‘qish qobiliyatini shakllantirish savodxonlikni o‘rgatish davrida (o‘qish darslarida), o‘qish texnikasini shakllantirish jarayonida boshlanadi. Birinchi bosqichda texnologiyadan foydalanish, turli kitob formatlarida, jumladan, ekran formatlarida (vizual ravishda) taqdim etilgan badiiy adabiyotni o‘qish imkoniyatlari haqida gapirar ekanmiz, bizning fikrimizcha, bolalar o‘qishining hech qanday turi va usullaridan voz kechmaslik kerakligini yana bir bor ta’kidlaymiz. “Ko‘pchilik tomonidan rad etilgan bolalar kitoblarining elektron versiyasini taqiqlash emas, balki o‘qishning har xil turlari va shakllarini mohirona uyg‘unlashtirish lozim. Shunda kattalarning bevosita ishtiroki bolaning barkamol shaxsini shakllantirishga xizmat qiladi” [6]

Xulosa

Xulosa qilib aytganda pedagoglar bolalarga kichik maktab yoshidan boshlab turli muloqot shakllarini qo’llagan holda og‘zaki va yozma nutqni o‘stirish bilan

birga nutq madaniyatini va muloqotga kirishishni ham o‘rgatib borishlari zarur hisoblanadi.

Kichik maktab o‘quvchilarida kommunikativ madaniyatni rivojlantirish boshlang‘ich maktabning muhim muammolaridan biridir, chunki boshlang‘ich maktab yoshida kommunikativ madaniyatni rivojlantirish bolalarga o‘z imkoniyatlarini yanada muvaffaqiyatli amalga oshirishga imkon beradi. Psixologik-pedagogik adabiyotlarda pedagogika fani rivojlanishining hozirgi bosqichida “kommunikativ madaniyat” tushunchasi “kommunikativ mahorat” tushunchasi bilan bog‘lanib, uning shakllanish yo‘llari psixologik-pedagogik va uslubiy asarlarda bayon etilgan.

Ushbu muammoni o‘rganish, ayniqsa, muhimdir, chunki boshlang‘ich maktab yoshida bolalar nutqi hali ham shakllanmaydi, aynan shu davr shaxsning axloqiy fazilatlarini, shu jumladan, muloqot madaniyati va uning tarkibiy qismlarini, madaniy xulq-atvor ko‘nikmalarini va qobiliyatlarini rivojlantirish uchun qulaydir. Kichik yoshdagi maktab o‘quvchilarida kommunikativ madaniyatni rivojlantirish muammosi o‘quv jarayonini ham, tarbiya jarayonini ham o‘z ichiga olgan ta’lim jarayonida hal qilinadi.

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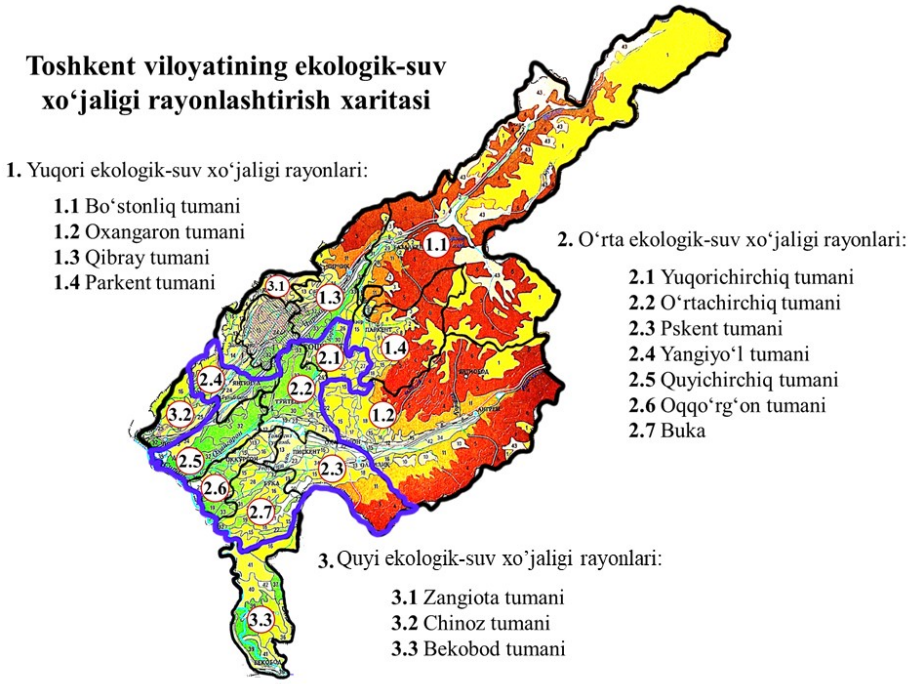
ECOLOGICAL AND WATER MANAGEMENT ZONING (EWMR) OF UZBEKISTAN

Abstract: Based on many years of research and analysis of natural conditions, ecological and water management zoning of individual regions of Uzbekistan was carried out, substantiated by the method of mathematical statistics and some recommendations were given.

Keywords: Irrigation, water and land resources, mathematical methods, zoning.

As I.V. Mikheeva notes, the global warming observed in the last decade causes aridization and the development of desertification processes in arid territories. Soil drying is one of the negative manifestations of desertification. In these conditions, the study of the soil water regime, including on the basis of mathematical modeling, becomes extremely relevant. The practice of developing irrigated agriculture in Uzbekistan shows that many issues of using water and land resources are usually resolved within the republican, regional, district and other administrative boundaries... (E.I. Chembarisov, T.Yu. Lesnik,. Confirming the correctness of this decision, Academician I.P. Svintsov states that long-term plans to combat desertification should be focused on a comprehensive solution to the problem within the administrative boundaries of a farm, district, region (republic) or landscape. This is a guarantee of mandatory implementation of environmental protection measures, a guarantee of stable nature management and conservation of biodiversity, a guarantee of solving environmental problems and bringing the agro-industrial complex out of a crisis situation.

The need to integrate individual administrative districts is justified not only by the noted factors, which are historically divided taking into account the main natural conditions, landscape and the structure of water management works, but also by mathematical methods of analyzing water management characteristics (water intake for irrigation and drainage water flow) over a long-term period (1955-2022) using the STATISTICA program and the standard Microsoft Excel program package.



Environmental and water management zoning map of Tashkent region.

1. High environmental and water management rates:
.1 Bostanlig district.
1.2 Okhangaron district.
1.3 Kibrai district.
1.4 Parkent district.

2. medium ecological water management district:
2.1 Upper Chirchik district.
2.2 Middle Chirchik district.
2.3 Pskent district.
2.4 Yangiyol district.
2.5 Kuyichirchik district.
2.6 Akkorgon district.
2.7 Buca.

3. Lower ecological water management regions:
3.1 Zangiota District.
3.2 Chinoz district.
3.3 Bekobad district.

Map-scheme of ecological and water management zoning of Tashkent region.

For scientific substantiation of environmental and, in particular, water-sustainable technologies, as a result of our long-term research (1986-2022),

Tashkent region into 4 separate upper, 1 middle and

3 separate lower EWHRs – upper (Bostanlyksky, Akhangaransky, Kibraysky and Parkentsky districts), middle (Verkhnechirchiksky, Srednechirchiksky,

Pskentsky, Yangiyulsky, Nizhnechirchiksky, Akkurgansky, Bukinsky districts), lower (Zangi-Ata, Chinazsky, Bekabadsky districts).

Conclusions:

1. The analysis of the water management situation of individual regions by the method of mathematical statistics for 42-56 year periods is quite representative, since they cover all typical hydrological years and water management activities. This made it possible to identify patterns in the main water management indicators for each EWHR.

2. The assessment of the water management situation made it possible to reveal that more efficient management of water and land characteristics is carried out with the differentiation of ecological and water management conditions.

3. Taking into account numerous zonings of Uzbekistan, a detailed analysis of ecological and meliorative, water management, meteorological and “Xalqaro ilmiy-amaliy anjuman to‘plami 2023”other natural and socio-economic features of the republic, ecological and water management zoning of individual regions was carried out.

The upper, middle (subregion) and lower EWHRs were identified. In essence, this is the first experience of zonal-regional zoning in modern terminology.

4. Ecological and water management zoning allows not only to identify water management potential, but also to clearly assess the negative ecological and meliorative consequences in a specific area and, accordingly, develop a set of effective water-sustainable measures.

5. The completed ecological and water management zoning of individual territories of Uzbekistan will allow solving ecological and meliorative problems at a qualitatively new level by rationally placing participants in the water management complex (WMC), as well as to outline technical, economic and organizational measures for the arrangement of water management organizations.

6. The main taxonomic unit of the new version of the synthesizing map of the EWHR is not a river basin, but administrative districts - physical and geographical conditions or landscape that represents a specific region with a single natural basis, geology, relief, climate, soils, biogeocenoses, hydrogeological, morphological and ecological and meliorative conditions, which is the main determining factor in the establishment of a water-stable environment of irrigated areas.

7. Based on the new fundamental methodology, maps of the scheme of ecological and water management zoning were compiled within the irrigated and meliorative territories of individual regions of Uzbekistan, which will make it possible to analyze the main water management indicators with the aim of developing a set of technical solutions for improving ecological and meliorative conditions.

8. Zoning allows regulating the use of ecological meliorative and water-stable methods depending on natural and water management conditions. It is the basis for compiling a GIS-EWHR for a region with identified representative information areas.

9. Zoning will allow for a detailed analysis of the main ecological and meliorative characteristics such as the dynamics and mineralization of groundwater, metamorphosis of the chemical composition of water resources, and for developing a set of methods for regulating them. As well as a detailed analysis of the main factors (hydrological, hydrogeological, water management) that affect the process of environmental degradation.

For the first time, an orderly metamorphism of the chemical composition of water resources in connection with irrigation in the designated territory was investigated using a modern mathematical method of analysis, which produced a retrospective qualitative and quantitative assessment of ground waters and revealed a regularity; a method of classifying the "interval of critical depth" of bedding ground waters and implementing a regional zoning was developed; a soil desalting method was developed with the goal of preventing soda salinization and increasing the productivity of irrigated lands; the principles of generation of anti-filtering screening for specific depth of ground waters were developed;

For flat gypsiferous soils, a water-saving and soil-protective method that prevents irrigational erosion was suggested; There was a scientifically proven sub-irrigation method for the arid territories that improved the water-air and water-salt conditions of the aeration zone by increasing the biological cycle of elements. Additionally, a small power-efficient method of demineralizing collector-drainage, underground, and lake waters was developed, along with a scheme for controlling drainage flow and the "Cascade." Furthermore, ecological carbon dioxide was used for the first time; techniques for enhancing the effectiveness of plants' use of groundwater, irrigation, and atmospheric precipitation were refined; adverse events were avoided; aeration zone productivity was increased; and energy resources (exergy) were increased. For geographers, hydro geochemists, hydrologists, ecologists, land reclamation experts, soil and water specialists, farmers, and environmentalists. The book can serve as a textbook for trainees, students, and job seekers in their respective fields.

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HEMIS SYSTEM OF KARSHI INTERNATIONAL UNIVERSITY: THE BASICS OF DIGITALIZATION OF EDUCATION

Annotation: *This article covers the methods and main modules of using the HEMIS system of Karshi International University.*

Keywords: *HEMIS, KIU, HEMIS Mobile, teachers and students, administrative management, educational process.*

The term **HEMIS** is an abbreviation of the English words "**Higher Education Management Information System**", which in Uzbek means "**Higher Education Management Information System**" and operates under that name.

This HEMIS information system, created by Uzbek scientists on the soil of Uzbekistan, covers more than 229 higher education institutions (HEIs) and more than 1 million users (students and teachers), and is also integrated with more than 100 other information systems, and this number is still growing.

To access the HEMIS system, professors and teachers are required to enter their own personal login and password, and each of them enters the system through special web pages on the university website (Figure 1).

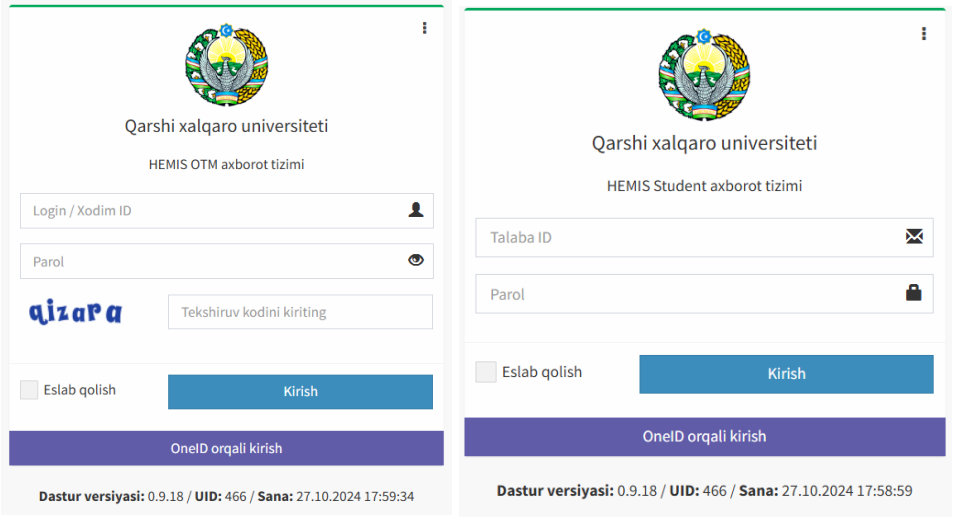

Figure 1. HEMIS system login.

There are other ways to log in, such as:

1) the student can log in to the system by entering his/her login and password through his/her personal OneID - a unique identification system (if he/she has previously registered);

2) You are required to visit **http://my.hemis.uz through any browser, select the name of the university you are studying at, and enter your login and password on the next page (Figure 2).**

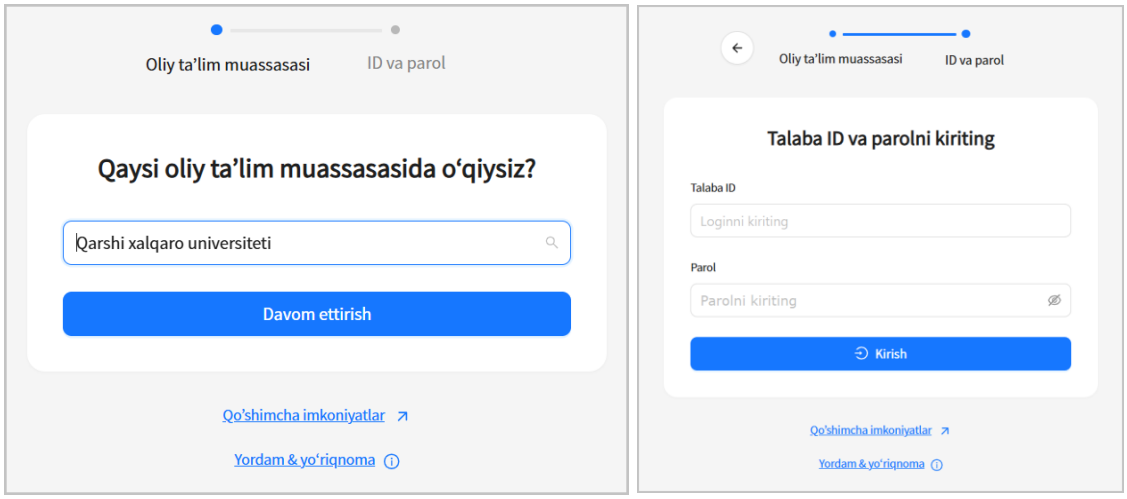

Figure 2. Log in to the system via http://my.hemis.uz.

consists of 4 main modules: " *Administrative Management* ", " *Academic Process* ", " *Scientific Activities* ", and " *Financial Management* ".

" **Administrative Management** " module in the system is to study, analyze and manage information about the structure of higher education institutions, faculties and departments, staff and teaching staff, student contingent and their movement (Figure 3):

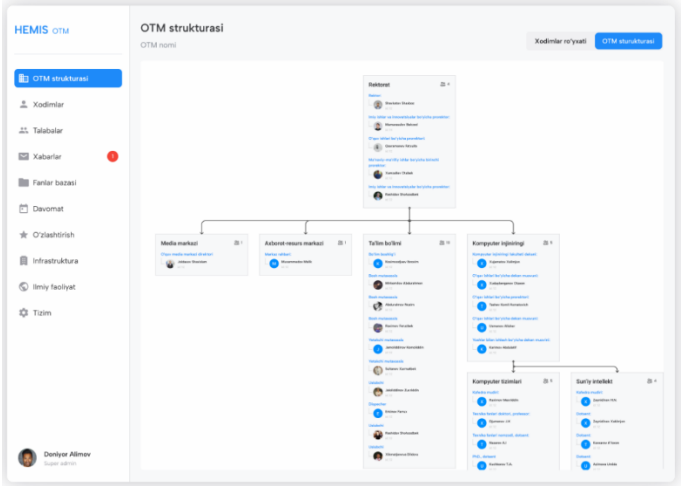

Figure 3. "University Structure" page of the "Administrative Management" module.

“ **Academic Process** ” module in the system is to manage educational programs, subjects, and students' academic activities, as well as to record and monitor university graduates (Figure 4):

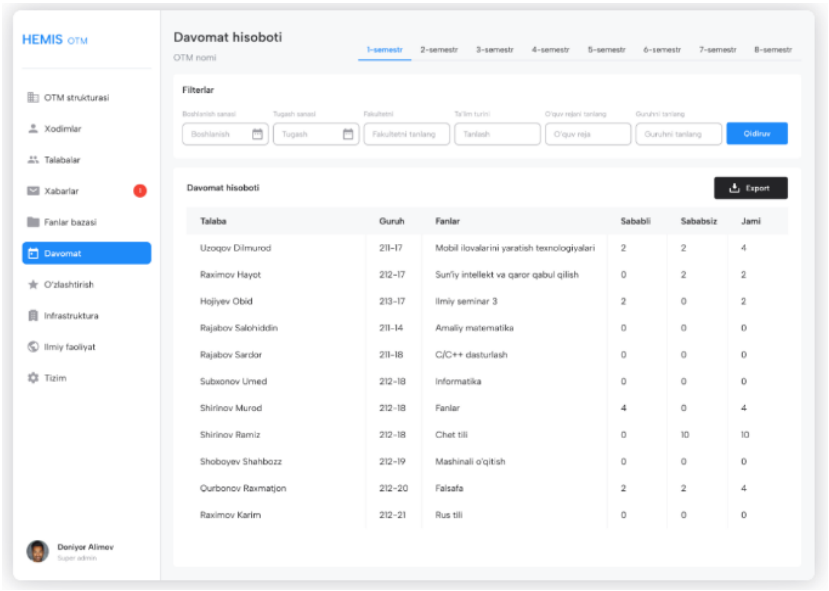

Figure 4. The “Attendance Accounting” page in the “Learning Process” module.

“ **Scientific Activities** ” module in the system is to provide information and organizational support for research processes and planning processes, publications, intellectual property and educational work processes, and to evaluate the activities of teachers (Figure 5):

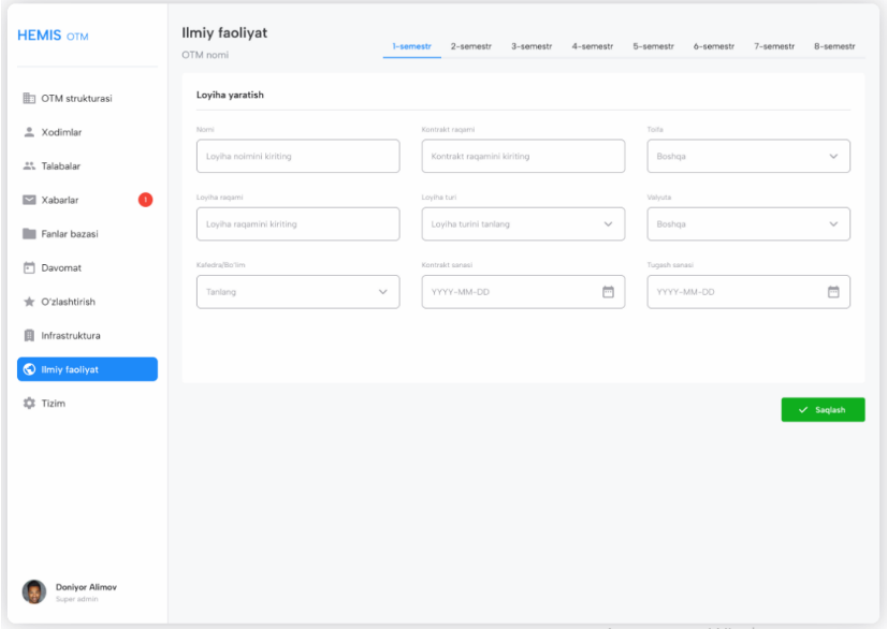

Figure 5. The “Create a Project” page in the “Scientific Activities” module.

Also, the main task of the " **Financial Management** " module is to control the payment of scholarships and salaries, as well as automate the processes of accounting for student fees.

The HEMIS Mobile application has been developed to conveniently and anywhere use the HEMIS information system via mobile devices . This application can be downloaded to a smartphone from the App Store or Google Play.

a smartphone device, students can access various information related to themselves through the following pages: " *Assignments* ", " *Class Schedule* ", " *Subject and Resources* ", " *Information* ", " *Checklist* ", and " *Agreements* ".

Assignments. This page lists assignments given by professors within the disciplines, deadlines for submitting assignments, information on how many points will be awarded for the assignment, and other requirements or comments.

Class schedule. This page contains a list of subjects that have been or will be taught by semester, by day of the week, information about the start and end times of the subjects, the subject teacher, and the type of class.

Subjects and resources. Subject names, class hours, subject resources (books, lecture notes, presentations, dictionaries, etc.), student achievement indicators in the subject, revision hours (if any), and similar information are covered on this page.

Information. This page contains an electronic version of the student ID card, contracts, rating book, study sheet, control schedule, general information about student attendance, orders, and other relevant information.

Control table. Through this page, you can view the list of intermediate and final controls for subjects, the auditorium where the exam will be held, the start and end times of the exam, how many points will be awarded, and information about the invigilator.

Contracts. This page provides the opportunity to create and download electronic contracts for students studying on a fee-based contract basis at state universities.

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kafedrasi o‘qituvchisi

AXBOROT TEXNOLOGIYALARINI KASBIY FAOLIYATDA BOSHLANG'ICH TA'LIMNING O‘RNI

Annotatsiya: *Zamonaviy ta'lim tizimi rivojlanishning yangi bosqichiga o'tmoqda. Bu maqolada, boshlang'ich ta'limda axborot texnologiyalarining o'rni, afzalliklari, ularni kasbiy faoliyatda qo'llashning muhim jihatlari va metodikasi haqida batafsil tahlil qilinadi.*

Kalit so‘zlar: *boshlang'ich ta'lim, axborot texnologiyalar, metodika, kasbiy faoliyat.*

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THE ROLE OF PRIMARY EDUCATION IN THE PROFESSIONAL ACTIVITY OF INFORMATION TECHNOLOGY

Annotation: *the modern educational system is moving to a new stage of development. This article will analyze in detail the role, advantages of Information Technology in primary education, important aspects and methodology for their use in professional activities.*

Keywords: *primary education, information technology, methodology, professional activity.*

Boshlang'ich ta'limning roli va ahamiyati

Boshlang'ich ta'lim o'quvchilarga bilim olish, jamiyatda muvaffaqiyatli yashash va o'z imkoniyatlarini kengaytirish uchun zarur bo'lgan asosiy ko'nikmalarni o'rgatadi. Bu bosqichda o'qituvchilar nafaqat akademik bilimlarni, balki ijtimoiy va emotsional ko'nikmalarni ham rivojlantiradilar. Bu esa o'quvchilarni kelajakda muvaffaqiyatli fuqarolar bo'lishga tayyorlaydi.

Boshlang'ich ta'limda axborot texnologiyalaridan foydalanish, o'quvchilarga o'quv materiallarini ko'proq vizual va interaktiv tarzda taqdim etish imkonini beradi. O'qituvchilar esa o'z kasbiy faoliyatlarida zamonaviy texnologiyalarni qo'llash orqali o'quvchilarning qiziqishini oshirishi, ularning darslarga bo'lgan motivatsiyasini kuchaytirishi mumkin.

Axborot texnologiyalarining boshlang'ich ta'limdagi o'rni

Axborot texnologiyalari — bu ma'lumotlarni yig'ish, saqlash, uzatish va qayta ishlash bilan bog'liq bo'lgan barcha vositalar, dasturlar, tizimlar va usullardir.

Boshlang'ich ta'limda axborot texnologiyalarini qo'llashning asosiy maqsadi — o'quvchilarga ta'lim olish jarayonida texnologiyalardan samarali foydalanishni o'rgatishdir.

1. **Multimedia va interaktiv vositalar**: Multimedia texnologiyalarini qo'llash boshlang'ich ta'limda o'quvchilarning diqqatini jalb qilish, ularga murakkab mavzularni oson tushuntirish uchun samarali vosita hisoblanadi. Interaktiv doskalar, video materiallar, taqdimotlar, va kompyuter o'yinlari orqali o'quvchilarning o'rganish jarayoni yanada qiziqarli va samarali bo'ladi.
2. **Internet va onlayn resurslar**: Internetdagi ta'lim resurslari, onlayn kurslar va o'quv platformalari orqali o'quvchilar darslarni mustahkamlash, qo'shimcha materiallar olish va o'z bilimlarini kengaytirish imkoniyatiga ega bo'ladilar. Bu vositalar o'qituvchilarga darslarni yanada samarali va interaktiv tarzda o'tkazishga yordam beradi.
3. **O'qituvchilar uchun texnologik vositalar**: Axborot texnologiyalarini o'qituvchilar ham o'z kasbiy faoliyatida qo'llashlari zarur. Dars rejasini yaratish, o'quvchilarni baholash, ma'lumotlarni tahlil qilish va ularni taqdim etish jarayonlarida zamonaviy texnologiyalar yordamida samaradorlikni oshirish mumkin.

Boshlang'ich ta'limda axborot texnologiyalarini qo'llashning afzalliklari

1. **O'quvchilarning motivatsiyasini oshirish**: Axborot texnologiyalari o'quvchilarga o'quv jarayonini yanada qiziqarli va ijodiy qilish imkonini beradi. Multimedia materiallar, animatsiyalar, videolar va o'yinlar yordamida ta'lim jarayoni yanada jonli va o'ziga jalb qiluvchi bo'ladi.
2. **O'quvchilarning mustaqil fikrlash ko'nikmalarini rivojlantirish**: Axborot texnologiyalarining qo'llanishi, o'quvchilarga mustaqil o'rganish, masalalarni hal qilish va yangi bilimlarni izlashda yordam beradi. O'quvchilar kompyuterlar yoki smartfonlar yordamida kerakli ma'lumotlarni tezda topish va ularni analiz qilish ko'nikmalarini rivojlantiradilar.
3. **O'qituvchilarga darsni samarali o'tish imkoniyatini yaratadi**: Axborot texnologiyalari yordamida o'qituvchilar darsni interaktiv, dinamik va qiziqarli qilishlari mumkin. Ular turli xil elektron resurslar, onlayn testlar va interaktiv doskalar yordamida o'quvchilar bilan bevosita aloqa o'rnatib, dars jarayonini kuzatib borishlari mumkin.
4. **Ko'p formatli o'quv materiallarini yaratish imkoniyatini taqdim etadi**: Axborot texnologiyalari yordamida turli xil o'quv materiallarini yaratish osonlashadi. O'qituvchilar taqdimotlar, videolar, interaktiv simulyatsiyalar va o'quv o'yinlarini yaratib, o'quvchilarga darsni ko'proq tushunarli va qiziqarli qilishlari mumkin.
5. **O'quvchilarning turli ehtiyojlariga moslashish imkoniyati**: Axborot texnologiyalari yordamida o'qituvchi o'quvchilarning individual ehtiyojlariga moslashishi, ular bilan turli xil materiallar va metodlarni ishlatish imkoniyatiga ega bo'ladi. Masalan, vizual o'quvchilar uchun video materiallar, audial o'quvchilar uchun eshittirishlar va kinestetik o'quvchilar uchun amaliy mashqlar qo'llanilishi mumkin.

Axborot texnologiyalarini boshlang'ich ta'limda qo'llash metodikasi

1. **Ta'limni individualizatsiya qilish**: Axborot texnologiyalari yordamida har bir o'quvchi uchun mos o'quv materiallarini taqdim etish, o'quvchilarning o'z qobiliyatlariga qarab individual o'quv rejalari tuzish mumkin. Bu metod o'quvchilarga o'z tezliklarida o'qish va yangi bilimlarni o'zlashtirish imkonini beradi.
2. **Interaktiv ta'limning rivojlanishi**: Interaktiv ta'lim — bu o'quvchilarni faol ishtirok etishga undaydigan metoddir. Axborot texnologiyalarining yordamida o'quvchilarga masalalarni yechishda o'zaro fikr almashish, guruhda ishlash, turli xil testlar va vazifalar bajarish imkoniyatlari yaratish mumkin.
3. **Ko'p tarmoqli o'quv platformalarini ishlatish**: O'quvchilarni axborot texnologiyalari bilan ishlashga o'rgatishda, ko'p tarmoqli o'quv platformalaridan foydalanish samarali metoddir. Bu platformalarda turli xil materiallar, onlayn sinflar, o'yinlar va testlar mavjud bo'lib, ular o'quvchilarni o'rganish jarayonida yanada faol va qiziqarli bo'lishiga yordam beradi.
4. **Ko'proq vizual va amaliy o'quv metodlarini qo'llash**: Boshlang'ich ta'limda o'quvchilarga texnologiyalarni samarali qo'llashda, vizual materiallar, video darslar, animatsiyalar va interaktiv simulyatsiyalar yordamida o'rgatish muhimdir. Bu metodlar o'quvchilarning diqqatini jalb qiladi va bilimlarni o'zlashtirishni osonlashtiradi.

Boshlang'ich ta'limda axborot texnologiyalarini qo'llashdagi muammolar

1. **Texnik infratuzilma muammolari**: Axborot texnologiyalaridan samarali foydalanish uchun to'g'ri texnik infratuzilma zarur. Ba'zi maktablar uchun zamonaviy texnologiyalarni qo'llashda infrastruktura yoki moliyaviy cheklovlar muammolarni keltirib chiqaradi.
2. **O'qituvchilarning texnologiyaga tayyor emasligi**: Ba'zi o'qituvchilar axborot texnologiyalarini qo'llashda tajribasiz bo'lishi mumkin. Ular yangi texnologiyalarni o'zlashtirish va samarali qo'llashda qiyinchiliklarga duch kelishlari mumkin.
3. **O'quvchilarning texnologiyaga ortiqcha qaramligi**: Axborot texnologiyalari o'quvchilarning faqat ekrandan foydalanishga ko'proq vaqt ajratishlariga olib kelishi mumkin. Bu esa, o'quvchilarning ijtimoiy va emotsional rivojlanishiga salbiy ta'sir ko'rsatishi mumkin.
4. **Onlayn xavfsizlik masalalari**: Axborot texnologiyalaridan foydalanish bilan bog'liq xavfsizlik muammolari ham mavjud. O'quvchilarga onlayn resurslardan foydalanishda, ularning shaxsiy ma'lumotlarini himoya qilish, zararli kontentdan himoyalanish masalalari o'qituvchilar tomonidan ko'rib chiqilishi lozim.

Xulosa

Boshlang'ich ta'limda axborot texnologiyalarini qo'llash, ta'lim jarayonini yanada samarali va qiziqarli qilish, o'quvchilarni zamonaviy bilimlar bilan ta'minlash va ularning mustaqil fikrlash ko'nikmalarini rivojlantirish imkoniyatini

yaratadi. Biroq, bu jarayonni muvaffaqiyatli amalga oshirish uchun o'qituvchilarning texnologiyalarga tayyorligi, texnik infratuzilmaning mavjudligi va xavfsizlik masalalariga e'tibor qaratish muhimdir. Axborot texnologiyalari ta'lim tizimini yangi bosqichga olib chiqishga yordam beradi va o'quvchilarning kelajakdagi muvaffaqiyatlari uchun muhim tayyorgarlik bo'ladi.

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QASHQADARYO VILOYATI SANOAT TARMOQLARI RIVOJLANISHINING IQTISODIY-GEOGRAFIK XUSUSIYATLARI

Annotatsiya: *Bugungi kunda mamlakatimiz eksportbop hamda yuqori texnologiyali raqobatbardosh sanoat mahsulotlari ishlab chiqarishga asosiy e’tibor qaratmoqda. Ushbu maqolada Qashqadaryo viloyatining Respublika iqtisodiyotidagi o’rni, viloyat sanoati rivojlanishining tarmoq xususiyatlari ularning hududiy joylanishlaridagi tarkibiy o‘zgarishlari o‘rganilgan.*

Kalit so‘zlar: *Iqtisodiyot, qazib oluvchi sanoat, qayta ishlovchi sanoat, tog’-kon sanoati, kimyo sanoati, yengil sanoat, to’qimachilik sanoati, infratuzilma, ijtimoiy soha, diversifikasiya, sanoat ishlab chiqarish.*

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ECONOMIC AND GEOGRAPHICAL CHARACTERISTICS OF THE DEVELOPMENT OF INDUSTRIAL NETWORKS OF KASHAKADARYA REGION

Abstract: *Today, our country focuses on the production of export-oriented and high-tech competitive industrial products. In this article, the role of Kashkadarya region in the economy of the Republic, the branch characteristics of regional industrial development and the structural changes in their territorial locations are studied.*

Key words: *Economy, extractive industry, processing industry, mining industry, chemical industry, light industry, textile industry, infrastructure, social sector, diversification, industrial production.*

Qashqadaryo eng qadimiy tarixga, o‘ziga xos madaniyatga ega, yer osti va yer usti boyliklari ko‘pligi bilan ajralib turadigan, bugun har tomonlama jadal rivojlanayotgan viloyatlardan biridir. O‘zbekiston Respublikasi Prezidenti Sh.Mirziyoyev ta’kidlaganidek,“...Qashqadaryo viloyati yuksak iqtisodiy salohiyati, rivojlangan sanoati va qishloq xo‘jaligi bilan O‘zbekiston taraqqiyotida

muhim o‘rin egallab kelmoqda. Bugungi kunda mamlakatimizda qazib chiqarilayotgan tabiiy gazning 70 foizi, neftning qariyib 78 foizi, gaz kondensatining 80 foizi, g‘allaning 13 foizidan ortig‘i, paxtaning 14 foizdan ziyodi viloyat hissasiga to‘g‘ri kelmoqda».

Uzoq yillar mobaynida viloyatning asosiy o‘sish nuqtasi sifatida – neft-gaz sektoriga asosiy e’tibor qaratilgani natijasida iqtisodiyotning boshqa tarmoqlari, kichik va o‘rta biznesni rivojlantirish, aholi turmush darajasi yaxshilash bo‘yicha masalalar e’tibordan chetda qolib kelgan. Xususan, Davlat rahbari tomonidan 2020 yil 13 noyabrdagi Qashqadaryo viloyatini kompleks rivojlantirish masalariga bag‘ishlangan yig‘ilishda ta’kidlanganidek, «...Qashqadaryo o‘zining salohiyatiga mos yashamayapti, mamlakatimizning ko‘pgina hududlaridan ancha orqada. Bu zamin ulkan imkoniyatlarga ega. Lekin uning iqtisodiyoti va ijtimoiy sohalar ahvoli bunga mutlaqo mos emas. Aholi jon boshiga yalpi hududiy mahsulot mamlakatimizdagi eng past ko‘rsatkichlardan biri». Bejizga, viloyatdagi muammolarning tahlilidan kelib chiqib, Davlat rahbari tomonidan «2021 yil - Qashqadaryo viloyatida tadbirkorlikni rivojlantirish yili» deb e’lon qilinmadi. Bugungi bozor talabi va «o‘sish nuqtalari»dan kelib chiqib, viloyat tumanlarini muayyan iqtisodiyot yo‘nalishlariga ixtisoslashtirish, aholini uy-joy bilan ta’minlash, yo‘llar, ichimlik suvi tarmoqlari qurish bo‘yicha belgilangan vazifalar qisqa muddatda o‘z natijasini bera boshladi.

Qashqadaryo viloyati ishlab chiqarish kuchlarining rivojlanishi iqtisodiy salohiyatining o`sishi va uning bozor talablari asosida yangidan vujudga kelayotgan respublika mehnat taqsimotida o`ziga xos o`rin egallashi ko`p jihatdan sanoat taraqqiyotiga bog’liq.

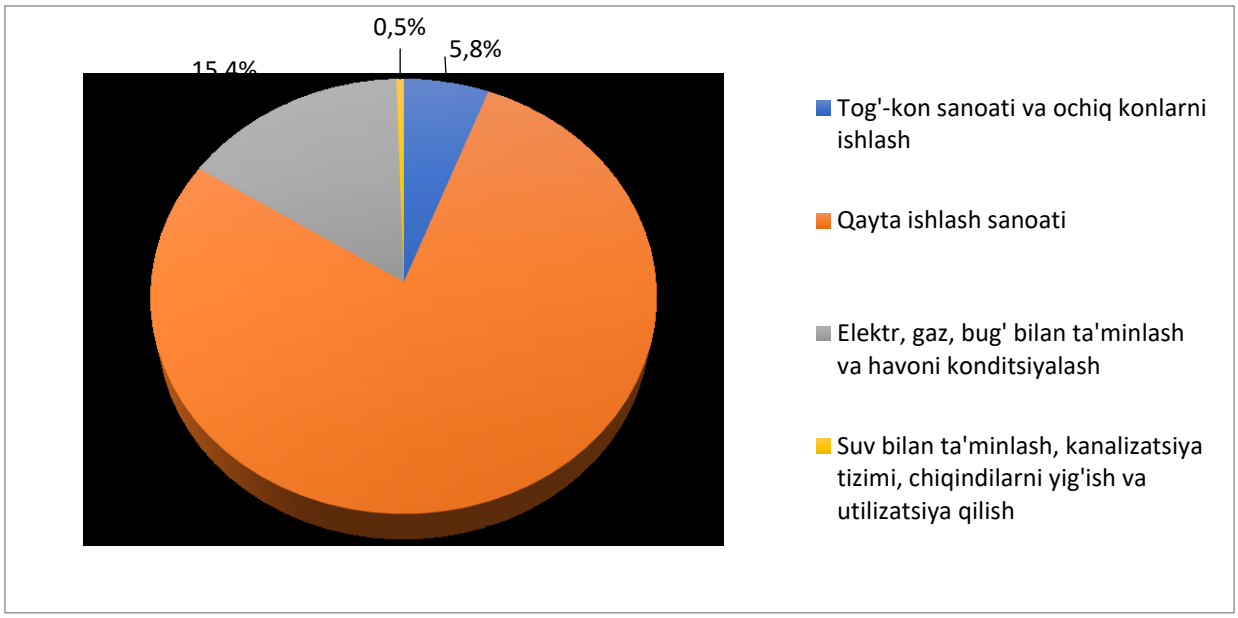
1-jadval

Viloyat sanoatining asosiy ko`rsatkichlari

	2020 yil	**2021 yil**	**2022 yil**	**2023 yil**
Sanoat mahsuloti hajmi, mlrd. so`m	14574,8	18771,9	22624,4	28259,6
Sanoat mahsuloti ishlab chiqarishning o`sish sur`ati, o`tgan yilga nisbatan foizda	100,5	115,4	110,1	107,1
shu jumladan:				
Qazib oluvchi sanoat, mlrd. so`m	1675,9	2079,4	1715,2	1626,3
Qayta ishlovchi sanoat, mlrd. so`m	10097,0	12131,1	15352,2	22132,9

Manba:Qashqadaryo viloyati Statistika boshqarmasi ma’lumotlari asosida tayyorlandi.

Mahsulotlar ishlab chiqarishning eng katta hajmi ishlab chiqaradigan (qayta ishlaydigan) korxonalar tomonidan ishlab chiqarilgan bo‘lib, ishlab chiqarish hajmi 22 132,9 mlrd. so‘m bo‘lib, jami sanoat mahsulotlari ishlab chiqarishdagi ulushi 78,3 foizni tashkil etdi (1-jadval).



Manba:Qashqadaryo viloyati Statistika boshqarmasi ma’lumotlari asosida tayyorlandi.

1-rasm. Iqtisodiy faoliyat turlari bo‘yicha sanoat mahsulotlarini ishlab chiqarish *(umumiy hajmga nisbatan ulushi, foiz hisobida, 2023 yil)*

Shuningdek, jami sanoat mahsulotlari ishlab chiqarish hajmida elektr, gaz, bug‘ bilan ta’minlash va havoni konditsiyalash faoliyat turi bo‘yicha 4 358,7 mlrd. so‘m (jami sanoat mahsulotlari ishlab chiqarishdagi ulushi 15,4 %), suv bilan ta’minlash, kanalizatsiya tizimi, chiqindilarni utilizatsiya qilish faoliyat turlari bo‘yicha 141,7 mlrd. so‘m (0,5 %) hamda tog‘-kon sanoati va ochiq konlarni ishlash faoliyat turi bo‘yicha 1 626,3 mlrd. so‘m (5,8 %) mahsulotlar ishlab chiqarilgan (1-rasm).

Tog‘-kon sanoati va ochiq konlarni ishlash korxonalari tomonidan 2023-yilning yanvar-dekabr oylarida ishlab chiqarilgan mahsulotlar hajmi 1 626,3 mlrd. so‘mni yoki jami ishlab chiqarilgan sanoat mahsulotlari hajmining 5,8 foizini tashkil etdi.

Tog‘-kon sanoatida ishlab chiqarilgan mahsulotlar turi bo‘yicha Tabiiy gaz olish hajmi o‘tgan yilning shu davriga nisbatan 96,2 foizga pasayganligini kuzatish mumkin.

Viloyatda 2023 yilda 10,2 ming tonnona xom neft, shag’al 47,5 ming tonna, chaqiq tosh (sheben) 28,9 ming tonna, 82,1 mln m/kub tabiiy gaz, 105,5 ming tonna gaz kondensati ishlab chiqarildi.

Viloyat sanoatining tarmoq tarkibida og`ir sanoatning boshqa tarmoqlari ulushi nihoyatda past.

Kimyo mahsulotlari ishlab chiqarish – kimyoviy jarayonlar yordamida organik va noorganik xomashyo, materiallarni qayta ishlashni va tayyor mahsulot ishlab chiqarishni o‘z ichiga oladi. 2023- yil ma’lumotlariga ko‘ra, kimyo mahsulotlari ishlab chiqarish sanoatining ishlab chiqaradigan sanoat tarkibidagi ulushi 14,8 % ni tashkil qiladi. Kimyo sanoati mahsulotlari ishlab chiqarish 2022 yilga nisbatan 7 % ga oshganini ko’rish mumkin.

Elektr, gaz, bug‘ bilan ta’minlash va havoni konditsiyalash sohasida yirik sanoat korxonalari tomonidan sanoat mahsulotlarini ishlab chiqarish 2023- yilning yanvar-dekabr oyida o‘tgan yilning mos davriga nisbatan elektrenergiya ishlab chiqarish 96,1 % ni, issiqlik energiyasi ishlab chiqarish esa 104,6 % ni tashkil etdi.

Viloyatda 2023 yilda ishlab chiqarilgan elektrenergiya miqdori 8167,2 mln kVt.s ni tashkil etgan bo’lsa, issiqlik energiyasi miqddori esa 3370,8 ming gkal ni tashkil etdi.

Qashqadaryo viloyatida yirik miqdorda paxta xom ashyo ishlab chiqarilishi resurslarining ko`pligi bu mintaqada yengil sanoatni rivojlantirish imkoniyatini beradi.

To‘qimachilik mahsulotlari ishlab chiqarish sanoati – to‘qimachilik tolasini tayyorlash va yigirish, shuningdek, to‘qimachilik gazlamalarini va tayyor to‘qimachilik mahsulotlarini ishlab chiqarish, to‘qmachilik mahsulotlariga va kiyimlarga bezak berish, kiyimlardan tashqari tayyor to‘qimachilik mahsulotlarini ishlab chiqarishni o‘z ichiga oladi. 2023- yilning yanvar-dekabr oylarida to‘qimachilik mahsulotlari ishlab chiqarish sanoatining ishlab chiqaradigan sanoat tarkibidagi ulushi 24,3 % ni tashkil etgan.

Kiyim ishlab chiqarish – barcha materiallardan (masalan, teri, to‘qimachilik gazlamalari, to‘qilgan va trikotaj gazlamalari va h.k.) barcha tikish mahsulotlarini (tayyor yoki alohida buyurtma bo‘yicha qilingan), kiyimlarning barcha turlari (masalan, ustki kiyim, erkaklar, ayollar va bolalar uchun ichki kiyimlar, ish, ofis, kundalik yoki sport kiyimlari va h.k.) va aksessuarlarni ishlab chiqarishni o‘z ichiga oladi. 2023- yilning yanvar-dekabr oylarida kiyim ishlab chiqarish sanoatining ishlab chiqaradigan sanoat tarkibidagi ulushi 2,6 % ni tashkil etadi.

Qashqadaryo viloyatining oziq-ovqat sanoati, viloyat oziq-ovqat majmuasining yirik tarmog`i hisoblanadi. Tarmoqning asosiy vazifasi respublika va viloyat aholisini turli xil yuqori sifatli oziq-ovqat mahsulotlar bilan ta`minlashdan iborat.

Oziq-ovqat mahsulotlari ishlab chiqarish – yeyiladigan qishloq xo‘jaligi, o‘rmon va baliqchilik (oziq-ovqat) mahsulotlarini, spirtsiz ichimliklarni, mineral suvlarni va boshqa idishdagi suvlarni o‘z ichiga oladi. 2023 yil ma’lumotlariga ko‘ra, oziq-ovqat mahsulotlari ishlab chiqarish sanoatining ishlab chiqaradigan sanoat tarkibidagi ulushi 11,0 % ni tashkil etadi.

Viloyatda ayrim turdagi sanoat mahsulotlari ishlab chiqarishda masalan, paxta linti 2022 yil 4,6 ming tonna ishlab chiqarilgan bo’lsa, 2023 yilda esa 3,9 ming tonnagacha kamaygan. Aroq va yumshoq bug’doy, spelta uni 2022 yilda 2865,5 ming litr va 116,0 ming tonna ishlab chiqarilgan bo’lsa, 2023 yilga kelib ishlab chiqarish mos holda 2287,7 ming litrgacha va 31,5 ming tonnagacha kamaygan. Aksincha 2022 yilda paxta tolasi (74,7 ming t.), kalava ip (51,6 ming t.) ishlab chiqarish 2023 yilga kelib mos holda 81 ming tonnaga va 59,5 ming tonnagacha ko’paygan.

Viloyatning ishlab chiqarish sanoatida to’qimachilik mahsulotlari ishlab chiqarish (31,1 %), Koks va neftni qayta ishlash mahsulotlari ishlab chiqarish (22,3 %), Kimyo mahsulotlari ishlab chiqarish (19,0 %), Oziq- ovqat mahsulotlari ishlab

chiqarish (14,1 %) salmoqli ulushga ega. Qolgan ishlab chiqarish sanoat tarmoqlarining ulushi ancha kam.

Yuqoridagi tahlil natijalarini umumlashtirgan holda Qashqadaryo viloyati sanoati rivojlanishining tarmoq tarkibidagi o`zgarishlarga xos bo`lgan quyidagi tendensiyalarni ajratib ko`rsatish mumkun:

- ❖ mustaqillik yillarida Qashqadaryo viloyat yalpi sanoat mahsuloti ishlab chiqarish hajmi o`sish tendensiyasiga ega bo`ldi.
- ❖ Islohotlar davrida Qashqadaryo sanoatining xomashyoga o`rganganlik darajasi ortdi. Bu eng avvalo qazib oluvchi sanoat tarmoqlarining ustun darajada rivojlanganligi bilan tushuntiriladi;
- ❖ Qashqadaryo viloyati og`ir sanoatida yoqilg`i-energetika sanoati asosiy o`rinni egallaydi va keyingi yillarda uning mavqei yanada mustahkamlandi. Bu yalpi sanoat mahsuloti asosiy fondlar va sanoat ishchilari sonida yoqilg`i-energetika sanoati ulushining o`sganligida o`z aksini topadi;
- ❖ viloyat yalpi sanoat mahsulotida og`ir sanoatning yoqilg`i-energetikadan boshqa tarmoqlari ulushi pasayish tendensiyasiga ega bo'lmoqda.
- ❖ bu viloyat iqtisodiyotining yoqilg`i-energetika resurslariga bo`lgan bog`liqligini kuchaytiradi;
- ❖ oziq-ovqat sanoatining asosiy vazifasi respublika va viloyat aholisini turli xil yuqori sifatli oziq-ovqat mahsulotlari bilan ta`minlashdan iborat bo`lib, tarmoqning bugungi rivojlanish darajasi vazifani hal etish imkonini bermaydi.

Qashqadaryo viloyati sanoatining tarmoq tarkibidagi o`zgarishlar quyidagi muammolarni hal etish zaruriyatini keltirib chiqaradi:

- ❖ viloyat sanoati taraqqiyotida qayta ishlash sanoati rivojlanishining ustivorligiga erishish va uning yalpi sanoat mahsulotidagi salmog`ini oshirish;
- ❖ Qashqadaryo sanoatining xom ashyoga yo`nalganlik darajasini pasaytirish va tayyor mahsulot ishlab chiqaruvchi sanoat tarmoqlarini barpo etish hamda rivojlantirish;
- ❖ viloyatda og`ir sanoatning yoqilg`i-energetikadan boshqa tarmoqlari mashinasozlik, kimyo va neft kimyosi, qurilish materiallari sanoatining rivojlanishiga alohida e`tibor qaratish;
- ❖ yengil sanoatni rivojlantirish uchun mavjud bo`lgan ichki salohiyatdan samarali foydalanish va bu tarmoqqa xorijiy investisiyalarni jalb etishni faollashtirish;
- ❖ oziq-ovqat sanoatini rivojlantirishda qishloq xo`jalik mahsulotlarini qayta ishlash, konservalar, meva sharbatlari ishlab chiqarishga asosiy o`rin ajratish va bu sohaga xorijiy investisiyalarni jalb etish va hokazo.

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RAQAMLI PEDAGOGIKA: TA’LIM NATIJALARINI YAXSHILASH UCHUN TEXNOLOGIYADAN FOYDALANISH

Annotatsiya*: O‘quv jarayonida raqamli texnologiyalarning keng tarqalishi ta’lim manzarasini keskin o‘zgartirdi. Raqamli pedagogika o‘qitish va o‘rganishga yondashuv bo‘lib, talabalar faolligini oshirish, hamkorlikni kuchaytirish va bilimlarni egallash uchun raqamli texnologiyalardan foydalanishga urg‘u beradi. Ushbu maqola zamonaviy o‘quv auditoriyalarda raqamli pedagogikadan talabalarning muvaffaqiyatini oshirish uchun qanday samarali foydalanish mumkinligini o‘rganadi.*

Kalit so‘zlar: *Raqamli pedagogika, Google Docs, raqamli texnologiya, platformalari, ta’lim, Adobe Photoshop, ta’lim strategiyalarni.*

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DIGITAL PEDAGOGY: USING TECHNOLOGY TO IMPROVE EDUCATIONAL OUTCOMES

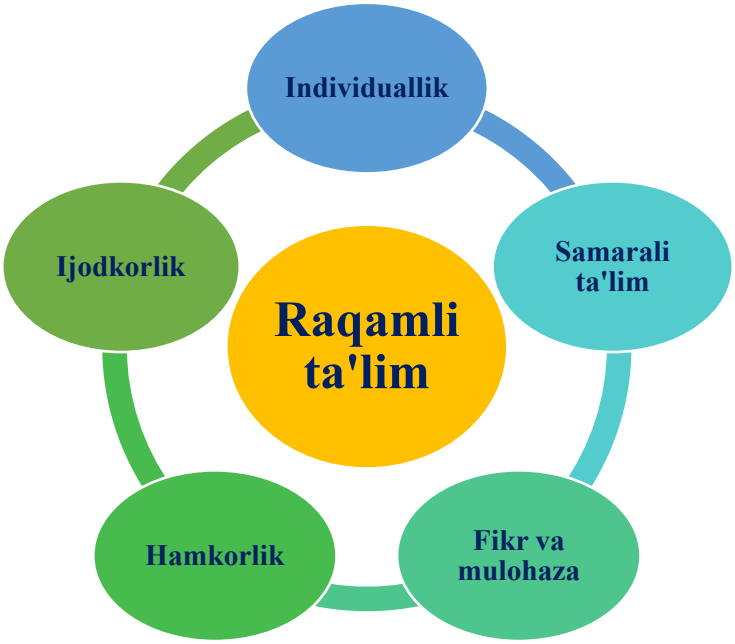
Annotation: *The widespread use of digital technologies in the learning process has dramatically changed the educational landscape. Digital pedagogy is an approach to teaching and learning that emphasizes the use of digital technologies to enhance student engagement, enhance collaboration, and enhance knowledge acquisition. This article explores how digital pedagogy can be effectively used in modern classrooms to enhance student success.*

Keywords: *Digital pedagogy, Google Docs, digital technology, platforms, education, Adobe Photoshop, educational strategies.*

Hozirgi zamonaviy ta’limda zamonaviy auditoriyalarda raqamli texnologiyalardan va raqamli pedagogikadan samarali foydalanish uchun eng avvalo raqamli pedagogika tushunchasini tushunish muhimdir Raqamli pedagogika bu mavjud ta’lim texnologiyalaridan hamda vaqt o‘tishi bilan joriy qilingan yangi texnologiyalardan foydalanish orqali ta’lim oluvchilar uchun mazmunli tajriba yaratishga intiladi. Onlayn munozara forumlari, video konferentsiya platformalari, hamkorlik hujjatlari (Google Docs), o‘yinga asoslangan faoliyatlar, simulyatsiyalar va boshqalar kabi virtual vositalar orqali o‘qitish hisoblanadi. Ushbu raqamli texnologiyalar orqali o‘qituvchilar o‘zlarining ta’lim usullarini rivojlantirishga intiladilar, shuningdek, o‘z sohalari yoki ta’lim sohalaridagi dolzarb mavzular

atrofidagi o‘quv muhokamalarida va loyihalarda faol ishtirok etish orqali talabalar uchun mazmunli ta’lim imkoniyatlarini taqdim etadilar.

Dars jarayonida talabalarning faollik darajasini oshirishdan tashqari, barcha ta’lim oluvchilar uchun yaxlit raqamli pedagogik strategiyani amalga oshirish bilan bog‘liq boshqa ko‘plab afzalliklar mavjud, ya’ni mobil qurilmalar/planshetlar/noutbuklar orqali kurs mazmuni materiallariga kirish imkoniyatlari yaxshilanganligi sababli bilim olish imkoniyatini oshiradi, talabalar va o‘qituvchilarning real vaqt rejimida fikr-mulohazalar almashinishini ta’minlash, shu bilan talabalar o‘rtasida individual ehtiyojlar yoki qiziqishlarga qarab ko‘proq va qo‘shimcha resurslardan foydalanishni ta‘minlaydi. Har bir talabaning sinfda o‘qitiladigan turli tushunchalar haqidagi umumiy tushunchasini kengaytirishga yordam beradigan usul hisoblanadi. Bundan tashqari, tadqiqotlar shuni ko‘rsatdiki, raqamli vositalar dars jarayonida to‘g‘ri qo‘llanilganda yuqori darajadagi fikrlash, raqamli texnologiya ko‘nikmalarini rivojlantirishda samarali ekanligi isbotlangan, masalan, tanqidiy tahlil qilish va muammolarni hal qilish qobiliyatlari ko‘pincha faqat darslik yoki ma’ruzalarga tayangan holda qo‘llanilmaydi. Raqamli pedagogikada aksincha ta’lim oluvchilar mustaqil tahlil qilish, mustaqil qaror qabul qilish va mustaqil yechim topish kabi qobilyatlarini rivojlantirish uchun qo‘l keladi.



1-rasm: Raqamli ta’lim afzalliklari

Raqamli vositalarni ananaviy ta’lim bilan birlashtirish uchun talabalarning texnologiya savodxonligini zarur hisoblanadi. Raqamli vositalarni o‘qitishga qo‘shish talabalar orasida ijodkorlikni rag‘batlantirishga yordam beradi va shu bilan birga ularga keyinchalik hayotlarida foydalanishi mumkin bo‘lgan texnologiyalar bilan ishlash tajribasiga ega bo‘ladi.

Raqamli pedagogika o‘qitish va o‘qitish uchun raqamli vositalar va texnologiyalardan foydalanishni anglatadi. U ta’lim tajribasini oshirish maqsadida AKTdan innovatsion foydalanishni targ‘ib qiluvchi intizom sifatida belgilanadi.

Hozirgi kunda ko‘plab rivojlangan mamlakatlarning ta’lim tizimida o‘qituvchilar talabalar uchun ta’lim imkoniyatlarini yaxshilash uchun raqamli vositalar va resurslardan foydalanmoqda.

Raqamli pedagogikaning asosiy afzalliklaridan biri uning talabalarni sinf faoliyatiga jalb qilish qobiliyatidir. Raqamli vositalar o‘qituvchilarga multimedia taqdimotlari, interaktiv veb-saytlar va hattoki video dars muhitini yaratishga imkon beradi, ulardan sinfda qo‘shimcha material sifatida yoki tuzilgan darslarning bir qismi sifatida foydalanish mumkin. Bundan tashqari, onlayn resurslar o‘quvchilarga o‘z ishlari bo‘yicha individual fikr bildirish orqali o‘z bilim darajalarini tekshirishda yordam beradi. Ta’limda raqamli vositalar o‘qituvchilarga materiallarni butun dunyo bo‘ylab boshqa o‘qituvchilar bilan bo‘lishish imkonini beradi, bu esa o‘qituvchilar o‘rtasidagi hamkorlikni oshirishi va talabalar o‘rtasida turli ta’lim nazariyalari va amaliyotlari haqida ko‘proq tushunishga yordam beradi. Ta’lim natejalarini yaxshilashda raqamli muhit va raqamli resurslarning o‘rni alohida ahamyatga ega hisoblanadi.

Raqamli resurslar-bu internet orqali mavjud bo‘lgan, elektron shakldagi materiallar, dasturlar, vositalar, ma’lumotlar va boshqa resurslardir. Ular turli sohalarda foydalanuvchilarga ko‘plab imtiyozlar taqdim etadi. Raqamli resurslarning foydali tomonlari quyidagilardan iborat:

Oson kirish imkoniyati: Raqamli resurslarga internet orqali har qanday joydan, har qanday vaqtda kirish mumkin. Bu resurslar talabalarga istalgan vaqtda kerakli ma’lumotni olish imkoniyatini beradi, bu esa o‘z vaqtida qarorlar qabul qilishni yengillashtiradi.

Tezkor va samarali o‘rganish: Raqamli resurslar (masalan, video darslar, interaktiv testlar, onlayn kurslar) o‘rganish jarayonini yanada samarali va qiziqarli qiladi. O‘rganish tezligi individual ehtiyojlarga moslashtirilishi mumkin, bu esa o‘qish jarayonini qulaylashtiradi.

Ma’lumotning ko‘p va xilma-xilligi: Raqamli resurslar orqali foydalanuvchilar turli sohalarda yuzlab, minglab manbalarga ega bo‘lishadi. Masalan, ilmiy maqolalar, electron kitoblar, video va audio materiallar, forumlar va boshqa ma’lumotlar bir joyda to‘plangan.

Uzluksiz yangilanishlar: Raqamli resurslar tez-tez yangilanadi va doimiy ravishda yangi ma’lumotlar bilan to‘ldiriladi. Bu esa foydalanuvchilarga eng so‘nggi va yangilangan ma’lumotlardan foydalanishga imkon beradi.

Tez va qulay aloqa: Raqamli vositalar, masalan, elektron pochta, forumlar, ijtimoiy tarmoqlar orqali foydalanuvchilar o‘zaro tezda muloqot qilishlari, fikr almashishlari va savollariga javob olishlari mumkin.

Resurslarni saqlash va tarqatish osonligi: Raqamli materiallarni kompyuter yoki bulutli xizmatlarda saqlash oson va arzon, hamda kerak bo‘lganda ularni boshqa foydalanuvchilarga tarqatish mumkin.

Resurslarning arzonligi va qulayligi: Raqamli resurslar ko‘pincha an’anaviy materiallarga qaraganda arzon yoki bepul bo‘ladi. Bu, ayniqsa, onlayn kitoblar, maqolalar, dasturlar va kurslar uchun to‘g‘ri keladi.

Interaktivlik va moslashuvchanlik: Koʻpgina raqamli resurslar foydalanuvchilarning oʻrganish jarayonini interaktiv qilish imkoniyatini taqdim etadi.

Ekologik jihatlar: Raqamli resurslar qogʻoz va boshqa jismoniy materiallarni kamaytiradi, bu esa ekologik izni qisqartirishga yordam beradi.

Raqamli resurslarning bu kabi afzalliklari ularni turli sohalarda, masalan, ta’lim, ish faoliyati, kundalik hayot va ilmiy ishlar uchun juda foydali qiladi.

Raqamli ta'lim muhiti:

Raqamli ta’lim muhitini tashkil etish oʻquvchilarga geografik joylashuvdan qat'i nazar ta'lim olish imkonini beradi. Onlayn kurslar, videodarslar va boshqa raqamli materiallar yordamida oʻquvchilar dunyoning istalgan nuqtasidan oʻrganishlari mumkin.

Raqamli ta'lim muhitini har bir oʻquvchi oʻzining shaxsiy ehtiyojlariga va oʻrganish tezligiga qarab oʻqish jarayonini moslashtirishi mumkin. Masalan, interaktiv dasturlar, testlar va video darslar yordamida har bir talaba oʻziga qulay boʻlgan usulda oʻrganadi.

Raqamli ta’lim muhitida barcha oʻquv resurslari (kitoblar, maqolalar, video darslar, interaktiv materiallar) onlayn tarzda mavjud boʻlib, talabalar ularga istalgan vaqtda kirish imkoniyatiga ega boʻlishadi. Bu oʻquv jarayonini yanada samarali qiladi.

Raqamli ta’lim muhitida oʻqitish jarayonlari koʻpincha vizual va interaktiv elementlarga asoslangan boʻladi, bu esa oʻquvchilarning diqqatini toʻplash va ma'lumotlarni yengil oʻzlashtirishga yordam beradi. Oʻquvchilar oʻzining harakatlarini va oʻrganish jarayonini boshqarish imkoniga ega boʻladi.

Raqamli ta’lim muhitida oʻqituvchilar va talabalar bir vaqtning oʻzida turli materiallarga oson kirishlari mumkin. Bu oʻqitish va oʻrganish jarayonini tezlashtiradi, shu bilan birga vaqtni tejash imkoniyatini beradi. Oʻquvchilar darslarni qayta koʻrib chiqishlari va ularni oʻz vaqtida yakunlashlari mumkin.

Raqamli ta'lim muhitida zamonaviy texnologiyalardan, masalan, sun'iy intellekt, virtual haqiqat (VR), 3D modellash va boshqa innovatsion usullardanfoydalanish imkoniyatlari mavjud. Bu oʻquvchilarni yanada ilgʻor va amaliy bilimlar bilan tanishtirishga yordam beradi.

2-rasm: Raqamli resurslarni va raqamli ta’lim muhitini tashkil etish:

Raqamli pedagogika, o‘qituvchilarga darslarni loyihalashda moslashuvchanlikni ta’minlaydi. Adobe Photoshop yoki Dreamweaver kabi kuchli dasturiy ta’minot tufayli o‘qituvchilar muayyan talabalar populyatsiyasi yoki fan sohalari ehtiyojlariga mos keladigan maxsus o‘quv dasturlarini yaratishlari mumkin. Bundan tashqari, onlayn platformalar o‘qituvchilarga so‘rovnomalar yoki sharhlar bo‘limlari orqali talabalardan o‘z ishlari bo‘yicha fikr-mulohazalarni to‘plashni osonlashtiradi, bu ma’lumotlardan keyin har bir talabaning ehtiyojlariga moslashtirilgan dars bahslarini yaxshilash uchun foydalanish mumkin.

Xulosa qilib aytish mumkinki, ta’lim tizimimizda kompleks raqamli pedagogik yondashuvni joriy etish ta’lim natijalarini oshirish yo‘lida ko‘plab

afzalliklarga ega bo‘ladi. Talabalar bilimlarni egallash, fikrlash tezligini oshirishda foydalanish imkoniyatlarini yaxshilashdan tortib, ijodiy fikrlash jarayonlarini rag‘batlantirishgacha, ularni sinf xonalardan tashqarida ham qo‘llash mumkin hisoblanadi. Raqamli ta’lim talabalar topshiriqlarni o‘zi ya’ni mustaqil xolda raqamli platformalar orqali bajarishlari va bilimlarini mustahkamlashlariga imkon yaratib beradi. O‘qituvchilar yangi texnologiyalarni o‘quv rejalariga eng yaxshi integratsiya qilish yo‘llarini o'rganishda davom etar ekanlar, bir narsa aniq bo‘lib qolmoqda: kelajak avlodlar muvaffaqiyatining kaliti bizning qobiliyatimizda mustahkam ildiz otib, ham analog, ham texnologik vositalarni birgalikda qo‘llagan holda samarali ta’lim strategiyalarni hozirdanoq ishlab chiqish zarurdir.

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HO CHI MINH AND THE NEW VIETNAMESE CULTURAL CAREER

Abstract:*Ho Chi Minh is not only a national liberation hero but also an outstanding cultural figure and the creator of a new culture for Vietnam. He harmoniously integrated the quintessence of national and global cultures, inspiring patriotism, self-reliance, and creativity among the Vietnamese people. With his profound vision, Ho Chi Minh incorporated culture into the country's development strategy, established a new way of life, and heightened awareness of ethical, political, and artistic values. Ho Chi Minh's cultural philosophy, which is both rooted in national identity and modern principles, serves as the foundation for the sustainable development of Vietnamese culture, both in the present and future.*

Keywords: *Ho Chi Minh, Vietnamese culture, new culture, human values, global cultural heritage.*

Ho Chi Minh is recognized globally as a national liberation hero and an outstanding cultural figure. His legacy not only affirms his political achievements, such as initiating movements against colonialism and imperialism to liberate oppressed nations and reclaim independence and freedom, but also represents a monumental and noble cultural mission. Transforming "slaves into free people", igniting patriotism, and fostering the heroism of a nation with over 90% illiteracy to rise up and fight for independence is indeed a remarkable cultural accomplishment. Liberating people from the chains of slavery, hunger, cold, and ignorance epitomizes a cultural mission of profound and comprehensive significance—a dream that humanity has pursued for millennia.

1. **Holding the position of leader of the Party and State of Vietnam, Ho Chi Minh quickly recognized the vital role and strength of culture, integrating it into the strategic development goals of the country**

Beyond achieving independence and sovereignty for the nation, Ho Chi Minh elevated his people to a new cultural level. One of the first tasks of the government under his leadership was to immediately launch a campaign to eradicate "ignorance." He regarded ignorance as an enemy and viewed outdated customs and traditions as obstacles to progress. He famously said, "An ignorant nation is a weak nation", and emphasized, "We have an urgent responsibility to re-educate our people"[40].

Ho Chi Minh also called on and mobilized the entire nation to build a new way of life, promoting good customs and traditions so that "our nation becomes a

[40] Ho Chi Minh: *Complete Works,* National Political Publishing House - Truth, Volume 4, p. 7

brave, patriotic, hard-working people, worthy of an independent Vietnam"[41]. Throughout each stage of the revolution, he proposed and implemented policies to ensure that culture was not only a direct source of encouragement for development but also a crucial factor in sustainable growth. He stressed that culture must be respected and facilitated to effectively fulfill its role in the common cause.

His significant contribution was bringing culture deep into the masses, transforming it into a material force capable of reshaping societal norms and reforming individuals. Ho Chi Minh's guiding principles for building a new culture—one that is national, scientific, and humanistic—include values such as "taking the happiness of the people and the nation as the foundation", "instilling ideals of independence and self-reliance", and ensuring that "culture must correct corruption, laziness, and extravagance" and "culture must light the way for the nation's progress". These principles continue to retain their relevance and guiding value for building a national culture, both today and in the future.

Ho Chi Minh was the pioneer who laid the foundation for a new worldview and methodology in developing Vietnamese culture. As the great architect of cultural reform and construction, he introduced a new perspective, a fresh worldview, and established unprecedented awareness in political, moral, legal, and artistic dimensions within Vietnamese cultural history.

Building on this foundation, he awakened the spiritual potential rooted in national traditions, guiding the emergence of a new moral framework and a humanistic society. This society was grounded in genuine patriotism and pure internationalism, in line with the ethical ideals of a revolutionary soldier: loyalty to the country, devotion to the people, diligence, thrift, integrity, righteousness, and impartiality. After leading the people to reclaim independence and freedom for the Fatherland, Ho Chi Minh elevated Vietnamese culture to a prestigious position on the global stage.

2. Ho Chi Minh himself was a great cultural activist and creator

To become a cultural figure, one must first possess profound knowledge. Ho Chi Minh epitomized this. With his exceptional character and personality, Ho Chi Minh was not only the embodiment of national cultural values but also a harmonious integration of the essence of both national and global cultures, East and West. Throughout his revolutionary journey—dedicated to the liberation of classes, nations, and humanity—he engaged with diverse cultures across continents, regions, and countries; in the East and the West; in the homeland and the colonies; and among white, yellow, and black populations. Rarely has the world seen a revolutionary leader or cultural figure who traveled so extensively, worked in so many roles, and understood such a wide range of peoples and cultures as Ho Chi Minh.

Westerners recognize in Ho Chi Minh the spirit of Renaissance humanism, the democratic ideals of the Enlightenment, the emphasis on independence and human rights from the American Revolution, the values of "Liberty - Equality -

[41] Ho Chi Minh: *Complete Works,* National Political Publishing House - Truth, Volume 4, p. 7

Fraternity" from the French revolutionary tradition, and the revolutionary and scientific essence of Marxism-Leninism. Meanwhile, Easterners identify in him qualities that resonate with Sun Yat-sen's "Three Principles of the People", Mahatma Gandhi's spirit of patriotism, austerity, and sacrifice for the people, the moral cultivation of Confucian teachings, the compassion of Buddhism, and the charity of Christianity.

When reading his political writings, articles, or speeches, one cannot help but marvel at the synthesis of French literary humor, the concise elegance of Tang poetry, the realism of Maxim Gorky, the sharpness of Lu Xun's prose, and the clarity and intimacy of Nguyen Du's works. T.N. Ca-un, President of the Indian Center for Indochina Studies, remarked that Ho Chi Minh's poems, essays, and pastoral works reflect a profound understanding of human history and civilization, coupled with unwavering faith in the cultural identity of all nations, including his own. Historian Charles Fourniau, former Secretary General of the France-Vietnam Friendship Association, highly praised Ho Chi Minh's ability to "Vietnamize" global cultural values.

Analyzing his *Proclamation to the People* (June 1941)[42], Fourniau noted its "extraordinary creativity, rooted in the Confucian stylistic tradition while blending with the French Jacobin tradition". Some phrases in the document even evoke memories of the 1793 revolutionary calls during the French Revolution. Through Ho Chi Minh, "the quintessence of the world has been Vietnamized, adopting Vietnamese forms, manners, language, and even spirit" (Pham Van Dong). Remarkably, the diverse cultures of East and West, spanning ancient to modern times, when expressed through Ho Chi Minh, always bear a distinctly Vietnamese character—deeply humane, simple, approachable, yet profound, innovative, modern, and revolutionary.

As the leader of Vietnam's revolutionary movement, Ho Chi Minh infused Vietnamese culture with a new vitality, encapsulating the belief that "culture is also a battlefield, and cultural workers are soldiers on this front". Rooted in traditional values, his cultural vision combined patriotic, progressive, and noble humanistic ideals, while fulfilling cognitive, educational, and aesthetic functions.

Ho Chi Minh made significant contributions across multiple fields, including literature, poetry, drama, and painting. In him, the writer, poet, playwright, journalist, soldier, and politician were inseparably intertwined, forming the great cultural figure that he was. He pioneered Vietnamese revolutionary journalism, poetry, and literature.

His poetry, composed in both Vietnamese and Chinese, resonates with themes of independence, freedom, peace, happiness, justice, equality, and human solidarity. Even poems written in exile have become timeless masterpieces, "disturbing the human soul" with their profound humanistic values. They reflect the spirit of a great soul and personality, constantly concerned with the destiny of the nation and the

[42] *Ho Chi Minh, notre camarade* - Based on library records from Nhan Dan Newspaper.

country. Consequently, his poetry reached all social classes, becoming “poetry for all households”.

As a great poet of the nation, Ho Chi Minh was also a pioneering writer with a strong fighting spirit, laying the foundation for Vietnamese revolutionary prose. He explored and excelled in various genres, including science fiction, short stories, novels, memoirs, plays, essays, and political writings. In every domain, he achieved remarkable success, distinguished by depth in content and form, thought and artistry, methods and style, as well as language and genre.…

Ho Chi Minh was also a master of Vietnamese revolutionary journalism. He modestly referred to himself as “a person with many connections to journalism”, yet he was the founder and driving force behind many of Vietnam’s first proletarian newspapers, including Thanh Nien (June 1925), Cong Nong (December 1926), Linh Kach Menh (February 1927), and Viet Nam Doc Lap (August 1941). From the very beginning of his revolutionary journey, he recognized journalism as a powerful tool for organizing, mobilizing, and educating the masses. With his pen, he awakened oppressed peoples, propagated Marxism-Leninism, denounced colonialism, and made substantial contributions to advancing revolutionary movements in various countries.

Ho Chi Minh’s career in journalism was monumental. Spanning half a century—from his first article written in 1919 to his last in 1969—he authored more than 1,500 pieces under various pseudonyms, with hundreds more awaiting confirmation.

3. Ho Chi Minh as a model of cultural tolerance

As a committed communist, Ho Chi Minh consistently emphasized the importance of preserving and promoting national traditions and cultural identity, while cautioning against narrow-minded and short-sighted nationalism. He exemplified a spirit of openness, drawing upon the richness of global culture without discrimination or exclusion. Ho Chi Minh consciously explored and applied positive aspects of diverse political and religious doctrines—such as Confucianism, Buddhism, Taoism, and Catholicism—in his efforts to fight for national independence and rebuild the country.

On occasion, he openly acknowledged being a student of various thinkers, including Karl Marx, Jesus, Confucius, and Sun Yat-sen. He sincerely respected the religious faith of others, affirming the noble ideas and humanistic values of each belief system. Far from rejecting or opposing religion, he skillfully guided religious ideals toward the common goal of national liberation and the collective happiness of the people.

Ho Chi Minh’s cultural tolerance also extended to fostering dialogue and equal exchange of values, striving for shared understanding and mutual benefit. This approach promoted coexistence and development, paving the way for unity in diversity. As the leader of an independent nation, he sought and championed dialogues based on mutual respect and understanding to resolve disputes and conflicts. He welcomed and selectively incorporated positive elements from various

traditions to enrich Vietnam's cultural heritage, always advocating for peaceful coexistence, consensus, and progress.

In summary, it can be affirmed that Ho Chi Minh created a new era and a new cultural identity in the history of the Vietnamese nation: the Ho Chi Minh Era and the culture of the Ho Chi Minh Era. Many cultural policies initiated by him in the mid-20th century, such as literacy eradication, reforestation, ecological restoration, and respect for the elderly, were only adopted as major global movements by the United Nations in the early 1990s.

Ho Chi Minh is recognized as an outstanding cultural figure of the world. In him, the essence of Vietnamese culture and the quintessence of global culture converge. As a pioneering champion of revolutionary journalism and cultural arts in the fight for independence, freedom, and social justice, he devoted his entire life to the revolution and to the people. Ho Chi Minh's cultural values are a harmonious blend of national identity, modernity, and humanity. The culture of Ho Chi Minh is an invaluable legacy for us today and for generations to come.

Conclusion

Ho Chi Minh is a symbol of the intersection between tradition and modernity, between nationalism and internationalism. He created a culture deeply rooted in Vietnamese identity while seamlessly integrating the quintessence of global civilization. His cultural philosophies not only illuminated the path to national liberation but also laid the foundation for the sustainable development of the nation's culture. Ho Chi Minh's cultural legacy is an invaluable treasure and a guiding compass for the construction and defense of the country, contributing significantly to the development of Vietnamese culture and the nation's standing on the global stage.

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THE PROCESS OF RESEARCHING, PROPAGATING, AND EDUCATING HO CHI MINH'S THOUGHT

Abstract: *This article presents the process of researching, propagating, and educating Ho Chi Minh's thought in Vietnam. Ho Chi Minh's thought, since its formation and development, has played a crucial role in the revolutionary cause of the Party and the Vietnamese people. The Communist Party of Vietnam recognized early on and implemented the study and research of Ho Chi Minh's thought through various stages, from the 1950s to the present. The Party's resolutions and directives consistently affirm the significant role of Ho Chi Minh's thought in building and defending the Fatherland, while also considering the study and application of Ho Chi Minh's thought as a central task for the entire Party and people.*

Keywords: *Ho Chi Minh's thought; Research and education; Communist Party of Vietnam*

Since the 1920s, alongside Marxism-Leninism, Ho Chi Minh's thought has become part of the workers' movement and the Vietnamese patriotic movement. Ho Chi Minh and his thought played a decisive role in unifying communist organizations into the Communist Party of Vietnam. The establishment of the Communist Party of Vietnam on February 3, 1930, and the unification conference that approved the first Platform of the Party drafted by Ho Chi Minh, proved that Ho Chi Minh brought to our revolution theoretical, political, strategic, and tactical principles, as well as a revolutionary and scientific organization. Since then, Ho Chi Minh's thought has been continuously supplemented and developed, guiding the Vietnamese revolution from one victory to another. Therefore, alongside Marxism-Leninism, the Communist Party of Vietnam has always considered the study and creative application of Ho Chi Minh's thought to be a vital task for Party members, cadres, and the entire nation.

1. The research, propaganda, and education of Ho Chi Minh's thought were carried out by the Communist Party of Vietnam from very early on, in many forms during each revolutionary period.

The first person to propose the idea of the necessity of establishing a scientific field of study on Ho Chi Minh was Comrade Pham Van Dong. In April 1948, Comrade Pham Van Dong published a 24-page book titled *"President Ho, the Image of the Nation"*. The book was divided into three parts, with the third part being 10 pages long, entitled *"What do we learn from studying President Ho?"* In response to this question, Comrade Pham Van Dong wrote: Study loyalty to the country, filial piety to the people, study national unity, strive for progress, study theory and scientific methods, practice thrift, integrity, and honesty.

At the 2nd National Congress (1951), the Communist Party of Vietnam first affirmed: "... The whole Party must strive to study the political line, style, and ethics of President Ho; This study is the prerequisite for strengthening the Party and ensuring that the revolution advances quickly towards complete victory"[43].

In 1960, on the occasion of the 70th anniversary of President Ho Chi Minh's birth, Comrade Truong Chinh further emphasized the importance of Ho Chi Minh's thought, morality, and style for the cause of serving the people: "On this occasion, let us review President Ho's biography and career, learn and study his thought, morality, and style to better serve the people"[44]. This was the first time the Communist Party of Vietnam mentioned studying not only his morality and style but also his thought.

In the eulogy at the memorial service for President Ho Chi Minh on September 9, 1969, it was stated: "President Ho was the first Vietnamese to creatively apply Marxism-Leninism to the circumstances of our country, showing the way for the Vietnamese revolution to advance, step by step, from one victory to the next…"

Resolution 195-NQ/TW of the Politburo, Term III (March 6, 1970) launched the Campaign to improve the quality of party members and to admit new members into the Ho Chi Minh class. The Resolution required: "All party members must attend classes to study the works of President Ho Chi Minh"[45]. This was the first time the Communist Party of Vietnam required all party members to study the works of Ho Chi Minh and considered this a decisive measure to enhance their cognitive abilities, critical thinking, and moral qualities.

In the Resolution of the 4th Congress, the Communist Party of Vietnam continued to supplement and develop its understanding of studying and educating Ho Chi Minh's viewpoints, guidelines, style, and ethics, and affirmed: "President Ho Chi Minh... left us and future generations an immortal legacy"[46].

At the 5th National Congress (March 1982), the Communist Party of Vietnam took a step forward in assessing the significance of the role of Ho Chi Minh's thought. The Congress identified the major task ahead as: "Our Party must pay special attention to systematically organizing the study of President Ho Chi Minh's thought, morality, and style throughout the Party"[47]. This can be considered the earliest Party document addressing the "systematic study of Ho Chi Minh's thought".

The political report of the Party Central Committee, presented by General Secretary Truong Chinh at the 6th National Congress of the Party (1986),

[43] Communist Party of Vietnam, *Complete Party Documents*, National Political Publishing House, Hanoi, 2001, vol. 12, p. 9.
[44] Truong Chinh, *President Ho Chi Minh and the Vietnamese Revolution*, Theoretical Information Publishing House, Hanoi, 1991, p. 20.
[45] Communist Party of Vietnam, *Complete Party Documents*, National Political Publishing House, Hanoi, 2001, vol. 31, pp. 136-137.
[46] Communist Party of Vietnam, *Political Report of the Party Central Committee at the 4th National Congress*, Truth Publishing House, Hanoi, 1977, pp. 9-10.
[47]Communist Party of Vietnam, *Documents of the 4th National Congress*, Truth Publishing House, Hanoi, 1982, vol. 3, p. 61.

emphasized: “To renew thinking, our Party must firmly grasp the revolutionary and scientific nature of Marxism-Leninism, inheriting the precious legacy of the revolutionary thought and theory of President Ho Chi Minh”[48].

Thus, from the 2nd Congress (1951) to before the 7th Congress (1991), the Communist Party of Vietnam did not directly mention the study and education of Ho Chi Minh's thought, but the Party did pay attention to this issue and emphasized “studying” and “learning” from Ho Chi Minh about: thought, revolutionary ethics, style, political line, the example of loyalty to the country, devotion to the people, combining patriotism with internationalism, words with deeds, and theory with practice; Party members must participate in classes studying Ho Chi Minh's works.

At the 7th National Congress, in the Platform and Political Report, the Communist Party of Vietnam affirmed: The Party takes Marxism-Leninism and Ho Chi Minh Thought as the ideological foundation and compass for action. Also, at this Congress, for the first time, the Communist Party of Vietnam defined Ho Chi Minh Thought: “Ho Chi Minh Thought is the result of the creative application of Marxism-Leninism in the specific conditions of our country, and in reality, Ho Chi Minh Thought has become a valuable spiritual asset of the Party and the whole nation”[49].

After the 7th Congress, the Communist Party of Vietnam continued to issue resolutions directly or indirectly mentioning the study of Ho Chi Minh Thought. Notably, Resolution 09-NQ/TW (February 1995) of the Politburo, “On some major orientations in current ideological work.” In this Resolution, the Communist Party of Vietnam affirmed for the first time: President Ho Chi Minh not only creatively applied Marxism-Leninism but also contributed to the development of Marxism-Leninism in many important fields, especially the theory of the national liberation revolution and the advancement to socialism in colonial and dependent countries.

At the 8th National Congress (1996), the Communist Party of Vietnam drew several key lessons, including the need to persevere in Marxism-Leninism and Ho Chi Minh Thought. During the 8th Congress, the Party also issued relatively specific directions for researching, training, and educating Ho Chi Minh Thought, such as Resolution 2 of the Central Committee (8th term), continuing the viewpoint of “bringing the teaching of Ho Chi Minh Thought into schools in accordance with age and each level of education.”

The 9th National Congress of the Party (April 2001) presented a relatively complete concept of Ho Chi Minh's thought and emphasized: “Ho Chi Minh's thought is a comprehensive and profound system of viewpoints on fundamental issues of the Vietnamese revolution; it is the result of the creative application and development of Marxism-Leninism in the specific conditions of our country, inheriting and developing the fine traditional values of the nation, absorbing the

[48] Communist Party of Vietnam, *Documents of the 6th National Congress*, Truth Publishing House, Hanoi, 1987, pp. 125-126.
[49] Communist Party of Vietnam, *Documents of the 7th National Congress*, Truth Publishing House, Hanoi, 1991, p. 127.

cultural quintessence of humanity... Ho Chi Minh's thought guides the struggle of our people to victory, and is a great spiritual asset of our Party and nation"[50].

In order to successfully carry out the tasks of the Vietnamese revolution in the new development period, the Party has pointed out that it is necessary to deeply absorb and creatively apply the principles and methodologies of Marxism-Leninism and Ho Chi Minh's thought to solve the urgent issues posed by reality; researching, propagating, and educating Ho Chi Minh's thought must become a central task of the Party's ideological work, which needs to be carried out rigorously, qualitatively, and effectively by the entire Party. With this spirit and intention, on March 27, 2003, the Secretariat issued Directive No. 23-CT/TW "on promoting the research, propaganda, and education of Ho Chi Minh's thought in the new period", and on the occasion of the 113th anniversary of President Ho Chi Minh's birth, the Communist Party of Vietnam launched a campaign to widely propagate and educate Ho Chi Minh's thought.

During the 10th Congress, the Communist Party of Vietnam continued to affirm the great value of Ho Chi Minh's thought. On February 3, 2007, the Politburo issued Directive No. 06-CT/TW on organizing the campaign "Studying and following the moral example of Ho Chi Minh" throughout the Party and the entire population. This is a major policy that is both urgent and has long-term significance for the cause of building and defending the Fatherland. (In 2011, after 4 years of implementing the Movement, the Politburo of the 11th Party Central Committee issued Directive No. 03-CT/TW on May 14, 2011, "continuing to promote studying and following the moral example of Ho Chi Minh.") Currently, in order to build on the results achieved and overcome the limitations in implementing Directive No. 03-CT/TW, on May 15, 2016, the Politburo issued Directive No. 05-CT/TW on "Promoting the study and application of Ho Chi Minh's thought, morality, and lifestyle."

Based on the previous achievements in studying Ho Chi Minh's thought, the 11th National Congress of the Party (January 2011) identified, in a comprehensive and systematic way, the core issues within the connotation of Ho Chi Minh's thought: "Ho Chi Minh's thought is a comprehensive and profound system of viewpoints on the fundamental issues of the Vietnamese revolution; it is the result of the creative application and development of Marxism-Leninism in the specific conditions of our country, inheriting and developing the fine traditional values of the nation, absorbing the quintessence of human culture; it is an extremely valuable and great spiritual asset of our Party and people, forever illuminating the path for the revolutionary cause of our people to achieve victory."

Thus, the awareness, research, and propagation of Ho Chi Minh's thought by the Communist Party of Vietnam is a long-term process, evolving from the specific to the general. Currently, we base our studies and learning on the contents of Ho Chi

[50] Communist Party of Vietnam, *Documents of the 9th National Congress*, National Political Publishing House, Hanoi, 2001, pp. 83-84.

Minh's thought as presented by the Communist Party of Vietnam at the 11th National Congress.

2. Main content of the concept of Ho Chi Minh's thought

The concept of Ho Chi Minh's thought, as presented by the Communist Party of Vietnam at the 11th National Congress, highlights the following key points:

First, in terms of content: Ho Chi Minh's thought is "a comprehensive and profound system of viewpoints on the fundamental issues of the Vietnamese revolution." This means that not every issue or every field of theory and practice (whether in Vietnam or globally) is presented by Ho Chi Minh in a fully systematic, comprehensive, and profound manner. According to the Communist Party of Vietnam, Ho Chi Minh's thought [51] only addresses "the fundamental issues of the Vietnamese revolution": This includes a "system of viewpoints" on the revolutionary path: national independence linked with socialism; revolutionary goals: national independence and socialism; revolutionary objectives: national liberation, class liberation, and human liberation; revolutionary forces, which include the leadership force—the Communist Party of Vietnam—and the implementation force, which is the entire nation, with the working class, peasants, and intellectuals as the foundation, while fostering international solidarity; revolutionary methods: mobilizing and organizing the entire population; theoretical foundation: Marxism-Leninism; revolutionary organization: the Party leads, the State manages, and the National United Front; building a new society progressing towards socialism: with political, economic, cultural, and social characteristics, focused on developing a comprehensive socialist human being, as well as military, national security, and defense; Ho Chi Minh's method and style: considered in a dialectical relationship with his thought.

Second, about the origin: Ho Chi Minh's thought is "the result of the creative application and development of Marxism-Leninism, inheriting and developing the fine traditional values of the nation, and absorbing the essence of human culture." Here, the Communist Party of Vietnam focuses on the theoretical origins (while acknowledging there are also practical and subjective origins of Ho Chi Minh's thought), arranged in order of their significance and role in the formation and development of his thought. According to the Party, of the three theoretical origins of Ho Chi Minh's thought, Marxism-Leninism plays the most important and decisive role, followed by the fine traditional values of the nation, and lastly, the essence of human culture. Therefore, Ho Chi Minh's thought belongs to the ideology of the working class, namely Marxism-Leninism, with a deeply revolutionary, scientific, and humanistic nature.

Third, in terms of value and vitality: Ho Chi Minh's thought "is an immensely great and precious spiritual asset of our Party and people, forever illuminating the path for our people's revolutionary cause to victory." Along with the assertion that

[51] "Thought" in the term "Ho Chi Minh's thought" should be understood as "a system of viewpoints". That is, "thought" is broader than "viewpoints" because it encompasses a "system of viewpoints". Furthermore, since it is a "system of viewpoints", these viewpoints are not separate, but are closely interrelated in a logical manner, clearly demonstrating continuity, consistency, and mutual interaction, forming a unified whole.

Ho Chi Minh's thought primarily addresses the “fundamental issues of our revolution”, the Communist Party of Vietnam, when assessing the value and vitality of his thought, affirmed: first and foremost, it is a “spiritual asset” (not a material asset), with an “immensely great and precious” value for “our Party and people.” Moreover, Ho Chi Minh's thought also possesses “everlasting” vitality and holds the value of “illuminating the path” for “our people's revolutionary cause” to succeed. This indicates that Ho Chi Minh's thought holds both theoretical and practical value for the Party, the nation, and our people in the revolutionary cause, past, present, and future. Therefore, studying, learning, and applying Ho Chi Minh's thought in both theoretical and practical activities for the Party, the nation, and our people is crucial for successfully completing the task of building and defending the Socialist Vietnamese Fatherland.

Conclusion

Ho Chi Minh's thought is not only an immensely valuable spiritual asset of the Party and the nation, but also a guiding compass for the revolutionary cause of the Vietnamese people. Through various stages, the Communist Party of Vietnam has consistently regarded the study and education of Ho Chi Minh's thought as an important task, helping to improve the awareness, qualities, and capacity of cadres and party members, as well as creating motivation for the sustainable development of the country. Ho Chi Minh's thought will continue to be a powerful spiritual resource, guiding future generations in the cause of building and defending the Socialist Vietnamese Fatherland.

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IRRIGATION RATE AND ELEMENTS OF IRRIGATION TECHNOLOGY

Annotation. *Study of water efficient method of cotton-plants on the base of traditional sort "Yulduz" ("Star") by using solt structure formers such as polymers and polycomplex which aims to increase fertility and to fight against the erosion on the slopes is described in this article. The works of such scientists of plant genetics institute AS of Republic of Uzbekistan as academician A.N.Kostyakova, N.T.Laktayeva are used in this article.*

Key words: *cotton-plants, polycomplex, erosion on the slopes, polymers.*

On typical sierozem soils, the most common soil in the region for studying water-saving irrigation technology in light sierozem soils of medium loamy mechanical composition, we introduced the following: polymer K-9 (Institute of Chemistry of the Academy of Sciences of the Republic of Uzbekistan) and the polycomplex KMC, with the help of which polymer-soil humidifier blocks with a capacity for moisture content and moisture retention in the soil (with an application rate of 40 kg/ha and 75 kg/ha) were created under the soil. The elements of furrow irrigation technology were determined by the SANIIRI method (Irrigation Technology Department). On a slope of 0.06 with the studied irrigation regime of 65-70-70% of the soil HB for the Yulduz variety (soil bulk density - 1.36 g/sm^3, specific gravity - 2.69 g/sm^3, soil porosity 49.6%) with irrigation streams of 0.11 and 0.10 l/s, elements of the irrigation technique (Table 1) were obtained for a uniformly moistened slope.

It is evident from Table 1 that the usually recorded water leakage of 562 m^3/ha in total was retained by us in humidifier blocks in the 0-30 cm soil layer, which were then used for cotton water consumption. To identify the advantages of water retention and water conservation using the above-mentioned chemical polymers (environmentally tested and approved for use by the Ministry of Health of the Republic), an experiment was conducted using the dependence of the calculated total evaporation with the forecast of the increase in cotton biomass, when the lower limit of the biomass increase was reduced to the limit of the optimal interval for each phase of plant development. For example, according to the example of Table 1, where the irrigation rate was determined according to A.N. Kostyakov as the difference between the moisture reserves before and after irrigation by the increase in dry biomass, total evaporation and irrigation schemes, it was checked according

to the humidification diagram according to N.T. Laktaev, i.e. In the experiments, the time of irrigation was determined using the increase in biomass after two years of experimental research on the same site.

Table 1 - Irrigation rate and elements of irrigation technology

No. wate ring	Timing of watering	Consum ption, l/s	Irrigation rate, m^3/ha				Watering time, hour	
			gross	net	leak	dump	total	run
1	19.06-20.06	0,11	1400	990	137	223	25,3	3,7
2	17.07-18.07	0,11	1310	930	170	210	23,6	3,0
3	10.08-11.08	0,10	1140	850	132	158	22,8	4,1
4	3.09-4.09	0,10	850	670	73	104	15,5	4,0
Total for the year			4760	3440	562	698	87,2	wed.3.7

Table 2 - Irrigation rates for the forecast of biomass growth of the cotton variety "Yulduz"

Received irrigation rate, m^3/ha	**WATE RING**	Irrigation rate, m^3/ha	Start watering, (4.1.5)	Inter-irrigation period, days	Biomass growth, g/day per plant
3510 with a scheme of 65-70-70% HB (optimal according to the forecast of plant biomass)	1	720	15.06	15	0,5
	2	550	1.07	16	1028
	3	740	17.07	14	1,31
	4	560	1.08	14	1,30
	5	520	15.08	16	1,12
	6	420	31.08	16	1,10

Irrigation rates of 420-740 m3/ha per season, for example 6 times per season, allowed to meet the criteria of the optimal regime of plant biomass growth with minimal water consumption and at the end of the season cotton harvests were obtained (Table 3). Polymers not only allowed to eliminate water leakage deep into the soil, but also to turn it into an increase in soil moisture reserves in the root zone to ensure an optimal water regime for plants between irrigations, naturally with the recommended measures of UzNIIH.

Table 3 - Cotton yield of the Yulduz variety and water consumption per unit of yield

Options of experience	1 choir, c/ga	2 choir, c/ga	3 choir, c/ga	Total yield, c/ha	Costs per unit of yield, m3/c
Control: production irrigation	22,00	7,59	0,31	29,9	157,2
Polymer K-9	25,35	8,29	0,25	33,9	103,5
Polycomplex KMC	24,07	7,62	0,11	31,8	111,0

Thus, the combined use of biomass growth and total evaporation allows us to outline a procedure for identifying the optimal moisture reserve at each stage of ontogenesis and, accordingly, to ensure irrigation during the growing season. We have worked out this technique mainly on the Yulduz variety, but we are further interested in the viability of this technique on other new cotton varieties that are only being introduced by the Institute of Genetics of the Academy of Sciences of the Republic of Uzbekistan (Armugon, Gulbakhor). It is appropriate to note that optimal water consumption and irrigation technologies (Table 1) allow us to calculate water reserves to solve the problem of water conservation in the field when using the irrigation regime.

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OPTIMAL ELEMENTS OF IRRIGATION TECHNOLOGY

Abstract. *Study of biological properties of cotton-plant and their adaption to the natural conditions, especially in the south of Uzbekistan, where optimally selected norms of irrigation increase the efficiency of irrigating techniques, shows the ways of raising fertility of cotton-plant in the fields and recommends optimal elements of irrigation techniques which are considered as the basis of plant cultirating technology, supplying entire, field uniformly with water, neither too much nor too little, since salinization is not restored.*

Keywords: *cotton-plant, norms of irrigation, cultirating technology, supplying entire, salinization.*

Since the biological characteristics of cotton varieties are associated with soil conditions, we were able to study the properties of soils in our experiments. The soil description by mechanical composition and the results of the agrochemical composition of the soil of the experimental plot are given in Table 1, which characterizes the hydromorphic type of soils together with the data of the chemical analysis of the soil, which affect the roots of plants, especially under the influence of weakly mineralized groundwater at a depth of 1.2-1.5 m (with a weak effect of the mineralization of these waters on the meliorative state of the lands). The experimental plot is located on the border of piedmont plains and adyr elevations in the inter-adyr depression, where weakly mineralized groundwater wedges out, there are springs with a flow rate of up to 10-20 l / s, which are collected in drains, 2 m deep and are taken out to the lower irrigation sites by collectors and are used with irrigation water for irrigation of rice, grain crops. The development of the upper tier of hilly lands of about 20 thousand hectares for grain crops, cotton, and garden crops causes an additional inflow of groundwater to the site from the Khisor farm.

In addition, the area is affected by the upstream Naiman and Kamashi reservoirs. Soils affected by groundwater change over the course of a year: either to a meadow soil formation process or to a sierozem-meadow state due to the poor performance of the collector-drainage network. Therefore, research on the normal maintenance of the meliorative state of soils with optimal irrigation regimes is especially important, since the rise in groundwater levels transfers soils from the category of medium-provided with nutrients to low-provided ones with the leaching of NPK, and the water, air and thermal regimes of soils deteriorate.

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An analysis of the recommendations on the size of the irrigation technique elements according to the recommendations of N.T.Laktaev (1978) shows that all the recommendations are given mainly for automorphic soils, and even then there is scant information on the origin of the absorption parameters: (K_{mouth}), b, α. Therefore, we were forced to study them on experimental plots.

Table 1. Elements of furrow irrigation technique in experimental plots.

consumption, l/s	Field slope	Irrigation norm, m^3/he				Watering time, hour		
		rude	net	reset	leakage	runaway	topping up	general
Karshi district farm "Nasaf"								
0,095	0,01	615 673	400 400	94 189	121 87	5,4 10,0	2,6 3,0	8,0 13
		1207 929	860 800	144 108	63 21	14 17	2,7 3,8	16,7 20,2
		1546 1455	1200 1200	294 218	52 37	20,5 31	1,5 1,2	22 32,2
Yakkabag district, Amir Temur farm								
0,14	0,007	719 555	400 400	245 101	104 54	1,7 2	2,8 34	4 6
		1116 1264	800 800	235 342	84 62	2 2	7,7 18,4	9,7 14,4
		1649 1264	1200 1200	281 209	68 53	3 4	12,3 15,8	15,3 19,8
Yakkabag district, Amir Temur farm (meadow soils)								
0,70 0,61	0,003	626 701	400 400	-	-	2,3 1,2	0,7 2,8	3,0 4,0
		900 1010	700 700	-	-	2,3 1,2	2,9 4,8	5,2 6,0
Yakkabag district, Amir Temur farm (gray soils-meadow soils))								
0,23	0,009	550 510	400 400	30 93	120 17	1,5 1,2	4,9 7,8	6,5 9,0
0,16		1040 1085	700 700	20 68	320 317	3,8 3,0	12,0 19,6	15,8 22,6

Table 2

The content of salts in the soil in the Amir Temur farm of the Yakkabag district

Soil layer	Dry residue, g/l	Total alkalinity		*Cl*	SO_4	***CA***	*Mg*	*Na+K* by difference	Carbonates CO_2	Gypsum
		HCO_3	CO_3							
0-34	0,156	0,024	0,02	0,018	0,642	0,015	0,006	0,013	10,01	0,505
34-47	0,306	0,028	0,01	0,014	0,272	0,098	0,012	0,013	10,14	0,347
47-60	0,122	0,017	-	0,011	0,046	0,020	0,005	0,007	9,75	0,304
60-110	0,114	0,016	-	0,013	0,032	0,016	0,102	0,013	9,62	0,368
110-150	0,092	0,012	-	0,015	0,037	0,015	0,005	0,009	11,54	0,231
150-180	0,054	0,010	-	0,014	0,030	0,014	0,007	0,003	10,41	0,305

According to N.T.Laktaev's theory, water absorption into the soil has a pattern.

$$K_t = K_{\text{уст}}(1 + \frac{b}{t^{\alpha}}) \quad (1)$$

The role of groundwater influence on irrigation was indicated by V.A. Dukhovny (1974), since the groundwater level is more or less at a stable depth of 1.2-1.5 m during the growing season, it will not be difficult to determine the irrigation regime for cotton and link it with total evaporation. For these conditions, we have studied the irrigation technique, the elements of which are given in Table 1. and which were selected using the graphical analytical method of their determination, for the purposes of implementing the assigned irrigation regime schemes with the maximum efficiency of the irrigation technique for irrigation with a furrow length of 140 m. The irrigation theory for water absorption into the soil is specified according to the hydromorphic properties of soils, since with the stability of the groundwater level at a depth of 1.2-1.5 m, the absorption parameters turned out to be more or less stable, with a deviation variation of about 0.90-0.92, which is considered quite acceptable for the practical application of the irrigation technique elements (Table 1)

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CHET TILI FANI O‘QITUVCHISI FAOLIYATI TARKIBIDA TARBIYACHILIK KO‘NIKMALARINING UYG‘UNLASHUVI

Annotaciya*: Ushbu maqolada chet tili fani o‘qituvchisida tarbiyachilik ko‘nikmalarini shakllantirish, buning uchun muayyan nuqtai nazarlar yig‘indisi, yaxlitligi, munosabatlar turini ajratish, bunday munosabatlar o‘quvchilar bilan o‘qituvchilar orasida muntazam tarzda vujudga kelishi, hozirgi zamon chet tili fani o‘qituvchisining tarbiyachilik faoliyatiga innovasion jarayon sifatida qaralishi, bunday yondashuv asosida pedagogik faoliyat doirasida tarbiyachilikka oid ko‘nikmalar uyg‘unlashtirilish masalalari yoritilgan.*

Tayanch so‘zlar: *chet tili fani o‘qituvchisi, o‘ziga xoslik, kognitiv va affektiv munosabatlar, innovasion jarayon, kasbiy faoliyat, nuqtai nazar.*

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HARMONIZATION OF EDUCATIONAL SKILLS IN THE STRUCTURE OF THE ACTIVITIES OF A FOREIGN LANGUAGE TEACHER

Annotation: *the formation of educational skills in a teacher of a foreign language in this article, the sum of certain points of view, integrity, separation of the type of relationship for this, the fact that such relationships occur regularly among students and teachers, are considered as an innovative process in the educational activities of a teacher of modern foreign language science, on the basis of this approach, issues of harmonization of educational skills in the framework of pedagogical activity are covered.*

Key words: *teacher of foreign language, identity, cognitive and affective relationships, innovation process, professional activity, point of view.*

Har bir o‘qituvchi birinchi navbatda tarbiyachidir. Uning pedagogik faoliyati uzviy qismini yosh avlodni ma’naviy jihatdan shakllantirish vazifasi tashkil etadi. J.G‘.Yo‘ldoshev, S.Nishonova, O.Musurmonova, B.Ma’murov, O. S. Gazman, V. A. Petrovskiy kabi olimlarning ta’kidlashlaricha, tarbiyaning usullari, nuqtai nazarlar nafaqat jamiyat hayotining o‘ziga xos talablari bilan bog‘liq holda tarkib topadi, balki xalqning an’analari, davlatning siyosiy qurilishi, o‘qituvchining o‘ziga xos xarakteri, nuqtai nazarlari va turmush tarzi bilan ham bevosita bog‘liqdir. Jumladan, oilaviy hayoti, uning mehnatiga bo‘lgan haqqoniy munosabat, shaxslararo munosabatlar hamda unda shakllangan pedagogik madaniyat kabilar

bunga misol bo‘la oladi. Shuning uchun ham, jamiyatimizda rang‘barang pedagogik nuqtai nazarlar vujudga kelmoqda. Chunonchi, ustoz-shogird munosabatlari, o‘quvchining shaxsiyatiga bog‘liq holda, bardoshli-oydinlashtiruvchi, hayotbaxsh, umidbaxsh, o’quvchini manfaatdorlikka asoslangan holda tarbiyalash nuqtai nazari kabilar.

Shu bilan bir qatorda, chet tili fani o‘qituvchisida tarbiyachilik ko‘nikmalarini bu tarzda tavsiflash har doim ham to‘g‘ri bo‘lavermaydi. Buning uchun muayyan nuqtai nazarlar yig‘indisi, yaxlitligi, munosabatlar turini ajratish lozim. Bunday munosabatlar o‘quvchilar bilan o‘qituvchilar orasida muntazam tarzda vujudga keladi. Muayyan chet tili fani o‘qituvchining faoliyatidagi o‘ziga xoslik va bir xillikni inobatga olish lozim. Buning uchun, tasnifning o‘zaro o‘xshash jihatlarini tanlab olish talab etiladi. Mazkur jarayonda tarbiyaning yuksak maqsadini asos qilib olish zarur. O‘quvchining shaxs sifatida o‘ziga xoslik kasb etishiga ko‘maklashish, o‘z hayotiga ega bo‘lishini qo‘llab-quvvatlashda alohida hayotiy holatlargina inobatga olinmasligi kerak, balki vaziyatlar, hayotiy burilishlar, hayotning to‘liqligi kabilar ham inobatga olinadi.

Psixologlarning ta’biricha, shaxsni tushunish uchun uning hissiyotlarini anglash lozim. Bunda tarbiyachilik faoliyatining yaxlitligi muhim ahamiyatga ega. Har bir chet tili fani o‘qituvchisi o‘z faoliyatining maqsadga yo‘naltirilganligini ta’minlash uchun o‘zining harakatlari, kamchiliklarini anglab yetishi lozim. O‘qituvchi o‘ziga e’tibor qaratar ekan, o‘zining xulq-atvori, faoliyati, turmush tarzi, kasbiy harakatlariga sinchkovlik bilan nazar tashlaydi.

Qadriyatli yo‘nalishlar o‘qituvchi qiziqishlarining ko‘rsatkichlari, ehtiyojlari, qarashlari va kasbiy rivojlanishini mujassamlashtiradi. Chet tili fani o‘qituvchisi tajribasining natijasi uning kelajakdagi faoliyati va xulq-atvorini belgilaydi. Har qanday fikr murakkab shaxsiy tajribaning tarkib sifatida dastlab o‘qituvchining o‘zida tug’ilishi lozim. Agar o‘qituvchining o‘zida shaxsiy tajriba mavjud bo‘masa, u boshqa kasbdoshlarining tajribalaridan samarali tarzda foydalana olmaydi.

Biz zamonaviy pedagogik munosabatlar doirasida chet tili fani o‘qituvchisida tarbiyachilik ko‘nikmalarini tahlil qilar ekanmiz, birinchi navbatda uning o‘quvchilar bilan vujudga keladigan yoki maxsus o‘rnatadigan aloqalari, hamkorligi doirasini o‘rganamiz. Pedagoglar hamda psixologlar shaxslararo munosabatlar doirasini o‘rganar ekanlar, kognitiv, xulq-atvorga asoslangan hamda affektiv munosabatlar doirasini ajratadilar. Kognitiv munosabatlar doirasida subyektning obyektni anglashi nazarda tutilsa, xulq-atvorga asoslangan munosabatlarda faoliyatning natijasi va hatti-harakatlar tushiniladi. Affektiv munosabatlar doirasi esa, shaxsning holati bilan bog‘liq barcha ko‘rsatkichlarni mujassamlashtiradi. Jumladan, A. A. Bodalev shaxslararo munosabatlar doirasida tadqiqotchilik, amaliy hamda affektiv munosabatlarni ajratib ko‘rsatadi. Ya. A. Kolominskiy esa, o‘z tadqiqotlarida kognitiv, xulq-atvorga asoslangan, affektiv munosabatlar va ularning qismlari, B.F. Lomov tadqiqotlarida esa, boshqaruvchilik, affektiv va axborotli munosabatlarni ajratadi.

Hozirgi zamon chet tili fani o‘qituvchisining tarbiyachilik faoliyatiga innovasion jarayon sifatida yondashish taqozo qilinmoqda. Bu faoliyat o‘zida 3 ta

muhim tarkibiy qismni mujassamlashtiradi: mustaqil fikrlash, ijodkorlikka asoslangan jarayonli hamda maylli-qadriyatli faoliyat ko‘rinishlari sifatida.

Tarbiya jarayonini fikrni shakllantiruvchi jarayon sifatida talqin etar ekanmiz, bunda ta’lim oluvchilar kasbiy tayyorgarlik jarayoniga jalb etiladilar. Chet tili fani o‘qituvchisi o‘zining pedagogik faoliyati davomida olamni o‘z ongida aks ettirishi va uni tahlil qila olishi lozim. Bunda quyidagilarga alohida e’tibor qaratiladi:

- Ijtimoiy me’yorlar bilan bog‘liq bo‘lgan kasbiy yondashuvlar;
- Pedagogik faoliyat maqsadiga moslashtirilgan vaziyatli, funksional yondashuvlar;
- O‘qituvchining shaxsiy-kasbiy qiziqishlari, kasbiy faoliyati, tajribasini belgilovchi yondashuvlar.

Ta’lim jarayonida tarbiyaning tarkibiy qismlari o‘z aksini topadi. Bu holatlarni nazariy jihatdan tahlil qilish muhim ahamiyatga ega. Amaliyotda bilimlarning shakllanishi ko’nikmalarning tarkib topishidan ayri holda talqin etilmaydi. Bu esa, subyekt-subyekt munosabatlari tarzida namoyon bo‘ladi. Bu munosabat doirasida chet tili fani o‘qituvchisi bilan o‘quvchi hamkorlikka kirishadi.

Biz quyida o‘quv-tarbiya jarayonida namoyon bo‘ladigan pedagogik madaniyatning ayrim ko‘rinishlari haqida fikr yuritishga harakat qilamiz. Pedagogik tafakkur paradigmasida chet tili fani o‘qituvchisining faoliyati o‘zbek xalqining yetakchi qadriyatlari va tafakkuriga tayangan holda tarkib toptiriladi. Bunday qadriyatlar va tafakkur tarzi o‘qituvchining ta’lim-tarbiyaviy faoliyatini boshqaradi va tartibga soladi.

O‘qituvchining pedagogik madaniyati haqidagi nazariy yondashuvlarni ilgari surgan ko‘plab tadqiqotlarda, jumladan, J.G‘.Yo‘ldoshev, O.Haydarova, Sh.Mardonov, B.Raximov, B.Ma’murov, G.Boymurodova va boshqalarning ishlarida o‘qituvchi pedagogik faoliyati va tajribasining turli qirralari tahlil qilingan. Bular o‘qituvchining mustaqil fikrlash faoliyati, umumiy pedagogik faoliyati hamda o‘quvchilarga nisbatan hissiy-qadriyatli munosabatlaridir.

Bugungi kunda chet tili fani o‘qituvchisining o‘quv-tarbiya jarayonidagi pedagogik faoliyati natijalari sifatida quyidagilar e’tirof etilmoqda. Chet tili fani o‘qituvchisi faoliyati mohiyatini aniqlovchi ko‘rsatkichlar o‘quvchilar egallagan 3 turdagi natijalar bilan belgilanadi. Bu o‘quvchilarning mustaqil fikrlash ko‘nikmalari, ko‘p tarmoqli faoliyati hamda hissiy-qadriyatli munosabatlari, ya’ni axloqiy tajribalari sifatida namoyon bo‘lishi kerak.

Bugungi kunga kelib, har bir o‘qituvchi o‘zining ijtimoiy, kasbiy faoliyat tajribasi ta’lim-tarbiya natijasiga qay tarzda ta’sir etishini aniq bilishi lozim. Shu bilan bir qatorda, har bir o‘qituvchi o‘zining hissiy-qadriyatli yo‘nalishga ega bo‘lgan faoliyati doirasida o‘zi uchun ko‘proq ahamiyat kasb etadigan pedagogik faoliyat natijalarini ajrata olishi lozim. Har bir o‘qituvchining shaxsiy pedagogik madaniyatini aniqlovchi jarayon shakllarini belgilash ham muhim tashkiliy ahamiyatga ega. Bunda dastlab o‘qituvchining pedagogik nuqtai nazari, mazkur nuqtai nazarning turlarini aniqlash zarur.

Shuni alohida ta’kidlash kerakki, chet tili fani o‘qituvchisining pedagogik tajribasi qanchalik katta bo‘lsa, u shunchalik mustahkam pedagogik madaniyat va samarali natijaga ega bo‘ladi.

Chet tili o‘qituvchining mustaqil fikrlashga asoslangan nuqtai nazari uning pedagogik faoliyati rivojlanishida alohida ahamiyatga ega. Chet tili fani o‘qituvchilar orasida bugungi kunda ko‘p kuzatilayotgan nuqtai nazar mustaqil fikrlashga asoslangan nuqtai nazardir. Shuning uchun ham, o‘qituvchining fikriy-qadriyatli yondashuvga asoslangan faoliyatida yangi axborotlarni o‘zlashtirish va o‘quv-tarbiya jarayonini loyihalashga intilish muhim o‘rin egallaydi.

Mutaxassislarning e’tirof etishicha, bu ijtimoiy-pedagogik faoliyatning eng yorqin, tushunarli, zaruriy qismidir. Bu jarayonda ilmiy haqiqatlar asosida yangi g‘oyalar vujudga keladi va o‘qituvchi ularni o‘z faoliyatiga tadbiq etadi. Uning asosida obyektiv borliq haqidagi qadriyatli tasavvurlar o‘z ifodasini topadi. Bu tasavvurlar aniq tarixiy zaminga ega bo‘lib, o’zining tasdig‘ini topgan, ilmiy jihatdan asoslangan, amaliy jihatdan sinovdan o‘tgan bilimlar, ijtimoiy hayot bilan o‘z tajribaga asoslangan samarali munosabat o‘rnatganligi bilan alohida ahamiyatga ega.

Muayyan kasb-hunar sirlarini o‘rganishga bo‘lgan ehtiyoj insonni madaniyat va ma’naviy hodisalarga ko‘proq yaqinlashishga undaydi**.** Pedagogik faoliyatda tabiiy, ilmiy yondashuv o‘quvchiga shaxs sifatida yondashishni taqozo qiladi. Bunday yondashuv asosida pedagogik faoliyat doirasida tarbiyachilikka oid ko‘nikmalar uyg‘unlashtiriladi. Bu ayniqsa maktab ta’limiga xos xususiyatdir.

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PEDAGOGIK ANTROPOLOGIYANING BUGUNGI KUNDAGI MUAMMOLARI VA ISTIQBOLLARI

Anotatsiya: *mazkur maqolada zamonaviy ta'lim antropologiyasi uning bugungi kundagi asosiy muammoli sohasi va o’qish va o’zlashtirishdagi yutuqlari haqida so’z yuritilgan.*

Kalit so’zlar: *antropologiya, shakllanish vaqti, makon*

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PROBLEMS AND PROSPECTS OF PEDAGOGICAL ANTHROPOLOGY TODAY

Abstract*: this article discusses modern educational anthropology, its main problem area today, and its achievements in reading and learning.*

Key words: *anthropology, time of formation, space*

Pedagogika tarixi ko'p jihatdan pedagogik an'analardan innovatsiyalarga o'tish tarixi bo'lib, ular orasida alohida ta'limdagi antropologik an'analar va innovatsiyalar muhim o'rinni egallaydi. Ularning tanqidiy aks ettirishi antropologiya fanlari pedagogikaga nima bera olishi bilan emas, balki yaqin kelajakda ular orasida qanday o'rin egallashi va o'z vazifasi sifatida nimani ko'rishi bilan bog'liq.

Asr boshidagi pedagogik antropologiya pedagogik faoliyatni takomillashtirish maqsadida mavjud antropologik ma'lumotlarni birlashtirish imkoniyati haqidagi g'oyalar ko'p xalqlarning diniy va falsafiy ta'limotlarida aniq mavjud edi. G'arbiy Yevropa va mahalliy pedagogika turli yo'llar bilan ularni antropologik asoslash zarurati g'oyasiga kelgan, ammo bu g'oyaning rishtalari umumiy edi, chunki pedagogik antropologiya birinchi navbatda barcha insoniy fanlarning birlashuvi sifatida qaraldi.

K.Shmidtning pedagogika haqida amaliy antropologiya degan fikri K.D.Ushinskiyning fikriga yaqin. Ushinskiy “pedagogik antropologiya barcha antropologiya fanlari integratsiyasi mahsulidir, ta'lim ishini targ'ib qilishga qaratilgan” degan fikrlarni ilgari surgan edi.

XIX asr Pedagogik antropologiya pedagogikaning maxsus metodologiyasi sifatida qaraladi, ammo bu metodologiya shaxsga o'rganish imkonini beradigan yondashuvlar, texnologiyalar va vositalarga qisqartiriladi.

Borgan sari ta'lim antropologiyasi metodologiyasi hayotning u yoki bu bosqichida emas, balki insonning tegishli ta'lim tanlovi bilan bog'liq mahalliy muammolarga qisqaradi.

Muayyan davr antropologik va pedagogik g'oyalarning tarixiy dinamikasi asosida nimalar yotganligi haqida ko'p bahs-munozaralar mavjud. Xususiyatlardagi farqlarga qaramay, umumiy birlik hali ham mavjud: bu dinamika asosan pedagogikaning antropologik xronotopiga bog'liq bo'lib, u turli davrlar uchun sezilarli darajada farq qiladi. Muayyan tarixiy shaxs tarbiyasining makon va vaqti va ularni pedagogik idrok etish pedagogik antropologiyaning muammoli sohasining asosini tashkil qiladi.

XXI-asrning pedagogik antropologiyasi uzoq sayohatning boshida. Zamonaviy haqiqatda ta'lim antropologiyasi endi mavjud bo'lgan barcha sohalar bilan ishlaydigan soha emas antropologik ma'lumotlar, bu uning mustaqil ilmiy bilim sohasiga aylanishiga asos bo'lgan mahalliy va xorijiy tadqiqotchilar tomonidan ta'kidlangan. K.D. Ushinskiyning bayonoti butunlay to'g'ri bo'lib qolmoqda. Ushinskiyning ta'kidlashicha, pedagogika "to'liq go'daklik davrida" chunki u o'zining antropologik asosini to'liq egallay olmaydi. Uning fikricha, pedagogika tibbiyot siyosati bilan bir qatorda so'zning qat'iy ma'nosida fan fani bo'la olmaydi, chunki uning maqsadi tabiat hodisalari dunyosi yoki bosh ruh emas, balki amaliy faoliyatdir. K.D. Ushinskiy pedagogikani tarbiya fani emas, balki san'at deb atagan. Natijada, "pedagogika - bu pozitsion fanlar to'plami emas, balki faqat ta'lim qoidalari to'plami" ekanligi ma'lum bo'ladi.

Pedagogika keng ma'noda, K.D. Ushinskiy ta'lim maqsadlari va vositalarini asoslashga yordam beradigan fanlar majmuasini o'z ichiga olishi kerak. Falsafa, psixologiya va tarix fanlari ta’lim maqsadlarini aniqlashga hissa qo‘shishi kerak. Pedagogik maqsadlarga erishish vositalari haqidagi bilimlar antropologiya fanlarida, ya'ni insonni o'rganuvchi fanlarda mavjud. Ular orasida K.D. Ushinskiy inson anatomiyasi, fiziologiyasi va patologiyasi, psixologiya, mantiq, yerni insonning yashash joyi sifatida va yer sharining aholisi sifatida o'rganadigan geografiya, statistika, siyosiy iqtisod va tarixni din, sivilizatsiya, falsafiy tizimlar tarixi, adabiyot, san'at, ta'lim. Bu fanlarni o’zlashtirilishi insonni o'rganish va shu asosda unga to’gri metodlaran foydalangan holda pedagogik yondashuvni beradi.

Pedagogik antropologiya bo‘lajak pedagoglarning nutqiy ravonligini oshirishda muhim ahamiyatga ega. Bu soha pedagoglarga o‘z o‘quvchilariga ta’lim berishda madaniy, ijtimoiy va insoniy omillarni hisobga olishni ta’minlaydi. Nutqiy ravonlik, o‘quvchilar bilan samarali muloqot o‘rnatish, o‘rganish jarayonida ishtirok etish va muammolarni hal qilishda muhim rol o‘ynaydi.

Nutqiy ravonlik — bu shaxsning o‘z fikrlarini erkin va tushunarli ravishda ifodalash qobiliyatidir. Bu ko‘nikma ta’lim jarayonida juda muhimdir, chunki:

O‘quvchilar bilan samarali muloqot – Pedagoglar o‘quvchilar bilan muloqotda aniqlik va tushunarlilikni ta’minlashi zarur. Nutqiy ravonlik ularning fikrlarini erkin ifodalashga yordam beradi.

O‘rganish jarayonida ishtirok etish – O‘quvchilar o‘z fikrlarini ifodalashda qulaylik sezishi, bu esa o‘rganish jarayonida faol ishtirok etishlariga olib keladi.

Muammolarni hal qilish qobiliyati – Nutqiy ravonlik pedagoglarga o‘z fikrlarini samarali taqdim etish va muammolarni yechish jarayonida o‘z nuqtai nazarini bildirish imkonini beradi.

Shu bois, pedagogik antropologiyaning nazariy asoslari va amaliyotlari bo‘lajak pedagoglar uchun zaruriy ko‘nikmalarni shakllantirishda va ularning professional rivojlanishida muhim vosita sifatida xizmat qiladi. O‘zbekiston ta’lim tizimida bu yondashuvlarning tatbiqi ta’lim sifatini oshirishga, pedagoglarning professional malakasini rivojlantirishga va o‘quvchilarni muvaffaqiyatli tayyorlashga yordam berad

Xulosa qilib aytganda, bunday o'zlashtirishning qiyinchiliklari ko'p jihatdan har bir davrning antropologik va pedagogik g'oyalarning o'ziga xos tarixiy dinamikasiga ega ekanligi va ta'limning makon va vaqti nima ekanligini o'ziga xos tushunishi bilan bog'liqdir.

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THE ROLE OF INFORMATION TECHNOLOGIES IN MEDICINE

Abstract:*In today's world, information technologies have become pervasive, influencing nearly every aspect of our lives. It is therefore undeniable that a critical area such as healthcare must also embrace these advancements. Modern digital innovations are significantly shaping how medical care is delivered globally, offering more effective and efficient approaches. Furthermore, the establishment of a well-functioning IT infrastructure is crucial to support these new methods. This is not a novel concept; many nations have long recognized the benefits and have been proactively implementing technological advancements in their medical systems.*

Keywords: *information technology in medicine, clinic, health, patient, service, modern technologies, automation.*

Introduction: Information technologies (IT) are ubiquitous in the modern world. Healthcare is no exception. Modern IT developments are having a positive impact on developing new ways to organize medical care for the population. Many countries have long been actively using new technologies in healthcare. Conducting teleconsultations for patients and staff, exchanging information about patients between various institutions, remotely recording physiological indicators, monitoring operations in real-time - all of this is provided through the introduction of information technologies into medicine. This is bringing the informatization of healthcare to a new stage of development, positively affecting all aspects of its activities.

The introduction of IT in healthcare makes it possible to improve the quality of service, significantly speed up the work of staff, and reduce the cost of patient care.

Information technologies in medicine and healthcare help to solve the following tasks:

- keeping records of patients in the clinic;
- monitoring their condition remotely;
- storing and transmitting the results of diagnostic tests;
- controlling the correctness of the prescribed treatment;
- conducting distance learning;
- advising inexperienced staff.

Information technologies in medicine enable high-quality monitoring of patients' conditions. Maintaining electronic medical records reduces the time clinic staff spend on preparing various forms. All information about a patient is contained in a single document that is accessible to the institution's medical staff. All

information about the results of examinations and procedures is directly entered into the electronic medical record. This allows other specialists to assess the quality of the prescribed treatment and identify any ambiguities in the diagnosis.

The use of IT in medicine allows doctors to conduct online consultations at any convenient time. This increases the availability of medical services. People can receive qualified help from experienced doctors remotely. This is especially useful for people who:

- live in geographically remote areas;
- have disabilities;
- are caught in an emergency;
- are in a restricted space.

Thus, patients or doctors do not have to travel long distances for consultation. With the help of modern information technologies, a doctor can assess a patient's condition, examine them, and become familiar with all their test results.

Such consultations are not only necessary for patients with physiological problems. Consultations are also allowed for people who need psychiatric or psychological help. Audiovisual communication allows the doctor to establish contact with the patient and provide them with the necessary assistance.

Today, medical information systems are actively developing, which allows institutions to work more efficiently and quickly. In Russia today, the informatization of healthcare is receiving increased attention from the government. Financial investments in the development of new medical IT have a positive impact on their development and improvement.

In addition, the need to introduce innovations into the healthcare system is increasing in Russia today. Ensuring maximum data protection of such systems remains an urgent issue. Therefore, developers' efforts are now focused on eliminating the possibility of outside access.

Informatization of healthcare is a very broad concept, which also includes activities aimed at informing specialists about the world's scientific achievements in the field of medicine using IT. Thus, it is an effective way to train and improve the qualifications of hospital and polyclinic staff.

With the help of such technologies, doctors can quickly receive information about new developments and discoveries that help them work more effectively. This issue is particularly relevant for medical staff working in remote settlements.

The implementation of innovative technologies in medicine is fast and easy. The interface of such systems is clear and intuitive, even for untrained users. Clinic staff can quickly learn how to operate these new technologies. Developers help in understanding all the nuances of product operation. After completing a training that requires minimal time, medical staff will be able to:

- work with information resources;
- conduct teleconferences;
- work in local and global computer networks;
- use help systems.

Today, within the framework of healthcare informatization in Russia, it is planned to create a national telemedicine system. With the right approach, this technology will not only significantly improve the quality of medicine but also help to reduce costs. For example, doctors will not have to allocate funds to attend scientific conferences. They will be able to participate in such events remotely.

Modern IT capabilities in healthcare enable a positive impact on all aspects of medical care. The use of information technologies in medicine also makes it possible to:

- conduct distance learning;
- establish communication for the exchange of experience with colleagues;
- obtain the latest information on healthcare.

In addition, technology can improve the management of a medical institution. It allows automating the work of medical systems:

- clinic management;
- planning and economic department;
- personnel department;
- financial service;
- pharmacies;
- material services.

Also, managers are given the opportunity to cooperate more effectively with the mandatory medical insurance fund and the regional health management body. IT in medicine allows you to optimize the work of doctors, the registry, the admissions department, and other services.

Furthermore, the use of innovative systems simplifies the institution's drug supply system. New technologies quickly help to:

- register revenue and expense transactions;
- implement control over warehouses;
- generate applications for the delivery of medicines;
- monitor drug consumption;
- write off materials and preparations;
- create reporting documents and submit them to higher authorities.

Information technologies are actively used in the field of education in medicine. Remote seminars allow students of universities and medical schools to acquire the necessary knowledge. Such technologies allow young professionals to attend lectures by well-known doctors and gain new knowledge and experience.

All these opportunities are now available for Russian clinics. The RoboMed unified medical system is the future of your institution. Your staff will work more efficiently, bring more profit, and keep pace with Western clinics. We will help you implement this technology into your business. Additionally, we will train your staff to work with the system as quickly as possible. If any questions arise during the operation of RoboMed, our highly qualified staff will quickly answer them and help solve the problems that arise. When you purchase this system, you will be assigned

a personal service manager who will be available to assist you at any time and will inform you about new software features and available updates.

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PRINCIPLES AND MODERN METHODS OF TEACHING ENGLISH

Abstract:*The teaching of English has evolved significantly in recent years, incorporating modern principles and methods to address the diverse needs of learners. This article examines key teaching principles such as communicative competence, learner autonomy, and cultural relevance. It also explores modern methods like Task-Based Learning, Flipped Classroom, and Technology-Enhanced Learning. The findings suggest that these approaches improve student engagement, enhance proficiency, and foster independent learning.*

Key words : *Task-Based Learning, Communicative Competence, Learner Autonomy, Literature Review, Observation, Interview.*

Introduction

Teaching English has become a dynamic field as globalization and technological advances reshape educational landscapes. Traditional grammar-translation methods are increasingly supplemented or replaced by innovative techniques to meet learners' needs. Key principles, including communicative competence, student-centered learning, and cultural inclusivity, guide the modern teaching approaches. This paper explores how these principles are applied using contemporary methods and evaluates their effectiveness.

Methods:

To examine the principles and methods of teaching English, this study utilized the following approaches:

1. Literature Review: Relevant academic papers, books, and articles on teaching principles and methods were analyzed.
2. Observation: Classroom activities employing modern methods were observed in secondary and tertiary institutions.
3. Interviews: Teachers and students were interviewed to gather insights into their experiences with contemporary methods.

The literature review explores studies that emphasize the integration of modern teaching methods with fundamental principles of language education. Key focus areas include communicative competence, technology-enhanced learning, learner autonomy, and cultural inclusivity. The analysis identifies how these principles are implemented across various methodologies and evaluates their effectiveness based on existing research.

Analysis

1. **Communicative Competence**. Several studies highlight the importance of communicative competence in modern English teaching. For example, Richards (2006) argues that methods like Task-Based Learning (TBL) focus on real-life

communication, enabling learners to practice language in authentic contexts. In contrast, Kumaravadivelu (2003) critiques traditional methods for prioritizing grammar over communication. The consensus suggests that TBL and role-playing enhance fluency and confidence in learners.

2**. Learner Autonomy**. Flipped Classroom approaches, as discussed by Bergmann and Sams (2012), demonstrate the potential for fostering learner autonomy. Learners prepare by accessing materials before class, enabling them to actively participate in discussions. Little (1991) reinforces this concept, advocating for self-directed learning as a critical factor in language acquisition. Challenges noted in the literature include students' resistance to taking responsibility for their learning, necessitating teacher support. The analysis of literature demonstrates that modern teaching methods effectively address learners' needs when grounded in established principles. Future research should focus on practical strategies for integrating these methods in resource-constrained settings while considering cultural and technological barriers. This analysis examines classroom observations conducted to understand the application of modern methods in English teaching. The observations were carried out in secondary schools and universities, focusing on practices that align with key principles such as communicative competence, learner autonomy, and technology integration. The findings highlight the strengths and challenges of implementing these methods in real classroom settings.

Observation Settings: Context: Observations were conducted in five classrooms (two in secondary schools and three in universities).

Participants: Teachers with varying levels of experience and students aged between 12 and 22.

Focus Areas: Use of Task-Based Learning (TBL).Implementation of the Flipped Classroom model. Integration of digital tools for learning.

1. Task-Based Learning (TBL) Observations revealed that TBL was widely used in university classrooms. For instance:

Activity: Students participated in group discussions and problem-solving tasks based on real-life scenarios, such as planning a trip or organizing a community event.

Outcome: Enhanced student interaction and improved speaking confidence. **Challenges:** In secondary schools, younger students struggled with task instructions and required additional teacher guidance.

2. Flipped Classroom: Flipped classrooms were observed primarily in university settings.

Activity: Students watched pre-recorded lectures and completed preparatory worksheets before class. Class time was devoted to collaborative projects and discussions.

Outcome: Active participation and better comprehension were noted among university students.

Challenges: Some students did not engage with the preparatory materials, limiting the effectiveness of in-class activities.

3. Technology Integration: The use of digital tools was prominent in both secondary and tertiary institutions.

Activity: Teachers utilized apps such as Kahoot! for quizzes, and interactive whiteboards for visual aids. Language learning platforms were also integrated into homework assignments.

Outcome: Increased student engagement and immediate feedback on learning progress.

Challenges: Technical issues and lack of access to devices hindered implementation in secondary schools.

Observations suggest that modern methods, though effective, require careful planning and adaptation to different educational contexts. Teachers must address challenges like technological access, task clarity, and student preparation to maximize the benefits of these approaches.

Analysis of Interviews: To gain insights into the practical application of principles and modern methods in English teaching, interviews were conducted with teachers and students. The focus was on understanding their experiences with methods like Task-Based Learning (TBL), Flipped Classrooms, and technology integration, as well as their perceptions of how these methods align with core principles such as communicative competence and learner autonomy.

Participants: Five English teachers (three from universities and two from secondary schools).Ten students (six university students and four secondary school students).Format: Semi-structured interviews with open-ended questions to allow for in-depth responses.

Key Questions:

1. What teaching methods do you commonly use in the classroom?
2. How do these methods impact student engagement and learning outcomes?
3. What challenges do you face in implementing modern teaching techniques?

1. Task-Based Learning (TBL)

Teachers' Perspective: University teachers highlighted that TBL fosters real-world communication skills and active student participation. Secondary school teachers expressed that younger learners often struggle with complex tasks, requiring simpler, scaffold activities.

Students' Perspective: University students found TBL engaging and helpful in improving their speaking and teamwork skills. Secondary students preferred tasks with clear instructions and direct teacher involvement.

2. Flipped Classroom

Teachers' Perspective: All teachers appreciated the flipped classroom model for freeing up class time for discussions and collaborative work.Challenges included students not completing pre-class tasks and the additional preparation time for creating materials.

Students' Perspective: University students enjoyed the flexibility of accessing pre-recorded lectures but noted the need for discipline to stay on track.Secondary students expressed mixed feelings, citing difficulties in accessing digital content at home.

3. Technology Integration:

Teachers' Perspective: Technology was widely used for quizzes, virtual lessons, and interactive learning. Teachers in secondary schools struggled with insufficient resources, such as limited access to computers and unreliable internet.

Students' Perspective: University students appreciated using apps like Duolingo and platforms like Zoom for online collaboration.Secondary students enjoyed gamified tools like Kahoot! but expressed frustration with technical issues.

The interviews highlight the potential of modern teaching methods to improve English learning when aligned with principles like communicative competence and learner autonomy. Addressing challenges such as resource limitations and ensuring student preparedness is essential for their effective application.

Results

The results of the study provide a comprehensive understanding of how principles and modern methods of teaching English are applied in practice and their impacts on teaching and learning. The findings are categorized based on the three approaches used: literature review, observation, and interviews. The literature review highlighted the theoretical basis and effectiveness of modern English teaching methods.

Communicative Competence: Task-Based Learning (TBL) was identified as a key method for enhancing speaking and listening skills in authentic contexts. Role-playing and group activities, as discussed in various studies, were effective in improving interaction and fluency.

Learner Autonomy: The Flipped Classroom model empowers students to take responsibility for their learning, fostering critical thinking and preparation skills. However, resistance to self-directed learning was noted as a challenge.

Technology Integration: Digital tools like language apps, online platforms, and gasified learning were found to increase student motivation and engagement. Concerns about accessibility and over-reliance on technology were also noted.

Results from Classroom Observations: The classroom observations provided insights into the real-world application of modern methods.

Task-Based Learning (TBL):Activities such as group discussions and problem-solving tasks fostered active participation and improved communication skills, especially in university settings. Secondary students, however, struggled with task complexity and required additional guidance.

Flipped Classroom: At the university level, students were more engaged during in-class discussions when preparatory materials were accessed beforehand.In secondary schools, some students did not complete the pre-class tasks, leading to ineffective in-class sessions.

Discussion

The results highlight that modern methods, when aligned with core teaching principles, offer significant benefits. Task-Based Learning and Flipped Classrooms foster active engagement and deeper understanding. However, these methods require teacher training and resources, which may pose challenges in resource-

limited settings. Additionally, technology-enhanced learning, while effective, raises issues of accessibility and digital literacy. The literature review highlights a clear shift toward learner-centered and technology-driven approaches in English teaching. Communicative competence remains a foundational goal, with methods like TBL and role-play showing measurable success. Technology-enhanced learning offers significant benefits but requires careful integration to avoid overdependence. The findings suggest that learner autonomy and cultural relevance are essential for holistic language education, although their implementation varies across contexts. Future research could explore how to balance traditional and modern methods to cater to diverse learning environments. Emphasizing teacher training and resource allocation will be critical for scaling these innovations.

Conclusion

The principles and methods discussed in this article demonstrate the potential for improving English teaching practices. Modern techniques like Task-Based Learning, Flipped Classroom, and Technology-Enhanced Learning, grounded in communicative competence and learner autonomy, are shaping the future of English education. As these methods gain wider adoption, addressing resource and accessibility challenges will be crucial for their success.The exploration of principles and modern methods of teaching English reveals a dynamic shift towards approaches that prioritize communication, learner engagement, and the integration of technology. Through the literature review, classroom observations, and interviews, it is evident that methods such as Task-Based Learning, Flipped Classrooms, and Technology-Enhanced Learning align well with foundational principles like communicative competence, learner autonomy, and cultural relevance.

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O‘ZBEKISTON PSIXOLOGIYASIDA OILAVIY NIZOLAR MASALALARINING O‘RGANILISHI

ANNOTATSIYA:*Maqolada o‘zbek oilaridagi nizolarning ijtimoiy-psixologik xususiyatlari va ularni mamlakatimiz psixolog olimlari tomonidan o‘rganilishi haqida muhim ma'lumotlar keltirilgan. Muallif mazkur muammo hozirgi kunda juda dolzarb ekanligi, uni o‘rganish psixologlar oldida muhim vazifalarni qo‘yayotganligi, mamlakatimizdagi har bir oilaning bir butunligi va barqarorligini saqlab qolish borasidagi tashkiliy-huquqiy mexanizmlarni yanada kuchaytirish zarurligini ta'kidlagan.*

Kalit so‘zlar: *oila, nikoh, er-xotin, shaxslararo munosabat, tarbiya, jinsiy hayot, oila barqarorligi, fe'l-atvor, muvaffaqiyatsiz nikoh, nizo, ajralish.*

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STUDY OF FAMILY CONFLICT ISSUES IN UZBEKISTAN PSYCHOLOGY

ANNOTATION:*The article contains important information about the socio-psychological characteristics of conflicts in Uzbek families and their study by psychologists in our country. The author emphasized that this problem is very relevant today, that its study poses important tasks for psychologists, it is necessary to further strengthen the organizational and legal mechanisms for maintaining the integrity and stability of every family in our country.*

Key words: *family, marriage, couple, interpersonal relationships, education, sexuality, family stability, character, failed marriage, conflict, divorce.*

Mutaxassislarning e'tirof etishicha, oila va uning mustahkamligiga salbiy ta'sir ko‘rsatuvchi omillardan biri oilaviy nizolar hisoblanadi. Ta'kidlash joizki, ijtimoiy hayotda kishilar o‘rtasida oila va nikoh munosabatlari bilan bog‘liq turli anglashmovchiliklar, nizolar va o‘zaro kelishmovchiliklar uchrab turadi. Odatda, nizo deb, qarama-qarshi yo‘nalgan qarashlarga, noxush hissiy kechinmalar bilan bog‘liq guruhlararo yoki shaxslararo munosabatlar orqali ifodalanuvchi to‘qnashuvlarga aytiladi. Psixologik nuqtai nazardan talqin etganda, odamlarga halokatli ta'sir etadigan jihat bu – nizolarning o‘zi emas, balki ularning oqibati hisoblanadi. Nizolar oqibatida inson ruhiyatida qo‘rqinch, vahima, adovat kabi salbiy hislar yuzaga keladi. Agar mazkur kechinmalar kuchli bo‘lsa va uzoq muddat davom etsa, odamda himoya reaksiyasi paydo bo‘lishi va mustahkamlanishi mumkin.

Mustaqillik yillarida oilaviy munosabatlarda yuzaga keladigan nizoli holatlarni o‘rganish bo‘yicha mamlakatimiz psixologlari tomonidan ham bir qator ilmiy tadqiqot ishlari amalga oshirilgan. Shu o‘rinda G‘.B.Shoumarov, E.G‘.G‘oziyev, A.M.Jabborov, N.A.Sog‘inov, V.M.Karimova, B.Umarov, F.A.Akramova, M.X.Fayziyeva, X.Karimov, R.S.Samarov, N.Salayeva, F.R.Ro‘ziqulov, I.A.Jabborov va boshqa olimlar tomonidan olib borilgan ishlarni ko‘rsatib o‘tishimiz mumkin. Biz quyida mamlakatimiz psixologlarining oilaviy nizolar masalalari bo‘yicha amalga oshirgan ilmiy tadqiqot ishlariga qisqacha to‘xtalib o‘tamiz.

M.Fayziyevaning tadqiqotlarida ko‘rsatilishicha, o‘zbek oilalarida shaxslararo munosabatlar barqarorligini belgilashda er-xotin munosabatlaridagi o‘zaro hurmat va ishonch, bir-birini yaxshi tushunish, farzandlar, muomala odobi, onglilik va ma’naviy axloqiy mavqe, uning moddiy ta’minlanganligi, uy-joy bilan ta’minlanganlik, rollar taqsimotining mosligi, jinsiy moslik muhim omillar hisoblanadi. Muallif, oilaviy nizolarning shakllanishi va ularning buzilib ketishida er-xotin fe’l-atvorining mos kelmasligi, farzandsizlik, sevgi va mehr-muhabbatning yetarli emasligi, uning budjetini oqilona boshqara olmaslik asosiy omillar bo‘lib, ro‘zg‘or ishlarining saranjom-sarishta va orasta emasligi, iqtisodiy ta’minotdagi kamchiliklar, rashk va ishonchsizlik, ota-onalarning er-xotin munosabatlariga aralashuvi, dunyoqarash va maslaklarning nomuvofiqligi, jinsiy nomoslik kabi omillar ham oilaviy munosabatlarda ziddiyatlarni kelib chiqarishda muhim o‘rin tutadi, deydi [4].

N.A.Sog‘inovning izlanishlarida o‘zbek oilasida juftliklar o‘rtasidagi o‘zaro tushunish, o‘zaro hurmat va hissiy yaqinlik, er-xotinlarning nikohdan qoniqqanlik xususiyatlari kabi omillarning oila mustahkamligiga ta’siri, ularning o‘zaro munosabatlarida nizolar paydo bo‘lishining etnopsixologik komponentlari o‘zbek etnosi misolida ilk bor o‘rganilgan. Ushbu tadqiqot ishi sobiq ittifoq miqyosida u yoki bu millatning etnik xususiyatlarini namoyon bo‘lishi tadqiq etilgan ilk ijtimoiy-psixologik tadqiqotlardan biri ekanligi e’tirof etiladi. Unda yoshlarning oila qurish motivlari, nikoh oldi omillari, nikohdan qoniqqanlik darajalari, er-xotin o‘rtasida “o‘zaro tushunish”, “emotsional intilish”, “o‘zaro hurmat” ko‘rsatkichlari shahar va qishloq oilalari misolida qayd etib o‘tilgan. Tadqiqotda oila qurish niyatidagi yoshlar, muvaffaqiyatli va muvaffaqiyatsiz nikohlar, ajralishgan juftlar o‘rganilgan[3].

X.Karimovning fikricha, o‘zbek oilasida er-xotin orasidagi nizolar boshqa millat vakillari (rus, ukrain va boshqalar) oilalaridagi nizolardan farqlanishi bilan ajralib turadi. Olib borgan tadqiqotlarimizda o‘zbek oilalari o‘ziga xos etnopsixologik xususiyatlarga ega ekanligi bilan ajralib turishi, bunda er-xotin orasida nizolarning kelib chiqishiga milliy-madaniy muhitga xos bo‘lgan nikoh oldi omillarining xususiyatlari, ya’ni ba’zida tanishish imkoniyatining bo‘lmasligi yoki qisqaligi ham ta’sir etishi, natijada yuzaga kelgan nizo sabablarini tomonlar o‘zidan qidirmasligi, uni bartaraf etishda ota-onalarga tayanish, oiladagi o‘zaro munosabatlar qo‘pollik asosiga qurilishi va boshqa bir qator salbiy holatlar yuzaga kelishi kabi holatlar aniqlandi. Bundan tashqari, oilaviy nizolar, ko‘p holatlarda, bir-

birini tinglamaslik, ya’ni bir-birlarining istaklarini “eshitmaslik”, hayotga bo‘lgan qarashlarning farqlanishi, o‘ta qattiq nazorat, ta’bi ustidan kulish, e’tibor yetishmasligi, ish faoliyatidagi muammolar tufayli yuzaga kelishi mumkinligi qator tajribalarda o‘z isbotini topgan[2].

V.Karimovaning oila va oilaviy munosabatlarning ijtimoiy-psixologik omillari va oqibatlariga bag‘ishlangan asarlarida oilada yoshlarni gender munosabatlarga tayyorlash, gender tasavvurlarning shaxs tarbiyasidagi o‘rni, er-xotin va oiladagi sibling munosabatlarning bola shaxsiga ta’siri masalalari ko‘proq e’tibor qaratadi. Uning fikricha, oiladagi o‘zaro munosabatlarning asosini tashkil etgan oilaviy rollarga oid tasavvurlar va ularning differensiatsiyasi o‘zining yosh, hududiy va jinsiy xususiyatlariga ega bo‘lib, ular avvalo har bir oilaning ruhiy ma’naviy muhiti, u yerdagi milliy qadriyatlar, an’analar, rasm-rusmlar qanchalik saqlanib qolganligiga ham bog‘liqligi asoslangan. Muallif nikoh yoshigacha bo‘lgan yoshlar bilan oilali er-xotinlarning oilaviy ijtimoiy tasavvurlari o‘rtasidagi asosiy farqlarni psixologik nuqtai nazardan tahlil qilib, uning sabablarini ko‘rsatib o‘tgan[1].

Xulosa o‘rnida shuni aytish mumkinki, o‘zbek oilalarida ma’naviy-axloqiy muhitni barqarorlashtirish va gender tenglikni ta’minlash, nizoli holatlar kelib chiqishining oldini olishda erkakning ham, ayolning ham o‘z o‘rni bor. Oilaviy hayot masalalarida erkak va ayol jamiyatdagi meyorlarga amal qilishi, zimmasidagi burch va vazifani qonun doirasida, adolat tamoyillariga rioya qilgan holda bajarishi, bir-birlarini tushunishi, hurmat qilishi oilaviy masalalarni birgalikda hal qilishga harakat qilishi oilada yuzaga keladigan har qanday nizo, ixtilof va muammolarni tinch yo‘l bilan bartaraf qilishga harakat qilishi maqsadga muvofiqdir. Ayniqsa, mahallalarda nizoli oilalar bilan ishlashni to‘g‘ri yo‘lga qo‘yish, joylarda aholi orasida maktab psixologlari, o‘qituvchilar va tarbiyachilar hamda mahalla faollari ishtirokida oilaviy munosabatlarda nizoning salbiy oqibatlari haqida suhbatlar o‘tkazib borish maqsadga muvofiqdir.

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THE SIGNIFICANCE OF THE SANATORIUM "TERMIZ MARVARIDI" LOCATED IN THE TERMIZ DISTRICT OF SURKHONDARYO REGION IN RESTORING THE HEALTH OF THE POPULATION AND RECREATION

Annotation. *This article highlights the importance of the sanatorium "Termiz Marvaridi" located in the Termez district of Surkhandarya region in restoring the health of the population and recreation, as well as its prospects for development in terms of medicine and tourism.*

Key words. s*anatorium, medical tourism, psammotherapy, mineral thermal waters, iodobromine waters, balneotherapy, ozonotherapy.*

Introduction. Surkhandarya region is a region with a unique climate located in the southern part of our republic. This country, known and famous for its nature and diverse climate, has an abundance of natural recreational resources. Many health resorts and resorts have been established on the basis of these resources. In the mountainous part of our region, in the conditions of clean mountain air, health resorts such as Omonkhona, Khojaipok, and Sangardak have been built. In addition to providing medical services to the population, these health resorts have been serving them for their spiritual relaxation. In addition to the mountainous regions of our region, many resorts have been established in the plains. These institutions have modern medical conditions and are currently developing rapidly. Several sanatoriums with modern conditions are operating in the continental climate of the Termez district. The most famous of them is the resort with all modern medical equipment and conditions. This article provides detailed information about the sanatorium.

Main part. Termez Marvaridi Sanatorium. Republican Specialized Therapy and Medical Rehabilitation Scientific and Practical Medical Center. Located near the "Uchqizil Reservoir" in the "Uchqizil" neighborhood of Termez district, Surkhandarya region. (picture- 1)

Figure 1. Entrance to the Termez Marvaridi Sanatorium.

The Termez branch was established in 1991. The renaming of this health rehabilitation center took place in 1996 and was called the Termez branch of the Scientific Research Institute of Health Rehabilitation and Natural Treatment.

The Termez branch of the Republican Specialized Therapy and Medical Rehabilitation Scientific and Practical Medical Center, which has been operating since August 20, 1990, was transformed into the “Termez Marvaridi Sanatorium” under the jurisdiction of the Sanatorium and Resorts Department under the Council of the State Committee for the Rehabilitation of the Republic of Uzbekistan on May 1, 2015..

The main areas of activity of the Termez Pearl Sanatorium are: rehabilitation of patients with neurological, cardiological, musculoskeletal, urological, gynecological, and endocrinological diseases. The sanatorium can simultaneously treat and relax 222 patients. The first building of the sanatorium is designed for 70 people and consists of 4 floors, the second building also consists of 4 floors and can serve 90 people. The third building of the sanatorium is designed for 62 people and consists of 3 floors. All three buildings are provided with clean drinking water, and all rooms are fully equipped with bathroom facilities. All rooms have a refrigerator, air conditioning, TV, wardrobes. The kitchen can serve 222 people at the same time. All three buildings are equipped with a heating system and are fully equipped with electricity and gas supply.

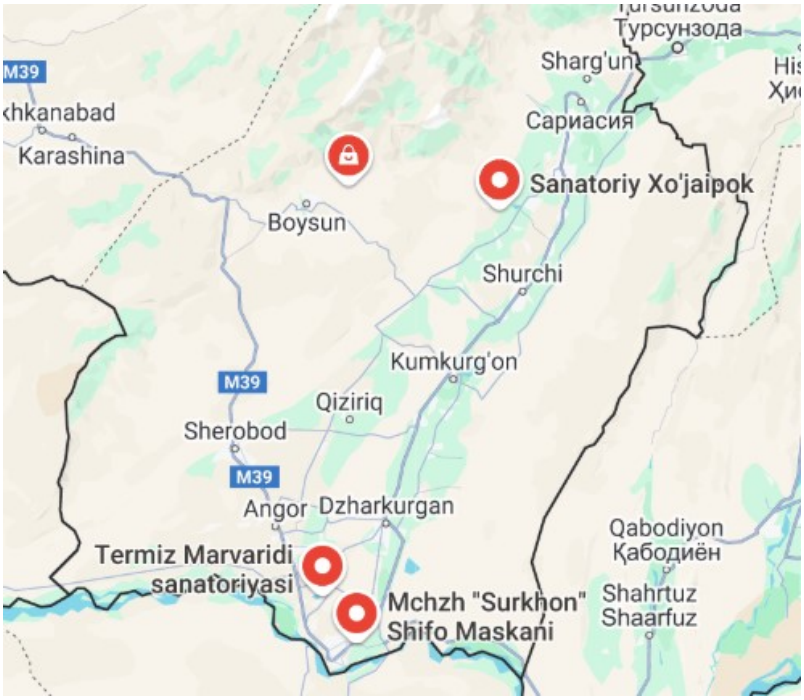

Figure 2. Geolocation of Termiz Marvaridi sanatorium

All fire extinguishers are in working order, and 5 fire extinguishing corners have been established in the courtyard.

The sanatorium also includes a boiler room, laundry room, bathroom, transformer room, sandbox, 3 artificial waterfalls (landscape), a golden match well, 1 double cottage, 5 separate cottages, 1 office building, 6 more summer shelters, and 2 separate transformers. There is a parking lot for 80 cars for the sanatorium. The sanatorium is fully illuminated and surrounded by protective fences. The total area of the Termez Pearl Sanatorium is 7.57 hectares, of which 1.4 square meters are for walkways and a small square, 2.3 hectares for an intensive garden, and 1.2 hectares for a lawned tree plantation.

Natural factors:

-There is sulfur-bearing mineral water, the water temperature is 30-40 degrees, the sulfide content is 666-930 mg / l, the depth of the water well is 234 meters.

-Iodobromine-bearing mineral water temperature is 37-38 degrees, the iodine content is 23.7 mg / l, the bromine content is 53.5 mg / l, the depth of the water well is 390-432 meters.

-Under natural conditions, sand heated by sunlight (in summer)

-Sunlight.

Treatment departments:

Physiotherapy department

General examinations conducted in the sanatorium: ultrasound, ECG, general blood test, general urine test, biochemical blood test.

The number of seats in the kitchen is 160. Dietary meals are prepared in the kitchen.

The institution has 1-bed and 2-bed rooms with all amenities (refrigerator, air conditioning, TV)

The total area of “Termez Marvaridi” Sanatorium LLC is 7.5 hectares, and ornamental trees and various flowers are planted on the sanatorium territory.

The sanatorium territory has completely changed its appearance in the early years of its establishment, and the entire sanatorium territory, starting from the entrance, has acquired a modern appearance.

In addition, in order to create greater convenience for vacationers at the sanatorium during 2019-2020, 1 ISUZU bus was brought in in December 2019 and work was started to take vacationers to ancient sites in the Surkhandarya region every Friday. 2 mountain landscape waterfalls were completed in the sanatorium area in February and March 2020. By June 2020, “Ozone therapy” and Citronic air conditioners were brought and installed in the Physiotherapy Department of the institution. In June of the same year, sports equipment and 2 treadmills were brought to the Physical Fitness Room.

In February-April 2023, a greenhouse with a total area of 6 square meters was built and put into operation on the territory of the sanatorium. In 2022, landscaping and renovation work was carried out on the territory of the sanatorium. The adult swimming pool on the territory of the sanatorium underwent a major overhaul worth 327,054,000 soums. In addition, a modern intensive apple orchard was organized on a vacant 0.15 hectare area within the institution. In the sanatorium, fertile soil was brought in to replace the parts of the existing 2.5 hectare intensive orchard damaged by anomalous cold and the dried-up fruit seedlings on the sand-covered part of the surface of the earth, and a new orchard was established, and funds in the amount of 425,640,000 soums were allocated for 319 fruit seedlings.

At the expense of the sanatorium funds, incentive payments were provided to all employees, that is, 105 employees, as well as material assistance to 14 employees. In 2022, landscaping and renovation work was carried out on the territory of the sanatorium. Every year, more than 3,500-4,000 vacationers from our country and beginning of 2023, all the toilets (faucet, shower taps) in the sanatorium's rest rooms were completely replaced with new ones abroad come to the sanatorium to restore their health.

At the. In April-May of this year, the facades of all the walls surrounding the institution were renovated, and the walls of the physiotherapy department were also completely renovated. The Termez Pearl sanatorium is also visited by foreign vacationers. Their number depends on the season. Mainly from Central Asia, that is, from the countries bordering the Republic of Uzbekistan: Kazakhstan, Afghanistan, Tajikistan, Kyrgyzstan, and even from Germany and Russia. Termez Marvaridi sanatorium, due to its unique climate and landscape, is a place that is popular not only with the population of our country, but also with foreign citizens. Work is being carried out to increase the number of visitors from other countries, in addition to Central Asian countries, and to further increase the tourist potential of

the region. In addition to improving the medical literacy of the institution's employees, work has been launched to teach modern foreign languages. In this regard, large-scale promotional work is being carried out to create greater convenience for foreign vacationers coming from foreign countries. The institution is located near the Uchkizil reservoir, which is a wonderful sight for those undergoing treatment in the sanatorium.

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STYLISTIC PROPERTIES OF ENGLISH PHRASEOLOGICAL UNITS DENOTING "MONEY"

Annotation. *The current article explores phraseological units with the lexeme "money" and their stylistic variants using English and Uzbek materials. Phraseological units account for a considerable portion of a language's vocabulary. Many linguistics studies have focused on phraseological units because they are colorful and active while also being difficult due to their unpredictable collocational and grammatical implications. Linguists have long been interested in phraseological units because of their intimate connection to culture, nationality, stylistic features and emotive coloration.*

Key words: *phraseological units, lexeme, issues, stylistic properties, culture, nationality, component, currency, languages*

I. Introduction

Phraseological units are an important aspect of language, possessing cultural and historical importance in addition to their literal meaning. The stylistic features of phraseological units in English and Uzbek languages that have "money" as a component are examined in this article. Understanding specific language phraseology facilitates and eases the reading of literature and public relations. A person can concurrently connect their own and foreign national cultures by studying a foreign language. It is hard to have a solid command of a foreign language without understanding its idioms. According to recent studies, phraseology in its broadest sense is one of the fundamental elements of language and is most likely universal. According to theory, there is still disagreement on how to define set phrases and how phraseology interacts with figurative language, stylistically, culture meaning and syntax.

Languages have richer vocabularies due to the addition of phraseological components. Word groups known as phraseological units are those that cannot be formed during speech. They have a significant expressive effect because they influence the reader's emotions, visual awareness, and literary and cultural associations. At the same time, they are challenging since their meanings and grammar are unpredictable, and they frequently have specific implications. They are pre-made units in a language. Thus, it is essential to define a phraseological unit in its own right. Phraseological units have been the subject of studies for numerous linguists in Europe and worldwide. Since the turn of the 20th century, contributions have increased gradually due to the interest in their research.

II. Literature Review

The concept of phraseology as a linguistic discipline was initially introduced by well-known Russian linguist E.D. Polivanov's research. E.D.Polivanov returned to this subject several times and established that lexics is concerned with the individual lexical meaning of a word, morphology with the grammatical meaning of the word, and stylistic with the emotional and expressive meaning of word combinations. Researchers defined these linguistic units as compositions made up of idiomatic components that describe a speaker's reaction to a statement or an extra-linguistic context while also having emotional and expressive shades.

Stylistics has been accepted as an individual field. This section explains the construction and content of language, leading to stylistic interpretation and text evaluation. The significance of stylistic awareness stems from the growth of the learner's perception of language in use and his or her response to it. Stylistic awareness is the capacity to employ stylistic talents effectively for practical purposes and activities. A skill will help you use language more consciously and effectively. Stylistic analysis provides a more in-depth understanding of language use and text organization. This, in turn, leads to teaching that is more efficient and learning, laying the groundwork for future applied stylistics studies. Phraseological ability requires a deeper grasp of language in use to achieve proficiency, beyond only isolated PUs or core use. It goes without saying that the student must understand the fundamental stability of the basic form, the distinct character of instantial use, and stylistic patterns of change.

Phraseologists note that a phraseological unit “never develops immediately, at the very first moment of creation and use of its material composition” and is “always the result of gradual formation”. [1, 1963] Ch.Bally's theory suggests that the primary property of a phraseological unit is the possibility or impossibility of replacing it with a single word [2, 1996]. Kunin proposed phraseology as a separate language science. He also defined the term phraseological stylistics to describe the study of the stylistic features of PUs [3, 1969]. Additionally Kunin saw phraseological stylistics as an extension between general stylistics and phraseology. Clauses, according to Verspoor and Sauter, are made up of one or more phrases, although “a phrase can consist of one or more words." If it contains multiple words, there is usually one primary word that is the most important in terms of meaning.” [4, 2009] Without knowing the meaning of the language, people will not be able to gain the information and will get more difficulties in delivering information.

Due to some language scholars, phraseological units are defined as units with fixed context. A fixed context is described as one that has a precise and unchanging sequence of specified lexical components and a unique semantic link between them. Phraseological units are important for understanding how people learn and comprehend figurative language, as well as providing insights into the link between language and mind [5, 1993].

III. Research Methodology and Materials

The study's purpose is to explore the stylistic features of English phraseologisms with "money" elements and to demonstrate the lexical and stylistic unique characteristics, as well as the explanations for their use, while considering cultural and national variables. The stylistic peculiarity of phraseological units with components "money" in English language was studied, and the following methods were used in this issue: method of linguistic correlation and classification of the material achieved; descriptive, semantic, comparative method of componential analysis; and method of linguistic identity. Descriptive linguistics is the study of language structure through an analysis of its forms, structures, and processes at all levels: morphology, syntax, lexicon, semantics and stylistics. As a result, the aim of this study is to investigate the stylistic and cultural aspects of phraseological units and proverbs that involves expression of currency system. In the process of this research, we collected phrases, idioms, expressions and stylistic devices in the fields of monetary system by A.V.Kunin's book "Anglo-Russian Phraseological Dictionary" [6, 1984] , P.A. Cowie. Oxford Dictionary of Current Idiomatic English [7,1990], Longman Dictionary of English Language and Culture [8, 2005], Dictionary of English Idioms by Henderson where he pointed that Phraseology is defined as a very young linguistic discipline that deals with collocations (phraseologisms, similes comparisons, figurative phrases, phrasal verbs, multi-word units and idioms) [9,1947]. The selection from Uzbek sources were made mainly from "Uzbek tilining phraseologik lug'ati Sh. Rahmatullaeva" [10, 128], "Uzbek maqollarininng izohli lug'ati. Sh. Shomaksudov and Sh. Shorakhmedov [11, 354].

IV. Analysis and results

The word refers to the basic component of a language that is created when a specific meaning is connected to a specific set of sounds that can be used in a specific way. As a result, a word functions as a semantic, grammatical, and phonological unit all at once. Thus, phraseological units are typically used to refer to functionally and semantically inseparable units. Phrasal components in phraseological units can have their lexical components modified or replaced because they are stable and non-motivated, meaning that their meaning cannot be learned from the meaning of their constituent parts. Phraseological units are linguistic phenomena formed because of the need for figurative, emotional-expressive expression of a person's mental state, emotions, inner experiences, attitudes to events.

The term "phraseological units" refers to large, figurative, sharp, and comprehensive expressions of thought that are common in language. Examples include *pocket money, rolling in money, making bank, throwing money around, turning up like a bad penny, going bust, saving money for a rainy day, strapped for cash.* In the Uzbek language, *Bayi bu dunyo – puli oxirat, Bir tiyinning ustiga tishini sindiradi* – (trembles over a penny). These phrases are figurative and adaptable meanings of language that consist of two or more words. Even though phraseological units have a complex structure, they express a comprehensive meaning.

Phraseologisms express meaning more strongly than words. The phraseologism '*heavy money'* expresses the meaning strongly and figuratively in relation to the word '*a lot of money'*, and phraseologies such as *'money talks', 'time is money', 'money doesn't grow on trees, pul bo'lsa changalda sho'rva, pul bo'ldi-kul bo'ldi* are emotionally stronger than simple word-units. Phraseological units are used in speech for the purpose of certain stylistic productivity, to reflect a very negative emotional expressive attitude, to serve a figurative assessment of a negative character.

Research on stylistic alterations of phraseological units in context has recently increased; whether phraseological stylistics should be recognized as a separate field is another question. However, there is an obvious need to investigate phraseological units in use, as well as the rules and processes that govern stylistic modifications, many of which go beyond the scope of a single phrase. The most typical phraseological units with component "money" include vivid imagery and emotional features. Language communication relies heavily on these expressive pieces, which enhance expressions and create hidden meanings. However, an interesting observation emerges about the distribution of stylistically diverse phraseological units [12, 1977].

In most cases set expressions are based on the use of metaphors, metonymy, hyperbole, *simile*, periphrasis etc.: as *not find like a money*, as wallet as *a stone*, as (simile), *Empty purse that is full of other men's money,* (epithet and periphrasis) *part and parcel, safe and sound* (alliteration). It is crucial to note that the stylistic use of expressive means does not always result in the construction of stylistic devices. For example, ***repetition*** is commonly used in oral communication to make our speech emotive and expressive; however, we cannot state that in such circumstances we apply the stylistic devices: *Money begets money;*

Love of money and the love of learning rarely;

Puli ko'pga — bozor, Puli yo'qqa — mozor;

Money-money, love of-love and puli-puli repetitions can be seen here to serve to reveal the speech emotional and expressive. Repetition is a literary device that involves intentionally using a word or phrase for effect, two or more times in a speech or written work. For repetition to be noticeable, the words or phrases should be repeated within close proximity of each other.

Sometimes for a special reason one of the features of the thing is made the most essential, describes some detail and intensifies it. Such stylistic devices as simile, periphrasis, euphemism and hyperbole are included into this group. Simile reveals the most essential features of an object (or person) and draws a comparison between two different things. Such formal elements as ***like***, ***as, such as***, ***as if***, ***seem*** etc. introduce similes and comparison. We must not mistake plain comparison with simile as a stylistic device. Comparison is the evaluation of two objects that belong to the same class of objects. Here are cases of ***similes*** in both languages: in English language — *Spent money like water; not find like a money.* As for Uzbek language ***simile*** is introduced by the suffix ***'…day', '….dek (puldek)', '…larcha (faqirlarcha)'.*** There are some more subtle cases of simile; they are introduced by

the auxiliary addition *'kabi, o'xshash, misoli, xuddi, singari* (auxiliary)' and *'go'yo, go'yoki (conjunctions).* Example: *Pul do'stingdek sodiq emas, ishlamasang yonga kelmas;* Here the suffix "dek" is used in the sense of making money look like a friend

Another one is *Pullikka — kabob, bepulga — dardi kabob* in this phraseological unit, the suffix "likka" added to the word "pullikka" means 'to have money'. That is, the person with the money is the intended recipient. "Bepulga" implies 'without money' when the suffix "ga" is added.

Antithesis is such a stylistic device, which is based on the opposition of concepts. We must distinguish between logical and stylistic opposition. Logical opposition implies the use of *dictionary antonyms*, i.e. words that are contrary in meaning to another. Let's see the following example: *Money is a good servant, but a bad master;* and in Uzbek *Pul yaxshi xizmatkor, ammo yomon xo'jayin.* Binders help to produce antitheses such as lekin, biroq and ammo.

Stylistic devices must always have some function in the text, and at the same time, they bring some additional information. Phraseological units with a money component serve various stylistic functions. Their stylistic properties, including figurative language, connotation, register, and cultural references, contribute to their expressive power and communicative effectiveness. Let us explore these procedures with some examples. The first stylistic function is *Expressiveness:* They enhance the emotional impact of language, conveying strong feelings and attitudes. For example, *"to be rolling in money", "money answers all things", "**pul bo'lsa changalda sho'rva"*** vividly portrays great wealth or position in any case. Next is *Conciseness:* They allow for efficient communication by conveying complex ideas in a few words. For example, *"Money has no smell", "Pul zamburning nishini qaytarar"* succinctly expresses the idea of something being very expensive. Another function is *Figurative Language:* They add depth and richness to language by using metaphors and similes. For example, *"Money talks"*, "Pul gapiradi", metaphorically suggests that wealth has influence. Last one is *Cultural References:* They reflect cultural values and beliefs, providing insights into a society's attitudes towards money. For example, *"money doesn't grow on trees"* conveys the idea that money is a limited resource. By studying their semantic and stylistic characteristics, we can acquire useful insights into the complicated connection between language, society, and the concept of money.

V. Conclusion

The richness and complexity of the languages are shown through the stylistic study of phraseological units in both English and Uzbek that have a monetary component. In addition to providing financial information, these units also represent cultural values, attitudes, and beliefs. Deeper understanding of the English and Uzbek languages and their speakers can be attained by comprehending the subtleties of these phraseological units. We think it is quite helpful to set a specific stylistic significance of phraseological unit in data, and we suppose the idea of actualizing this or that stylistic meaning can be beneficial. At this point in language

development, the actualization of pertinent elements is what helps to comprehend the essence of stylistic marking of phraseological units.

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QASHQADARYO VILOYATI SUG’ORILADIGAN HUDUDLARINING OG’IR METALLAR BILAN IFLOSLANISH HOLATI

Annotatsiya: *Ushbu maqolada o’gir metallarning tuproq qoplamiga ko’rsatadigan salbiy ta’siri, ularning turlari haqida so’z borgan. Shu bilan birgalikda, Qashqadaryo viloyati tuproqlariga og’ir metallarning qoldiqlarini tashlayotgan gaz-kimyo majmualari atrofidan olingan na’munalar kimyoviy tahlil etilgan. Xususan, Sho’rtan gaz-kimyo majmuasi atofida tarqalgan og’ir metallarning tarqalishi shamollarga bo’gliq ekanligi isbotlangan bo’lib, majmuaning janubi-sharq yo’nalishda 1500 metr uzoqlik masofasida qo’rg’oshinning REM dan 8-9 marta yuqori ekanligi aniqlangan.*
Kalit so’zlar: *og’ir metallar, geotizim, ekotizim, geotizimlar barqarorligi.*

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THE STATE OF HIGH METAL POLLUTION OF IRRIGATED TERRITORIES IN THE KASHKADARYA REGION

Abstract: *This article discusses the negative impact of deposited metals on the soil cover and their types. At the same time, samples taken from the vicinity of gas chemical complexes, which are dumping heavy metal residues into the soils of the Kashkadarya region, were chemically analyzed. Specifically, it has been proven that the distribution of heavy metals around the Shurtan Gas Chemical Complex depends on winds, and it has been established that lead is 8-9 times higher than the maximum permissible concentration of lead at a distance of 1500 meters in the southeastern direction of the complex.*
Key words: *heavy metals, geosystems, ecosystems, stability of geosystems.*

Insonlarning turli xil faoliyati ta’sirida tuproqlarga tushgan og'ir metallar geokimyoviy oqimlarga qo'shiladi va geotizimlarning ekologik barqarorligiga jiddiy salbiy ta’sir o’tkazadi. Ushbu og’ir moddalar tuproqlarning fizik-kimyoviy va mikrobiologik xossalari sezilarli ravishda salbiy tomonga o'zgartiradi. Oqibatda esa tuproqdagi biotsenozlarga jumladan, tirik organizmlar va ularning ekologik muhitiga salbiy ta'sir ko'rsatadi.

Ma'lumki, og'ir metallar biosferaning boshqa qismlariga nisbatan tuproqda ko'proq to'planadi va tuproq-o'simlik-hayvonot-insoniyat tizimida ekotizimga salbiy ta'sir ko'rsatadi. Shunday ekan, og'ir metallarning toksik ta'sirini ilmiy tadqiq

etish va ekotizimni muhofaza qilish muhim ahamiyatga ega. Tuproqda og'ir metallar konsentrasiyasining ortib borishi na'tijasida o'simliklarning o'sishi, rivojlanishi va hosildorligiga salbiy ta'sir ko'rsatadi. Chunki ular protoplazmatik zahar hisoblanadi. Ularning zaharliligi elementlar atom massasi ortishi bilan ortib boraveradi. Shuning uchun tuproqlardagi og'ir metallar miqdori va unga har-xil omillarning ta'sirini o'rganish dolzarb masalalardan biri hisoblanadi [13; 164-168 b.].

"Og‘ir metallar" atamasi zaharliligi bilan bog‘liq muammolarni keltirib chiqarishi mumkin bo‘lgan Pb, Cd, Cu, Hg, Sn, Zn kabi nisbatan yuqori atom massasi (>4,5 g/sm^3) bo‘lgan metallar va metalloidlar guruhini anglatadi. Ko‘pincha og‘ir metallar bilan birga ko‘riladigan boshqa metallmaslarga margumush (As), surma (Sb) va selen (Se) kiradi (Kemp, 1998). Bu elementlar tabiiy ravishda tuproqlarda past konsentratsiyalarda uchraydi. Ularning ko‘pchiligi o‘simliklar, hayvonlar va insonlar uchun muhim mikroelementlardir, ammo yuqori konsentratsiyalarda ular biologik parchalanmasligi tufayli fitotoksiklik va inson salomatligiga zarar yetkazishi mumkin, bu ularning to‘qimalar va tirik organizmlarda osongina to‘planishiga olib keladi.

Og‘ir metallar tabiatda tozalash uchun eng qiyin va murakkab ifloslantiruvchi moddalardir. Ular nafaqat atmosfera, suv havzalari va oziq-ovqat ekinlari sifatini pasaytiradi, balki hayvonlar va odamlarning sog‘lig‘i va farovonligiga tahdid soladi. Metallar tirik organizm to‘qimalarida to‘planadi, chunki ular ko‘pchilik organik birikmalardan farqli o‘laroq, metabolik parchalanishga uchramaydi. Og‘ir metallar orasida rux (Zn), nikel (Ni), kobalt (Co) va mis (Cu) o‘simliklar uchun nisbatan zaharli, margimus (As), kadmiy (Cd), qo'rg'oshin (Pb), xrom (Cr) va simob (Hg) esa hayvonlar uchun nisbatan zaharli hisoblanadi [5].

Kon sanoatining zaharli chiqindilari chiqindi omborlarda to‘planadi, ular asosan og‘ir metallarning turli konsentratsiyalariga ega bo‘lgan mayda zarrachalardan iborat. Bu ifloslangan zarrachalar shamol va suv eroziyasi natijasida tarqalishi, ba'zan qishloq xo‘jaligi yerlariga yetib borishi mumkin.

Shahar markazlarida va uning atrofidagi transport bilan bog‘liq faoliyat tuproq ifloslanishining asosiy manbalaridan biridir. Bu nafaqat ichki yonuv dvigatellarining chiqindilari tufayli, balki transport faoliyati va undan kelib chiqadigan o‘zgarishlar natijasida ham sodir bo‘ladi [6]. Transport vositalarining ichki yonuv dvigatellardan chiqadigan chiqindilar yoki benzin to‘kilishi orqali 100 metrdan ortiq masofadagi tuproqlarga yetib boradi. Agar yo'llardagi drenaj tizimi yaxshi ishlamasa, yomg‘ir paytida transport harakatidan hosil bo‘lgan sachrashlar va oqimlar transport vositalarining metall qismlari, shinalar va yo‘l qoplamalarining yemirilishi natijasida og‘ir metallarga boy zarrachalarni ko‘chirishi mumkin [12,14]. Yo‘llar atrofidagi tuproqning ifloslanishi ayniqsa, shahar va shahar atrofidagi tuproqlarda muhim ahamiyatga ega. Bu qo‘shni hududlarda oziq-ovqat ishlab chiqarilganda jiddiy xavf tug‘dirishi mumkin. Yo‘l yoqasidagi tuproqlarda kuzatiladigan asosiy jarayonlar biofaol og‘ir metallarning barglarda to‘planishi, ildiz orqali so‘rilishi va yer ustki to‘qimalarga to'planishidir [3,14]. Yo‘l bo‘yidagi o‘tloqlarda hayvonlarni o‘tlatish ham viloyatda keng tarqalgan. Ifloslangan tuproq va o‘simliklarni iste'mol qilish hayvonlar va odamlarning sog‘lig‘iga ta'sir qiluvchi

ifloslantiruvchi moddalarning potensial oziq-ovqat zanjiri orqali o‘tishiga sabab bo‘ladi [10].

Transport bilan bog‘liq tuproq ifloslanishining asosiy qoldiq manbai qo‘rg‘oshinli benzin tufayli tuproqning ushbu modda bilan ifloslanishidir. Buning natijasida tuproqning ifloslanishi yo‘llar va, ayniqsa, asosiy shahar hududlarida yuqori darajaga yetgan. Aholi istiqomat qiladigan hududlarida foydalaniladigan qo‘rg‘oshin asosidagi bo‘yoqlar shaharlarda qo‘rg‘oshin (Pb) bilan ifloslanishning asosiy qoldiq manbai hisoblanadi. Qo‘rg‘oshin asosidagi bo‘yoqlar ta’mirlash yoki eski binolarni buzish paytida chang yoki mayda zarrachalarga aylanib, atrof-muhitga tarqalganda tuproqlar ifloslaydi [4].

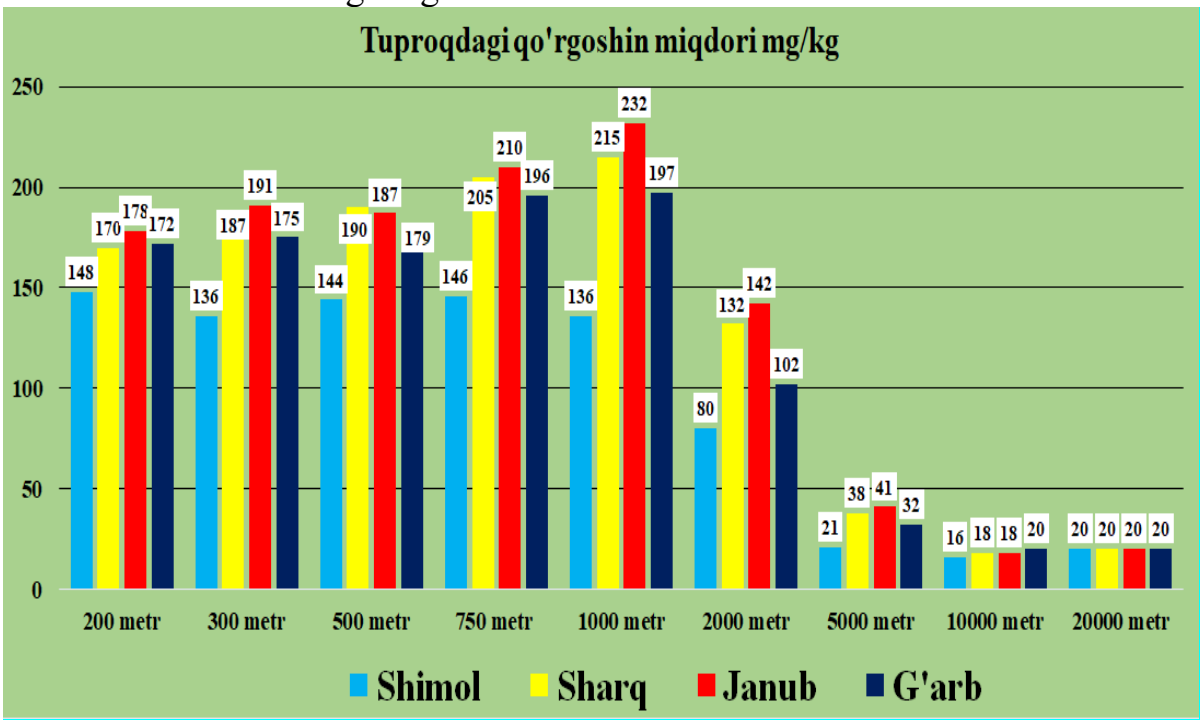
Tuproqdagi mishyak, kadmiy, qo‘rg‘oshin va simob kabi ortiqcha og‘ir metallar ham o‘simliklar metabolizmini buzishi va ekinlar hosildorligini pasaytirishi, pirovardida ekin maydonlariga bosim o‘tkazishi mumkin. Oziq-ovqat zanjiriga kirganda, bu ifloslantiruvchi moddalar oziq-ovqat xavfsizligi, suv resurslari, qishloq turmush tarzi va inson salomatligi uchun xavf tug‘diradi. Yer ustki to‘qimalariga metallarning singishi va translokatsiyasi o‘simliklarning genetik va fiziologik farqlari [15], shuningdek, tuproqdagi metallarning konsentratsiyasi va ta’sir qilish vaqti bilan bog‘liq [9]. Ushbu metallar o‘simlik to‘qimalariga kirgandan so‘ng, ular bir nechta metabolik jarayonlarga halal berishi, o‘simlikning o‘sishini pasaytirishi va toksiklikni keltirib chiqarishi va nihoyat o‘simlikning nobud bo‘lishiga olib kelishi mumkin. O‘sish tezligining pasayishi, oksidlovchi shikastlanish, pastki ildiz va novdalarning cho‘zilishi va shakar va oqsil metabolizmlarining o‘zgarishi asosiy ta’sirlar sifatida qayd etilgan [1]. Misol uchun, qo‘rg‘oshinning yuqori miqdori kislorodning reaktiv turlarini ishlab chiqarishni tezlashtiradi, lipid membranasi va xlorofillning shikastlanishiga olib keladi, bu esa fotosintez jarayonlarining va o‘simlikning umumiy o‘sishining o‘zgarishiga olib keladi [7]. Kadmiy turli xil iste’mol qilinadigan to‘qimalarda to‘planishi mumkin [2], bu ildiz, poya va barg o‘sishining pasayishiga, sof fotosintez va suvdan foydalanish samaradorligining pasayishiga va ozuqa moddalarining so‘rilishini o‘zgartiradi [9].

H.Tursunovning keltirishicha, “madaniy landshaftlarda keng tarqalgan og‘ir metallar rux, qo‘rg‘oshin, simob, kadmiy va xrom hisoblanadi. Dalalarda rezina qoldiqlari kuydirilsa, rux ko‘payib ketadi. Avtomobillar va umuman, ichki yonuv dvigateli ishlashi natijasida atrof-muhitda qo‘rg‘oshin ko‘payadi. Dalalarda fosfor o‘g‘itlari ko‘p ishlatilganda, u bilan birga tuproqqa kadmiy tushadi va to‘planadi. Urug‘larni dorilashda ishlatiladigan fungitsidlar simobning tuproqda to‘planishiga olib keladi. Shahar chiqindilari organik o‘g‘it sifatida ishlatilganda ham tuproqqa simob tushishi mumkin. Fosforli o‘g‘itlar bilan tuproqqa uran, toriy, radiy elementlari tushib qolishi mumkin” (Tursunov H. 2017-yil, 157-b).

Qashqadaryo viloyatida tuproqlarning asosiy ifloslovchi sohalari bu hududda joylashgan gaz-kimyo majmualari ekanligini hisobiga tuproqlarni og’ir metallar bilan ifloslavchi punktlar ekanligini inobatga olgan holda, ishimizning qolgan qismida biz viloyatdagi og’ir metallar va ularning tarqalishi haqida o’zining ilmiy

ishlarini olib borgan Uzoqov Z., Nizamov S.,Yoqubov T kabi olimlarning ishlari va ular olgan tuproq na’munalarini tahlil etdik.

Sho’rtan gaz-kimyo majmuasining atrofida och tusli bo'z tuproqlarda qo'rg'oshin elementi yuqorida berilgan 1-rasmda berilgan bo’lib, majmuaning atrofidan uzoqlashgan sari och tusli bo’z tuproqlarda tuproqdagi qo’g’oshinning yalpi miqdori kamayib boradi. Xususan, majmuaning janub va g’arb tomonida joylashgan tuproqlarda qo’rgoshinning yapli miqdori qolgan tomonlarga nisbatan yuqori ekanligi ma’lum bo’ladi. Bunga asosiy sabab esa bu hududda shamollar g’arbdan va shimolda esganligi ko’rsatish mumkin.



1-rasm. Sho’rtan gaz-kimyo majmuasi atrofidagi tuproqlarda qo'rg'oshinning yalpi miqdori, mg/kg (0-30 sm qatlamda)

[Manba: Yoqubov T va boshq, 2024]

Jumladan, majmuadan shimol yo'nalishda 100 m uzoqlikda 1 kg tuproqda qo'rg'oshin -151 mg; ekanligi aniqlangan bo'lsa, g'arb yo'nalishida ushbu elementlarning miqdori mos ravishda 168; mg ni, janub yo'nalishida 160; mg ni; sharq yo'nalishida esa mos ravishda 148; mg ni tashkil etdi. Majmuadan uzoqlashgan sari o'rganilgan og'ir metallar miqdori shamol yo'nalishi bo'ylab ma'lum masofagacha oshib borishi kuzatildi. Majmua atrofidagi och tusli bo'z tuproqlarda qo'rg'oshin elementi ushbu elementning ruxsat etilgan eng yuqori miqdori (REM) (30 mg/kg) va fon ko'rsatkichi (20 mg/kg) dan bir necha barobar ko'pligi qayd etildi. Tadqiqotlarda qo'rg'oshinning eng ko'p miqdorlari majmuaning janub yo'nalishda 1000 m uzoqlikda (1 kg tuproqda 232 mg), janubiy-g'arb yo'nalishida 1250 m uzoqlikda (1 kg tuproqda 240 mg) va janubiy- sharq yo'nalishida 1500 m uzoqlikda (1 kg tuproqda 276 mg) aniqlandi. Keltirilgan ushbu ko'rsatkichlar qo'rg'oshinning REM dan 8-9 marotabadan, fon ko'rsatkichidan esa 12-13 marotaba va undan ko'proq ekanligini ko'rsatadi [13; 164-168 b].

Qashqadaryo viloyati cho'l mintaqasi sug'oriladigan hududlari tuproqlarining toksitantligini tadqiq etgan S.Nizamovning keltirishicha, Nishon tumanidagi «Uch Mola» massivida tuproqning 0-2 smli yuza qismida nikelning miqdori mg/kg, 30-50 smli haydov qatlamida esa 20,3 mg/kg dan pastki tomon 19,1 mg/kg gacha uchrasa, Muborak tumani «Xitoy» massivi tuproqlaridai qo'rg'oshinning harakatchan (kislota eruvchi) shaklining haydov qatlamlaridagi ortacha miqdori 8,8-16,7 mg/kg, haydov ostki qatlamlarida esa 6,2-17,5 mg/kg atrofida kuzatilgan bo'lib, REM (10 mg/kg) 1,5-1,7 marta oshganligi qayd etilgan. Bundan tashqari, och tusli buz tuproqlarning mitaqasining sug'oriladigan bo'z-o'tloqi tuprqolarida esa (Kasbi tumani «Paxtakor» massivi) nikelning miqdori tuproqning 0-2 smli yuza qismida 8,5 mg/kg, 2-10 smli qismida 8,4 mg/kg, 10-20 sm qatlamida 8,3 mg/kg gacha, 30-50 sm qatlamida esa 7,3 mg/kg gacha to'plangan [8].

G'uzor tumanida joylashgan «Burxon» fermer xo'jaligi o'tloqi-bo'z tuproqlarida qo'rg'oshin haydov, ya'ni 0-30 sm qatlamda 14,0 mg/kg, 31-50 sm da esa 12,0 mg/kg, 51-80 sm 13,0 mg/kg da ekanligi aniqlangan bo'lsa, ruxsat etilgan miqdori (REM) adabiyotlarda 10-6 mg/kg harakatchan shakl uchun ko'rsatib o'tilgan[52]. Tuproqlarning haydov va haydov osti qatlamlarida (0-30 sm, 31-50 sm) qo'rg'oshin elementining REMdan 2,3-2,0 barobar, 51-80 sm qatlamiga borib esa 2,2 barobarga ortib borishi aniqlangan. Pastki qatlamlar tomon REM darajasida to'planishi kuzatilgan. O'rganilgan tuproqlarda bu element uchun eng yuqori ko'rsatkich 15,2 milligrammdan 8,0 mg/kg atrofida tebranib turishi aniqlangan va bu holatni qo'rg'oshin bilan ifloslanish boshlanganligi deb ayta olishimiz mumkin. Yana shuningdek, ushbu hududda 2018-yil ma'lumotlariga ko'ra 1-kesmaning 0-30 sm qatlamida 7,25 barobarga, 51-80 sm qatlamda esa o'rtacha 34,5 mg/kg da ekanligi, REM dan 8,6 martagacha ortgan, 4 kesmaning 51 -80 sm qatlamida esa 10,30 martaga ortiq. Pastki qatlamlar tomon esa REMdan ortiq miqdorda kamayib borishi kuzatilgan bo'lsa, xrom elementi esa deyarli barcha kesmalarda REM darajasida va 1-kesmaning 31-50 sm dan 81-100 sm qatlam tomon 6,85→7,22→6,33 barobarga ortib, qolgan kesmalarda tuproq qatlamlari bo'ylab 41,2 mg/kg gacha to'planib tuproq ekologik holatining buzilishi, ya'ni, REMdan 6,87 martagacha ortganligi aniqlangan. 5 kesmaning eng pastki, 121-150 sm qatlamdan olingan tuproq namunalarida ham nikel elementining ko'p miqdorda to'planishi kuzatilgan bo'lib, 18,4 mg/kg atrofida ekanligi aniqlangan. Kesmalarning barcha qatlamlarida o'rta hisobda 25,0 mg/kg atrofida tebranib turishi aniqlangan. Olingan kesmalarning barchasida tuproqda nikel elementi uchun REM darajasidan ortiq ekanligi kuzatilgan [13; 60-61 b.].

Ushbu fermer xo'jaligida olingan tuproq na'munalarida qo'rg'oshin elementining haydov qatlamida 14,0 mg/kg bo'lishi hamda pastki qatlamlarda ham (31-50, 51-80 sm) 12,0-13,0 mg/kg atrofida, kadmiy elementining harakatchan shakli eng ko'p miqdor 1-kesmaning 51-80 sm bo'lgan qatlamida uchragan bo'lib,

[52] ushbu ish uchun Sanitariya qoidalari va me'yorlari (2005 y.) ning ma'lumotlariga asosan qo'rg'oshinning harakatchan shakli uchun 6 mg/kg deb olingan.

0,75 mg/kg to‘plangan. Bu esa REM ko‘rsatkichidan 1,5 martaga yuqori ekanligi aniqlangan [11; 61-b.].

Xulosa. Ushbu ish uchun to’plangan ma’lumotlar, xorijiy va mahalliy adabiyotlarni tahlil qilish orqali bir qancha xulosalarni keltirish mumkin:

a) Tuproq qoplamini asosiy og’ir metallar bilan ifloslaydigan soha bu- kon sanoati hisoblanib, ushbu tarmoq sohalardan bir qanchasi tuproqni ifloslashda muhim rol o’ynashi tahlil etildi.

b) Aholi tomonidan foydalanlidigan qo’rg’oshin asosidagi buyoqlar aholi manzilgohlar ayniqsa, shaharlarda tuproqlarning qo’rg’oshin bilan ifloslashida yetakchi ekanligi ochiqlandi.

c) Viloyatda faoliyot olib borayotgan Sho’rtan gaz-kimyo majmuasi, Muborak va Nishon tumanlaridan olingan na’munalarda o’g’ir metallarning to’planishi REM dan bir necha barobar ekanligi aniqlandi.

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THE ROLE OF MEDICINAL PLANTS IN MODERN MEDICINE

Annatation: *In this article, despite the rapid development of modern medicine, there is still information about the state and prospects of the use of medicinal and medicinal plants in the treatment of people.*

Key words: *Medicinal, healing, modern medicine, pharmaceutics industry, medicine, plantation of medicinal plants.*

Introduction: Medicinal plants have played an important role in maintaining and restoring human health since ancient times. Modern medicine also widely uses compounds based on their chemical composition. Substances obtained from such plants are an important source in the production of antibiotics, analgesics and anti-inflammatory drugs.

Purpose of work: To study the importance and level of use of medicinal plants in modern medicine and to identify future opportunities in this field.

Research object: achievements and shortcomings of modern medicine and folk medicine as a research object.

Research methods: The following methods were used in the study:

1. **Literature analysis -** the chemical composition and pharmacological properties of medicinal plants were analyzed by studying scientific articles and books.
2. **Interviews and questionnaires -** interviews were conducted with pharmaceutical specialists and doctors.
3. **Practical tests** – the effectiveness of compounds obtained from medicinal plants was tested in laboratory conditions.

Results: Composition of medicinal plants

The main components of medicinal plants identified during the research are as follows:

- **Alkaloids - have analgesic and anti-inflammatory effects (for example, morphine).**
- **Flavonoids - known for their antioxidant and anti-inflammatory properties.**

• Glycosides - used to support the cardiovascular system.

2. Medicinal plants are part of modern medicines.

Aspirin is based on salicin extracted from licorice.

• Taxol is an anti-cancer drug obtained from the yew tree.

• Artemisinin is an effective remedy for malaria and is obtained from the **Artemisia annua plant.**

3. Opinion of research participants

78% of the doctors participating in the survey said that they prefer medicines obtained from medicinal plants. They believe that natural medicines are important in reducing side effects.

Discussion. Production of medicinal products using medicinal plants is environmentally and economically beneficial in the pharmaceutical industry. However, there are still many challenges in this area, including:

• Limited resources - some medicinal plants are in danger of extinction.

• The problem of standardization - it is difficult to keep the composition of plant-derived compounds stable.

• Insufficient clinical trials - the effectiveness of some medicinal plants has not yet been fully confirmed.

At the same time, developments in the field of biotechnology and genetic engineering are increasing the possibilities of effective cultivation and use of medicinal plants.

Conclusion: Medicinal plants play an important role in modern medicine. Their widespread use in the pharmaceutical industry creates great opportunities for improving human health. Research results show that resource conservation and increased clinical trials are needed to expand the use of medicinal plants.

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XALQARO TA'LIM TIZIMLARIDA KREATIVLIK KOMPETENTLIGINI RIVOJLANTIRISHGA YO‘NALTIRILGAN USULLAR

Annotatsiya. *Ushbu maqola xalqaro ta'lim tizimlarida o‘qituvchilarning kreativlik kompetentligini rivojlantirishga yo‘naltirilgan usullarni tahlil qiladi. Maqolada kreativlik kompetentligi, uning ta'lim tizimlaridagi ahamiyati va professional rivojlanishdagi o‘rni haqida ma'lumot berilgan. Xalqaro tajribalar asosida, proyektga asoslangan o‘qish, interaktiv va tajriba asosidagi o‘qitish, kross-distsiplinar yondashuvlar kabi metodlar kpeamuвlikni rivojlantirishda samarali usullar sifatida ko‘rsatilgan. Shuningdek, o‘qituvchilar uchun treninglar va metodik kurslarning ahamiyati ham ta'kidlangan. Maqola O‘zbekiston ta'lim tizimida xalqaro tajribalarni tatbiq etish va kreativlik kompetentligini rivojlantirish yo‘llarini o‘rganishga chaqiradi.*

Kalit so‘zlar*: kreativlik kompetentligi, ta'lim tizimi, proyektga asoslangan o‘qish, interaktiv o‘qitish, kross-distsiplinar yondashuv, pedagogik metodlar, o‘qituvchilar treningi, xalqaro tajriba, professional rivojlanish, kreativ pedagogika.*

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METHODS FOR DEVELOPING CREATIVE COMPETENCE IN INTERNATIONAL EDUCATION SYSTEMS

Annotation. *This article analyzes methods aimed at developing teachers' creative competence in international education systems. The article provides information about creative competence, its importance in education systems and its role in professional development. Based on international experience, methods such as project-based learning, interactive and experiential learning, and cross-disciplinary approaches are shown as effective methods for developing creativity. The importance of training and methodological courses for teachers is also emphasized. The article calls for studying ways to implement international experience and develop creative competence in the Uzbek education system.*

Keywords: *creativity competence, education system, project-based learning, interactive teaching, cross-disciplinary approach, pedagogical methods, teacher training, international experience, professional development, creative pedagogy.*

Kirish. Kriativlik kompetentligi zamonaviy ta'lim tizimlarida o‘qituvchilarning professional rivojlanishi uchun muhim jihatlardan biridir. Ta'lim tizimining asosiy maqsadi nafaqat bilim berish, balki talabalarda mustaqil fikrlash va ijodiy yondashuvni rivojlantirishdir. Xalqaro tajribalar kreativlikni ta'lim jarayoniga qanday muvaffaqiyatli integratsiya qilish mumkinligini ko‘rsatadi va bu tajriba o‘zbek ta'lim tizimiga qo‘llanilishi mumkin.

Kompetensiya so’ziga turlicha ta’riflar, yondashuvlar mavjud. Xususan, «O’zbekiston milliy ensiklopediyasi»da kompetensiya so’zi quyidagicha izohlanadi: kompetensiya (lot. competo – erishyapman, munosibman, loyiqman) – muayyan davlat organi (mahalliy o’zini o’zi boshqarish organi) yoki mansabdor shaxsning qonun, ustav yoki boshqa hujjat bilan belgilangan vakolatlari, huquq va burchlari doirasi; u yo bu sohadagi bilimlar, tajriba. “Kompetensiya” atamasi keng ma’noda umumiy masalalarni hal etishda amaliy tajribalar asosida bilim va malakalarni qo’llash, muvaffaqiyatli harakat qilish qobiliyatini bildiradi. Lotincha “campetere”-muvofiq bo’lmoq so’zidan kelib chiqqan [4, 1079].

Metodologiya. Ushbu maqola xalqaro ta'lim tizimlarida o‘qituvchilarning kreativlik kompetentligini rivojlantirishga qaratilgan usullarni tahlil qilish asosida yozilgan. Tadqiqot metodlari sifatida hujjatlarni o‘rganish, ta'lim tizimlarining amaliy yondashuvlarini tahlil qilish va xalqaro tajribalarni o‘rganish qo‘llanildi.

Tadqiqot natijalari

Xalqaro tajribada kreativlikni rivojlantirish usullari

Kreativlikni rivojlantirishda ko‘plab ilg‘or mamlakatlar quyidagi metodlarni qo‘llaydi:

- **Proyektga asoslangan o‘qish (Project-Based Learning-PBL)**: AQSh, Kanada va Gollandiya kabi mamlakatlar o‘quvchilarga real dunyo muammolarini yechishga qaratilgan loyihalar asosida ta'lim beradi. Bu yondashuv o‘quvchilarning analitik va ijodiy fikrlashini rivojlantiradi.
- **Interaktiv va tajriba asosida o‘qitish**: Yaponiyada va Finlyandiyada ta'lim jarayoni ko‘proq o‘quvchilarni faol ishtirok etishga va tajriba orqali bilim olishga undaydi. Ushbu metodlar yangi g‘oyalarni yaratish va muammolarga ijodiy yondashishni o‘rgatadi.
- **Kross-distsiplinar yondashuvlar**: Singapur va Shvetsiyada ta'limning turli sohalarini birlashtirish orqali o‘quvchilarning keng ko‘lamli fikrlashini va yangi fikrlarni sintez qilishini rivojlantiradi.

Ta'lim tizimlarida o‘qituvchilar uchun treninglar va metodik kurslar

O‘qituvchilarni kreativlik kompetentligini rivojlantirish uchun treninglar va metodik kurslar tashkil etish muhim ahamiyatga ega. Germaniya va Avstraliyada o‘qituvchilar uchun maxsus seminarlar va treninglar kreativ pedagogik yondashuvlar bo‘yicha malaka oshirish imkonini beradi.

Muhokama. Xalqaro tajribalar ko‘rsatadiki, kreativlikni rivojlantirish uchun ta'lim tizimida innovatsion metodlarni qo‘llash zarur. O‘qituvchilarni kreativ pedagogik usullar bilan tanishtirish va ularga bu usullarni qo‘llashda yordam berish, ularning professional kompetentligini oshiradi. Bu, o‘z navbatida, o‘quvchilarning kreativ fikrlashini va muammoni hal qilish qobiliyatini rivojlantirishga olib keladi.

Xulosa. Xalqaro ta'lim tizimlarida kreativlikni rivojlantirishga yo‘naltirilgan usullar, o‘qituvchilarning pedagogik yondashuvlarini o‘zgartirish va rivojlantirish uchun samarali vosita sifatida xizmat qiladi. O‘zbekiston ta'lim tizimida xalqaro tajribalarni o‘rganib, ulardan o‘ziga xos usullarni tatbiq etish orqali ta'lim sifatini oshirish va kreativlik kompetentligini rivojlantirish mumkin.

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YUQORI MALAKALI BOKSCHILARNING TEZKOR KUCH SIFATINI TAKOMILLASHTIRUVCHI VOSITALAR

Annotatsiya: *Maskur tadqiqot ishimizda sportning boks turi bilan mashg‘ulotlar olib borayotgan yuqori malakali sportchilarning tezkor kuch jismoniy sifat ko‘rsatkichlarini rivojlantirishga qaratilgan umumiy va maxsus vositalar o‘rganib chiqilgan hamda mazkur sifat ko‘rsatkichlari samaradorligini oshirish maqsadida mashg‘ulot jarayonlariga tadbiq etilgan.*

Kalit so‘zlar: *Jismoniy tayyorgarlik, jismoniy sifat, kuch, tezkorlik, tezkor-kuch, mashg‘ulot jarayonlari.*

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TOOLS FOR IMPROVING THE QUICK STRENGTH OF HIGHLY QUALIFIED BOXERS

Annotation: *In our famous research work, general and specific means aimed at developing the quick-strength physical quality indicators of highly qualified athletes yengaged in boxing training were studied and applied to training processes in order to increase the yeffectiveness of these quality indicators.*

Keywords: *Physical fitness, physical quality, strength, agility, agility-strength, training processes.*

Kirish: O‘zbekiston sportchilari xalqaro maydonlarda, xususan, Olimpiya o‘yinlari va jahon chempionatlarida yuqori natijalarni qo‘lga kiritib, mamlakatning sport salohiyatini yuksaltirishga munosib hissa qo‘shib kelmoqda. Biroq, bu muvaffaqiyatlarni izchil mustahkamlash va sportchilarni tayyorlash samaradorligini oshirish uchun ilmiy asoslangan yondashuvlar va zamonaviy usullarni joriy etish muhim ahamiyatga ega. Mamlakaltimizda boks sport turiga bo‘lgan e’tiborning yuqoriligi va yurtboshimiz tomonidan yaratib berilayorgan keng imkoniyatlar ushbu sport turning qay darajada zarur eanligidan dalolat beradi. O‘zbekiston Respublikasi Prezidentining 29.04.2021 yildagi PQ-5099-sonli “Boksni yanada rivojlantirish

chora tadbirlari to‘g‘risida”gi[53] qarorlarini so‘zimiz isboti sifatida keltirib o‘tishimiz mumkin.

Sportchilarni tayyorlash jarayoni murakkab, ko‘p bosqichli va uzluksiz rivojlanishni talab qiluvchi tizimli faoliyatdir. Ushbu jarayonni takomillashtirish uchun bir qancha strategik yo‘nalishlarga e’tibor qaratish lozim:

O‘quv-mashg‘ulot jarayonlarining optimallashtirilgan tizimi: Sportchilarning individual psixofiziologik va biomexanik xususiyatlarini inobatga olgan holda mashg‘ulot dasturlarini ishlab chiqish talab etiladi. Shuningdek, adaptiv trening usullarini qo‘llash orqali jismoniy yuklamalarni optimal darajada boshqarish va mashg‘ulot jarayonining intensivligi hamda davomiyligini muvozanatlash muhimdir.

Monitoring va tahlilning zamonaviy vositalari: O‘quv-mashg‘ulot jarayonining sportchilarga bo‘lgan ta’sirini real vaqt rejimida kuzatish imkonini beruvchi texnologiyalarni qo‘llash lozim. Masalan, biometriya, kardiologik ko‘rsatkichlar, laktat darajasini aniqlash, mushak faolligi va nerv tizimining barqarorligini baholash uchun yuqori aniqlikdagi o‘lchov uskunalari va dasturiy ta’minotlardan foydalanish maqsadga muvofiqdir [2].

Ixtisoslashtirilgan tayyorgarlik yondashuvlari: Sportchilarni o‘zlariga xos texnik, taktik va jismoniy xususiyatlari asosida tayyorlash strategiyalarini ishlab chiqish lozim. Jumladan, boks sportida zarba kuchini oshirish, reaksiya tezligini shakllantirish va chidamlilikni mustahkamlashga qaratilgan maxsus trening modellarini ishlab chiqish muhimdir [3].

Holat monitoringi va dinamik nazorat tizimi: Sportchilarning funksional holatini ob’ektiv baholash va nazorat qilish uchun ilmiy asoslangan diagnostika va monitoring usullarini joriy etish talab qilinadi. Shu jumladan, yurak-qon tomir tizimi faoliyati, mushaklarning tiklanish ko‘rsatkichlari, immunitet darajasi va psixologik barqarorlik holatini kuzatish orqali individual reabilitatsiya va yuklama strategiyalarini shakllantirish lozim [4].

Innovatsion texnologiyalarni integratsiya qilish: Sport tayyorgarligi tizimida zamonaviy texnologiyalar, jumladan, sun’iy intellekt, virtual simulyatsiya va yuqori aniqlikdagi o‘lchov tizimlaridan foydalanish sportchilarning natijalarini sezilarli darajada yaxshilash imkonini beradi. Shu bilan birga, murabbiylar va ilmiy xodimlar uchun malaka oshirish dasturlarini ishlab chiqish orqali bilim va ko‘nikmalarni doimiy yangilab borish zarur [5].

Yuqoridagi yondashuvlarni amaliyotga tatbiq etish orqali O‘zbekiston sportchilari xalqaro sport maydonlarida yanada yuqori marralarni zabt etishi va mamlakatning sportda yetakchi davlatlar qatoriga kirishini ta’minlash mumkin.

Tadqiqotning maqsadi: Yuqori malakali bokschilarning tezkor-kuch sifatini takomillashtiruvchi mashqlarni ishlab chiqish va amaliyotga joriy etish.

Tadqiqotning vazifalari: Yuqori malakali bokschilarning tezkor-kuch sifati ko‘rsatkichlarini aniqlash.

Tezkor-kuch sifatini takomillashtiruvchi mashqlar majmuasini tayyorlash.

[53] O‘zbekiston Respublikasi Prezidentining qarori, 29.04.2021 yildagi PQ-5099-son.

Tadqiqot usullari: Ilmiy-uslubiy adabiyotlar tahlili, pedagogik kuzatuv, pedagogik testlash, matematik-statistik tahlil.

Tadqiqot natijalari va muhokamasi: So‘nggi ilmiy-uslubiy adabiyotlar tahlili shuni ko‘rsatadiki, yuqori malakali bokschilarning musobaqa faoliyatida muvaffaqiyatga erishishlarida tezkor-kuch sifatlarini rivojlantirishning ahamiyati juda yuqori. Ushbu sifatlarni shakllantirishga qaratilgan tayyorgarlik mashqlari bokschilarning musobaqa sharoitlaridagi texnik-taktik va funksional ko‘rsatkichlariga mos keluvchi xususiyatlarni o‘z ichiga oladi. Mazkur jihatlar tadqiqotning asosiy nazariy va amaliy yo‘nalishlarini belgilash imkonini beradi.

Tadqiqot davomida mushak kuchini rivojlantirishning asosiy usullari, jumladan, takroriy, seriyali va oraliqli mashqlarning mushak faoliyatidagi moslashuv jarayonlariga ta’siri chuqur tahlil qilindi. Bu usullarning ilmiy jihatdan asoslangan qo‘llanilishi nafaqat umumiy jismoniy tayyorgarlikni oshiradi, balki bokschilarning musobaqa jarayonida ko‘rsatayotgan yuqori natijalari bilan ham bevosita bog‘liqdir.

Sport yakkakurashi sifatida boks murakkab koordinatsiyali va yuqori dinamikaga ega bo‘lgan siklik bo‘lmagan sport turlari qatoriga kiradi. Bunda har bir sportchining individual texnik-taktik yondashuvi, tezkor qaror qabul qilish qobiliyati va musobaqa davomida yuqori darajadagi chidamlilikka ega bo‘lishi talab etiladi. Shu sababli yuqori malakali bokschilarning tayyorgarlik tizimida tezkor-kuch sifatlarini rivojlantirish alohida ahamiyatga ega.

Tadqiqot davomida bokschilarning jismoniy tayyorgarlik bosqichlari, maxsus yuklamalar davomiyligi va ularning samaradorligini oshirishga qaratilgan metodikalar o‘rganib chiqildi. Xususan, tezkor-kuch qobiliyatlarini rivojlantirishda individual yondashuvning ahamiyati ta’kidlandi, bu esa har bir sportchining fiziologik va biomexanik xususiyatlariga asoslangan holda mashg‘ulot jarayonini tashkil qilish imkonini beradi.

Mazkur tadqiqot doirasida boks texnikasida eng ko‘p qo‘llaniladigan texnik harakatlar va usullar tizimlashtirildi. Ushbu harakatlarning strukturalari va ularni bajarishning texnik jihatlari chuqur o‘rganildi. Natijada maxsus mashqlar tizimi ishlab chiqildi, bu esa bokschilarning tezkor-kuch sifatlarini rivojlantirishda yuqori natijalarni qo‘lga kiritish uchun imkoniyat yaratadi.

Yuqori malakali bokschilarning tezkor-kuch sifatlarini rivojlantirish uchun aylanma mashg‘ulot vositalaridan foydalanildi. Ushbu mashqlarni shunday saralash lozimki, ular yordamida musobaqa jarayonlarida bokschilar barcha imkoniyatlarini ko‘rsata olishsin va bu mashqlar yuqori malakali bokschilarni tezlik va tezkor-kuch tayyorgarligining mustahkam taraqqiy etishini ta’minlovchi mexanizmlarga ta’sir ko‘rsatish mumkin bo‘lsin. Shuning uchun boks sport turida alohida ahamiyatga ega bo‘lgan mashqlar tanlab olinishi maqsadga muvofiq hisoblanadi. Bu yerda ko‘rsatilgan vositalar aylanma mashg‘ulotda qo‘llanilgan og‘irliklar bilan bajariladigan mashqlarga misol bo‘la oladi. Og‘irliklar sportchining vazniga tenglashtirilguncha mashg‘ulotning davomiyligi (6 oy ichida) davom etadi (1-jadvalga qarang).

1-jadval

Yuqori malakali bokchilarning tezkor-kuch sifatini takomillashtiruvchi aylanma mashg‘ulot mashqlari

T/r	Mashq nomi	Davomiyligi	Shiddati
1	Arqonga tirmashib chiqish	2 daq.	140-160
2	70-80 sm balandlikdagi tumbaga sakrash	2 daq.	160-170
3	O‘z vaznini yarm og‘irligidagi shtangani yotgan holda ko‘tarish	10 martadan (3 takroriy)	130-140
4	Polga tayangan holda qo‘llarni bukib yozish (qarsaklar yordamida)	20 martadan (3 takroriy)	140-170
5	Maxsus rezina yordamida chap va o‘ng qo‘llarda to‘g‘ridan zarba berish	100 martadan	130-140
6	Yotgan holda gavdani ko‘tarish (press)	2 daq.	120-140
7	Maxsus to‘ldirma to‘plarni juftlikda uloqtirish	2 daq.	120-140
8	Maxsus toshlar yordamida soya bilan jang	2 daq.	130-160
9	Turgan holatda shtanga grifini oldinga uloqtirish (qo‘ldan uzilmagan holatda)	10 martadan (4 takroriy)	140-170
10	Pastki startdan 3x10 mokisimon yugurish	3 takroriy	170-180

Biz tomonimizdan ishlab chiqilgan yuqori malakali bokshilarning tezlik kuch sifatlarini takomillashtiruvchi aylanma mashg‘ulot mashqlarida dastlab arqonga tirmashib chiqish mashqi qo‘llaniladi. Ushbu mashq davomiyligi 2 daqiqani tashkil etib shiddat zonalari 14-160 zarbga teng bo‘lishi lozim. Ushbu mashq yuqori qism mushaklari (deltavari, biceps, triceps) va tananing asosiy stabilizator mushaklarini rivojlantiradi. Bu mashq izometrik kuchlanish orqali mushak to‘qimalarini mustahkamlaydi va qondagi kislorod tashilishiga bo‘lgan ehtiyojni oshiradi, bu esa yurak-qon tomir tizimining moslashuvini ta’minlaydi.

Ikkinchi mashqimiz esa balandligi 70-80 sm bo‘lgan tumbaga sakrab chiqish va tushishdan iborat. Bu shaqdagi shiddat zonasi 160-170 zarbga teng. Sakrash mashqlari odatda kuch sifatini rivojlantirishi barchamizga ma’lum. Plyometrik mashqlar turkumiga kiradi. Sakrashlar oyoq mushaklarining maksimal kuchini rivojlantirishga yordam beradi. Sakrash jarayonida asosan kvadriseps, hamstrings, va yadro mushaklari ishlaydi. Ushbu mashq markaziy asab tizimining portlovchi kuchga moslashuvini kuchaytiradi, umumiy sport qobiliyatlarini oshiradi.

Navbatdagi mashq o‘z vaznini yarm og‘irligidagi shtangani yotgan holda ko‘tarish mashqi hisoblanib uning davomiyligi 10 martadan 3 takroriylida bajariladi. Mashq shiddat zonasi 130-140 zarbni tashkil etadi. Bu mashq ko‘p bo‘g‘inli kuch mashqlaridan biridir va yuqori tananing ko‘p mushak guruhlarini, jumladan, ko‘krak, deltoidlar va tricepslarni bir vaqtning o‘zida ishlatadi. Chidamlilik va kuchni birgalikda oshiradi (1-jadvalga qarang).

Yuqori malakali bokschilarning tezkor-kuch sifatiga ta’sir ko‘rsatuvchi mashqlardan biri polga tayangan holda qarsak chalish bilan qo‘llarni bukib yozishdan iborat bo‘lib mashq davomiyligi 20 martadan 3 takroriylikda bajarilinadi. Dam olish vaqti 45 soniyaga teng. Mazkur mashqda shiddat zonasi 140-170 zarbga teng. Bu plyometrik mashqning yana bir turi bo‘lib, portlovchi kuch va reflekslarni

rivojlantiradi. Bu mashqda dinamik mushak qisqarishlari yordamida yuqori tananing tezkorligi yaxshilanadi.

Keying mashqimiz maxsus rezina yordamida chap va o‘ng qo‘llarda to‘g‘ridan zarbalar berishdan iborat. Tanlangan mashq davomiyligi har ikkala qo‘llarda 100 martadan bajarilinadi. Shiddat zonasi esa 130-140 zarbni tashkil etadi. Rezina tortishish kuchini ta’minlab, moslashuvchanlik va yuqori ekstremitalarning tezkorligini oshiradi. Bu mashqda asosan deltoidlar, bicepslar va pectoral mushaklar faollashadi va aniqlikni oshirish, kuch va zarba tezligini rivojlantirishga xizmat qiladi.

Yotgan holda gavdani ko‘tarish yani press mashqi dinamik abdominal mashqlar bo‘lib, asosan rektus abdominis va obliques mushaklarini rivojlantiradi. Buning natijasida tananing asosiy kuchi oshadi. Gavdani barqarorlashtirish, orqa muammolarining oldini olishga yordam beradi. Mashqning davomiyligi 2 daqiqani shiddati esa 120-140 zarbni tashkil etadi (1-rasmga qarang).

Maxsus to‘ldirma to‘pni juftlikda bir biriga uloqtirish mashqi. Bu mashq koordinatsiya, kuch va jamoada ishlash ko‘nikmalarini rivojlantirishga qaratilgan. To‘plar og‘irligi mushaklarni izotonik rejimda ishlashga majbur qiladi, dinamik kuchni rivojlantiradi va refleks tezkorligini oshiradi.

Yuqori malakali bokschilarning maxsus toshlar yordamida soya bilan jang olib borishlarida markaziy asab tizimining moslashuvchanligini yaxshilaydi va reflekslarni kuchaytiradi. Asosan yadro mushaklari va yuqori ekstremitalar ishlaydi. Tezkorlik, aniqlik va kuchni oshirishga xizmat qiladi. Ushbu mashq davomiyligi 2 daqiqa shiddati 130-160 zarbga teng bo‘ladi.

Turgan holatda shtanga grifini olinga uloqtirish mashqi sportchilar quvvatni oshirish uchun o‘ta samarali bo‘lib, bilak, yadro va deltoid mushaklarni bir vaqtda faollashtiradi. Harakatning ekssentrik va konsentrik fazalari dinamik kuchni yaxshilaydi. Mashq davomiyligi 10 martadan 4 takroriylikni tashkil etadi va shiddati 140-170 zarbga teng (1-rasmga qarang).

Malakali sportchilarning tezkorlik qobiliyatlarini yanada takomillashtirish maqsadida pastki startdan 3x10 mokisimon yugurish mashqini ham joriy etdik. Mazkur plyometrik yugurish mashqi chaqqonlik, muvofiqlashtirish va portlovchi kuchni rivojlantiradi. Pastki start harakati oyoq mushaklarini maksimal darajada ishga solidi va sportchining tezkor reaktsiyasi va tezligini oshiradi. Mashqning davomiyligi 3 takroriylikda amalga oshiriladi va uning shiddati 170-180 zarbga teng bo‘ladi.

Jadvalda keltirilgan mashqlar sportchilar uchun umumiy chidamlilik, kuch, tezlik va koordinatsiyani rivojlantirishga qaratilgan. Har bir mashqning davomiyligi va intensivligi jismoniy yuklanishni optimal darajada boshqarishga yordam beradi. Bu mashg‘ulotlar turli sport turlari uchun mos va samarali hisoblanadi.

Xulosa

Tahlil qilingan mashg‘ulotlar dasturi yuqori malakali bokschilar orasida tezkor-kuch sifatini takomillashtirishga va sportchilarning jismoniy tayyorgarligini kompleks tarzda yaxshilashga qaratilgan bo‘lib, u ko‘plab zamonaviy sport mashg‘ulotlarining nazariy tamoyillariga mos keladi. Ushbu dastur nafaqat

sportchining maxsus jismoniy tayyorgarligini rivojlantirishga, balki uning umumiy funksional holatini yaxshilashga ham xizmat qiladi.

Biomekanik samaradorlik: Mashqlar mexanikasi mushaklarning tabiiy harakatlar traektoriyasiga mos ravishda tanlangan. Masalan, arqonga tirmashib chiqish va tumbaga sakrash plyometrik usullar orqali portlovchi kuchni rivojlantiradi. Bu harakatlar asosan yadro mushaklarining ishtirokini talab qilib, tananing stabilizatsiya qobiliyatini oshiradi.

Markaziy asab tizimi va mushak-moslashuvchanlik: Mashqlar davomida yuqori intensivlikka ega siklik va asiklik harakatlar, masalan, shtanga ko‘tarish va rezina yordamida zarba berish, markaziy asab tizimini qo‘shimcha yuklanishlarga moslashishga majbur qiladi. Natijada, mushak tolalarining turli xil qisqarish turlari – izometrik, konsentrik va ekssentrik qisqarishlar – faollashadi, bu esa kuch va tezlikning bir vaqtning o‘zida rivojlanishiga olib keladi.

Energiya almashinuvi va chidamlilik: Jismoniy mashg‘ulotlarning davomiyligi va intensivligi yurak-qon tomir va nafas olish tizimlariga muvofiqlashtirilgan ta’sir ko‘rsatadi. Masalan, press mashqlari va soya bilan jang jarayonida asosan aerob va anaerob energetik tizimlar birgalikda faoliyat ko‘rsatadi. Bu esa sportchining umumiy chidamliligini oshirib, uzoq muddatli jismoniy yuklanishlarga bardoshliligini yaxshilaydi.

Koordinatsiya va muvozanat: Maxsus to‘ldirma to‘plar bilan juftlikda ishlash yoki shtanga grifini oldinga uloqtirish mashqlari jismoniy harakatlar aniqligi va tezkorligini rivojlantirishga xizmat qiladi. Bu mashqlar bir vaqtning o‘zida bir necha mushak guruhlarining muvofiqlashtirilgan faoliyatini talab qilib, tananing asosiy barqarorlikni saqlash qobiliyatini kuchaytiradi.

Plyometrik va refleks mashg‘ulotlari: Plyometrik va refleksli mashqlar (masalan, qarsaklar bilan qo‘l bukib yozish yoki pastki startdan yugurish) harakat tezligi va kuchli reflekslarni rivojlantirishda samaralidir. Ushbu jarayonlarda yuqori intensivlikdagi ish asab-mushak tizimi orqali tezkor javob ko‘rsatish qobiliyatini oshiradi. Bu sport faoliyatining eksploziv xarakterli elementlariga tayyorgarlik ko‘rishda muhim ahamiyatga ega.

Sog‘lomlik va reabilitatsiya tamoyillari: Mashqlar turlari har xil bo‘lib, tananing turli mushak guruhlarini izchil rivojlantiradi va bir tomonlama zo‘riqishdan saqlaydi. Bu sog‘lomlikni saqlash va jarohatlarning oldini olish uchun muhimdir. Yotgan holda press mashqlari va arqonga tirmashish kabi mashqlar orqa va bel mushaklarini mustahkamlash orqali reabilitatsiya jarayonlarini ham qo‘llab-quvvatlashi mumkin.

Mazkur mashg‘ulotlar dasturi tizimli yondashuv asosida tuzilgan bo‘lib, kuch, tezlik, chidamlilik va koordinatsiya kabi jismoniy ko‘nikmalarni yaxshilashga qaratilgan. Har bir mashqning davomiyligi va intensivligi ilmiy asoslangan tarzda tanlangan bo‘lib, sportchining individual tayyorgarlik darajasiga moslashtirilishi mumkin. Natijada, ushbu dastur nafaqat sport natijalarini yaxshilashga, balki sportchining umumiy sog‘lomligini ta’minlashga xizmat qiladi.

Dasturda plyometrik, dinamik va statik mashqlar uyg‘unlashtirilgan bo‘lib, bu sportchi uchun zarur bo‘lgan har tomonlama rivojlanishni kafolatlaydi. Ushbu

yondashuv sport mashg‘ulotlari nazariyasining asosiy tamoyillari – uzluksizlik, progressiv yuklanish va spesifiklik talablariga to‘liq javob beradi.

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OCH TUSLI BO‘Z TUPROQLARNING TARQALISHI VA O‘ZBEKISTONDA KARTOSHKA HOSILDORLIGINI OSHIRISH USULLARINI O‘RGANISHDAGI TADQIQOTLAR

Annotatsiya: *Och tusli bo'z tuproqlarning tarqalishida iqlimning o'rni katta , och tusli bo'z tuproqlar tarkibidagi chirindi va boshqa xususiyatlariga ko'ra bir qancha guruhlarga bo'linadi.*

Kalit so‘zlar: *Och tusli bo'z tuproqlar, tuproqlarning tarqalish qonuniyatlari, tuproqlar ona jinsi, bo'z tuproqlarni o'rganishdagi tadqiqotlar.*

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DISTRIBUTION OF LIGHT GRAY SOILS AND RESEARCH ON METHODS TO INCREASE POTATO YIELD IN UZBEKISTAN

Annotation: *Climate plays a big role in the distribution of pale gray soils, humus content and other properties of pale gray soils*

Key words: *Pale gray soils, laws of distribution of soils, mother rock of soils, researches in the study of gray soils.*

KIRISH. Surxon - Sherobod vohasi tuproq sharoitini o‘rgangan olimlar S.S.Neustiruyev, I.P.Gerasimov, N.V.Kimberglar hisoblanadi.

Vohada sug‘oriladigan yerlar Surxondaryo, Sheraboddaryo, Amudaryo suvlaridan va mavjud suv omborlaridan sug‘oriladi.

Surxon-Sherobod vohasi geomorfologik tuzilishiga kora ikki qismga bo‘linadi:

1.Tog‘li qism.

2.Tekislik qism.

Sug‘oriladigan yerlar sharoitiga kora ikkita katta guruhga bo‘linadi:

"O‘ZGIPROZEM (1970 y.) ma’lumotlariga ko‘ra,

1. Bo‘z tuproqlar qismi- qaysiki to‘q rangli boz tuproq, tipik bo‘z tuproq, och rangli bo‘z tuproq bo‘z- o‘tloqi tuproq va botqoq tuproqlar tarqalgan.

2. Cho‘l qismi (taqir) bo‘z qongir, taqir, taqir o‘tloqi, cho‘l, qumoq, gul o‘tloqi va shorxok tuproqlar tarqalgan. Surxondaryo viloyatining umumiy yer maydoni 2059,9 ming ga bo‘lib, shundan foydalaniladigan qismi 450,2 ming ga, sug‘oriladigan maydon 333,8 ming ga, qolgan 1358,7 ming ga maydon tog‘lik daryo va ko‘l hamda boshqa yerlarni tashkil etadi.[12]

Bo‘z qo‘ng‘ir tuproqlar maydoni 6793 ga taqir tuproqlar - 825684 ga taqir-o‘tloqli tuproqlar 10645 ga, qumoq tuproqlar -9358 ga, cho‘l o‘tloqi tuproqlar - 46417 ga va sho‘rxoklar -21506 gektarni tashkil etadi.[12]

Viloyatda asosan qadimdan sug‘oriladigan och tusli va tipik bo‘z tuproqlar ikkinchi qayir usti terrasasida va tog‘ oldi tekisliklarida tarqalgan.[12]

Tuproq hosil qiluvchi ona jinsi asosan lyoss hamda allyuvial yotqiziqlardan iborat bo‘lib, yuqori karbonatlilikka ega. Shuning uchun tuproq suvli so‘rim muhiti neytral va kuchsiz ishqoriydir. Surxondaryo viloyati tuproqlari Surxon- Sherobod tog‘ tizmalari orasida joylashgan bo‘lib, kompleks allyuvial yotqiziqlaridan iboratdir.

Bu yotqiziqlarning tagida shag‘al, qumoq va soz qatlamlariga ega bo‘lgan qatlam-qatlam joylashgan jinslar mavjud. Daryo o‘zanidan tashqari, allyuvial tekislik uchta terrassaga bo‘linganligi yaqqol sezilib turadi.[14]

Birinchi terrassa lentasimon cho‘zilgan bo‘lib, tuproqlari qalin shag‘al qumlar bilan qoplangan, ba’zida qumloq keltirilmalar ustida hosil bo‘lgan. Sizot suvlari yuzada (0,5 - 1,0 m), sho‘rlanmagan.

Ikkinchi terrassa birinchisidan 5-7 m. baland tekisliklarida joylashgan bo‘lib, allyuvial va agroirrigatsion keltirilmalar ustida paydo bo‘lgan.

Bu mintaqada gidromorf tuproqlar tarqalgan bo‘lib, sug‘oriladigan va eskidan sug‘oriladigan tuproq qatlamlarida agroirrigatsion keltirilmalar ko‘p uchraydigan o‘tloq-bo‘z tuproqlar tarqalgandir.

Tuproq qatlamlari mexanik tarkibiga ko‘ra ko‘pincha bir xil bo‘lib, og‘ir va o‘rta qumoqdir. Sizot suvlari 4-5 m chuqurlikda joylashgan, sho‘rlanmagan.

Uchinchi terrassa ikkinchisidan 15-20 m balandlikda joylashib, ayrim mintaqalarda ushbu yuqorilik sezilmaydi. Ikkinchi terrassadan kengrok maydonlarni egallab, kuchsiz to‘lqinsimon past-tekisliklardan iborat bo‘lgan holda asta-sekin tog‘ etagi tekisliklariga tutashib ketadi.[14]

O‘tloq-bo‘z tuproqlar mexanik tarkibiga ko‘ra og‘ir va o‘rta qumoqli, fizik soz va changning ko‘pligi (45-55%) bilan ifodalanadi. Yirik fraksiyalarning mineralogik tarkibi kvars, dala shpati, gidroslyuda va kalsiydan iborat. Yuqori dispers minerallardan gidroslyudalar, montmorillionit guruxiga kiruvchi minerallar hamda xlorit, vermikulit va amorf moddalar uchraydi. O‘tloq-bo‘z tuproqlarning asosiy xususiyatlaridan biri karbonatlarning va gumus miqdorining ko‘pligidir.

O‘tloq-bo‘z tuproqlar singdirish sig‘imi 12-14 MG /100 g tuproqda atrofida bo‘ladi.[9.10]

Singdirilgan kationlarning 60-75 foizi Sa2+, 10-15 foizi Mg2+ ioniga to‘g‘ri keladi. O‘tloq-bo‘z tuproqlar singdirish sig‘imining 7-8 foizi K va Na ioniga to‘g‘ri keladi. K ioni Na ioniga nisbatan ko‘p miqdorda uchraydi. Madaniylashgan tuproqlarning yuqori qatlamida Na deyarli uchramaydi.[9]

Surxon Sherobod vohasi O‘zbekiston Respublikasining eng janubiy qismida 37^0 , 39^0 shimoliy kenglik va 68°,67^0 sharqiy uzunlik chegarasida, Surxon va Sheroboddaryo havzasida joylashgan. Ma’muriy jihatdan u Surxondaryo viloyati hududidir.[10]

Surxondaryo viloyati sharq va shimoliy sharqdan Tojikiston Respublikasi, shimoliy g‘arbdan Qashkadaryo viloyati, janubiy g‘arbdan Turkmaniston Respublikasi bilan chegaradosh. Viloyatning janubidan Amudaryo oqib o‘tib, 160 km. lik chegara chiziqlari Respublikamizni Afg‘onistondan ajratib turadi.

Viloyat dengiz sathidan 300-4688 metr balandlikda joylashgan bo‘lib, shimoldan janubga 200 km.ga, g‘arbdan sharqqa 160 km ga cho‘zilgan.

Xulosa qilib shuni aytish mumkinki. Turli tuproq iqlim sharoitlarida ayniqsa, respublikamizning Shimoliy va Markaziy mintaqalari sharoitida ertagi kartoshka turli navlarining o‘sishi xosildorligi, urug‘lik sifati va tuganaklarning biokimyoviy tarkibiga ekish muddatlari va chuqurligi, ekish sxemalari, tup rivojlanishi, qalinligi, mineral oziqlanishi, sug‘orish rejimi kabi tadbirlarning ta’siri o‘rganilgan.

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MAKTAB O‘QUVCHILARIGA GIMNASTIKA MASHQLARINI O‘RGATISH USLUBIYATI

Annotatsiya: *Gimnastika mashqlarini maktab o‘quvchilariga o‘rgatish uslubiyati, o‘quvchilarning jismoniy rivojlanishi va umumiy salomatligini yaxshilashga qaratilgan muhim pedagogik jarayondir. Ushbu uslubiyatning asosiy maqsadi - o‘quvchilarga gimnastika mashqlarini to‘g‘ri va samarali tarzda o‘rgatish orqali ularning jismoniy faolligini oshirish, moslashuvchanlik, kuch va koordinatsiyani rivojlantirishdir. Gimnastika mashqlarini o‘rgatish jarayonida o‘qituvchilar o‘quvchilarning jismoniy imkoniyatlarini hisobga olib, individual yondashuvni amalga oshirishi kerak. Bu, o‘z navbatida, o‘quvchilarning jismoniy rivojlanishini, o‘z-o‘zini anglashini va ijtimoiy ko‘nikmalarini yaxshilashga yordam beradi. Shuningdek, mashqlarni o‘rgatishda pedagogik metodlarni samarali qo‘llash va xavfsizlikka alohida e’tibor qaratish muhim ahamiyatga ega.*

Kalit so‘zlar: *jismoniy rivojlanish, gimnastika mashqlari, uslubiy yondashuv, koordinatsiya, moslashuvchanlik, xavfsizlik, motivatsiya, individual yondashuv, o‘qitish metodikasi, jismoniy tarbiya.*

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METHODOLOGY FOR TEACHING GYMNASTICS EXERCISES TO SCHOOLCHILDREN

Annotation: *the methodology for teaching gymnastics to schoolchildren is an important pedagogical process aimed at improving the physical development and general health of students. The main goal of this methodology is to increase their physical activity, develop flexibility, strength and coordination by teaching gymnastics to students in a correct and effective way. In the process of teaching gymnastics, teachers must take an individual approach, taking into account the physical capabilities of students. This, in turn, helps students improve their physical development, self-awareness and social skills. It is also important to effectively apply pedagogical techniques and pay special attention to safety when teaching exercises.*

Keywords: *physical development, Gymnastics exercises, methodological approach, coordination, flexibility, safety, motivation, individual approach, teaching methodology, physical education*

KIRISH

Maktab o‘quvchilariga gimnastika mashqlarini o‘rgatish uslubiyati jismoniy tarbiya ta’limining muhim qismlaridan biridir. Ushbu mavzu bo‘yicha kirish qismini quyidagi asosiy jihatlar orqali yoritish mumkin:

1. Gimnastika mashqlarining ahamiyati

Gimnastika mashqlari jismoniy faollik, moslashuvchanlik, kuch va koordinatsiyani rivojlantirishda katta ahamiyatga ega. Maktab yoshidagi bolalar uchun bu mashqlar faqat jismoniy salomatlikni saqlash bilan cheklanmaydi, balki, o‘quvchilarning umumiy rivojlanishini ham ta’minlaydi. Mashqlar orqali bolalar ijtimoiy ko‘nikmalarni, o‘z-o‘zini tartibga solish qobiliyatini va jismoniy imkoniyatlarini oshiradilar.

2. Maktab yoshidagi bolalarning jismoniy xususiyatlari

O‘quvchilarning yoshiga qarab jismoniy imkoniyatlari va qobiliyatlari farq qiladi. Shuning uchun, gimnastika mashqlarini tanlashda va ulardan foydalanishda yosh guruhining xususiyatlarini hisobga olish zarur. Maktab yoshidagi bolalar uchun mashqlarni tanlashda ularning jismoniy rivojlanish bosqichlari, mototsikllar rivojlanishi va mashqlarni bajarish qobiliyatlarini inobatga olish lozim.

3. Gimnastika mashqlarini o‘rgatishning uslubiy asoslari

Gimnastika mashqlarini o‘rgatishda uslubiy yondashuv o‘qituvchining asosiy vazifalaridan biridir. Ushbu uslubiy yondashuv quyidagilarni o‘z ichiga olishi kerak:

- **Mashqlarni tanlash**: o‘quvchilar yoshiga va jismoniy holatiga mos keladigan mashqlarni tanlash.
- **O‘qitish metodikasi**: mashqlarni tushuntirish va bajarilish tartibini batafsil ko‘rsatish. Mashqlarni bosqichma-bosqich o‘rgatish, tez-tez tekshirib borish va nazorat qilish.
- **Motivatsiya va rag‘batlantirish**: o‘quvchilarning qiziqishini va motivatsiyasini oshirish uchun turli xil usullarni qo‘llash.

4. Gimnastika mashqlarini o‘rgatishda e’tibor berilishi lozim bo‘lgan jihatlar

Gimnastika mashqlarini o‘rgatishda e’tibor berilishi kerak bo‘lgan bir nechta muhim jihatlar mavjud:

- **Texnik to‘g‘rilik**: mashqlarni to‘g‘ri bajarish usullarini o‘rgatish.
- **Xavfsizlik**: mashqlarni bajarish vaqtida xavfsizlik qoidalariga rioya qilish, jarohatlardan saqlanish uchun zaruriy choralarni ko‘rish.
- **Individual yondashuv**: har bir o‘quvchining jismoniy imkoniyatlarini hisobga olib, individual yondashuvni amalga oshirish.

Gimnastika mashqlarini maktab o‘quvchilariga o‘rgatish uslubiyati ularning jismoniy va ruhiy rivojlanishini qo‘llab-quvvatlashda muhim rol o‘ynaydi. To‘g‘ri tanlangan mashqlar, samarali metodika va xavfsizlik choralari bilan birgalikda, bu

jarayon nafaqat jismoniy holatni yaxshilaydi, balki bolalarning o‘z-o‘zini anglash va jamiyat bilan o‘zaro munosabatlarini ham rivojlantiradi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Maktab o‘quvchilariga gimnastika mashqlarini o‘rgatish uslubiyati haqida adabiyotlarni tahlil qilish, ushbu sohada mavjud ilmiy-ustuvor yondashuvlarni, metodologiyalarni va amaliy tajribalarni o‘rganishga yordam beradi. Quyida bu soha bo‘yicha mavjud adabiyotlarning asosiy jihatlari tahlil qilinadi:

1. O‘qitish metodikasi va pedagogik yondashuvlar bo‘yicha adabiyotlar, gimnastika mashqlarini o‘rgatishda asosiy metodologik yondashuvlarni aniqlaydi. Masalan, **“Jismoniy tarbiya va sport ta’limi metodikasi”** kitoblarida mashqlarni o‘rgatish jarayonida bosqichma-bosqich yondashuv, mashqlarni to‘g‘ri tushuntirish va amaliyotga kiritish metodlari batafsil tavsiflanadi. Ushbu adabiyotlarda yosh guruhlarining jismoniy xususiyatlari, mashqlarni tanlashda e’tibor berilishi kerak bo‘lgan jihatlar ko‘rsatiladi.

2. Jismoniy rivojlanish va moslashuvchanlik masalalari bilan bog‘liq adabiyotlarda, bolalarning jismoniy o‘sishi va rivojlanishi uchun gimnastika mashqlarining ahamiyati tahlil qilinadi. **“Bolalar va o‘smirlarning jismoniy tarbiyasi”** kabi kitoblar, mashqlar orqali jismoniy qobiliyatlarni rivojlantirish, moslashuv-chanlikni oshirish va mushaklar kuchini yaxshilash haqida ma’lumot beradi.

3. Xavfsizlik va jarohatlarning oldini olish xavfsizlik masalalariga qaratilgan adabiyotlar, gimnastika mashqlarini bajarishda xavfsizlik qoidalarini ta’minlashni o‘rgatadi. **“Jismoniy tarbiya va sport xavfsizligi”** kitoblari, mashqlarni bajarishda xavfsizlikni ta’minlash, jarohatlarni oldini olish va to‘g‘ri texnika ishlatish bo‘yicha tavsiyalarni beradi.

4. Motivatsiya va rag‘batlantirish masalalariga oid adabiyotlarda, bolalarning gimnastika mashqlariga qiziqishini oshirish va ularga motivatsiya berish usullari o‘rganiladi. **“Bolalar va o‘smirlarning sport motivatsiyasi”** kitoblarida, motivatsiya metodlari, qiziqarli mashqlar va rag‘batlantirish strategiyalari haqida ma'lumotlar mavjud.

5. Pedagogik yondashuvlar va metodologiya bo‘yicha adabiyotlar, gimnastika mashqlarini o‘rgatishda zamonaviy pedagogik metodlarni yoritadi. **“Pedagogik texnologiyalar va metodikalar”** kitoblari, gimnastika mashqlarini o‘rgatishda innovatsion yondashuvlar va usullarga e’tibor qaratadi.

6. O‘quvchilarning individual xususiyatlari hisobga olish masalalari bo‘yicha adabiyotlarda, individual yondashuvning ahamiyati va amaliyotda qanday amalga oshirilishi ko‘rsatiladi. **“Jismoniy tarbiya va individual yondashuv”** kitoblari, individual qobiliyatlar va rivojlanish ehtiyojlarini hisobga olish bo‘yicha tavsiyalarni beradi.

7. Mashqlarni baholash va monitoring bo‘yicha adabiyotlar, o‘quvchilarning yutuqlarini va rivojlanishini qanday baholashni va nazorat qilishni o‘rgatadi. **“O‘quvchilarning jismoniy tayyorgarligini baholash”** kitoblari, baholash metodlari va monitoring strategiyalari haqida ma'lumotlar taqdim etadi.

Gimnastika mashqlarini maktab o‘quvchilariga o‘rgatish uslubiyati bo‘yicha adabiyotlarni tahlil qilish, bu sohada mavjud metodologiyalar, pedagogik yonda-

shuvlar va amaliy tajribalarni chuqurroq tushunishga yordam beradi. Har bir adabiyot, gimnastika mashqlarini o‘rgatish jarayonida e’tibor berilishi kerak bo‘lgan muhim jihatlarni ko‘rsatadi, xavfsizlikni ta’minlash, motivatsiyani oshirish va individual yondashuvni amalga oshirish kabi masalalarda amaliy tavsiyalar beradi. Bu tahlil, pedagogik tajribani boyitish va samarali ta’lim usullarini ishlab chiqish uchun muhimdir.

METODOLOGIYA

Maktab o‘quvchilariga gimnastika mashqlarini o‘rgatish metodologiyasi, o‘quvchilarning jismoniy rivojlanishi, xavfsizligi va motivatsiyasini ta’minlashga qaratilgan uslubiy va pedagogik yondashuvlarni o‘z ichiga oladi. Ushbu metodologiya, mashqlarni samarali tarzda o‘rgatish va ularning jismoniy tarbiyasini rivojlantirish uchun quyidagi asosiy komponentlarni o‘z ichiga oladi:

1. Gimnastika mashqlarini tanlash.

1.1. Yoshga moslik - o‘quvchilarning yoshiga va jismoniy rivojlanish bosqichiga mos ravishda mashqlarni tanlash. Bolalar va o‘smirlarning jismoniy xususiyatlarini hisobga olib, moslashtirilgan mashqlarni tanlash muhimdir.

1.2. Qobiliyatlar - o‘quvchilarning jismoniy qobiliyatlarini, tajribasini va salomatlik holatini hisobga olish. Mashqlarni tanlashda o‘quvchilarning individual xususiyatlarini inobatga olish zarur.

2. Mashqlarni o‘rgatish metodikasi.

2.1. Bosqichma-bosqich o‘rgatish - mashqlarni bosqichma-bosqich o‘rgatish: avval asosiy elementlarni, keyin esa murakkabroq kombinatsiyalarni o‘rgatish. Har bir bosqichda o‘quvchilarning qobiliyatini rivojlantirishga e’tibor qaratish.

2.2. Tushuntirish va ko‘rsatish - mashqlarni aniq va tushunarli tarzda tushuntirish va ko‘rsatish. Vizual va amaliy namoyishlar orqali o‘quvchilarga mashqlarni qanday bajarish kerakligini ko‘rsatish.

2.3. Takrorlash va amaliyot - mashqlarni bir necha bor takrorlash va amaliyot orqali o‘rgatish. O‘quvchilarning mashqni to‘g‘ri bajarishini ta’minlash uchun muntazam ravishda takrorlash zarur.

3. Motivatsiya va rag‘batlantirish.

3.1. Rag‘batlantiruvchi metodlar - o‘quvchilarni rag‘batlantirish va motivatsiyani oshirish uchun turli metodlardan foydalanish. Bu metodlarga mukofotlar, rag‘batlantiruvchi fikrlar va ijobiy baholash kiradi.

3.2. Qiziqarli mashqlar - mashqlarni qiziqarli va o‘yinlarga asoslangan tarzda tashkil etish, o‘quvchilarning qiziqishini oshirishga yordam beradi.

4. Xavfsizlik va sog‘lomlik.

4.1. Xavfsizlik qoidalari - mashqlarni bajarish davomida xavfsizlik qoidalariga rioya qilish. Xavfsizlik choralarini, jarohatlardan saqlanish va to‘g‘ri texnika ishlatish bo‘yicha qo‘llanmalar taqdim etish.

4.2. Salomatlikni nazorat qilish - o‘quvchilarning salomatligini doimiy ravishda nazorat qilish, jismoniy holatini baholash va mashqlarni to‘g‘ri bajarishni ta’minlash.

5. Individual yondashuv

5.1. Shaxsiy yondashuv - har bir o‘quvchining individual xususiyatlariga qarab mashqlarni moslashtirish. Individual yondashuv orqali har bir o‘quvchining imkoniyatlari va ehtiyojlarini inobatga olish.

5.2. Maxsus dasturlar - maxsus dasturlarni ishlab chiqish va jismoniy rivojlanishni qo‘llab-quvvatlash uchun individual mashq rejalari yaratish.

6. Baholash va monitoring.

6.1. O‘quvchilarning rivojlanishini baholash - o‘quvchilarning jismoniy rivojlanishini va mashq bajarishdagi muvaffaqiyatini baholash. Baholash metodlari va ko‘rsatkichlarni belgilash, progressni muntazam ravishda tekshirib borish.

6.2. Monitoring - mashqlarni bajarishdagi xatolarni aniqlash va ularni tuzatish. O‘quvchilarning rivojlanish jarayonini kuzatish va kerakli tuzatishlarni amalga oshirish.

Gimnastika mashqlarini maktab o‘quvchilariga o‘rgatish metodologiyasi jismoniy tarbiya ta’limining samarali amalga oshirilishi uchun muhim ahamiyatga ega. Ushbu metodologiya, mashqlarni to‘g‘ri tanlash, pedagogik yondashuvlar, motivatsiya va xavfsizlikka e’tibor qaratish orqali o‘quvchilarning jismoniy rivojlanishini va umumiy salomatligini yaxshilashga yordam beradi. Individual yondashuv va baholash jarayonlari orqali har bir o‘quvchining o‘ziga xos ehtiyojlari qondiriladi va samarali natijalar erishiladi.

MUHOKAMA VA NATIJALAR

Maktab o‘quvchilariga gimnastika mashqlarini o‘rgatish uslubiyati haqida muhokama qilish, o‘quvchilarning jismoniy rivojlanishini ta’minlash, samarali ta’lim usullarini ishlab chiqish va amaliy tajribalarni yaxshilash uchun muhimdir. Quyida uslubiyatni muhokama qilish va uning natijalari haqida tafsilotlar keltirilgan:

1. Mashqlarni tanlash va moslashtirish.

Muhokama: mashqlarni o‘quvchilarning yoshiga, jismoniy rivojlanish bosqichiga va individual qobiliyatlariga moslashtirish muhimdir. Yoshga mos mashqlar bolalarning jismoniy holatini saqlashga yordam beradi, lekin turli yoshdagi guruhlar uchun mashqlarni tanlashda ehtiyotkorlik bilan yondashish zarur. Misol uchun, kichik yoshdagi bolalar uchun oddiy va xavfsiz mashqlarni tanlash, o‘smirlar uchun esa murakkabroq va rivojlantiruvchi mashqlarni qo‘llash mumkin.

Natijalar: o‘quvchilarning yoshiga mos mashqlarni tanlash, jismoniy rivojlanish va salomatlikni saqlashda samarali bo‘ladi. Individual ehtiyojlarni inobatga olish orqali har bir o‘quvchining rivojlanishi maksimal darajada ta’minlanadi.

2. O‘rgatish metodikasi.

Muhokama: mashqlarni bosqichma-bosqich o‘rgatish, tushuntirish va ko‘rsatish metodlari samarali ta’lim uchun zarurdir. Mashqlarni batafsil tushuntirish va ko‘rsatish orqali o‘quvchilarning texnikani yaxshi o‘zlashtirishiga yordam beriladi. Amaliyot va takrorlash orqali mashqlarni to‘g‘ri bajarishni ta’minlash mumkin.

Natijalar: bosqichma-bosqich yondashuv va aniq tushuntirish o‘quvchilarning mashqlarni to‘g‘ri va samarali bajarishiga yordam beradi. Bu o‘z navbatida, ularning jismoniy ko‘nikmalarini rivojlantirishga va natijalarga erishishga yordam beradi.

3. Motivatsiya va rag‘batlantirish.

Muhokama: o‘quvchilarning motivatsiyasini oshirish va mashqlarni qiziqarli qilish uchun rag‘batlantirish usullari muhimdir. Mukofotlar, ijobiy baholash, va interaktiv mashqlar orqali o‘quvchilarning qiziqishini saqlash mumkin. Motivatsiyani oshirish o‘quvchilarning mashqni davom ettirish istagini kuchaytiradi.

Natijalar: rag‘batlantirish usullari va qiziqarli mashqlar o‘quvchilarning motivatsiyasini oshiradi va mashqlarni samarali bajarishga yordam beradi. Bu o‘z navbatida, jismoniy rivojlanish va sportga bo‘lgan qiziqishni kuchaytiradi.

4. Xavfsizlik va sog‘lomlik.

Muhokama: mashqlarni bajarishda xavfsizlik qoidalariga rioya qilish va salomatlikni nazorat qilish juda muhimdir. Xavfsizlik choralarini ko‘rish, jarohatlardan saqlanish va to‘g‘ri texnika ishlatish kerak. Salomatlikni doimiy ravishda nazorat qilish o‘quvchilarning jismoniy holatini ta’minlaydi.

Natijalar: xavfsizlik va sog‘lomlikka e’tibor berish jarohatlarni oldini olishga va o‘quvchilarning salomatligini saqlashga yordam beradi. Bu o‘z navbatida, mashqlarni samarali va xavfsiz tarzda bajarishga imkon yaratadi.

5. Baholash va monitoring.

Muhokama: o‘quvchilarning rivojlanishini baholash va monitoring qilish, ta''lim jarayonini yaxshilash uchun zarurdir. Baholash metodlarini aniqlash va o‘quvchilarning progressini muntazam ravishda tekshirib borish, o‘quvchilarning yutuqlarini va kamchiliklarini aniqlashda yordam beradi.

Natijalar: baholash va monitoring o‘quvchilarning mashqni qanday bajarayotganini aniqlash va zarur tuzatishlarni amalga oshirish imkonini beradi. Bu o‘z navbatida, ta’lim jarayonining samaradorligini oshiradi.

Maktab o‘quvchilariga gimnastika mashqlarini o‘rgatish uslubiyati muhokamasi, ta’lim jarayonining samaradorligini oshirish uchun muhim jihatlarni aniqlashga yordam beradi. Mashqlarni to‘g‘ri tanlash, metodologik yondashuv, motivatsiya, xavfsizlik va monitoring kabi omillarni hisobga olish orqali o‘quvchilarning jismoniy rivojlanishini yaxshilash va ta’lim samaradorligini oshirish mumkin. Ushbu uslubiyatni amalda qo‘llash, o‘quvchilarning jismoniy ko‘nikmalarini rivojlantirishga va umumiy salomatlikni saqlashga yordam beradi.

XULOSA

Maktab o‘quvchilariga gimnastika mashqlarini o‘rgatish uslubiyati ta’lim jarayonining samaradorligini oshirish, o‘quvchilarning jismoniy rivojlanishini yaxshilash va umumiy salomatlikni saqlash uchun muhim ahamiyatga ega. Ushbu uslubiyatni ishlab chiqishda quyidagi asosiy jihatlarni e’tiborga olish zarur:

1. Yoshga mos mashqlarni tanlash - gimnastika mashqlarini o‘quvchilarning yoshiga va jismoniy rivojlanish bosqichiga moslashtirish, ularning salomatligini saqlash va rivojlanishini ta'minlashda muhim rol o‘ynaydi. Kichik

yoshdagi bolalar uchun oddiy va xavfsiz mashqlar, o‘smirlar uchun esa murakkabroq mashqlarni tanlash orqali ta'lim jarayonini individual yondashuv asosida tashkil qilish kerak.

2. Metodik yondashuv - mashqlarni bosqichma-bosqich o‘rgatish, aniq tushuntirish va ko‘rsatish, o‘quvchilarning to‘g‘ri texnikani o‘zlashtirishlarini ta’minlaydi. Amaliyot va takrorlash orqali mashqlarni yaxshi o‘zlashtirish mumkin, bu esa jismoniy ko‘nikmalarni samarali rivojlantirishga yordam beradi.

3. Motivatsiya va rag‘batlantirish - o‘quvchilarning motivatsiyasini oshirish va qiziqishini saqlash uchun rag‘batlantirish usullaridan foydalanish zarur. Mukofotlar, ijobiy baholash va qiziqarli mashqlar orqali o‘quvchilarning mashqni davom ettirish istagini kuchaytirish mumkin. Bu o‘z navbatida, ularning sport faoliyatiga bo‘lgan qiziqishini oshiradi.

4. Xavfsizlik va sog‘lomlik - gimnastika mashqlarini bajarishda xavfsizlik qoidalariga rioya qilish va salomatlikni nazorat qilish juda muhimdir. Xavfsizlik choralarini ko‘rish, jarohatlardan saqlanish va to‘g‘ri texnika ishlatish orqali o‘quvchilarning salomatligini saqlash va xavfsiz mashqlarni ta’minlash mumkin.

5. Baholash va monitoring - o‘quvchilarning rivojlanishini baholash va monitoring qilish, ta’lim jarayonini yaxshilash uchun zarur. Baholash metodlari va monitoring strategiyalari orqali o‘quvchilarning progressini kuzatib borish va zarur tuzatishlarni amalga oshirish mumkin. Bu o‘z navbatida, ta'lim jarayonining samaradorligini oshiradi.

Maktab o‘quvchilariga gimnastika mashqlarini o‘rgatish uslubiyati, jismoniy tarbiya ta'limining samaradorligini oshirish va o‘quvchilarning jismoniy rivojlanishini ta'minlashda muhim rol o‘ynaydi. Yoshlarga mos mashqlar, metodik yondashuv, motivatsiya, xavfsizlik va baholash kabi komponentlar, ta’lim jarayonini muvaffaqiyatli tashkil qilish uchun zarurdir. Ushbu uslubiyatni amalda qo‘llash, o‘quvchilarning jismoniy ko‘nikmalarini rivojlantirish, motivatsiyasini oshirish va xavfsiz ta’lim muhitini yaratishga yordam beradi.

FOYDALANILGAN ADABIYOTLAR RO‘YHATI

1. A. V.Shadrikov - **“Fizicheskaya kultura i sport dlya shkolnikov”**
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9-SINFLARDA "KORROZIYA" MAVZUSINI YORITISHDA 5 E METODIDAN FOYDALANISH

Annotatsiya: *Ushbu maqolada Korroziya mavzusi bo'yicha hamda 5 E metodi haqida qisqacha to'xtalib o'tilgan. Shu bilan birga ushbu Korroziya mavzusini 5 E metodi yordamida 9-sinflarga darsni qiziqarli tarzda olib borish usuli bo'yicha ham malumotlar berilgan.*
Kalit so'zlar: *Kimyo ta'lim tizimi, Korroziya, metall, moddalar, zanglash hodisasi, 5 E metodi.*

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USING THE 5 E METHOD IN TEACHING THE TOPIC "CORROSION" IN GRADE 9

Abstract: *This article briefly discusses the topic of Corrosion and the 5 E method. At the same time, information is given on the methodology of teaching the subject "Corrosion" to 9th graders in an interesting form using the 5 E method.*
Keywords: *Chemical education system, Corrosion, materials, substances, corrosion phenomenon, 5 E method.*

Kirish: O'zbekiston Respublikasi Prezidenti I.A.Karimovning O'zbekistonni iqtisodiy rivojlanishi ustuvor yo'nalishlarini Respublikamizning har bir fuqarosi qalbiga jo qilib, umidbaxsh tuyg'ular sari bormoqdalar. Hozirgi vaqtda mustaqil mamlakatimizda ta'lim sohasiga alohida e'tibor qaratilmoqda. Mamlakatimiz ta'lim tizimida ko'pgina yangilanishlar paydo bo'lmoqda. Bu o'z navbatida o'qituvchilardan o'z tajribalarini tahlil etish va umumlashtirish asosida mamlakatni ijtimoiy-iqtisodiy rivojlantirish istiqbollariga muvofiq kadrlar tayyorlash tizimini takomillashtirish va rivojlantirish, ta'lim muassasalarining resurs, kadrlar va axborot bazalarini yanada mustahkamlash, o'quv tarbiya jarayonini yangi o'quv–uslubiy majmualar, ilg'or pedagogik texnologiyalar bilan to'liq ta'minlashni talab etadi.

Asosiy qism: Umum ta'lim maktablari, akademik litsey va kasb-hunar kollejlari o'quvchilariga kimyodan zamon talabi darajasida chuqur va puxta bilim berish uchun o'qituvchining o'zini shu fandan tayyorlash, uni bilim darajasini oshirish juda katta ahamiyatga ega.

Kimyo ta'limi sohasini o'qitish jarayonida kerakli kimyoviy bilim va amaliy malakalarni shakllantirishi ta'minlanadi. Kimyo ta'limi sohasi mazmunining asosiy yo'nalishlari; Kimyoviy tushunchalar modda malekula va atomlar, anorganik

birikmalar, kimyoviy unsurlar davriy qonuni va davriy sistemasi, kimyoviy bog‘lanishlar va modda tarkibi va tuzilishi, kichik davrlar ayrim unsurlarning umumiy tavsifi, elektrolitik dissotsiyalanish nazariyasi, metllar va metalmaslar, organik moddalarning tuzilishi nazariyasi, polimerlar, kmyo ta‘limida ekologik ta‘limn-tarbiya.

Kimyo darslarida o‘quvchilarni tayyor tushunchalar tizimi bilan tanishtirilar ekan har bir tushunchaning shakillanish jarayoniga alohida ahamiyat berish zarur. Zero o‘rganilayotgan tayyor bilimlar tizimining shakillanishi bir qator avlodalr ijodiy zakovati tufayli yuzaga chiqishi fan va texnikaning bundan keyingi rivojlanishi, tabiat bilan inson o‘rtasidagi muloqatning bundan keyingi darajasi jamiyatda sodir bo‘lib turgan sotsial hodisalarini to‘g‘ri tahlil qilish yosh avlodning zakovat darajasiga bevosita bog‘liq ekanligini anglab yetsinlar. Bunday xislatlarni o‘quvchilar tinmay o‘qish, bilimlarni mustaqil egallash, egallangan bilimlardan amalda foydalana bilishlarigina o‘zlarida tarbiyalash mumkin. O‘quvchilarga dasturda ko‘zda tutilgan amaliy ko‘nikmalarni singdirish, kimyo fanining o‘qitishning moddiy ta‘minotini yaxshilash, ko‘rsatilgan tajribalar, labaratoriya va amaliy ishlarni didaktik maqsadga muvofiq amalga oshirishni ta‘minlash lozim. Shuni ta‘kidlash lozimki,nazariy bilimlarni o‘zlashtirishga qo‘yiladigan talablar qanday qondirilayotgani qanchalik izchillik bilan nazorat qilinsa va baholansa, amaliy ko‘nikmalarni egallashga bo‘lgan talablarning ajralishini shunday nazorat qilinishi va baholanishi lozim.

Korroziya - bu materiallarning (asosan metallarning) atrof-muhit bilan o‘zaro ta’siri natijasida yemirilishi yoki ishdan chiqishi. Korroziya ko‘pincha oksidlanish va kimyoviy reaktsiyalar natijasida sodir bo‘ladi.

Korroziyaning asosiy turlari:

1. Kimyoviy korroziya: Atmosfera gazlari yoki suyuqliklar bilan reaktsiya natijasida yuzaga keladi.

2. Elektrokimyoviy korroziya: Metallning elektrolitlar ishtirokida yemirilishi.

3. Biologik korroziya: Tirik organizmlar (masalan, bakteriyalar) sababli metallning yemirilishi.

Korroziya sabablarining asosiy omillari:

- Namlik
- Havodagi kislorod va uglerod oksidlari
- Elektrolitlar (masalan, tuzli suv)

Korroziyaning oldini olish usullari:

- ✓ Himoya qoplamalarini qo‘llash (bo‘yoqlar, laklar)
- ✓ Katodik himoya qilish (qurb metallardan foydalanish)
- ✓ Kimyoviy inhibitorlar qo‘llash
- ✓ Noto‘g‘ri muhit ta’sirini cheklash

5E metodi bu ta’lim jarayonida o‘quvchilarning qiziqishini oshirish va mavzuni chuqurroq o‘zlashtirish uchun ishlatiladigan pedagogik yondashuvdir. Bu metod 5 bosqichdan iborat:

1. Engage (Jalb qilish): o’quvchilarning qiziqishini uyg‘otish va mavzu bilan tanishtirish.

2. Explore (O‘rganish): O’quvchilar mavzuni mustaqil ravishda o‘rganib, tajriba va kuzatuvlar o‘tkazadilar.

3. Explain (Tushuntirish): O‘rganilgan ma’lumotlar asosida o‘qituvchi tushuntirish beradi.

4. Elaborate (Chuqurlashtirish): Mavzuni kengaytirish va amaliyot orqali chuqurroq anglash.

5. Evaluate (Baholash): O‘quvchilarni o‘zlashtirish darajasini aniqlash uchun test yoki boshqa baholash usullarini qo‘llash.

5E metodidan foydalanib “Korroziya” mavzusini 9-sinflar o‘rganish usuli sifatida quyidagini misol qilib olsak bo’ladi.

1. Engage (Jalb qilish)

O’quvchilardan hayotda uchragan korroziya misollarini aytib berishlarini so‘raladi (masalan, zanglagan quvurlar). Kichik videorolik yoki rasm ko‘rsatib, mavzu haqida savollar beriladi: "Nega metall zanglaydi?"

2. Explore (O‘rganish)

O’quvchilar kichik tajribalar o‘tkazishsin: Masalan, metall bo‘laklarini turli muhitga (suv, tuzli suv, havo) joylashtirish va korroziya tezligini kuzatish.

3. Explain (Tushuntirish)

Korroziya jarayonini kimyoviy reaktsiyalar orqali tushuntirish:

$Fe \rightarrow Fe^{2+} + 2e^{-}$ (oksidlanish)

$½O_2 + H_2O + 2e^{-} \rightarrow 2OH^{-}$ (qaytarilish)

4. Elaborate (Chuqurlashtirish)

Korroziyani kamaytirish usullarini muhokama qilish va amaliy misollarni ko‘rsatish. O’quvchilarga korroziyaning iqtisodiy va ekologik zararini hisoblashga imkon beradigan masalalar beriladi.

5. Evaluate (Baholash)

O’quvchilardan korroziya haqida taqdimot yoki loyiha tayyorlashni so‘rash orqali eslab qolgan hamda tushungan narsalarini baholash ossonroq kechasi. Test yoki viktorina orqali bilimlarni ham baholasa bo’ladi.

Shu bilan birga dars jarayonini olib borayogan holda qo’sjimcha kengaytirilgan ma’lumot hamda ko’nikmalarni berib borilsa ham maqsadga muvofiq bo’ladi.

Kimyoviy korroziya turlari. Noelektrolitlardagi korroziya

Suyuqliklar noelektrolitlar- elektr toki o’tkazmaydigan korrozion muxit. Bular jumlasiga organik suyuqliklar (spirtlar, benzollar, neftь, kerosin va boshqalar) va noorganik suyuqliklar (suyuq brom, eritilgan muxit va boshqalar) ushbu moddalar sof xolatda kam agressiv xisoblanadi, biroq unga oz miqdorda suv, par, serovodorod, merkaptan, tiospirt qo’shilib qolsa, ularning aktivligi keskin ortadi. Bir nechta misollar ko’rib chiqamiz. Merkaptanlar (R -SH) neft tarkibidagi moddalar bo’lib, ular Su, Ni, Ag, Pb, Sn koroziyasini chaqirib, merkaptidolarni (SR)n xosil qiladi.

Neft tarkibidagi tiospirt va servodorodlar bo’lganligi sababli, suvning bo’lishi xom neftning agressivligini oshiradi va Fe, Su, Ag, Pb lar reaktsiyalashib, ularning sulfidlarni xosil qiladi.

2Cu + 2H2S+O2 - 2CuS + 2H2O

Uglerod tetraxlorid tarkibida suv izlarini bo'lishi, tok o'tkazuvchi component ta'sirida gidrolizlanib, xlorid kislota xosil qiladi (HCl) va po'latga nisbatan korozion aktivligini oshadi, ya'ni korozion jarayon elektrokimyoviy tarzdagi ko'rinishga keladi:

CCl + H2O ------ COCl2 + 2HCl

CCl4 + 2H2O --------- (Me)CO2 + 4HCl.

Korrzion muxitda xaroratning ortishi, va unda erigan kislorodning bo'lishi korroziya jarayonini tezlashtiradi. Suyultirilgan oltingugurt va suyuq bromlar metallar bilan reaktsiyalashib, sulьfidlar va bromlarni tashkil etadi. Kimyoviy gazli koroziya. Agressiv moddalarning gaz va parlarda yuqori xarorat ta'sirida, ularning kondensatlari metall yuzasi tushishi natijasida sodir bo'ladi, shu sababli ularni yuqori xaroratli gazli korroziyalar deyiladi. Ushbu jarayonlar metallurgiya sanoatida termik ishlash jarayonlarida mavjud bo'ladi.

Korozion gaz agentlari sifatida O2, N2O, N2S SO2 , Cl2 va boshqalar. Kimyoviy korroziyada metall sirti tarkibida kislorod bulgan gazli mihitlarda oksidlanadi. Tashqi muhitlar quruq-havo , quruq suv bug'lari va toza kislorod bulishi

mumkin . Gazli muhitdan metall sirtiga adsorbsiyalangan kislorod malekulasi, adsorbsiya natijasida ajralgan issiqlik ta'sirida atomlarga ajraladi va elektronlarning qayta taqsimlanishi bilan atomlar ionlar holatiga utadi . Metall sirtidagi atom oksidlanadi – elektronini yo'qotadi, kislorod atomi tiklanadi – elektironlani qabul qiladi; ya'ni quydagi jarayon sodir buladi

Me R Me 2+ +2e

O+2e R O2

Me2+O2 R MeO

Xulosa qilib shuni aytish mumkinki 5E metodi yordamida korroziya mavzusini o'qitish nafaqat mavzuni qiziqarli va tushunarli qilib yetkazishga, balki o'quvchilarning mavzuni mustaqil o'rganish qobiliyatini rivojlantirishga ham yordam beradi. Bu yondashuv o'quvchilardalarda: Korroziyaning sabab va oqibatlarini anglash, uni oldini olish usullarini amalda qo'llash, hayotiy masalalarga ilmiy yondashish kabi ko'nikmalarni shakllantiradi.

Shu bilan birga, tajriba va muhokamalar orqali bilimlarni chuqurlashtirishga erishiladi. Natijada o'quvchilar faqat nazariy bilimlarni emas, balki ularni amalda qo'llashni ham o'rganadilar. Bu nafaqat ta'lim jarayonining samaradorligini oshiradi, balki ularning real hayotga tayyorligini ham ta'minlaydi.

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IMPROVING THE FINANCIAL RISK MANAGEMENT MECHANISM

Abstract: *This article discusses the practical and theoretical aspects and relevance of the concept of risk and profitability in financial management, the creation of a separate direction for financial risk management in the process of developing the organizational structure of management at enterprises. Financial managers of the enterprise assess financial risks. International experiences in assessing financial risks are studied.*

Key words: *financial risk, risk and return, corporate finance, financial management, concept of financial management, probability, standard deviation.*

As a result of the reforms being carried out in the Republic of Uzbekistan to develop the corporate governance mechanism, new areas of management that meet international standards are being introduced into the management system of corporate structures. In particular, as a result of the implementation of a number of regulatory and legal documents adopted in our country in recent years on the introduction of modern corporate governance practices and principles, we can observe many positive changes in the field of management of joint-stock companies.

Today, the practice of organizing and developing a financial risk management system at enterprises remains problematic. It should be recognized that, speaking in terms of joint-stock companies, special importance is attached to the issue of risk management in joint-stock companies operating in the financial sector. Separate departments for risk management have been established mainly in commercial banks and insurance companies, and in commercial banks this practice mainly analyzes problems related to credit risks, while in insurance companies it assesses risks related to insurance events.

In joint-stock companies operating in the real sector of the economy, insufficient attention is paid to the issue of organizing the financial risk management process, which requires further scientific and practical research in this area. In international practice, management and responsibility centers are introduced in the financial management system based on the specific characteristics of the company. This center and the responsible manager assigned to it are fully responsible for the areas of activity assigned to it. For example, such centers include investment management, financial risk management, anti-crisis financial management, financial stability monitoring, and cost and profit responsibility centers. The financial risk management center is assigned the tasks of developing a program of specific measures to assess risks and eliminate them, starting from studying the scientific and practical foundations of their occurrence. In general, the occurrence of financial risks in business activities is considered an objective phenomenon and

is an object that should be paid special attention to and managed by the financial managers of the enterprise when making management decisions. In general, two types of interrelated risks inherent in the activities of enterprises can be distinguished: operational and financial risks. According to the Russian economist A. Shapkin, who has conducted many scientific studies and research on the theoretical and practical issues of financial risk management, financial risks arise as a result of the inability of the enterprise to fulfill its financial obligations, and the main reasons for this are changes in the purchasing power of money, non-payment, changes in exchange rates, etc.

The author of many economic literature on the organization of a financial management system in enterprises, I.Ya. Lukasevich, explains the concept of financial risk as follows: Financial risks are a factor affecting the financial activities of any enterprise and are an objective process that occurs simultaneously with the conduct of entrepreneurial activity. Financial managers of the enterprise pay careful and serious attention to the issue of financial risk management in the process of making all management decisions. Based on the definitions given by economists above, in our opinion, financial risk is the probability of negative consequences, such as loss of income and financial resources, when carrying out economic and financial activities by enterprises in conditions of uncertainty of the external environment. When assessing financial risks, financial managers of the enterprise should pay attention to the following three areas: inflation risk; bankruptcy risk; risk per unit (sum) of income.

We will analyze the level of risk that may arise in the financial activities of enterprises “A” and “B” using the following conditional indicators. Risk and profitability are considered one of the main concepts of financial management, and the theoretical foundations of this concept were first explored in 1921 by the American economist Frank Knight in his work “Risk, Uncertainty and Profit”4. Later, the concept of the relationship between the level of risk and the level of profitability was improved by other scientists. The essence of the concept is that there is a direct proportionality between the amount of any income received from a business and the level of risk that arises at the same time, that is, the higher the expected income, the higher the level of risk, or vice versa. Many models of valuation of financial assets (financial instruments of investment) and the methodology of investment analysis in the system of portfolio theory are based on this concept. In the concept of risk and return, the concepts of "risk" and "return" are interpreted in a unique way, and there are some similarities with the definitions given to these concepts by other economic disciplines.

American economists James Van Horn and John Wachovich, authors of many books devoted to the theoretical foundations and practical aspects of financial management, explain the concepts of risk and profitability as follows. The return on investment for a certain period (for example, a year) is determined by adding the change in the market value of the investment object to the income received as a result of the realization of the right to own the investment object, and dividing it by the initial price of this object. Economists, departing from theoretical

approaches in giving a definition of the concepts of risk and profitability, have given definitions mainly based on calculation methods in the practice of companies.

In our opinion, special attention should be paid to the issue of organizing a financial risk management mechanism in enterprises operating in our country. To achieve this goal, it is advisable to implement the following tasks: to organize a separate direction for financial risk management in the process of developing the organizational structure of management at enterprises; to develop and implement a financial risk management policy at enterprises; to implement a risk assessment system for individual operations based on the financial and economic activities of enterprises; to improve the mechanism for calculating the profitability and risk level of corporate securities issued by joint-stock companies based on international practice.

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HUDUDLARNING INVESTITSION JOZIBADORLIGINI OSHIRISHNING NAZARIY-USLUBIY ASOSLARINI TAKOMILLASHTIRISH

Annotatsiya: *Ushbu tadqiqot hududlarning investitsion jozibadorligini oshirishning nazariy-uslubiy asoslarini takomillashtirishga qaratilgan. Tadqiqotda hududiy investitsion jozibadorlik tushunchasi va uning zamonaviy talqini tahlil qilingan, investitsion salohiyatni baholash metodikasi takomillashtirilgan hamda xorijiy tajribalar asosida investitsion muhitni yaxshilash bo'yicha tavsiyalar ishlab chiqilgan. Natijada hududlarning investitsion jozibadorligini oshirish mexanizmlari va mintaqaviy investitsion siyosatni takomillashtirish yo'nalishlari taklif etilgan bo'lib, ularning amaliyotga joriy etilishi hududlarning investitsion salohiyatidan samarali foydalanish imkonini beradi.*

Kalit so‘zlar: *hududiy investitsion jozibadorlik, investitsion muhit, investitsion salohiyat, mintaqaviy investitsion siyosat, investitsion faoliyat, investitsiyalarni jalb qilish mexanizmlari, investitsion loyihalar, hududiy rivojlanish, investitsion infratuzilma, investitsion qarorlar.*

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IMPROVEMENT OF THE THEORETICAL AND METHODOLOGICAL BASIS FOR INCREASING INVESTMENT ATTRACTIVENESS OF REGIONS

Abstract: *This study is aimed at improving the theoretical and methodological foundations of increasing the investment attractiveness of regions. The study analyzes the concept of regional investment attractiveness and its modern interpretation, improves the methodology for assessing investment potential, and develops recommendations for improving the investment climate based on foreign experience. As a result, mechanisms for increasing the investment attractiveness of regions and directions for improving regional investment policy are proposed, the implementation of which will allow for the effective use of the investment potential of regions.*

Keywords: *regional investment attractiveness, investment environment, investment potential, regional investment policy, investment activity, investment*

attraction mechanisms, investment projects, regional development, investment infrastructure, investment decisions.

KIRISH

Mamlakatimizda amalga oshirilayotgan keng ko'lamli iqtisodiy islohotlar jarayonida hududlarning investitsion jozibadorligini oshirish, investitsiyalarni jalb qilish mexanizmlarini takomillashtirish va investitsion muhitni yaxshilash masalalari muhim ahamiyat kasb etmoqda. Zamonaviy sharoitda hududlarning barqaror rivojlanishini ta'minlash, iqtisodiy salohiyatini yuksaltirish va raqobatbardoshligini oshirish bevosita investitsion jozibadorlik darajasi bilan bog'liq. O'zbekiston Respublikasi Prezidentining 2022-2026 yillarga mo'ljallangan Yangi O'zbekistonning taraqqiyot strategiyasida hududlarning investitsion jozibadorligini oshirish, xorijiy investitsiyalarni jalb qilishni rag'batlantirish va sarmoyadorlar uchun qulay sharoit yaratish ustuvor vazifalar sifatida belgilangan. Bu borada milliy iqtisodiyotni modernizatsiyalash va diversifikatsiyalash, ishlab chiqarishni mahalliylashtirish, eksport salohiyatini oshirish, hududlarda zamonaviy ishlab chiqarish va infratuzilma obyektlarini barpo etish bo'yicha izchil chora-tadbirlar amalga oshirilmoqda. Shu bilan birga, hududlarning investitsion jozibadorligini kompleks baholash, investitsion salohiyatdan samarali foydalanish, investitsion qarorlar qabul qilish jarayonlarini optimallashtirish va investitsion faoliyatni tashkil etishning zamonaviy mexanizmlarini joriy etish masalalari chuqur ilmiy tadqiqotlarni talab etadi. Mazkur holatlar mavzuning dolzarbligini belgilab beradi va ushbu yo'nalishda ilmiy izlanishlar olib borish zaruriyatini asoslaydi.

ADABIYOTLAR TAHLILI VA METODLAR

Hududlarning investitsion jozibadorligini oshirish masalalari ko'plab mahalliy va xorijiy olimlar tomonidan tadqiq etilgan. Iqtisodiy adabiyotlarda "investitsion jozibadorlik" tushunchasining turli talqinlari mavjud bo'lib, ularning aksariyati hududning investitsiyalarni jalb qilish qobiliyati va salohiyatini ifodalashga qaratilgan. Jumladan, G.A.Alexandr investitsion jozibadorlikni investorlar uchun qulay shart-sharoitlar majmuasi sifatida talqin etsa, V.V.Litvinova uni hududning ijtimoiy-iqtisodiy rivojlanish darajasi va investitsion xatarlar nisbati orqali ifodalaydi. O'zbekistonlik olimlardan D.G'ozibekov, N.Xaydarov, B.Salimov kabi tadqiqotchilar hududiy investitsion muhitni shakllantirishning metodologik asoslarini tadqiq etganlar.

Tadqiqot jarayonida tizimli va qiyosiy tahlil, statistik guruhlash, ekspert baholash, ekonometrik modellashtirish kabi usullardan keng foydalanilgan. Shuningdek, hududlarning investitsion jozibadorligini baholashda reyting usuli, SWOT-tahlil va ko'p mezonli baholash metodikasi qo'llanilgan. Empirik ma'lumotlar O'zbekiston Respublikasi Davlat statistika qo'mitasi, Investitsiyalar va tashqi savdo vazirligi hamda xalqaro tashkilotlarning rasmiy hisobotlaridan olindi. Tadqiqot natijalarining ishonchliligini ta'minlash maqsadida zamonaviy dasturiy vositalar yordamida ekonometrik tahlillar amalga oshirilgan.

Adabiyotlar tahlili shuni ko'rsatadiki, hududlarning investitsion jozibadorligini oshirish muammolari kompleks yondashuvni talab etadi va bu

borada xorijiy tajribalarni o'rganish hamda milliy sharoitga moslashtirish muhim ahamiyat kasb etadi. Shu bilan birga, raqamli texnologiyalar va innovatsion yechimlarning jadal rivojlanishi investitsion jarayonlarni tashkil etishning yangi mexanizmlarini ishlab chiqish zaruriyatini keltirib chiqarmoqda.

NATIJALAR

O‘tkazilgan tadqiqotlar natijasida quyidagi asosiy xulosalar shakllantirildi:

O'zbekiston hududlarida investitsion faollik ko'rsatkichlari sezilarli darajada farqlanishi aniqlandi. 1-jadval ma'lumotlariga ko'ra, Toshkent shahri (investitsion salohiyat indeksi - 0.892) va Toshkent viloyati (0.756) eng yuqori investitsion jozibadorlikka ega hududlar hisoblanadi. Ulardan keying o'rinlarda Navoiy (0.724) va Andijon (0.685) viloyatlari joylashgan.

1-jadval

O'zbekiston Respublikasi hududlarining investitsion jozibadorlik ko'rsatkichlari (2023 yil)

Hududlar	Investitsion salohiyat indeksi	Xorijiy investitsiyalar hajmi (mln. AQSh doll.)	Investitsion loyihalar soni	Umumiy reytingdagi o'rni
Toshkent sh.	0.892	2450.5	245	1
Toshkent vil.	0.756	1850.3	186	2
Navoiy vil.	0.724	1620.8	156	3
Andijon vil.	0.685	1280.4	142	4
Farg'ona vil.	0.654	980.6	134	5
Samarqand vil.	0.632	860.4	128	6
Buxoro vil.	0.612	780.5	115	7

Ekspert baholash natijalariga ko'ra (2-jadval), hududlarning investitsion jozibadorligiga eng kuchli ta'sir ko'rsatuvchi omillar sifatida transport-logistika infratuzilmasi (0.92), malakali ishchi kuchi mavjudligi (0.88) va mahalliy xom ashyo bazasi (0.85) aniqlandi.

2-jadval

Hududlarning investitsion jozibadorligiga ta'sir etuvchi asosiy omillar

Omillar	Ta'sir darajasi (0-1 oralig'ida)	Ahamiyatlilik reytingi
Transport-logistika infratuzilmasi	0.92	1
Malakali ishchi kuchi mavjudligi	0.88	2
Mahalliy xom ashyo bazasi	0.85	3
Bozor sig'imi	0.82	4
Ma'muriy to'siqlar darajasi	0.78	5

Hududiy investitsion loyihalarning tarmoq taqsimoti tahlili (3-jadval) shuni ko'rsatdiki, sanoat (32.5%), qishloq xo'jaligi (24.8%) va xizmatlar sohasi (18.6%) eng jozibador tarmoqlar hisoblanadi.

3-jadval

Hududiy investitsion loyihalarning tarmoq taqsimoti (2023 yil)

Tarmoqlar	Loyihalar soni	Ulushi (%)	Investitsiyalar hajmi (mln. dollar)
Sanoat	485	32.5	3250.4
Qishloq xo'jaligi	370	24.8	1850.6
Xizmatlar	278	18.6	1420.3
Qurilish	186	12.4	980.5
Transport va logistika	175	11.7	850.2
Jami	1494	100	8352.0

Olingan natijalar asosida hududlarning investitsion jozibadorligini oshirish bo'yicha quyidagi asosiy yo'nalishlar taklif etildi:

- Transport-logistika infratuzilmasini modernizatsiya qilish
- Kadrlar tayyorlash tizimini takomillashtirish
- Mahalliy xom ashyo bazasidan samarali foydalanish mexanizmlarini ishlab chiqish
- Ma'muriy to'siqlarni kamaytirish
- Raqamli texnologiyalarni keng joriy etish

MUHOKAMA

Hududlarning investitsion jozibadorligini tahlil qilish natijalari shuni ko'rsatdiki, O'zbekiston Respublikasida mintaqalar o'rtasida investitsion faollik ko'rsatkichlari bo'yicha sezilarli tafovutlar mavjud. Xususan, poytaxt Toshkent shahri va Toshkent viloyati eng yuqori investitsion salohiyatga ega bo'lib, bu hududlarda transport-logistika infratuzilmasining rivojlanganligi, malakali kadrlar mavjudligi va katta bozor sig'imi kabi omillar muhim rol o'ynaydi. Shu bilan birga, Navoiy va Andijon viloyatlari ham yuqori investitsion jozibadorlik ko'rsatkichlariga ega bo'lib, bu hududlarda erkin iqtisodiy zonalar va sanoat klasterlarining samarali faoliyati, eksportga yo'naltirilgan ishlab chiqarishning rivojlanganligi kuzatilmoqda. Ayni paytda Qoraqalpog'iston Respublikasi, Qashqadaryo va Jizzax viloyatlarida investitsion faollik nisbatan past bo'lib, bu hududlarda investitsion infratuzilmani rivojlantirish, kadrlar salohiyatini oshirish va biznes muhitini yaxshilash bo'yicha qo'shimcha chora-tadbirlar ko'rish zarurligini ko'rsatmoqda.

Ekspert baholash natijalariga ko'ra, hududlarning investitsion jozibadorligiga eng kuchli ta'sir ko'rsatuvchi omillar sifatida transport-logistika infratuzilmasi (0.92 ball), malakali ishchi kuchi mavjudligi (0.88 ball) va mahalliy xom ashyo bazasi (0.85 ball) alohida ajralib turadi. Bu esa hududlarda investitsion muhitni yaxshilash bo'yicha chora-tadbirlarni ishlab chiqishda aynan shu yo'nalishlarga ustuvor ahamiyat berish zarurligini ko'rsatadi. Transport infratuzilmasini modernizatsiya qilish, xalqaro standartlarga javob beradigan logistika markazlarini tashkil etish, kadrlar tayyorlash tizimini takomillashtirish va mahalliy resurslardan samarali foydalanish mexanizmlarini joriy etish dolzarb vazifalar hisoblanadi.

Hududiy investitsion loyihalarning tarmoq taqsimoti tahlili shuni ko'rsatadiki, sanoat tarmog'i (32.5%) eng jozibador yo'nalish bo'lib, bu sohada 485

ta loyiha amalga oshirilmoqda va ularning umumiy qiymati 3250.4 million AQSh dollarini tashkil etadi. Qishloq xo'jaligi sohasi (24.8%) ikkinchi o'rinda bo'lib, bu sohada 370 ta loyiha amalga oshirilmoqda. Xizmatlar sohasi (18.6%) uchinchi o'rinda bo'lib, unda 278 ta loyiha mavjud. Transport va logistika hamda qurilish sohalarida ham investitsion loyihalarning ulushi sezilarli darajada oshib bormoqda. Bu esa mazkur tarmoqlarda raqobat ustunliklarini shakllantirish va innovatsion yechimlarni joriy etish zarurligini ko'rsatadi.

Xorijiy investorlar tomonidan amalga oshirilayotgan loyihalar tahlili shuni ko'rsatadiki, Toshkent shahrida 245 ta, Toshkent viloyatida 186 ta va Navoiy viloyatida 156 ta loyiha amalga oshirilmoqda. Bu hududlarda xorijiy investitsiyalar hajmi ham yuqori bo'lib, Toshkent shahrida 2450.5 million AQSh dollari, Toshkent viloyatida 1850.3 million AQSh dollari va Navoiy viloyatida 1620.8 million AQSh dollarini tashkil etadi. Biroq, ayrim hududlarda, masalan, Qoraqalpog'iston Respublikasida xorijiy investitsiyalar hajmi 320.2 million AQSh dollari va loyihalar soni 58 tani tashkil etadi, bu esa mazkur hududda investitsion muhitni yaxshilash bo'yicha qo'shimcha choralar ko'rish zarurligini ko'rsatadi.

Tadqiqot natijalariga asoslanib, hududlarning investitsion jozibadorligini yanada oshirish uchun quyidagi strategik yo'nalishlar taklif etiladi: birinchidan, transport-logistika infratuzilmasini xalqaro standartlar darajasida modernizatsiya qilish, zamonaviy logistika markazlarini tashkil etish va raqamli texnologiyalarni keng joriy etish; ikkinchidan, kadrlar tayyorlash tizimini zamonaviy talablar asosida takomillashtirish, xalqaro tajribalarni o'rganish va malaka oshirish tizimini rivojlantirish; uchinchidan, mahalliy xom ashyo bazasidan samarali foydalanish mexanizmlarini ishlab chiqish, qayta ishlash sanoatini rivojlantirish va resurslardan oqilona foydalanish tizimini joriy etish; to'rtinchidan, ma'muriy to'siqlarni kamaytirish, byurokratik jarayonlarni soddalashtirish va davlat xizmatlarini to'liq raqamlashtirish orqali investorlar uchun qulay muhit yaratish; beshinchidan, investitsion jarayonlarni monitoring qilish va baholashning zamonaviy axborot tizimlari hamda sun’iy intellekt texnologiyalarini joriy etish.

XULOSA

O'tkazilgan ilmiy tadqiqot natijasida hududlarning investitsion jozibadorligini oshirishning nazariy-uslubiy asoslarini takomillashtirish bo'yicha quyidagi xulosalar shakllantirildi: O'zbekiston Respublikasida hududlarning investitsion jozibadorligi bo'yicha sezilarli farqlar mavjudligi aniqlandi, xususan, poytaxt mintaqa va yirik sanoat markazlarida investitsion faollik yuqori darajada ekanligi kuzatildi. Transport-logistika infratuzilmasi, malakali kadrlar mavjudligi va mahalliy xom ashyo bazasi hududlarning investitsion jozibadorligiga eng kuchli ta'sir ko'rsatuvchi omillar sifatida aniqlandi. Sanoat, qishloq xo'jaligi va xizmatlar sohasi eng jozibador tarmoqlar ekanligi va bu sohalarda xorijiy investitsiyalar ulushi yuqori ekanligi aniqlandi. Hududlarning investitsion jozibadorligini yanada oshirish uchun transport-logistika infratuzilmasini modernizatsiya qilish, kadrlar tayyorlash tizimini takomillashtirish, mahalliy resurslardan samarali foydalanish mexanizmlarini joriy etish, ma'muriy to'siqlarni kamaytirish va raqamli texnologiyalarni keng qo'llash taklif etildi. Tadqiqot natijalarining amaliyotga joriy

etilishi hududlarning investitsion salohiyatidan samarali foydalanish va barqaror iqtisodiy rivojlanishni ta'minlash imkonini beradi.

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CHORTOQ SUV OMBORINING TEXNIK XOLATI O'RGANISH

Annotatsiya: *Ushbu maqola Namangan viloyatidagi Chortoq suv omborining rekonstruksiyasi boyicha o'ganishlar hamda kuzatishlar olib borildi, suv omboridagi qurilishdagi va ishlatishdagi kamchiliklar yo'l qo'yilgan xatolar o'rganilib chiqildi hamda kerakli tavsiyalar berildi.*

Kalit so'zlar: *Avariyali suv tashlagich, to'g'on o'rkachi, berma, drenaj, ishchi zatvorlar, antikorroziya, pezometr, kollektor, reduktor.*

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STUDY OF TECHNICAL CONDITION OF CHORTOK WATER RESERVOIR

Abstract: *This article presents the results and observations of the reconstruction of the Chartok reservoir in Namangan region, the shortcomings and errors in the construction and operation of the reservoir were studied, and the necessary recommendations were made.*

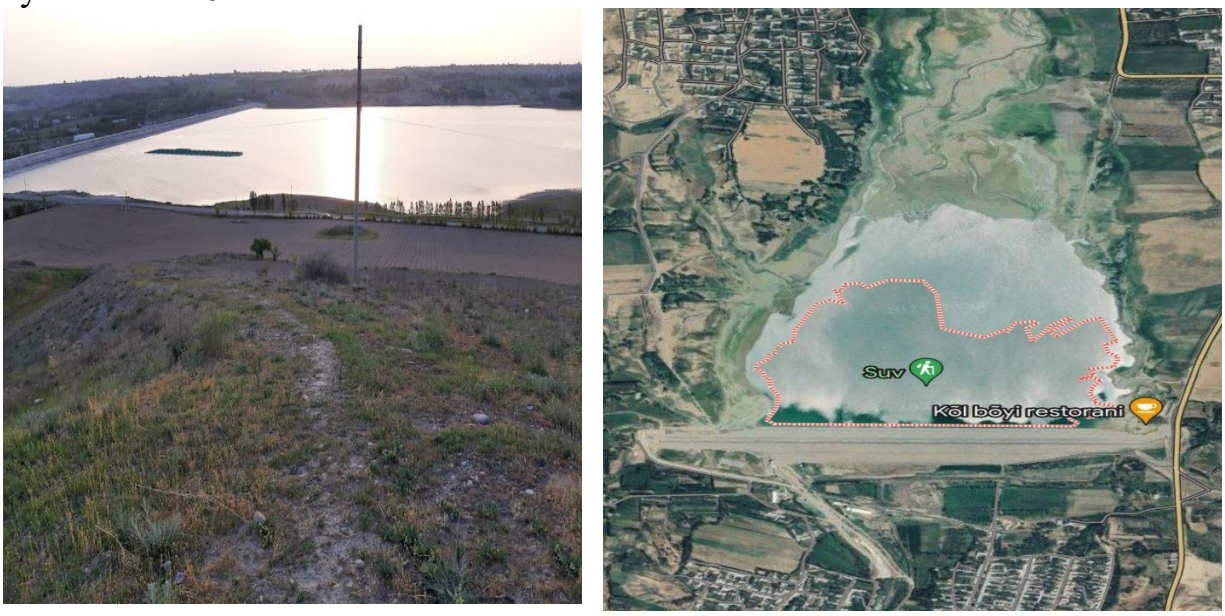
Keywords: *Emergency water discharge, dam embankment, berm, drainage, working gates, anti-corrosion, piezometer, collector, reducer.*

Hozirgi paytda mavjud to'g'onlar va boshqa gidrotexnik inshootlar xavfsizligi va ishonchligi darajasi pasayishidan jiddiy tashvishdamiz.

Respublikamizdagi gidrotexnik inshootlar qishloq xo'jalik ishlab chiqarishni 90 foizni, elektroenergiya ishlab chiqarishni 10 foizni suv bilan ta'minlaydi, umuman olganda iqtisodiyot boshqa sohalarining turg'unligi, asosiy o'sha

tumanlarda yashovchi 50 foizni aholining xavfsizligi ushbu gidrotexnik inshootlar xolati bilan bog'liqdir.

Chortoq suv ombori - Namangan viloyatida Chortoqsoy daryosi o'zanida qurilgan suv ombori. Daryo suvini mavsumiy tartibga soladi. 1navbati 1975-yilda qurib tamomlangan. To'liq hajmi 30,0 mln. m^3, to'g'oni balandligi 45 m, maksimal suv o'tkazish imkoniyati 50 m^3/sek. Namangan viloyatidagi Chortoq, Uchqo'rg'on tumanlaridagi ekinzorlarning suv ta'minotini yaxshilash imkoniyatini beradi. Suv ombori turi o'zanli, suv ombori loyixa bo'yicha 5100 ga yerni sug'orishga mo'ljallangan. Oqimni rostlash turi-mavsumiy. Suv ombori II- sinfga kiradi, seysmik balli -9 ballni tashkil etadi.



1-rasm. Chortoq suv ombori

Suv ombori tarkibi va tasnifi.

Chortoq suv ombori Namangan viloyatining Chortoq tumanida Chortoqsoy daryosida joylashgan. Suv ombori turi o'zanda joylashgan. To'g'on stvori Namangan viloyati Chortoq shahridan 20 km janubda belgilangan. Suv ombori loyiha bo'yicha 5100 ga yerni sug'orishga mo'ljallangan. Oqimni rostlash turi - mavsumiy.

Chortoq suv ombori tarkibiga quyidagi inshootlar kiradi.

1.Tug'on,

2. Suv chiqazgich inshooti,

3. Katastrofik suv tashlama.

4. Suv olib ketuvchi kanal

To'g'on.

To'g'on turi o'zanli. Yon prizmalar qum-shag'aldan bajarilgan,o'zan grunti soz tuproq, Yuqori qiyalik beton plitalar bilan qoplangan qalinligi 1-20 sm o'lchamlari 5x5 metr. Yuqori qiyalik m_1=3,5 Pastki qiyalik m_2=1,25,

Grunt zichligi: o'zakda g=1,65 t/m.

qum shag’alda *g*=2,0 t/m .
Tug’on uzunligi–2.75 km.
O’rkach kengligi-8 m.

Suv chiqazgich inshooti.

Suv chiqazgich inshooti PK 11-50 da joylashgan.

Suv chiqazgich kirish qismi ta’mirlash zatvorlari va ushlashga panjara bilan jixozlangan o’lchamlari 11,4x11,4 m., Balandligi-11,1 m. Ikki ko’zlik temir-beton quvur, turtburchak shaklda, o’lchamlari 4,3x3,1m, uzunligi 15 m, suv sarfi 30 m^3/s., Zatvorlar kamerasi to’g’on tanasida joylashgan temir-beton massivdan iborat. Har bitta galereya 1 ta ishchi 1 ta ta’mirlash yassi zatvorlari bilan jixozlangan, Quvur uzunligi - 180 m. Zatvorlar yuqori xizmat kamerasidan boshqariladi. Ularga borish uchun transport galereyasi ko’zda tutilgan.

Katastrofik suv tashlama.

Katastrofik suv tashlama. Suv tashlama traktidan iborat. Trapetsiya shaklidagi kanal shaklida bajarilgan, uzunligi 435 metrni tashkil etadi. Maksimal suv sarfi 70 m^3/s Tubi kengligi 1=5 m Qiyaligi m=1,5 nishabligi i=0,057 qoplama qalinligi t=0,3 m.

Suv olib ketuvchi kanal.

Suv olib ketuvchi kanalning suv o’tkazish o’tkazadigan qobiliyati 40 m^3/s tashkil etadi, kanal PK3+49 da joylashgan, kengligi 5 m, qurilish balandligi 2,1-2,6 metrni tashkil etadi.

Suv omborining asosiy marfometrik xarakteristikalari va xarakterli chuqurliklari quyidagilar.

Uzunligi - 2,75 km.
Balandligi - 45,0 m
Kengligi maksimum-1,25 km o’rtacha 0,9 km (0,9-1,25).
Chuqurligi maksimum 43,0 m, o’rtacha 30 m (30-43) m.
NDS da suv ombori yuzasi 2,1 km.
Chuqurligi 2 m dan kichik bo’lgan maydon 0,2 km^2.
Suv ombori to’liq xajmi 30 mln.m^3.
Suv ombori foydali xajmi 21,1 mln.m^3.
Normal dimlangan satx otmetkasi (NDS) 694,2.
Foydasiz (o’lik) xajmi otmetkasi (UXS) 671,0.

Xulosa. Chortoq suv ombori texnik xolatini o’rganish davomida “Gidrotexnika inshootlari xavfsizligi to’g’risidagi” Qonuni, suv ombori xavfsizlik mezonlari, “Suv ombori ekspluatatsiya xizmati ishini tashkil qilishning asosiy qoidalari”ni diqqat bilan o’rgandim. Suv omborini ma’lumotlarni ko’zdan kechirish, ko’rib chiqishda aniqlangan kamchiliklarni 2020 yil aniqlangan.

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ASSESSMENT OF GROUNDWATER QUALITY BY NITRATE ANIONS

Abstract:*This study is aimed at assessing the water quality based on nitrate concentrations in groundwater in Amudarya district and Kungirot district of the Republic of Karakalpakstan, Uzbekistan. The main objective is to analyze the quality of drinking water sources based on nitrate content. The research object is nitrate anions. The methodology includes collecting groundwater samples at a depth of 10-20 meters and analyzing nitrate concentrations following the GOST 33045-2014 standard. The results showed nitrate concentrations of 9.3 mg/l at station 1 and 16 mg/l at station 2 in 2022. In 2023, nitrate concentrations decreased at both stations.*

It is known that high nitrate concentrations in drinking water can lead to methemoglobinemia, cancer, and cardiovascular diseases, particularly in infants and elderly individuals.

The novelty of this work includes recommendations aimed at introducing a permanent environmental monitoring system and improving drinking water quality, which is crucial for protecting public health.

Key words: *Nitrate anion, groundwater, methemoglobinemia, GOST 33045-2014, agricultural activity, health risks, environmental technologies.*

1. Introduction

Maintaining and protecting the quality of water sources in the biosphere is important for the stability of every living organism in the ecosystem. Agricultural activity, especially the flow of nitrogen compounds, the increase of nitrate and nitrite concentrations in surface and underground water has been proven by scientists from all over the world. An increase in nitrates in drinking water can cause various problems in water supply systems, especially in relation to human health [1-3]. Therefore, one of the most important issues is the monitoring of the amount of nitrates in the underground water formed in agricultural lands according to constant and accurate methods[54]. The increase in nitrate concentrations in drinking water is primarily attributed to agricultural runoff and wastewater pollution.

[54] Guidelines for Canadian Drinking Water Quality: Guideline Technical Document - Nitrate and Nitrite: https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-nitrate-nitrite/page-2-guidelines-canadian-drinking-water-quality-guideline-technical-document-nitrate-nitrite.html

According to the guidelines of the World Health Organization (WHO), the maximum permissible concentration for nitrates should not exceed 50 mg/l. This limit is established to prevent methemoglobinemia, a condition that affects infants[55]. APPROVED in Uzbekistan on January 10, 2005, No. 0182-05, June 1, 2006, No. 0211-06 and by the order of the Standards Institute of Uzbekistan No. 9/MSt of April 9, 2024 According to regulations such as «UzMSt 133:2024», this range is defined as 45 mg/dm³. The limits defined in these documents serve as the most important tool in maintaining the health of the population based on the tolerance limit [4-6].

2. Materials and methodology

2.1. Research object

The research focuses on the nitrate anion concentrations in groundwater at depths of 10-20 meters in two districts of Karakalpakstan, Uzbekistan. The stations are located in Almazor MFY (Station 1) in Amudarya district and Kungirot (Station 2) district. Groundwater samples were collected and analyzed following the GOST 33045-2014 standard to determine nitrate levels.

2.2. Nitrate Determination Procedure

Nitrate concentrations in the water samples were measured using the colorimetric method with sodium salicylate and sodium hydroxide, as described in GOST 33045-2014. Standard reagents were prepared, and the procedure was followed to detect nitrate levels using a photometer.

3. Results and discussion

3.1. Analysis results

Table 1 presents the results of laboratory analysis according to Uzbekistan's National Standards. The samples were collected from stations 1 and 2 in February, May, August, and November of 2022 and 2023.

As shown in Table 1, nitrate concentrations in 2022 were higher at Station 2 compared to Station 1, with values of 9.3 mg/l at Station 1 and 16 mg/l at Station 2. In 2023, nitrate concentrations decreased at both stations. The data indicates seasonal fluctuations in nitrate levels, with the highest concentrations observed in August 2023.

[55] World Health Organization. (2022). Guidelines for drinking-water quality: incorporating the first and second addenda. World Health Organization.

Table 1. Amount of nitrate anions in groundwater samples taken from the first and second stations (2022-2023).

Data	Amount of NO_3^- in 1 liter of water	
	Station 1	Station 2
2022-02	8.7	14.8
2022-05	9.3	16
2022-08	8.2	15.8
2022-11	9.2	15
2023-02	9.9	11.5
2023-05	11.3	10
2023-08	12.6	11
2023-11	12.8	10.5

3.2. Growth trends

If we depict the variable values in the above table 1 through diagram 1, the growth rate in 2022 station 1 showed lower indicators compared to station 2. However, in 2023, the amount of nitrates at station 2 increased significantly. At station 1, the amount of nitrates changed depending on the periods, and the highest value was 9.3 mg/l in 2022 and 12.8 mg/l in 2023. These values were 16.8-11.5 mg/l at station 2.

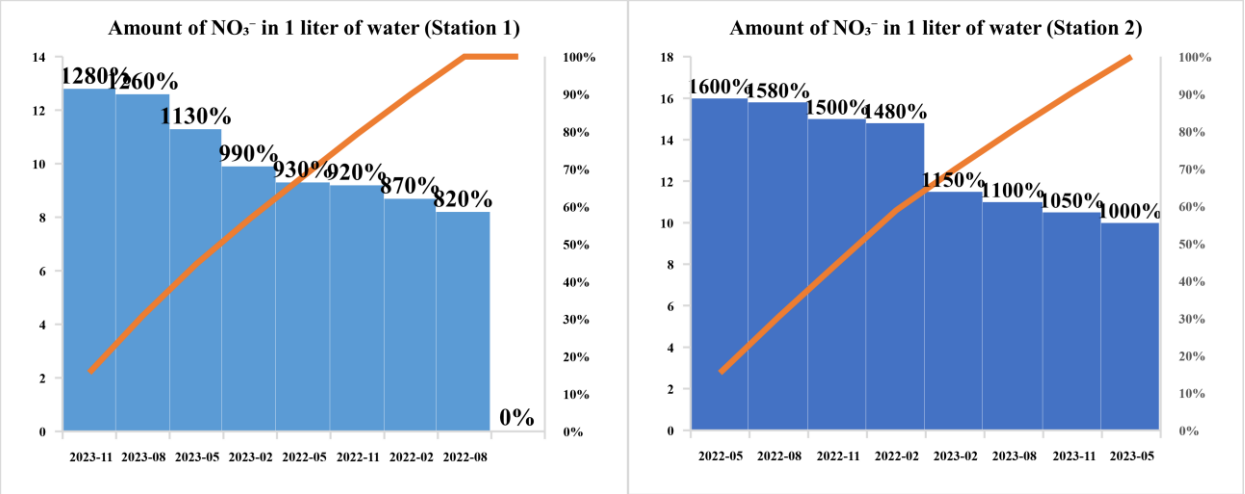

Diagram 1. Growth trends of NO_3^- anions during 2022-2023

3.3. Toxicological effect

Drinking water with high nitrate or nitrite ions causes Methemoglobinemia (MetHb). This disease is more common in babies. The reason is their low level of resistance to environmental factors. First of all, in the mechanism of its appearance, NO_3^- ions enter the body together with water, and intestinal microorganisms (*Enterobacteriaceae, Bacteroides, Lactobacillus*) convert NO_3^- ions into NO_2^- ions [1;4;6-8]. We can describe this process by the following reaction equation.

$$NO_3^- \rightarrow NO_2^-$$

NO_2^- ions enter the blood and oxidized Fe^{2+} to methemoglobin - Fe^{3+}.

$$Fe^{2+} + NO_2^- + 2H^+ \rightarrow Fe^{+3}\ (MetHb) + NO + H_2O$$

If we analyze the mechanism of action on the human body in a broader way, drinking water with high nitrate concentrations can lead to methemoglobinemia (MetHb), a condition that is particularly dangerous for infants. Nitrate ions (NO_3^-) are reduced to nitrite ions (NO_2^-) by intestinal bacteria, which then oxidize iron in hemoglobin, forming methemoglobin (Fe^{3+}). This reduces the ability of blood to carry oxygen, leading to hypoxia, also known as "blue baby syndrome." Prolonged exposure to elevated nitrate levels can also cause cancer and cardiovascular disorders [3;5;8].

The effects of nitrate concentrations in groundwater on human health are classified as follows:

10 mg/l: Safe for consumption.
10-20 mg/l: Low risk, but MetHb may occur.
20-50 mg/l: Dangerous, especially for young children.
> 50 mg/l: Highly dangerous and unsuitable for consumption.

4. Summary

In conclusion, the nitrate content at Station 1 ranges from 8.7 mg/l to 12.8 mg/l, while at Station 2 these amounts range from 10.5 mg/l to 16 mg/l. This means that nitrates in the water are moderately toxic.

5. Recommendations

1. A permanent and accurate groundwater monitoring system should be established to regularly assess nitrate concentrations and address environmental issues promptly.
2. Agricultural practices should adopt environmentally sustainable technologies, improve wastewater treatment, and reduce the impact of nitrogen compounds on the ecosystem.
3. Public awareness campaigns should educate the population on the health risks associated with high nitrate concentrations and promote measures to improve drinking water quality.
4. The regulatory framework in Uzbekistan should be updated to align with modern standards and address contemporary environmental challenges. Specifically, the maximum permissible nitrate concentrations should be reviewed.

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THEORETICAL BASIS OF THE APPLICATION OF THE PROJECT METHOD IN TEACHING NATURAL SCIENCES

Abstract:*This article examines the theoretical foundations, practical advantages, and methods of using the project method in teaching natural sciences. The project method serves to develop students' independent thinking, creative solution-finding, and research skills in the educational process. The article highlights the fact that the project method is based on the principles of constructivist pedagogy and its importance in connecting theory with practice in natural science lessons. Examples of project activities for chemistry, biology, and physics lessons are also presented. The effectiveness of this method in the educational process is analyzed, and recommendations are given for its successful application in teachers' activities.*

Key words: *Project method, natural sciences, educational technologies, constructivist pedagogy, creative thinking, independent learning, connection with practice, educational process, research, collaboration.*

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TABIIY FANLARNI O‘QITISHDA LOYIHA METODINI QO‘LLASHNING NAZARIY ASOSLARI MAKTAB O‘QUVCHILARIGA TABIIY FANLARNI LOYIHA ISHLARI ASOSIDA O‘QITISH METODIKASI

Maqola annotatsiyasi *:Ushbu maqolada tabiiy fanlarni o‘qitishda loyihaviy metoddan foydalanishning nazariy asoslari, amaliy afzalliklari va qo‘llanish usullari ko‘rib chiqilgan. Loyihaviy metod ta’lim jarayonida o‘quvchilarning mustaqil fikrlash, ijodiy yechim topish va ilmiy-tadqiqot ko‘nikmalarini rivojlantirishga xizmat qiladi. Maqolada loyiha metodining konstruktivistik pedagogika tamoyillariga asoslangani, tabiiy fanlar darslarida amaliyot bilan nazariyani bog‘lashda uning ahamiyati yoritilgan. Shuningdek, kimyo, biologiya va fizika darslari uchun loyihaviy faoliyatning misollari keltirilgan. Ushbu metodning ta’lim jarayonidagi samaradorligi tahlil qilinib, uni o‘qituvchilar faoliyatida muvaffaqiyatli qo‘llash bo‘yicha tavsiyalar berilgan.*

Kalit so‘zlar *Loyiha metodi, tabiiy fanlar, ta’lim texnologiyalari, konstruktivistik pedagogika, ijodiy fikrlash, mustaqil ta’lim, amaliyot bilan bog‘liqlik, o‘quv jarayoni, ilmiy-tadqiqot, hamkorlik.*

- Kirish (Introduction)

Tabiiy fanlarni o‘qitish jarayonida ta’limning innovatsion usullari va texnologiyalarini qo‘llash, o‘quvchilarning fanlarga bo‘lgan qiziqishini oshirish va ularni mustaqil fikrlashga o‘rgatishda muhim ahamiyatga ega. Loyihaviy ta’lim metodlari o‘quvchilarning faolligini oshirish, amaliy va nazariy bilimlarni birlashtirish, ijodiy fikrlashni rivojlantirish uchun samarali vositadir. Ushbu maqolada loyihaviy metodning mohiyati, nazariy asoslari va tabiiy fanlar darslarida qo‘llanishiga oid masalalar ko‘rib chiqiladi.

Loyiha metodi (project-based learning) – ta’lim oluvchilarni real hayotdagi muammolarni hal qilish jarayoniga jalb etuvchi, ularga muammoli fikrlash, ijodkorlik, jamoaviy hamkorlik ko‘nikmalarini shakllantirishga qaratilgan ta’lim usuli. Bu metodning asosiy xususiyatlarini sanab o‘tamiz:

Birinchidan, o‘quvchilar mustaqil ravishda ma’lum bir muammoni o‘rganadilar.

Ikkinchidan, loyihaning yakuniy mahsuli yaratiladi (prezentatsiya, model, tadqiqot, hisobot va h.k.).

Uchinchidan, jarayon davomida o‘quvchilar ilmiy, amaliy va ijtimoiy ko‘nikmalarni rivojlantiradilar.

Tabiiy fanlar (biologiya, kimyo, fizika, geografiya) ko‘pincha abstrakt tushunchalar va murakkab jarayonlarni o‘rganishni talab qiladi. Loyihaviy metod bu fanlarni o‘qitishda quyidagi ko‘rgazmalilik va amaliyot bilan bog‘liqlik, mustaqil ta’lim olish va ijodiy fikrlash va yechim topish ko‘nikmasi rivojlantirish kabi afzalliklar beradi.

- Mavzuga oid adabiyotlarning tahlili (Literature review)

Nazariyani amalga oshirish orqali o‘rganish haqida ma’lum bo‘lgan narsalarning aksariyati bugungi kunda ta’limni o‘zgartirgan tarixiy onglarning hissasi tufayli edi. Bu nazariya mashhur amerikalik faylasuf va salibchi Jon Dyui va braziliyalik pedagog Paulo Freire tomonidan ochib berilgan va ommalashtirilgan. Zamonaviy funksional psixologiyaning asoschilaridan biri hisoblangan Dyui bu g’oyani Chikago universiteti laboratoriya maktabini tashkil etish orqali amalga oshirdi. Uning qarashlari ilg’or ta’lim amaliyotini yo‘lga qo‘yishda muhim ahamiyatga ega[7]. U an’anaviy ta’limdan farqli ravishda progressiv ta’lim tarafdori edi. Dyui samarali ta’lim o‘zaro ta’sirlar orqali amalga oshiriladi va maktab bu o‘zaro ta’sirlar sodir bo‘ladigan ijtimoiy institut ekanligiga ishondi[2]. Amal oshirish orqali o‘rganish sinfda bolalar o‘rganishi va muammolarni o‘z yo‘lida, o‘z tezligida, bolalarni hisobga oladigan o‘qituvchi ko‘rsatmalari orqali jamoa sifatida hal qilishlari uchun makondir. Bu o‘quvchilar o‘quv jarayonida faol ishtirok etadigan sog’lom va sezgir o‘quv hamjamiyatini rivojlantiradi. Amalga oshirish orqali o‘rganish nafaqat akademik o‘sishga, balki ijtimoiy, intellektual, hissiy, jismoniy va ma’naviy o‘sishga ham qaratilgan.

Freire o‘zining “Mazlumlar pedagogikasi” deb nomlanuvchi eng ta’sirli asarlari asosida onglilikni shakllantirish va tanqidiy ko‘nikmalarni rivojlantirishga intilayotgan individual rivojlanishning muhim rolini ta’kidladi. Freyre diktatura davrida Braziliyada bo‘lganida, qashshoqlik va baxtsiz hayot tarzini boshdan

kechirdi. Shuning uchun u ta’limni anglash va kam rivojlanganlik bilan bog‘liq muammolardan xalos bo‘lish vositasi sifatida targ‘ib qildi. Shunday qilib, bu tajribalar uning ta’lim haqidagi g‘oyalarini qanday qurishiga hissa qo‘shadigan omil bo‘ladi[3].

Richard Du Four, loyiha ishlari asosida o‘qitishni professional ta’lim jamoalari rivojlantirishda qo‘llagan. Richard Du Four ta’lim bo‘yicha maslahatchi va Amerikada ta’lim tizimini yaxshilashni istagan olimlardan biri edi. U o‘qituvchilar o‘zlarining sinfdagi amaliyotlarini tahlil qilish va yaxshilash uchun birlashadigan professional o‘quv jamoalari orqali maktablarni yaxshilash harakatining yetakchi ovozi edi[2][1].

Amerika ta’lim tizimi namoyondalari Jeremi Bruner kashfiyotlarni o‘rganish va spiral o‘quv dasturi tushunchalarini kiritdi. Kashfiyotlarni o‘rganish o‘quvchilarning berilgan o‘quv dasturini mustaqil ravishda o‘rganishi va o‘z tajribalari asosida qurish usuli sifatida tasvirlangan. Spiral o‘rganish Brunerning shunga o‘xshash mavzularni har qanday yoshda, lekin fikrlash bosqichiga ko‘ra o‘rgatish mumkin degan g‘oyasi edi[4].

Devid Kolb tajribaviy o‘rganish modelini yaratish uchun Kurt Lyuin, Jon Dyui va Jan Piagetdan ilhom oldi. Kolb samarali o‘quvchilar aniq tajriba qobiliyatlari (TQ), reflektiv kuzatish qobiliyatlari (RKQ), mavhum kontseptualizatsiya (MK) va faol eksperiment (FE) qobiliyatlariga ega bo‘lishi kerak deb hisoblardi. Aniq tajriba jalb qilinmoqda va yangi tajribalarda faol ishtirok etmoqda. Reflektiv kuzatish - bu savollar berish va tajribani muhokama qilish. Abstrakt kontseptuallashtirish - bu o‘quvchi o‘ylaydi va xulosalar qila boshlaydi. Faol eksperiment - bu qarorlar qabul qilish va muammolarni hal qilish uchun o‘z xulosalarini topshiriqda qayta qo‘llashdir[5][8].

Buck Institute for Education instituti tomonidan tashkil qilingan talabalarni loyihaga asoslangan o‘qitish (Project-based learning) asosida o‘z kasbidagi real voqelikka tayyorlovchi hamda o‘qituvchilarga metodik yordam ko‘rsatishga mo‘ljallangan “https://www.pblworks.org” elektron plaformasini o‘rganish, kuzatish, olib borilgan ishlarni tahlil qilish natijasida o‘qituvchi tomonidan o‘ylab topilgan, uning aniq ko‘rsatmalari va tashxisiga yo‘naltirilgan “loyihani bajarish” hamda kasbiy hayotda real sodir bo‘ladigan, erishilgan yoki yaratilgan mahsulot, taqdimot boshqalar amalda foydalanishi uchun zarur bo‘lgan “loyihaga asoslangan o‘qitish” tushunchalarining farqli jihatlari aks etgan qiyosiy jadvalni mualliflik munosabati bilan takomillashtirgan[7] (1.1-jadval):

1.1-jadval. Loyihani bajarish va loyihaga asoslangan o‘qitish mazmunining qiyosiy jadvali

Tayyor loyihani bajarish	Loyihaga asoslangan o‘qitish
Aniq belgilangan qisqa muddat ichida bajariladi	Uzoq muddatli (bir hafta, oy yoki bir yil davomida)
An’anaviy dasturni faollashtiruvchi, yo‘riqnomaga qo‘shimcha sifatida kiritilgan birlik	Integratsiyalashgan qo‘llanma asosida yaratilgan loyiha (Loyiha bu – asosiy birlik)
O‘qituvchi tomonidan qat’iy belgilangan yo‘nalish asosida	O‘quvchilarning taklifi hamda so‘rovi asosida

Tashxis qilingan natija(mahsulot)ga qaratilgan	Natija(mahsulot)ga va jarayonda o‘qitishga, o‘rganishga asoslangan
Ko‘p hollarda talab qilingan standartlar va ko‘nikmalar bilan bog‘liq emas	Davlat ta’lim standartlariga va muvaffaqiyatni ta’minlovchi ko‘nikmalarga moslashtirilgan
Ba’zan guruhda, ba’zan yakka tartibda sinf xonasida yoki uyda ham bajarilishi mumkin	O‘quvchilar bilan hamkorlikda bajariladi, shuningdek, o‘qituvchining loyihani amalga oshirish jarayonida sinf ichidagi vaziyatdan kelib chiqib belgilagan ko‘rsatmalarini o‘zida qamrab oladi
Dars jarayoni yoki maktab ichida qoladi	Haqiqiy dunyo uchun zarur bo‘lgan mazmun (kontekst) va dastur yaratiladi
Loyihaning yakuniy natijasi sinfda yoki maktabda ko‘rsatiladi	Loyihaning natijalari sinf hamda tegishli

- Tadqiqot metodologiyasi (Research Methodology)

Tadqiqotchi-trener Terri Xeykning o‘z blogidagi (Teach Thought) qarashlariga ko‘ra loyihaga asoslangan o‘qitishning uch turi mavjud. Bulardan birinchisi, qiyinchilikka asoslangan o‘qitish/muammoga asoslangan o‘qitish (Challenge-Based Learning/Problem-Based Learning), ikkinchisi, muhitga yoki joyga asoslangan ta’lim (Place-Based Education), uchinchisi, faolikka asoslangan o‘qitish (Activity-Based learning) sanaladi. Qiyinchilikka asoslangan o‘qitish – bu o‘quvchilarni o‘z uylarida, maktablarida va jamoalarida say-harakatlar orqali mavjud real muammolarga yechim topish uchun kundalik hayotlarida zarur bo‘lgan texnologiyalardan foydalanishga undaydigan o‘qitish va o‘rganish uchun qiziqarli fanlararo yondashuv. Olimning fikricha, har qanday loyiha ma’lum bir qiyinchilikni hal qilishga, undan ma’lum natijadorlik orqali rivojlanishga qaratilsa, u haqiqiy loyihaga asoslangan o‘qitish sifatida namoyon bo‘ladi. Joyga yoki etnik kelib chiqishiga asoslangan ta’lim o‘quvchilarni mahalliy meros, madaniyatlar, landshaftlar, imkoniyatlar va tajribalarga olib kiradi, ushbu o‘qitish turidan til san’ati, matematika, ijtimoiy fanlar va boshqa fanlarni o‘rganish uchun asos sifatida foydalaniladi hamda shu orqali jamoa bo‘lib mahalliy maktab yoki xizmat ko‘rsatish loyihalarida ishtirok etish orqali o‘rganishni ta’kidlaydi. Faollikka asoslangan o‘qitish ko‘proq amaliy mashg‘ulotlar uchun mo‘ljallangan[5],[6].

- Tahlil va natijalar (Analysis and results)

Tadqiqot jarayoni butun bir o‘quv yili davom etgan. Har bir usulning konstruksiyalari o‘qituvchilarga majburlanmagan, aksincha ular iroda erkinligiga ega edi. Gipotezalardan bexabar bo‘lgan assistentlar o‘quv yili boshlanishidan oldin texnikalarni farqlash uchun o‘qitildi. Bundan tashqari, viktorinalarni yaratgan ikkita tadqiqotchi bor edi va ular deyarli har uch haftada nazorat qilinardi[9]. Taqdim etilgan viktorinalarda ko‘p tanlovli, to‘g’ri va noto‘g’ri va qisqa javob savollari kabi turli xil variantlar mavjud edi. Viktorinaning har bir konstruktsiyasida Bloom taksonomiyasining har bir darajasi bo‘yicha uchta savol bor edi. O‘quv yili davomida o‘qituvchilar to‘rtta murakkab imtihonlarni yaratdilar, ular yakuniy o‘quvchilarning umumiy bahosining bir qismi bo‘ldi[8].

- Xulosa va takliflar (Conclusion/Recommendations)

Loyiha faoliyati o‘quvchilarning tanqidiy fikrlash qobiliyatlarini rivojlantirishda va ilmiy-ijodiy yondashuvlarini mustahkamlashda katta rol o‘ynaydi. Ushbu yondashuv, o‘quvchilarning fanlarga qiziqishini oshirib, amaliy natijalarga erishish uchun motivatsiyani kuchaytiradi.

O‘quvchilarning fanga oid kompetensiyalarini rivojlantirish uchun nazariy bilimlarni amaliy ko‘nikmalar bilan uyg‘unlashtirish zarur. Loyiha ishlari orqali o‘quvchilar o‘z bilimlarini qo‘llash va yangi ma’lumotlarni mustaqil o‘rganish imkoniyatiga ega bo‘lishadi.

O‘qitish jarayonida integratsion yondashuvlar va zamonaviy texnologiyalarni qo‘llash fanga oid kompetensiyalarni rivojlantirish uchun samarali usullardan biridir. Loyiha ishlari o‘quvchilarning fanlararo aloqalarni tushunishiga va keng doirada fikrlash qobiliyatlarini rivojlantirishga yordam beradi.

Loyihalash jarayoni o‘quvchilarda darslarga bo‘lgan qiziqishni oshiradi. O‘quvchilar o‘zlari mustaqil ravishda muammolarni hal qilish va tadqiqot o‘tkazishga jalb qilinadi, bu esa ularning ta'limga bo‘lgan motivatsiyasini kuchaytiradi.

O‘quvchilar guruhlarda ishlash, ma'lumot izlash, tahlil qilish, taqdimot qilish kabi ko‘nikmalarni egallaydilar. Bu esa ularga nafaqat tabiiy fanlar doirasida, balki umuman kelajakdagi kasbiy faoliyatlarida ham foydali bo‘ladi.

Takliflar

Loyihalar jarayonida raqamli texnologiyalar va onlayn platformalarni qo‘llash o‘quvchilarning bilimlarini boyitishga va ularga keng ko‘lamli manbalar bilan ishlash imkoniyatini yaratishga yordam beradi.

Tabiiy fanlar bo‘yicha loyiha ishlari ilmiy muassasalar va universitetlar bilan hamkorlikda olib borilishi kerak. Bu o‘quvchilarga ilmiy laboratoriyalar va haqiqiy ilmiy tadqiqotlarga yaqinlashish imkonini beradi.

Yuqoridagi takliflar tabiiy fanlarni loyiha ishlari asosida o‘qitishni yanada samarali qilishga, o‘quvchilarning ta'lim sifatini oshirishga va ularni kelajakdagi muvaffaqiyatlari uchun tayyorlashga yordam beradi.

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OGAHIY IJODIDA MUAMMO JANRINING O'RNI

Annotatsiya: *Ushbu maqolada Muhammadrizo Ogahiyning "Ta'viz ul - oshiqin" devoni tarkibidagi "Olloh", "Odam", "Nuh" va "Xon" ismlari yashiringan muammo janriga oid she'rlari tahlilga tortiladi. Shuningdek, muammo janrining tarixi hamda turkiy adabiyotda bu janrining shakllanishida shoirning ustozlar an'analarining munosib davomchisi ekanligiga diqqat qaratiladi.*

Kalit so'zlar: *Muammo janri, ism moddasi, muammo hal(l)i, san'at, variantlilik, intiqod, tas'hif, qalb, muammonavis.*

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THE ROLE OF THE PROBLEM GENRE IN OGAHI'S CREATION

Abstract: *In this article, Muhammad Reza Ogahi's poems of the "Ta'viz ul-ashiqin" divan, in which the names "Allah", "Adam", "Noah" and "Khan" are hidden, are analyzed. Also, attention is paid to the history of the problem genre and the fact that the poet is a worthy follower of the traditions of the masters in the formation of that genre in Turkish literature.*

Keywords: *Problem genre, the component of the name, problem solution, art, variation, intiqod, tas'hif, qalb, muammonavis.*

O'zbek mumtoz adabiyotida ko'hna Sharq adabiyotida bo'lganidek, ilm va so'z san'ati toliblari tafakkuri, zakovatini shakllantirish hamda yuksaltirishda muammo janri muhim rol o'ynaydi.

Muammo so'zining lug'aviy ma'nosi arab tilidagi "a'mo", ya'ni "ko'r" so'zidan olingan bo'lib, "ko'r qilingan", "berkitilgan", "yashiringan" degan ma'nolarni anglatadi. "Muammo Sharq adabiyoti, jumladan, o'zbek mumtoz adabiyotida muayyan kichik janrdagi she'rda yashiringan nomni topish bilan bog'liq. Muammoda yashiringan fikr mantiqan she'r mavzusiga to'g'ri kelishi va nazarda tutilgan muayyan fikr, voqea - hodisa yoki shaxs faoliyati bilan bog'liq fakt bilan aloqador bo'lishi kerak. Unda ishora muhim rol o'ynaydi va ishora etilgan so'z **"ism moddasi"** deb yuritiladi, muammoni yechish yoki oddiy qilib aytganda topish – **"hal(l)"** , ya'ni "masalani hal qilish" tushunchasi bilan ifodalanadi"[56].

[56] Sirojiddinov Sh. Matnshunoslik asoslari. – Toshkent: Navoiy universiteti NMU, 2019. 103 - bet.

“Muammo mumtoz adabiyotdagi hajm jihatdan kichik janrlardan biri. Muammoni g‘azal, qit’a, hatto qasida janrlari ko‘rinishida ham yozganlar. Lekin muammoning asosiy qismi bir bayt, ya’ni ikki misra, ba’zan ikki bayt hajmiga teng bo‘ladi. Ana shu hajmda biror nomni badiiy estetik zavq bera olish darajasida yashirib ayta olsa, ijodkor o‘z topqirligi, mohirligini namoyon qila oladi. Muammo dastlab arab adabiyotida X-XI asrlarda ko‘zga tashlana boshlagan bo‘lsa-da, fors adabiyotida XIV asrda alohida janr sifatida shakllandi”[57]. “Muammo haqida o‘tmishda ko‘p risolalar yozilgan. Uning tarixi haqida ma’lumot beruvchi muhim manbalardan biri Sharafiddin Ali Yazdiyning “Hulali mutarraz dar fanni muammo va lug‘az” (Muammo va lug‘zlar haqida ziynatli yoping‘ich) asaridir. Sharafiddin Ali Yazdiy muammo janrini **“san’at”** deb atagan. Alisher Navoiy va ko‘pgina fors shoirlari unga badiiy so‘z san'atining bir vositasi sifatida alohida e’tibor qaratganlar. Alisher Navoiy Yazdiyning risolasi bir qadar murakkab yozilganini nazarda tutib, o‘z zamondoshlarining ba’zilariga, xususan, Shamsiddin Muhammad Badaxshiy, Kamoliddin Mir Husaynga muammo xususida risola yozishni topshirgan. Abdurahmon Jomiy ham Alisher Navoiyning iltimosiga ko‘ra, “Risolai muammoi kabir” (Muammo haqida katta risola) asarini yaratgan. Ushbu risoladan so‘ng ancha tushunarli va sodda bo‘lgan ”Risolai muammoi mutavassit” (Muammo haqida o‘rtacha risola), ”Risolai muammoi sag‘ir” (Muammo haqida kichik risola), nazm yo‘lida bitilgan “Risolai muammoi manzumi asg‘ar” (Muammo haqida kichik nazmiy risola) risolalarini ham yozib, o‘rganuvchilarga qo‘llanma sifatida taqdim etgan“[58]. 1392 - yilda Bade’ Tabriziy o‘zining bu fan nazariyasiga bag‘ishlangan “Ihyo bi-ilmi-l-halli-l-muammo”(Muammo halli ilmini jonlantirish) asarini yaratishi bilan bu sohada katta taraqqiyot yo‘li boshlandi. Forsiy adabiyot bilan yaqin aloqada bo‘lgan turkiy adabiyotda ham bu janr amaliy tarzda juda tez rivojlandi.

“Turkiy adabiyotda muammo janrining mustahkam o‘rin egallashi va taraqqiyotida Alisher Navoiy, Zahiriddin Muhammad Bobur va Muhammad Rizo Ogahiy kabi ulug‘ ijodkorlarning bu janrda yaratgan sara asarlari katta ahamiyat kasb etdi. Navoiy fors tilida 500 ga yaqin muammo yozgan bo‘lsa-da, shulardan 373 tasi bizgacha yetib kelgan. Uning turkiy tilda yozgan 52 ta muammosi “Navodir ush-shabob” devoniga kiritilgan”[59]. Alisher Navoiyning muammo janri nazariyasiga bag‘ishlangan maxsus asari ham mavjud bo‘lib, fors-tojik tilida yozilgan. Asar “Mufradot” (Muammo alifbesi) yoki “Risolai muammo” deb ataladi. Aytish joizki, “Mufradot” forsiy va turkiy adabiyotda yaratilgan eng mukammal asar, qo‘llanma sifatida shuhrat tutgan. Buni fors adabiyotining ulug‘ namoyandasi Abdurahmon Jomiy o‘z farzandi ta’limi uchun xuddi shu asarni tanlaganidan ham anglash mumkin. “O‘zbek tilidagi muammogo‘ylikni Navoiydan so‘ng Zahiriddin Muhammad Bobur yanada rivojlantirishga katta hissa qo‘shdi. U bu nazariya haqida maxsus risola yozmagan bo‘lsa-da, muammoning nazariy qoidalarini puxta o‘rganib, uning amaliyotdagi taraqqiyotiga o‘zining nodir va badiiy barkamol asarlari bilan

[57] Shodmonov N. Muammo janri va uni yechish amallari. – Qarshi, 2012. 4 - bet.
[58] Sirojiddinov Sh. Matnshunoslik asoslari. – Toshkent: Navoiy universiteti NMU, 2019. 104 - bet.
[59] Shodmonov N. Muammo janri va uni yechish amallari. – Qarshi, 2012. 4 - bet.

o‘quvchilar diqqatini o‘ziga rom etdi. Chunki Bobur muammolari orqali zukko kitobxon estetik zavq olish bilan birga axloqiy - ta’limiy va falsafiy g‘oyalarning badiiy jihatdan yuksak namunalari bilan ham yaqindan tanishish imkoniga ega bo‘ladi. Bobur ham Alisher Navoiy kabi 52 ta muammo yaratgan va ularning aksariyati olimlar tomonidan tahlil qilinib yechilgan va bir necha bor nashr etilgan”[60]. XIX asrda Xorazmda yashab ijod qilgan juda ko‘p shoirlar muammo yozdilar. Bunda Alisher Navoiy va Zahiriddin Muhammad Bobur ijodi katta adabiy maktab rolini o‘ynadi. Ana shu ikki ulug‘ ijodkor an’analarini munosib davom ettirgan Muhammadrizo Ogahiyning go‘zal muammolari ham shu davr shoirlari ijodida muammo janrining keng tarqalishiga sabab bo‘lgan.

Ogahiyning g‘azal, mustahzod, muxammas va shunga o‘xshash ko‘plab janrlarda ijod qilganligi va ularda yaratilgan asarlar mazmunan boy va shaklan teranligi ta’kidlanadi. Lekin shoirning kichik janrlarda yaratgan asarlari haqida juda kam gapirilgan. Jumladan, “Ogahiy devonlari qo‘lyozmalarida mavjud 80 ta muammosidan birortasi ham hozirgacha nashr qilingan to‘plamlarida kiritilmagan edi”[61]. 1999-yil Ogahiy tavalludining 190 yilligi munosabati bilan Ogahiy ijodini keng tatbiq va targ‘ib qilish maqsadida “O‘zbekiston” nashriyotida bosilib chiqqan xorazmlik ijodkorlar tomonidan tuzilgan “Ogahiy abadiyati” nomli maqolalar to‘plamida Ogahiy nomidagi jamg‘arma raisi Komil Avaz o‘zining “Salohiyat saodati” maqolasida Ogahiyning kichik janrdagi she’rlari yosh ogahiyshunos Madina Matyoqubovaning uzoq izlanishlari bilan boyigan yangi topilmalar ham kiritilib, “Ajab ohangu navolar” to‘plami dunyoga kelganligi va Ogahiy muammolarining yechimi va tahlili jamlangan ikkinchi noyob risola – “Zehn ziynati” ham Madina Matyoqubova Hamidulla qizi qalamiga mansub ekanligi haqida yozadi. Demak, Ogahiyning muammo janriga mansub asarlari 1999-yildayoq o‘z tadqiqotchisini topgan bo‘lsa, 2023-yilga kelib, Ogahiyning “Ta’viz ul - oshiqin” devoniga kirgan kichik janrdagi she’rlari, xususan, muqattaot (qit’alar), chistonlar, 80 ta ruboiysi, 10 ta tuyuq, 80 ta muammosi, 1 ta mulammasi, 1 ta “savol - javob, oshiq va ma’shuq” janridagi asarlari Madina Matyoqubovaning ko‘p yillik izlanishlari natijasi o‘laroq “Ajab ohangu navolar” nomi ostida qayta nashr qilindi.

“Ogahiyning “Ta’viz ul - oshiqin” devonida ijodkorning 80 ta muammoga oid she’rlari joy olgan bo‘lib, ularning barchasi fard shaklida yozilgan. Muammolarning sonidan bilish mumkinki, Ogahiy bu janrda ham ko‘p va xo‘p ijod qilgan. Tadqiqotlar shuni ko‘rsatmoqdaki, Ogahiy muammo yaratishda Alisher Navoiy va Zahiriddin Muhammad Bobur an’analarini davom ettirish bilan birga uni yanada rivolantirishga katta ahamiyat bergan. Ijodkorning muammolarini o‘qigan kishi uni mazmunan boy va shaklan teran ekanligiga ishonch hosil qiladi. Muhimi shundaki, Ogahiy muammo janrida qalam tebratar ekan, masalaga ijodiy yondashadi, o‘ziga xos uslub tanlaydi, mazmun bilan ijodni o‘ziga xos kompozitsion qurilishdagi shaklda namoyish qilishga harakat qiladi. Shu tufayli Ogahiy muammolari boshqa salaflaridan o‘ziga xoslik jihatlari bilan ajralib turadi. Fikrimizning dalili sifatida, Ogahiyning bir guruh

[60] Matyoqubova M. Ajab ohangu navolar. – Urganch: Ogahiy, 2023. 35 - bet.
[61] Shodmonov N. Muammo janri va uni yechish amallari. – Qarshi, 2012. 4 - bet.

muammolariga e’tibor qilaylik. “Ta’viz ul - oshiqin” devonidan o‘rin olgan 80 ta muammolarning birinchi 16 tasi diqqat bilan tadqiq etilsa, ularning g‘oyaviy tuzilishi va kompozitsiyasi ijodkorning ma’lum hayotiy voqealarga bo‘lgan munosabatlarining ifodasidan, qolaversa, o‘z davri ijtimoiy hayotiga bo‘lgan falsafiy qarashlaridan iborat shaklda tuzilgan. Bu kompozitsion tuzilishdagi janrning boshlanishi deyarli barcha mumtoz asarlarda bo‘lgani kabi an’anaviy tarzda olam-u odam, butun mavjudot-u maxluqotning ijodkori va bunyodkori nomiga bo‘lgan hamdu sanolar bilan boshlanadi. Ogahiy bu mavzuga 5 ta muammo yaratib, ularning zaminiga “Olloh” so‘zini yashiradi. So‘ngra yana uchta muammo keltirilganki, ular ham Ollohning muborak sifatlari ifodalangan nomlari bilan bog‘langan. Avval “Rahmon” keyin “Rahim” va so‘ngra yana “Rahim” ismlariga uchta muammo yaratilgan. Ogahiyning bu silsiladagi muammolarining navbatdagisi, an’anaga ko‘ra sarvari olam Muhammad (s.a.v) payg‘ambarimizning na’tlariga bag‘ishlangan muammodan iborat bo‘lib, unda “Muhammad” ismi yashiringan. Keyingi muammolar mazmunan Xorazm shohi Feruzga bag‘ishlangan bo‘lib, ularning soni yettitadir. Bular: Muhammad, Rahim, Bahodir, Xon, Xallada, Mulkahu, Abadan. Shunday qilib, bu 16 ta muammo mazmunan bir yagona g‘oyaga qaratilib, ularning shakli ana shu g‘oyani kuchaytirishga qaratilgandir. Demak, ijodkor eng avval Tangriga shukrlar aytadi, so‘ngra payg‘ambarimizning ta’riflarini keltiradi, so‘ngra Xorazm shohiga madhiya o‘qib, uning saltanatiga rivoj, abadiylik tilaydi va nihoyat “Omin” muammosi orqali fotiha tortadi “[62]. Demak, ko‘rishimiz mumkinki, muammo janrining devonda joylashish tartibi ham muayyan an’anaviy qoidalar asosida shakllantirilgan. Ogahiy hazratlari ham bu tadvin qoidalariga rioya qilgan holda muammo janridagi she’rlarini o‘z devonida mukammal joylashga muvaffaq bo‘lgan.

Shuningdek, yozma adabiyotda muammo janrining shakllanishida folklor janrlarining ta’siri katta ahamiyatga ega. Adabiyotda deyarli barcha janrlar dastlab og‘zaki ijod shaklida shakllangani ko‘p bor ta’kidlangan. Muammo janrining shakllanishida ham xalq og‘zaki ijodi mahsuli hisoblangan topishmoq, lug‘z(chiston), ta’rix janrlari zamin bo‘lib xizmat qilgan. Xalq og‘zaki ijodi janriga xos xususiyatlardan biri **variantlilik**dir. Masalan, bir narsa-predmet haqida bir necha topishmoqlar yuzaga kelishi mumkin. Xuddi shunday, Ogahiy muammolarini kuzatar ekanmiz, bir xil nom yashiringan bir qancha muammolari borligini ko‘rishimiz mumkin. Jumladan, ”Ta’viz ul-oshiqin” devonida keltirilgan 1-,2-,3-,4-,5-muammolarida “Olloh”; 7-, 8-muammolarda “Rahim“ ; 9-, 10-, 37-muammolarda “Muhammad“; 20-, 79-muammolarda ”Ahmad“ ; 33-, 78-muammolarda “Muborak”; 56-, 68-muammolarda “Murod”; 58-, 65-muammolarda “Sadr”; 63-, 75-muammolarda “Ayoz” hamda 71-, 72-, 73-, 77-muammolarida “Iyd” ismlari yashiringan. Bu jihat folklor va yozma adabiyot janrlarining bir-biriga ta’siri sezilarli darajada ekanligini ko‘rsatadi.

Shunisi e’tiborliki, Ogahiy “Muammo” nomi yashirilgan 2 ta muammo ham yozgan. Bu Ogahiyning naqadar salohiyatli muammonavis ekanligining yana bir isboti bo‘lsa, shoir muammolarining bir nechasini amalda yechib ko‘rish orqali Ogahiy

[62] Matyoqubova M. Ajab ohangu navolar. – Urganch: Ogahiy, 2023. 35 - bet.

abadiyati, nozimning so‘z qo‘llash mahorati , tanlangan so‘zlarning shakl va mazmun uyg’unligini kasb etishiga guvoh bo‘lish mumkin.

Ogahiyning “Olloh” nomi yashiringan muammosi:

Noz ila bugun ul sho‘x lola sayrig‘a yurdi,
Loladin olib birni boshi uzra qistirdi.

Hall qilish: ism moddasi “lola” va “bir” so‘zlaridir. Ushbu muammo qalb qoidasining ikkinchi turi bo‘lgan “qalbi ba’z”, ya’ni so‘zning ba’zi qismlarini o‘zgartirib o‘qish usuliga ko‘ra aniqlanadi. Bunda “lola” so‘zining o‘rtasida kelgan “bir” alif olinib, mazkur so‘zning boshiga qo‘yib o‘qilsa,”Olloh” ismi hosil bo‘ladi.

Ogahiyning “Odam” nomi yashirilgan muammosi:

Kishi topg‘ay murodini kelib har ishni qilsa o‘ng,
Fanovu faqr yo‘lida balovu dardu g‘amdin so‘ng.

Hall qilish: ism moddasi “balo”, ”dard”, ”g‘am” so‘zlaridir. Ushbu so‘zlardan keyin “so‘ng” so‘zini qo‘llash orqali intiqod (ma’lum ishoralarga ko‘ra harf saralash) qoidasiga ko‘ra mazkur so‘zlarning oxirgi harflari olinishi ta’kidlanmoqda. Shunday qilinsa, murodga yetiladi. Demak, mazkur so‘zlarning oxirgi harflari (“balo”dan – o, “dard” dan – d, “g‘am”dan – m harflari)ni olib, bir - biriga birlashtirsak, ”Odam” ismi kelib chiqadi.

Ogahiyning “Nuh” ismiga yozilgan muammosi:

Qildi gulgun domanim beshu
To‘kti ko‘z chun xuni dil bir.

Hall qilish: ism moddasi “ko‘z”, “xun” va “dil” so‘zlaridir. Bu muammo muammo yechishning birdaniga 3 usulini qo‘llash orqali hall qilinadi. Ya’ni dastlab intiqod (ma’lum ishoralarga ko‘ra harf saralash) qoidasiga ko‘ra “xun”ning “dili” bo‘lgan “nun” harfi olinadi, so‘ngra qalb usulining birinchi turi bo‘lgan qalbi kull (ma’lum so‘zni o‘z tartibida to‘la holda teskari o‘qish) qoidasiga ko‘ra “xun”ning teskarisi bo‘lgan “nux” so‘zi hosil bo‘ladi. Nihoyat arab tilidagi “xo” harfining ko‘zi bo‘lgan nuqtasini “to‘kti ko‘z” ishorasiga ko‘ra tas’hif (muammodagi ishoralarga ko‘ra, ism moddasi bo‘lgan so‘z harflari nuqtalarining o‘zgartirilishi, ya’ni so‘zdagi harflar nuqtalarining olib tashlanishi yoki ularga nuqtalar qo‘shilishi) qilsak, “Nuh” ismi hosil bo‘ladi. Demak, ushbu muammo birdaniga 3 ta: intiqod, qalb va tas’hif usullarini amalda tatbiq qilish orqali hall qilinadi.

Ogahiyning “Xon” ismiga yozgan muammosi:

Ey xush, ul bediliki shirin kalom,
Ul labi xandon dilin oldi tamom.

Hall qilish: ism moddasi “lab”, “xandon” va “dil” so‘zlaridir. Bu muammo intiqod (ma’lum ishoralarga ko‘ra harf saralash)qoidasiga ko‘ra, “xandon” ning “labi” so‘zning ikkala tomonidagi “xo” hamda “nun” harflarini olish kerakligiga ishora bor, shuningdek , “xandon” so‘zining “dili”ni, ya’ni o‘rtasidagi “nun” va “dol” harflarini “tamom” so‘zining ishorasiga asosan olib tashlab, qolgan “xo” hamda “nun” harflarini birlashtirsak, “Xon” so‘zi hosil bo‘ladi. Bu muammoda Ogahiy ishoralarni shunday sinchkovlik bilan tanlaganki, shoir mahoratiga tan bermaslikning iloji yo‘q. Ya’ni “ul labi xandon” “dili”ni olgandan so‘ng oshiq yorini “bedil” deb ataganini Ogahiy ishoradagi “dilin oldi tamom” bilan uyg‘unlashtirgan holda bir-biri bilan ham

mazmunan, ham shaklan bog‘lay olgan, natijada, shunday go‘zal muammo dunyoga kelgan.

Tadqiqotlar shuni ko‘rsatadiki, Ogahiy mazkur muammolarida ko‘proq **intiqod** (ma’lum ishoralarga ko‘ra harf saralash), **tas’hif** (harflarning nuqtalariga o‘zgartirish kiritish), **qalb** (so‘zning butunlay yoki qisman o‘zgartirgan holda teskari o‘qilishi) va boshqa amallarni ustalik bilan ishlatib, o‘zining fikr va qarashlarini ifoda eta olgan.

Xulosa o‘rnida, biz Ogahiyni nafaqat buyuk shoir, muarrix, mutarjim, balki mohir **muammonavis** deya bemalol ayta olamiz. Haqiqatan, Ogahiy Abdulla Oripov ta’biri bilan aytganda, o‘zbek adabiyotini buyuk Navoiydan keyin yangi, yuqori pog‘onaga ko‘targan ulug‘ shoir va allomadir.

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PAXTA XOMASHYOSINI JINLASH JARAYONIGA UZATISHDA TA'MINLAGICHLAR KONSTRUKSIYASI TAHLILI

Annotatsiya *Maqolada tola ajratishda arrali jinlash uskunalariga paxta xom ashyosini titilgan holatda, bir me'yorda uzluksiz ta'minlab berish orqali tola ajratish mashinasining ishlash samaradorligini oshirish hamda paxta xomashyosini ta'minlagich zonasidagi harakati tadqiqotlari bayon qilingan;*

Kalit so'zlar: *paxta tolasi, jinlash, ta'minlash, ishchi kamera,qoziqli baraban,ishlab chiqarish samaradorligi, tola sifati, to'rli yuza, shaxta, arrali jinlash, valikli jinlash, shaxta, meyoriy taminlash.*

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ANALYSIS OF THE DESIGN OF FUSES WHEN TRANSFERRING COTTON RAW MATERIALS TO THE COTTON GINNING PROCESS

Annotation *The article describes the improvement of the cotton ginning machine's performance by providing the cotton raw material in a shredded form at a consistent rate using auxiliary equipment for continuous supply during cotton ginning. It also discusses the research on the movement of cotton raw material in the feeding zone.*

Keywords *Cotton fiber, ginning, feeding, working chamber, beater drum, production efficiency, fiber quality, mesh surface, roller ginning, beater ginning, shaft, standard feeding*

Maqsad. Paxta xomashyosini arrali jinlash jarayoniga uzatishda taminlagichlarning ishlash rejimlarini tanlash, tola ajratish jarayoniga paxta xomashyosini titilgan holatda, bir meyorda hamda uzluksiz uzatib berish texnologiyasini ishlab chiqish.

Usullari. Bir xil sharoitda va bir xil turdagi xomashyoni bir necha rejimda sinovdan o'tkazish orqali ta'minlagichda paxta xomashyosini tiqilishlarsiz bir meyorda uzatish ta'minlanadi.

Natija. Arrali jinlash mashinalariga paxtani titilgan holda bir meyorda uzatishni samarali texnologiyasi ishlab chiqildi va tola ajratish samaradorligini

oshirish imkonini beruvchi, paxta xomashyosining zichlanishini oshirmasdan uzluksiz uzatuvchi ta’minlagich ishlab chiqiladi. Ta’minlagich ishchi organlari asosiy ko’rsatkichlari va ularning jinlash jarayoni samaradorligiga ta’sir darajasi aniqlandii.

Kirish. Paxta va uning tolasi to’qimachilik sanoatida ishlatilishi bo’yicha boshqa turdagi tolalarning 55-60 foizini tashkil etadi. Statistik ma’lumotlariga qaraganda so’ngi yillarda paxta tolasini eksport qiluvchi davlatlar beshtaligiga AQSh, Hindiston, Avstraliya, Braziliya va O’zbekiston hamda importyorlar Bangladesh, Vetnam, Xitoy, Turkiya va Indoneziya mamlakatlari kiradi. Keng jamoatchilik muhokamasi natijasida «Harakatlar strategiyasidan Taraqqiyot strategiyasi sari» tamoyiliga asosan ishlab chiqilgan quyidagi yettita ustuvor yo’nalishdan iborat 2022 — 2026 yillarga mo’ljallangan Yangi O’zbekistonning taraqqiyot strategiyasi va Davlat dasturi tasdiqlandi. Ushbu yetti ustuvor yo’nalishning uchinchisida “Milliy iqtisodiyotni jadal rivojlantirish va yuqori o’sish sur’atlarini ta’minlash” bo’yicha bir qancha chora tadbirlar ishlab chiqilgan. «Yashil iqtisodiyot» texnologiyalarini barcha sohalarga faol joriy etish orqali 2026 yilga qadar iqtisodiyotning energiya samaradorligini 20 foizga oshirish choralarini ko’rish ushbu chora tadbirlarning asosiy me’zonidir. Yengil sanoatni samarali texnologiyali qayta ishlash tarmoqlarini va mahalliy xom-ashyo resurslarini qayta ishlashda qo’shimcha qiymatli tayyor mahsulot ishlab chiqarish bo’yicha tezkor rivojlantirishga qaratilgan sifat ko’rsatkichlaridan yangi bosqichga o’tkazish orqali yanada diversifikatsiya va modernizatsiya qilish borasida keng ko’lamli ishlar amalga oshirilmoqda. Yurtimizda yengil sanoatda paxtachilik yo’nalishini yanada rivojlantirish, paxta tozalash korxonalarini takomillashtirish evaziga ularni modernizatsiyalash va qayta loyihalash, tayyor mahsulotlarni ishlab chiqarish va paxta xomashyosini qayta ishlash samaradorligini, hamda, yaratiladigan mahsulotlarning raqobatbardoshliligi va sifatini yaxshilash bo’yicha bir qancha kompleks choralar amalga oshirilmoqda.

O’zbekiston Respublikasi Prezidentining farmoniga asosan 2020 yil 29 oktyabrdagi PF-6097–sonli «Ilm-fanni 2030 yilgacha rivojlantirish kontseptsiyasini tasdiqlash» to’g’risida va O’zbekiston Respublikasi Prezidentining farmoniga asosan 2022 yil 28 yanvardagi PF-60–sonli yettita ustuvor yo’nalishi bo’yicha «2022-2026 yillarga mo’ljallangan yangi O’zbekistonning taraqqiyot strategiyasi» to’g’risida hamda mazkur faoliyatga tegishli boshqa me’yoriy-huquqiy hujjatlarda belgilangan vazifalarni amalga oshirishda ushbu ilmiy tadqiqot ishlari ma’lum darajada xizmat qiladi.

Tadqiqot usuli. Ilmiy tadqiqot davomida laboratoriya qurilmalari amaliy tahlil, qiyosiy tahlil usullaridan samarali foydalanilgan.Tadqiqotda tajribaviy tahlil yo‘nalishlari orqali muammoni chuqurroq o‘rganishga harakat qilingan. Tadqiqotning obyekti sifatida ta’minlagich moslamalari tanlab olingan.

Natija. Tola ajratish agregatlarining ish unumdorligi, ishchi qismlarining yuklanishi ya’ni(zo’riqishlari) va ishonchliligi, qayta ishlanayotgan mahsulot sifat ko’rsatkichlari shuningdek uskunaning tola ajratish samaradorliklariga ta’minlovchi moslamalar bevosita ta’sir ko’rsatadi.

Ta’minlovchi moslamalarga quyidagi ketma-ketlikda bir necha vazifalar qo’yilgan:

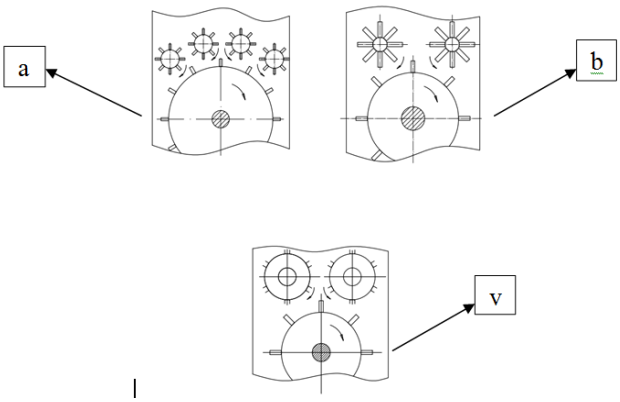
- uskunaga paxta xom ashyosini bir me’yorda uzluksiz ta’minlab berish;
- paxta xom ashyosini tozalash va tola ajratish texnologik jarayoniga tayyorlash;
- paxta xom ashyosini tabiiy xususiyatlarini saqlab qolish.
- arrali jinlash mashinalariga paxtani titilgan holatda va bir me’yorda uzatish;

Yuqorida keltirib o’tilgan talablarga to’liq javob bermaydi. Shuning uchun, ta’minlovchi moslamalarni yanada takomillashtirish buyicha ilmiy tadqiqot ishlarini olib borish dolzarb muammo bo’lib hisoblanadi.

Mavjud bo’lgan texnologik mashina va agregatlarni paxta xomashyosi bilan ta’minlash jarayonida paxtani uzluksiz ta’minlanishi tashkil etilib, ta’minlovchi valiklar orqali qoziqchali barabanlarga va bevosita keyingi tola ajratish jarayoniga uzatiladi. Ushbu jarayonda dastlabki ta’minlash valiklariga tushayotgan paxta xomashyosining nomutanosibligi oqibatida ta’minlagichda paxtaning tiqilishi, yaxshi titilmasligi, va paxta keyingi jarayonga bir meyorda uzatilmasligi kuzatiladi. Bu esa o’z navbatida tola ajratish jarayoning samaradorligiga salbiy ta’sir ko’rsatadi. Shuning uchun tola ajratish uskunalarini paxta bilan uzluksiz va bir meyorda titilgan holda ta’minlab berish dolzarb muammo hisoblanadi.

Muhokama. Tola ajratish uskunalari va ta’minlovchi qurilmalarni takomillashtirishga oid jahonda olib borilgan ilmiy-tadqiqotlar natijasida samarali natijalar olingan bo’lib, jumladan: tola ajratish va ta’minlash jarayonini takomillashtirish hamda avtomatlashtirishning zamonaviy tizimlari ishlab chiqilgan (Lummus, AQSh); nazariy natijalar hamda ilmiy-amaliy izlanishlar asosida paxta xomashyosining tolasini chigitdan ajratish bo’yicha yangi uskuna va texnologik mashinalar yaratilgan. Paxtaga dastlabki ishlov berish texnologiyasi rivojlanishining zamonaviy holatlaridagi muhim vazifalar belgilab olingan. Ulardan biri texnologik jarayonlarni yuqori sur’atlarda jadallashtirish hamda sifatli va raqobatbardosh mahsulotlarni ishlab chiqarishdan iborat.Tola ajratish jarayoniga paxta xomashyosini tiqilishlarsiz, bir me’yorda va uzluksiz ta’minlab berish, texnologik bosqichlar samaradorligining eng asosiy zaruriyatlaridan biri bo’lib, uni tashkil etish va amalga oshirish ushbu sanoat sohasidagi dolzarb muammolaridan biri bo’lib hisoblanadi.

Ta’minlagichlar ularning valiklari konstruktsiyasi bo’yicha bir necha turga ajratiladi:qoziqchali, kurakchali, juft kurakchali valiklar. 1-rasm. Sanoatda ta’minlovchimoslamalarning titkilovchi valiklari: shnekli-qoziqchali, qoziqchali, arrachali disk moslamalarning titkilovchi valiklari: shnekli-qoziqchali, qoziqchali, arrachali disk turlaridan foydalaniladi. (1-rasm,).

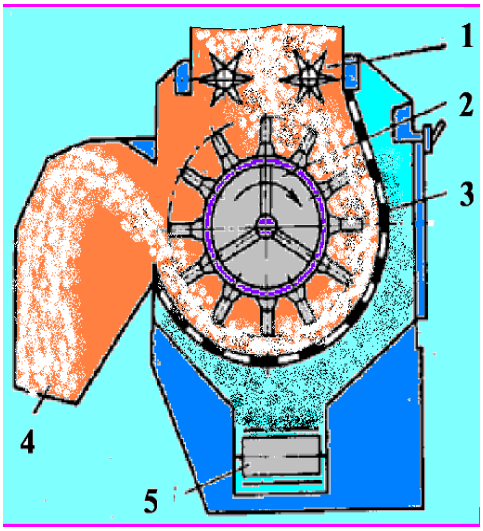


a)-qoziqchali; b)-kurakchali; v)-juft kurakchali.

1-rasm. Ta’minlovchi valiklar sxemasi

Ushbu markali maxsus konstruktsiyadagi ta’minlovchi moslama biroz sodda hamda ishlatishda qulayligi bilan bir qatorda kamchiliklari ham mavjud. Ta’minlovchi valiklarda oltita kuraklar mavjudligi va valikning aylanish tezligi 0-20 ayl/daq. ekanligini hisobga olsak, valikning paxta bilan ta’minlashda vaqt bo’yicha oraliq uzilishi kuzatiladi.Kurakli ta’minlovchi valiklar konstruktsiyasining o’zida paxtani bir me’yorda uzluksiz ta’minlash imkoniyati yo’q. Valiklarning shaxta-to’plagichdan paxtani egallash burchagining kattaligi va unga nisbatan valiklar orasidan paxtani olib o’tadigan oraliqning 2 marta kichikligi paxtani ma’lum miqdorda zichlanishiga olib keladi. Shu qatorda, shaxta-to’plagichdagi paxta zichligi oshib ketishi sababli, paxtaning shaxta-to’plagich bo’ylab harakati to’xtab qolishi mumkin.

Hozirgi kunda respublikamizning paxta tozalash va dastlabki ishlash korxonalarida bir necha turdagi ta’minlagichlar qo’llanilib kelinmoqda (1-rasm).Ushbu ta’minlagichlardan PD rusumli xomashyoni ma’lum miqdorda va bir me’yorda yetkazib beruvchi ta’minlash uskunasi qo’llanilib kelinmoqda. Uning ishlash jarayoni quyidagicha: chigitli paxta ta’minlagich ustiga o’rnatilgan shaxtaga tushadi. Bir-biriga qarama-qarshi aylanadigan ta’minlash valiklari 1 chigitli paxtani shaxtadan bir tekisda qoziqchali baraban 2 ga uzatadi, bu baraban paxtani titkilab to’rli yuza 3 ustidan sudrab o’tib uni mayda xas-cho’plardan oxirgi marta tozalaydi. Tozalangan chigitli paxta qoziqchali baraban yordamida nov 4 ga uzatiladi va jinning ishchi kamerasiga tushadi. 2-rasm.



2-rasm. PD –ta'minlagichning ko'ndalang kesimi

1.Ta'minlash valiklari.
2.Qoziqchali baraban
3.To'rli yuza
4. Nov (lotok)
5.Iflosliklar shneki.

Xorijiy hamda mahalliy paxta xomashyosiga dastlabki ishlov berish korxonalarida qo'llanilayotgan paxta tarkibidagi iflos aralashmalarni tozalash va tola ajratish mashinalarining hamda ta'minlovchi qurilmalarining ilmiy tahlili ularning har bir ishchi qismlari samaradorliklarini oshirish ustida yetarlicha ichki imkoniyatlar mavjudligini yaqqol ko'rsatdi.

Tadqiqot ko'rsatkichlarining ilmiy va amaliy ahamiyatiga ko'ra, yaratilgan yangi ta'minlagich qurilmasi paxta xomashyosining tabiiy sifat ko'rsatgichlarini saqlagan holda, tola ajaritish uskunalariga talab etilgan miqdorda paxta xomashyosini titilgan, bir me'yorda hamda uzluksiz ta'minlash imkoniyatiga ega bo'ladi. Taklif etilayotgan yangi konstruktsiyadagi ta'minlagich qurilmasi paxta tozalash korxonalarining tola ajratish uskunalarida qo'llaniladi.

Xulosa. Paxta xomashyosidan tola ajratish mashinalari ta'minlagichlarining konstruktsiyasini takomillashtirish orqali ishlab chiqilgan ilmiy natijalar asosida:

- arrali jinlash mashinalariga paxtani titilgan holatda va bir me'yorda uzatishni samarali texnologiyasi ishlab chiqiladi;
- tola ajratish samaradorligini oshirish imkonini beruvchi, paxta xomashyosi zichligini oshirmasdan optimal uzatuvchi ta'minlagich ishlab chiqiladi;
- arrali jinlash mashinalariga paxtani titilgan holatda va bir me'yorda uzatishni samarali texnologiyasi ishlab chiqildi;
- tola ajratish samaradorligini oshirish imkonini beruvchi, paxta xomashyosi zichligini oshirmasdan optimal uzatuvchi ta'minlagich ishlab chiqildi;

Bundan tashqari ishlab chiqilgan tola ajratish mashinalari ta'minlagich uskunalarini paxta tozalash korxonasida joriy qilinishi natijasida takomillashtirilgan ta'minlagich konstruktsiyasiga ega arrali jinda paxta xomashyosini jinning ishchi kamerasiga optimal miqdorda uzluksiz uzatib berilishi orqali jinlash jarayonidan olinadigan tolaning 1,5 % ga yaqin miqdordagisining sifatini bir sinfga oshirishga erishishimiz mumkin.

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O‘zDJTSU Qishki va murakkab-texnik sport turlari N va U kafedrasi o‘qituvchisi

KORTIZOL GORMONINING TOG‘ CHANG‘ICHILARNING FIZIOLOGIK HOLATIGA TA’SIRINI ANIQLASH

Annotatsiya. *Kortizolning miqdori normal odamlarda qonda, siydikda farq qiladi. Shuningdek faol ish kunidan keyin ham kortizolning miqdori o‘zgarishi mumkin. Masalan, siydikda erkin kortizonning 24 soatdagi miqdori 4,3-180 nmol/l tashkil etadi. Odamlar qonida ertalabki normal ko‘rsatgich 5-23 mkg / l (107 – 610 nmol/l) bo‘lsa, kechki vaqtda bu ko‘rsatgich 4-18 mkg / dl (83 - 469 nmol/l) normal hisoblanadi. Ammo ushbu ko‘rsatgichlar jismoniy mashg‘ulotlar natijasida o‘zgaradi. Demak kortizol miqdorining o‘zgarishiga qarab organizmning mashqlanganlik va chidamkorlik darajasini bilish mumkin. Shunga ko‘ra kortizolning organizmda oshishining ham salbiy ham ijobiy jihatlari bor. Ijobiy xususiyatiga ko‘ra, kortizol miqdorining oshishi bu organizmning himoya reaksiya hisoblanadi.*

Kalit so‘zlar: *Kortizol, gormon, qon, qon bosimi, glyukoneogenez, oqsillar parchaanishi, stress, sport ko‘rsatgichlari*

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DETERMINING THE EFFECT OF THE HORMONE CORTISOL ON THE PHYSIOLOGICAL STATE OF ATHLETES

Abstract. *The amount of cortisol in normal people varies in blood and urine. Cortisol levels may also change after an active day. For example, the 24-hour amount of free cortisone in the urine is 4.3-180 nmol / l. In the morning, the normal range for human blood is 5-23 mcg / l (107-610 nmol / l), while in the evening it is 4-18 mcg / dl (83-469 nmol / l). However, these figures change with exercise. This means that the body's level of exercise and endurance can be determined by changes in cortisol levels. Accordingly, the increase in cortisol in the body has both positive and negative aspects. On the positive side, an increase in cortisol is a protective reaction of the body.*

Key words: *Cortisol, hormones, blood, blood pressure, gluconeogenesis, protein breakdown, stress, sports indicators*

Kirish (Introduction). Kortizol – bu insondagi eng muhim katabolik gormon bo‘lib, u oqsil (aminokislota) parchalanishiga, yog‘ yig‘ilishiga (quvvatning zahira manbasi bo‘lib) va glyukoza (jigarda to‘planadigan glikogen hisobiga) darajasining oshishiga, qondagi shakar miqdorini kamayishiga yo‘l bermaydigan, ayni vaqtdagi ehtyojlar uchun erkin quvvat manbasini organizmga berilishiga javob beruvchidir. Kundalik hayotda kortizol “stress gormoni” nomi bilan tanilgan. U mushaklarni kamaytirgani va mushak massasini yig‘ishga halaqit berganligi uchun bodibilderlar va fitnes go‘zallari yoqtirishmaydi [1,2]. Qorni katta odamlar, visseral yog‘ni paydo bo‘lganligi uchun hamma aybni unga to‘nkashadi. Shu bilan birga uni, tungi bedorlikda, uyqusizlikda, kollagen sinteziga to‘sqinlik qilib terining siniqishiga olib kelishida ayblashadi. Shu bilan birga, kortizol (ruhsat berilgan me’yordagisi) – bu kuch va tetiklik gormoni, yaxshi kayfiyatga va lipolizga (yog‘larni erishi) ta’sir ko‘rsatishini hamma ham bilmaydi. Aynan kortizol har tong organizmda “ichki uyg‘otuvchi” rolini o‘ynaydi [1,3].

Mavzuga oid adabiyotlarning tahlili (Literature review). Qonda kortizol gormoni ko‘payib ketishi oqsillarni aminokislotalarga parchalanishini tezlashtiradi, ular to‘qimalardan qon oqimiga va jigar hujayralariga o‘tadi, ular glyukoneogenezda glyukozaga aylanadi [12]. Qonda uzoq muddat kortizol miqdori yuqori bo‘lsa to‘qimalarda oqsillarni parchalanishiga va qonda glyukoza darajasining oshishiga olib keladi. Bu esa plazmadagi glyukoza darajasini oshirib, kortizol tanani stress, shikastlanish, kasallik, infektsiya, qon ketish va boshqalar bilan kurashish uchun zarur bo‘lgan energiya bilan ta'minlaydi. Shu bilan bir qatorda, juda uzoq vaqt davomida qonda ko‘p miqdorda kortizolning bo‘lishi jiddiy salbiy ta'sir ko‘rsatishi mumkin. To‘qimalarda oqsillarning parchalanishi, oqsil sintezining kamayishi va oqsilning glyukozaga aylanishi mushaklarning kamayishi va qorin bo‘shlig‘i yog‘ini ko‘paytirishi mumkin,bu esa sport ko‘rsatgichlarini jumladan chidamkorlikni tushirishi mumkin! Shuningdek, u o‘sish gormoni va jinsiy gormonlar darajasinikamaytiradi, ontogonistlik xususiyatiga ega bo‘lib sportchilarda farzandsizlikni chaqirishi mumkin. Bu glyukoza iste'molini kamaytiradi va diabetga moyillikni oshiradi va uning kaltsiyga ta'siri osteoporozni kuchaytirishi mumkin[10,11].

Tadqiqot metodologiyasi (Research Methodology). Har qanday laboratoriya tadqiqotlarini o‘tkazish inson salomatligi holati to‘g‘risida eng to‘liq ma'lumotlarni olishga imkon beradi. Zero, laboratoriya usullarining aniqligi, zamonaviy texnologiyalardan foydalanish va yuqori darajadagi axborot mazmuni ushbu tadqiqotlarni tahlil qilish usullarining asosiy mezonidir. Bunda inson qoni va siydigi namunalari asosiy obyekt hisoblanadi. Immunoxemilyuminsiya uslubi 21 asrning eng zamonaviy uslublaridan hisoblanadi[8]. 905 aniqlikka ega ushbu uslub orqali turli xil infeksiyalarni, onkomarkerlarni, vitaminlarni shuningdek gormonlarni analiz qilish imkonini beradi. IHLA (immunoxemiluminesinsiya tahlil) - bu laboratoriya diagnostikasining zamonaviy usuli. Immunologik reaksiyalar uchun ham qo‘llaniladi, bu yerda - ultrabinaTestosterona nurida porlaydigan moddalar fosforlar substrat sifatida qo‘shiladi. Yorug‘lik darajasi maxsus qurilmalar

- luminometrlar yordamida o‘lchanadi. Usul IFAga o‘xshaydi, ammo o‘ziga xosligi va sezgirligiga ega, shuningdek, kam vaqt talab etadi[6].

Tahlil va natijalar (Analysis and results). Shunday qilib, kortizol darajasini mo‘tadil qilish sportchi salomatligi uchun muhim ahamiyatga ega. Shu sababdan, kortizolning qaysi miqdori ijobiy qaysi miqdori salbiy ta’sir qilishini aniqlash maqsadida 25 afar og‘ir atletika bilan shug‘ullanuvchilar, 25 nafar tog‘ chang‘ichilar va 25 nafar sport bilan shug‘ullanmaydiganlarning qon va siydik tarkibidagi kortizolning miqdorini mashg‘ulotdan oldin va mashg‘ulotdan keyin shuningdek musobaqa davomida tekshirdik[9].

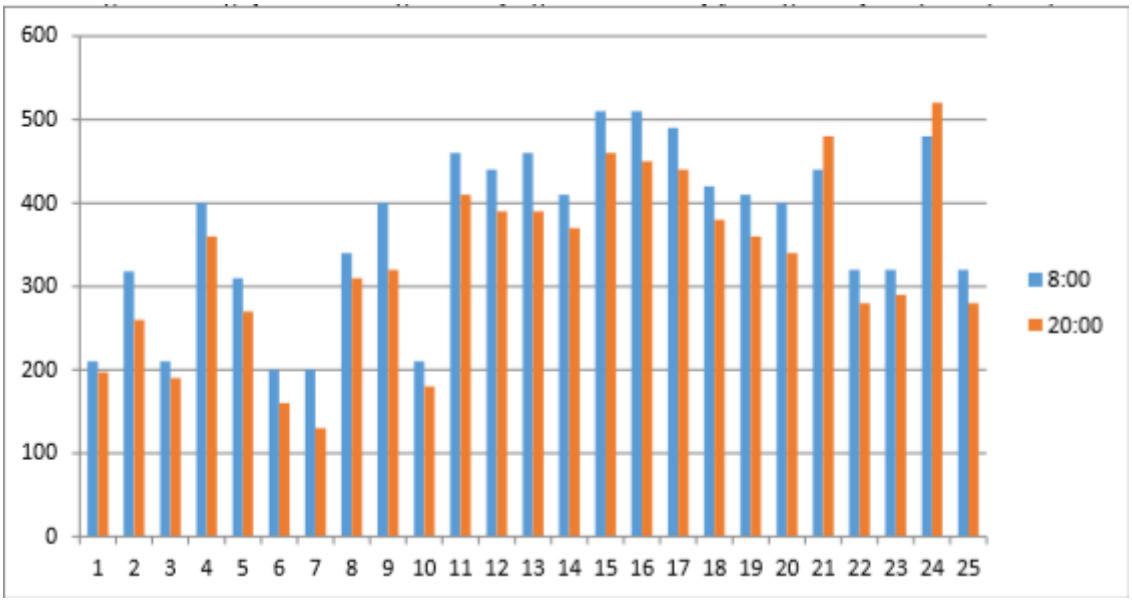
1.1. jadval Kortizol gormonining sport bilan shug‘ullanmaydigan odamlarda qayd etilgan miqdori (nmol/l) m±3; n=25

№	Ism familyasi	Jinsi	Yoshi	Peshobda nmol\l	Qonda	
				24 soat ichida	Ertalab	Kechqurun
1	D.B.	A	31	98	210	197
2	I.N.	E	31	102	318	260
3	G.B.	A	40	98	210	190
4	S.Z.	A	55	110	400	360
5	N.R	A	48	96	310	270
6	Z.Sh.	A	31	98	200	160
7	Sh.A.	E	30	78	200	130
8	G.Z	A	31	100	340	310
9	L.S.	A	38	110	400	320
10	M.I	A	35	80	210	180
11	A.Dj	E	22	130	460	410
12	S.A	E	25	130	440	390
13	O‘.Sh.	E	28	140	460	390
14	I.H	E	28	130	410	370
15	A.N	E	25	160	510	460
16	D.R	A	25	160	510	450
17	T.B	E	24	160	490	440
18	B.B	E	22	140	420	380
19	Sh.B.	E	27	130	410	360
20	Yu.S	E	26	130	400	340
21	O.S.	E	23	180	440	480
22	S.S	A	24	120	320	280
23	F.S	A	21	110	320	290
24	N.G.	A	22	200	480	520
25	M.A	E	22	110	320	280
	O‘rtacha		**29,4**	**124**	**367,5**	**328,9**

Tadqiqot natijasi ko‘rsatib turibdiki sport bilan shug‘ullanmaydigan normal odamlarda kortizolning miqdori ertalab ko‘p ajralib kechga yaqin kamayganini guvohi bo‘lishimiz mumkin. Shuningdek, O.S. va N.G. ism familyali insonlarda esa kortizolning miqdori ertalabga nisbatan kechga yaqin yanada ko‘payganini kuzatdik. Fiziologik ko‘rsatgichlari jihatidan tekshirilganda yurak urishi O.S.da 80+

ko‘rsatgichni qayd etdi. Bu ko‘rsatgichning abnormalligi qonda glyukoza miqdorini ham tekshirishimizga sabab bo‘ldi va qonida glyukoza miqdori 6,8 ml ni tashkil etishi aniqlandi bu esa kortizolning miqdori me’yordan ko‘p bo‘lishi qandli diabetga moyillikni oshirishdan dalolat beradi. Buning ilmiy asoslaridan biri, qonda kortizolning miqdorini oshib ketishi aminokislotalardan sintez bo‘ladigan glyukoza jarayonini sintezini oshirib yuboradi. Shuningdek kortizolning miqdori kamayishi ham ko‘payishi ham kasallik hisoblanib buyrak faoliyatining buzilish dalolat bo‘lishi mumkin. Sport bilan shug‘ullanmaydigan insonlarda kortizolning normadan oshib ishtahaning ochilishiga sabab bo‘ladi. Shu sabab ham stressga beriluvchan insonlarda semizlik kelib chiqishi ehtimoli yuqori bo‘ladi.Yuqorida tadqiqot uchun tanlab olgan insonlarimizning hech qaysi birlarida kortizolning normadan kamayishi kuzatilmadi. SHu boisdan buyrak tekshiruvlari o‘tkazmadik[5,6].

1.1. diagramma Kortizol gormonining sport bilan shug‘ullanmaydigan odamlarda qayd etilgan miqdori (nmol/l) m±3; n=25



Hattoki sportchilarda ham kortizol miqdori 800 nmol\l dan oshsa ushbu kasalliklarga moyillik bo‘lishi mumkin. Ammo bu ko‘rsatgich barcha sport turlari uchun ham mos deb bo‘lmaydi. Masalan bodybuilding sport turi bilan shug‘ullanuvchilarda kortizolning miqdori oshib ketishi mushak massasining kamayishiga, muskul oqsillarining parchalanishiga sabab bo‘ladi. Bu vaqtda aminokislotalarda jigarda glyukoneogenezda ishtirok etadi. Shu boisdan sportchi uchun kortizolni miqdorini nazorat qilish nihoyatda muhim.

Biz tadqiqotimiz uchun ikkita sport turi og‘ir atletika va futbol sport turlari bilan shug‘ullanuvchi sportchilarni tanlab oldim. Buning asosiy sababi nazariy ma’lumotlarga ko‘ra kortizolning oshishini oldini olishni va sport natijalariga kortizolning salbiy va ijobiy ta’sirini o‘rganish uchun bir biridan keskin farq qiladigan sport turlarini tanladim [1.2; 1.3. jadval].

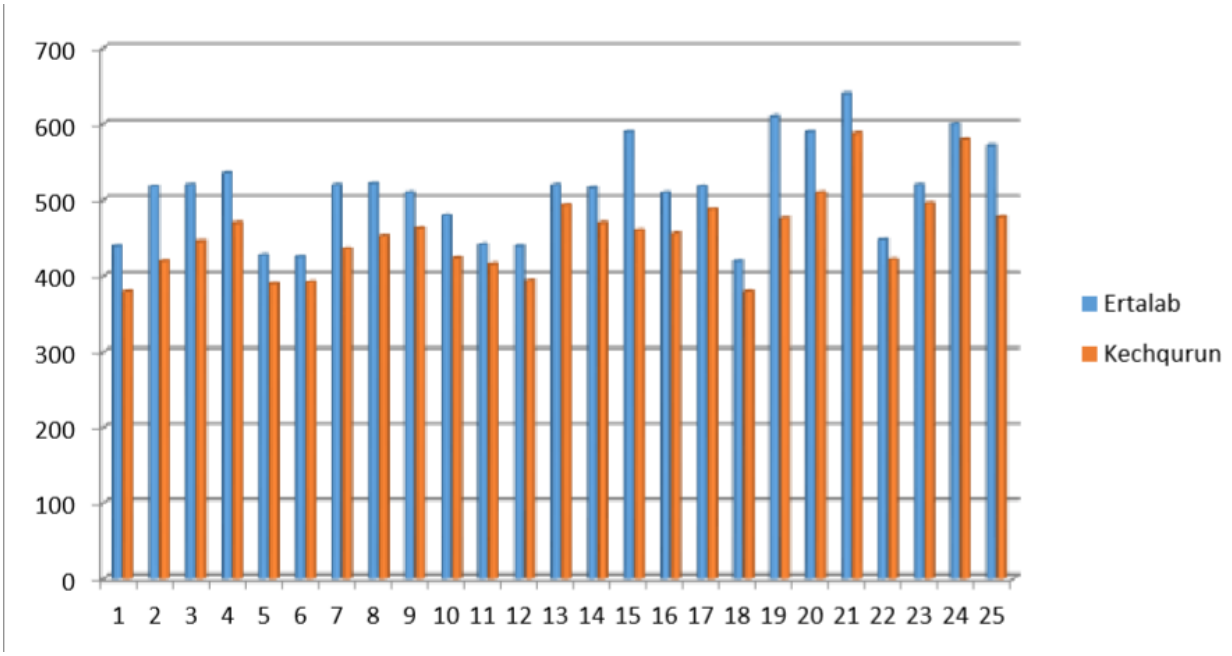
Tadqiqot uchun 25 nafar og‘ir atletika bilan shug‘ullanadigan turli xil sport ko‘rsatgichlariga ega va turli yoshdagi, turli jinsdagi sportchilarni tanlab oldik. Bunga sabab kortizolning oshishi yoki kamayishi yoshga bog‘liq yoki bog‘liq emasligini, jins bogliq bog‘liq emasligini va sport ko‘rsatgichlariga ta’sirini aniqlash shuningdek salbiy ta’sirlari tufayli kelib chiqadigan turli kasaliklarni oldini oluvchi fiziologik ko‘rsatmalarni ishlab chiqish hisoblanadi [1.2. jadval].

1.2. jadval. Kortizol gormonining og‘ir atletika bilan shug‘ullanadigan sportchilarda qayd etilgan miqdori (nmol/l) m±3; n=25

№	Ism familyasi	Jinsi	Razryad	Yoshi	Peshobda nmol\l	Qonda	
					24 soat ichida	Ertalab	Kechqurun
1	A.S	A	II	22	110	440	380
2	B.H.	A	II	21	134	518	420
3	A.R.	A	II	22	146	520	446
4	I.I	A	III	21	170	536	470
5	P.O.	A	II	21	130	428	390
6	K.L.	A	II	19	126	426	392
7	A.S.	E	III	19	170	520	436
8	N.V	E	III	19	150	522	453
9	Z.A	E	III	19	160	510	463
10	A.A	E	II	20	146	480	424
11	S.L	E	I	19	130	442	416
12	J.B	E	I	19	138	440	394
13	Q.Y.	E	II	20	148	520	494
14	P.A	E	I	21	156	516	470
15	H.F.	E	I	19	168	590	460
16	Z.S.	A	II	22	154	510	456
17	D.G.	E	I	22	130	518	488
18	D.F	E	I	21	110	420	380
19	L.K.	E	I	21	118	610	476
20	A.B.	E	II	19	116	590	510
21	F.L	E	III	20	180	640	588
22	A.K	E	I	20	120	448	422
23	K.M	E	II	22	144	520	496
24	S.S	E	III	21	166	600	580
25	K.Y	E	II	21	120	572	478
	O‘rtacha			**20,4**	**141,6**	**513,4**	**455,3**

Yuqoridagi natijalardan ko‘rinib turibdiki, kortizolning miqdorining o‘zgarishi yoshga yoki jinsga bog‘liq ravishda o‘rganmagan. Ammo sport razryadlarida birmuncha tafovut bor. Natija yana ham aniq ko‘rinish uchun gistogramma chizdik.

1.2. diagramma. Kortizol gormonining og‘ir atletika bilan shug‘ullanuvchi sportchilarda qayd etilgan miqdori (nmol/l) m±3; n=25



1.2. jadvalni tahlil qiladigan bo‘lsak, ertalab og‘ir atletikachilar qonida ajralgan kortizolning miqdori normadan oshib ketmagan. Ammo 19,21, 24-raqamda qayd etilgan sportchilar qonida kortizolning miqdori ertalab 600 dan yuqori miqdorda qayd etilgan. Bu sportchi organizmida jismoniy yuklamalarning intensivligini bildiradi. 3.1. jadvalda sport bilan shug;ullanmagan odamlarning qonidagi kortizolning eng yuqori ko‘rsatgichi 510 nmol/ni tashkil qilgan bo‘lsa, og‘ir atletikachilar qonida ertalab aniqlangan eng yuqori ko‘rsatgich 640 nmol/l ni aks ettirgan. Bu ko‘rsatgichning yuqori ekanligi jismoniy faoliyat tufayli qonda kortizolning miqdori yuqori bo‘lishini bildiradi. Shu bilan bir qatorda kechqurun soat 20:00 da sportchilar qonida kortizolning miqdori tekshirilganda 4,13,14,17,19,20,21,23,24,25 raqamda qayd etilgan sportchilarda kortizolning miqdori normadan oshib ketganini guvohi bo‘ldik. Buning asosiy sababi ushbu sportchilarda yuklama hajmi yuqori bo‘lganligi va dam olish soatlarining yetarli bo‘lmaganligi sabab bo‘ldi. Shuningdek, kortizolning miqdori oshgan sportchilarda muskul massasining kamayishi va dinamometrda kuchi o‘lchanganda kuchi kam ko‘rsatgichga ega ekanini ko‘rdik. Yurak ritmi o‘lchangan mana shu sportchilarning yurak pulsida aritmiya kuzatildi. Ammo kortizolning miqdori o‘zgarishi razryadga, jinsga va yoshga bog‘liq emasligini 3.2. jadval ham isbotlaydi. Masalan, yuqorida kortizolning miqdori yuqori ko‘rsatgich qayd etgan sportchilar orasida I,II va III razryadga ega bo‘lgan sportchilar ham uchraydi. Ularning yoshi ham turlicha. Ammo, shuni alohida qayd etishimiz joizki ushbu tadqiqotlar musobaqadan 1 oy oldin o‘tkazilgan ammo musobaqaga yaqin ushbu ko‘rsatgichlar yanada oshishi yoki kamayishi mumkin. Sport fiziologi sifatida og‘ir atlletikachilarda kortizolning miqdorini doimiy nazorat qilishni tavsiya qilaman. Chunki, asosiy jismoniy ko‘rsatgichlar uchga bo‘linadi: chidamkorlik, tezkorlik va kuch. Kuchni belgilaydigan ko‘rsatgichlarning eng muhimi mushak massasi hisoblanadi. Kortizol

esa mushak massasini kamaytirish xususiyatiga ega. Chunki, kortizolning stress ta'siri tufayli mushaklarda oksidlanishli fosforirlanish va oqsillar parchalanishi kuchayib ketadi. Bu esa kuchni kamayishiga sabab bo'ladi. Og'irlik ko'tarishda kuchning ahamiyati chidamkorlik va tezkorlikdan ko'ra ko'proqni tashkil etadi.

Shu boisdan kuch va tezkorlikkda nisbatan ko'proq chidamkorlik talab qiladigan sport turi bilan shug'ullanuvchi futbolchilarda ham ushbu tadqiqotni o'tkazdik. Tadqiqot uchun 25 nafar Sportning Qishki va murakkab texnik turlari ROSMM va O'zbekiston davlat jismoniy tarbiya va sport universiteti tog' chang'i talabalaridan tanlab oldik. Tanlab olingan tog' chang'ichilarda uch hafta davomida uch marta kortizol tahlili o'tkazdik. Mashg'ulotdan oldin ertalab va mashg'lotdan keyin kechqurun qonda kortizolning miqdorini analiz qildik. 1.3. jadvalda kortizolning miqdori sport bilan shug'ullanmagan insonlar va og'ir atletika bilan shug'ullanuvchilarga nisbatan siydikdagi, qondagi tahlillariga nisbatan yuqori ko'rsatgich qayd etildi.

1.3. jadval.

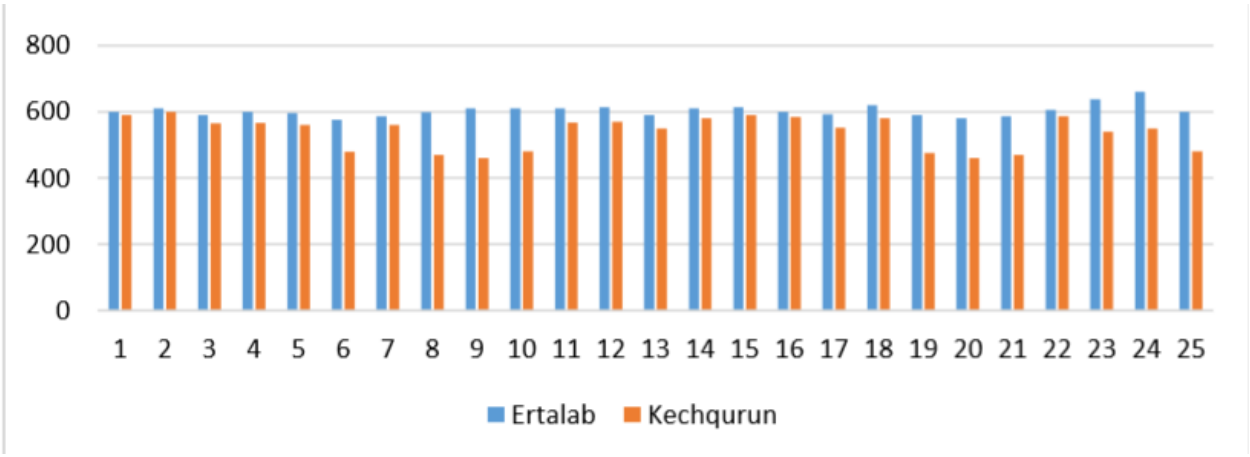
Kortizol gormonining tog' chang'i bilan shug'ullanadigan sportchilarda qayd etilgan miqdori (nmol/l) m±3; n=25.

№	Ism familyasi	Jinsi	Yoshi	Peshobda nmol\l	Qonda	
				24 soat ichida	Ertalab	Kechqurun
1	A.K.	E	21	160	600	590
2	A.A.	E	21	134	610	600
3	Dj.I.	E	21	148	590	565
4	J.U.	E	19	168	600	566
5	M.O.	E	21	160	596	560
6	N.B.	E	19	130	576	479
7	R.N.	E	19	158	586	560
8	S.D.	E	19	156	598	470
9	T.M	E	19	162	610	460
10	U.Sh.	E	20	146	610	480
11	A.R	E	19	138	610	568
12	Dj.N	E	19	166	614	570
13	G.B	E	20	172	590	550
14	I.B	E	21	166	610	580
15	I.U	E	19	168	614	590
16	T.A	A	22	166	600	584
17	M.S	E	22	170	592	552
18	N.B	E	21	180	620	580
19	P.E.	E	20	178	590	476
20	R.N.	E	19	156	580	460
21	R.N.	E	20	176	586	470
22	Sh.I.	E	19	180	606	586
23	U.M	E	19	168	638	540
24	B.Z	E	20	176	660	550
25	N.M	E	19	180	600	480
	O'rtacha		**20**	**162,48**	**603,44**	**538,64**

1.3. jadvalda futbolchilar qonida kortizol miqdori sezilarli darajada oshgani yaqqol ko‘zga tashlanmoqda. 25 nafar tog‘ chang‘ichilarda atigi bir nafar 21-raqamda qayd etilgan sportchida kortizolning kechqurungi miqdori 470 nmol/l ni tashkil etdi. Qolgan barcha tog‘ chang‘ichilarda kechqurun soat 20:00 da qonda kortizolning miqdori oshgani kuzatildi. Bu ayniqsa 1.3. gistogrammada yana ham aniqroq ko‘ringan.

1.3. diagramma.

Kortizol gormonining tog‘ chang‘ichilarda qayd etilgan miqdori (nmol/l) m±3; n=25.



- **Xulosa va takliflar (Conclusion/Recommendations).** Tadqiqot davomida tog‘ chang‘ichilarda kechqurun kortizolning miqdori normadan oshib ketishi va ertalabki kortizolning miqdori ham normani eng yuqori ko‘rsatgichlarida namoyon bo‘lishi sabablari va oqibatlari o‘rganildi. Buning uchun tanlab olingan tog‘ chang‘ichilarda so‘rovnoma o‘tkazildi [1.4.-jadval] va yurak pulsi o‘lchandi. Shuningdek, og‘ir atletikachilarga nisbatan tog‘ chang‘ichilarning jismoniy yuklamasi og‘ir ekani, jismoniy yuklama vaqtida 4/4 qismga yaqin mushaklar faol harakat qiladi, og‘ir atletikachilarda esa 2/4 qism mushaklar harakat qiladi. Demak mushaklarning umumiy faolligi yuqori bo‘lsa organizm uchun stress hisoblanadi. Mushaklarning qancha ko‘p qismi mashg‘ulotda ishtirok etsa shuncha ko‘p organizm stress oladi. Bu esa bevosita mashg‘ulot vaqtiga ham bo‘gliqdir. Kuzatuvlarimiz natijasiga ko‘ra odatiy holatda og‘ir atletika bilan shug‘ullanuvchilar kuniga 2-4 soat mashg‘ulot qiladi. Bu esa organizm uchun juda ortiqcha zo‘riqish hisoblanmaydi. Tog‘ chang‘ichilar esa kuniga 4-6 soat mashg‘ulot qiladi, bosib o‘tadigan masofasi ham uzun ekanini tashkil etadi. Bu esa organizm uchun stress holatini keltirib chiqaradi. Shu boisdan kortizolning miqdori oshishiga sabab bo‘ladi. Kortizolning bu holatda doimiy bo‘lmagan holatda oshishi xavfli emas aksincha signal reaksiyasi hisoblanadi. Mana shu vaqtda organizmda jismoniy faoliyat haddan oshib ketganligi, toliqishning jismoniy va emotsional holati kuzatilayotganidan dalolat beradi.

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TELEKOMMUNIKATSIYA VA SUN'IY INTELLEKT INTEGRATSIYASI

Annotatsiya : *Bugungi kunda telekommunikatsiya va sun'iy intellekt (SI) integratsiyasi texnologik rivojlanishning muhim jihatlaridan biriga aylandi. Ushbu maqolada telekommunikatsiya sohasida sun'iy intellekt texnologiyalarining qo'llanilishi, ularning tarmoqni boshqarish, xizmat ko'rsatishni avtomatlashtirish va foydalanuvchi tajribasini yaxshilashdagi roli tahlil qilinadi. Maqola, SI yordamida tarmoqni optimallashtirish, ma'lumotlarni tahlil qilish va mijozlarga shaxsiylashtirilgan xizmatlarni taqdim etish imkoniyatlarini ko'rsatib, shuningdek, bu integratsiyaning yuzaga kelgan muammolariga e'tibor qaratadi. Xususan, ma'lumotlar xavfsizligi, shaffoflik va etik masalalar hamda sun'iy intellektning ijtimoiy-iqtisodiy ta'siri muhokama qilinadi. Kelajakda bu integratsiyaning rivojlanishi yangi xizmatlar va imkoniyatlar yaratishda muhim rol o'ynashi kutilmoqda. Maqola telekommunikatsiya va sun'iy intellekt integratsiyasining jamiyat va iqtisodiyotdagi ta'sirini va uning kelajakdagi rivojlanish istiqbollarini yoritadi.*

Kalit so'zlar: *Telekommunikatsiya, sun'iy intellekt, integratsiya, tarmoqni boshqarish, xizmat ko'rsatishni avtomatlashtirish, ma'lumotlar xavfsizligi, shaffoflik, etik masalalar, mijozlarga xizmat ko'rsatish, aqlli tarmoqlar, IoT, prognozlash algoritmlari, foydalanuvchi tajribasi, kelajakdagi rivojlanish.*

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INTEGRATION OF ARTIFICIAL INTELLIGENCE IN TELECOMMUNICATIONS

Abstract: *Today, the integration of telecommunications and artificial intelligence (AI) has become one of the key aspects of technological development. This article analyzes the application of AI technologies in the telecommunications sector, focusing on their role in network management, service automation, and improving user experience. The article highlights the possibilities of network optimization, data analysis, and the provision of personalized services to customers through AI, while also addressing the challenges posed by this integration. Specifically, issues related to data security, transparency, ethical concerns, and the socio-economic impact of artificial intelligence are discussed. It is expected that the development of this integration in the future will play a crucial role in creating new services and opportunities. The article sheds light on the impact of the integration of telecommunications and artificial intelligence on society and the economy, as well as the prospects for its future development.*
Keywords: *Telecommunications, Artificial Intelligence, Integration, Network Management, Service Automation, Data Security, Transparency, Ethical Issues,*

Customer Service, Smart Networks, IoT (Internet of Things), Forecasting Algorithms, User Experience, Future Development.

Kirish

Telekommunikatsiya va sun'iy intellekt integratsiyasi bugungi kunda zamonaviy texnologiyaning eng muhim va tez rivojlanayotgan sohalaridan biridir. Ushbu integratsiya, kommunikatsiya tizimlarini yaxshilash, ma'lumotlarni boshqarishni takomillashtirish va turli sohalarda innovatsion ilovalarni yaratish imkoniyatlarini taqdim etadi. Sun'iy intellekt texnologiyalari rivojlanishi bilan, ularning telekommunikatsiya sohasiga integratsiyasi tarmoq samaradorligini optimallashtirish va foydalanuvchi tajribasini oshirish uchun tobora muhim ahamiyat kasb etmoqda. Telekommunikatsiya tarixiga nazar tashlaydigan bo'lsak, u 19-asrda telegram va telefon kabi ixtirolar bilan boshlanadi. 20-asrning oxirlarida raqamli texnologiyalar kirib kelishi, murakkab va integratsiyalashgan kommunikatsiya tizimlariga o'tishni ta'minladi. Shu bilan birga, sun'iy intellekt oddiy hisoblash algoritmlaridan murakkab mashinani o'rganish va chuqur o'rganish tizimlariga rivojlandi. Ular hozirda katta hajmdagi ma'lumotlarni tahlil qilish va jarayonlarni avtomatlashtirishda muhim rol o'ynaydi. Ushbu ikki sohaning integratsiyasi 2000-yillarning boshlarida aqlli tarmoqlar va Internet of Things (IoT) paydo bo'lishi bilan kuchaydi. Telekommunikatsiya, masofalarga axborotni uzatishni, telefonlar, sun'iy yo'ldoshlar va internet kabi turli texnologiyalarni qo'llagan holda amalga oshiriladi. Sun'iy intellekt esa, mashinani o'rganish, tabiiy tilni qayta ishlash va neyron tarmoqlarni o'z ichiga oladi, bu esa tizimlarga ma'lumotlardan o'rganish va qaror qabul qilish imkonini beradi. Hozirgi kunda tadqiqotlar ushbu integratsiyaning turli jihatlarini o'rganishga qaratilgan, jumladan, tarmoqni optimallashtirish, firibgarlikni aniqlash va foydalanuvchi xulq-atvorini tahlil qilish. Yetakchi tadqiqot institutlari va kompaniyalari sun'iy intellekt algoritmlarini tarmoq to'qnashuvini oldindan aytish, xavfsizlik protokollarini kuchaytirish va foydalanuvchi tajribasini shaxsiylashtirish uchun o'rganishmoqda. Bu sohada AT&T va Vodafone kabi telekommunikatsiya gigantlari, shuningdek, Google va IBM kabi texnologiya kompaniyalari muhim o'rin tutmoqda. Biroq, sun'iy intellektni telekommunikatsiya sohasiga integratsiya qilishda muammolar mavjud. Ma'lumotlar maxfiyligi, xavfsizlik masalalari va mustahkam infratuzilma zaruriyati kabi masalalar jiddiy to'siqlarni keltirib chiqarishi mumkin. Shuningdek, sun'iy intellektni kuzatuv va ma'lumotlardan foydalanish bo'yicha etik jihatlari tushunishda bo'shliqlar mavjud. Hozirgi metodologiyalar ko'pincha shaffoflikni ta'minlamaydi, bu esa sun'iy intellektga asoslangan qarorlarning ta'sirini real vaqt rejimida baholashni qiyinlashtiradi. Statistik ma'lumotlarga ko'ra, 2025 yilga kelib, global telekommunikatsiyada sun'iy intellekt bozori 5,2 milliard dollarga yetishi kutilmoqda, bu esa ushbu integratsiyaning iqtisodiy potentsialini ko'rsatadi. Umuman olganda, telekommunikatsiya va sun'iy intellekt integratsiyasi zamonaviy texnologiya va jamiyat uchun keng qamrovli ta'sirga ega bo'lgan tadqiqot sohasidir. Har ikki soha rivojlanishda davom etar ekan, mavjud muammolarni hal qilish va ushbu integratsiyaning to'liq potentsialini amalga oshirish uchun doimiy tadqiqot va

innovatsiyalar zarur. Kelajakda bu sohalarda qiziqarli yangiliklar va rivojlanishlar kutmoqda, bu esa kommunikatsiya tizimlarini qayta shakllantirish va butun dunyo bo'ylab hayot sifatini oshirish imkoniyatlarini yaratadi.

I. Sun'iy intellektning telekommunikatsiya sohasidagi qo'llanilishi va muammolari va yechimlari .

Sun'iy intellekt (SI) telekommunikatsiya sohasida yangicha imkoniyatlar yaratmoqda va bu integratsiya bir qator muammolarni keltirib chiqarayotgan bir paytda, samarali yechimlar ham taklif qilmoqda. Tez rivojlanayotgan texnologiyalar va telekommunikatsiya infratuzilmasida sun'iy intellektni qo'llash, xizmat ko'rsatish sifatini oshirish, xarajatlarni kamaytirish va tarmoq samaradorligini yaxshilash imkonini beradi. Biroq, bu jarayon bir qator qiyinchiliklar bilan to'qnash kelmoqda. Sun'iy intellektning telekommunikatsiya sohasida qo'llanilishi ko'plab sohalarda kuzatiladi. Masalan, tarmoqni boshqarish va optimallashtirishda, SI algoritmlari tarmoq yukini bashorat qilish, tarmoqdagi uzilishlarni aniqlash va ularga tezkor javob berish imkonini beradi. Shuningdek, mijozlar bilan ishlashda sun'iy intellekt asosidagi chat-botlar va virtual yordamchilar yordamida xizmat ko'rsatish jarayonlarini avtomatlashtirish mumkin. Bu esa mijozlar ehtiyojlarini tezda qondirish va ularning tajribasini yaxshilashga olib keladi. Biroq, sun'iy intellektni telekommunikatsiya sohasida qo'llash bir qator muammolarni ham keltirib chiqaradi. Birinchidan, ma'lumotlarning maxfiyligi va xavfsizligi masalalari dolzarbdir. SI algoritmlari ko'plab ma'lumotlarni ishlov berishda foydalanilsa, bu ma'lumotlarning himoyasi va notanish shaxslar tomonidan foydalanishining oldini olish zarur. Ikkinchidan, SI tizimlarining shaffofligi ham muhim masala. Odatda, sun'iy intellekt algoritmlari qanday qilib qaror qabul qilishini tushunish qiyin bo'ladi, bu esa foydalanuvchilarda ishonchsizlikni keltirib chiqarishi mumkin. Yana bir muhim omil, sun'iy intellektning inson ishchi kuchini qanday ta'sir qilishi. Ko'plab ish joylari avtomatlashtirish jarayonida yo'qolishi mumkin, bu esa ijtimoiy-iqtisodiy oqibatlarga olib keladi. Shu sababli, bu jarayonni boshqarish va yangi ish joylarini yaratish bo'yicha choralar ko'rish zarur. Ushbu muammolarni hal qilish uchun bir qator yechimlar taklif qilinmoqda. Dastlab, ma'lumotlar xavfsizligini ta'minlash uchun kuchli shifrlash algoritmlari va xavfsizlik protokollarini ishlab chiqish zarur. Shuningdek, sun'iy intellekt algoritmlarining shaffofligini oshirish uchun tushunarli va tushunarli modellarni ishlab chiqish lozim. Buning uchun ochiq ma'lumotlar va ochiq kodli platformalarni qo'llash mumkin, bu esa foydalanuvchilarga algoritmlarning qanday ishlashini yaxshiroq tushunishga yordam beradi. Inson ishchi kuchining o'rnini egallashni oldini olish uchun, yangi kasblarni o'rganish va tayyorlash dasturlari ishlab chiqilishi kerak. SI va telekommunikatsiya sohasidagi mutaxassislar uchun yangi malakalarni rivojlantirish bo'yicha o'quv dasturlari tashkil etilishi muhimdir. Shu tariqa, sun'iy intellektning telekommunikatsiya sohasidagi integratsiyasi, qiyinchiliklarga qaramay, kelajakda ko'plab imkoniyatlarni beradi. Bu jarayonni muvaffaqiyatli amalga oshirish uchun muammolarni aniqlash va samarali yechimlar taklif qilish zarur.

II. Ma'lumotlarni tahlil qilish va mijozlarga xizmat ko'rsatish.

Ma'lumotlarni tahlil qilish va mijozlarga xizmat ko'rsatish telekommunikatsiya sohasida sun'iy intellektning eng muhim qo'llanishlaridan biridir. Bu jarayon, foydalanuvchi tajribasini yaxshilash, xizmat ko'rsatishni shaxsiylashtirish va tarmoq samaradorligini oshirish maqsadida keng ko'lamli ma'lumotlarni, jumladan, foydalanuvchi xatti-harakatlari, xizmat foydalanish statistikasi va boshqa muhim ko'rsatkichlarni tahlil qilishni o'z ichiga oladi. Ma'lumotlarni samarali tahlil qilish orqali kompaniyalar mijozlar ehtiyojlarini chuqur tushunishlari, shuningdek, xizmatni yaxshilash va sotuvlar ko'rsatkichlarini oshirish imkoniyatiga ega bo'ladilar. Sun'iy intellekt yordamida ma'lumotlarni tahlil qilish jarayoni, mashina o'rganish va tabiiy tilni qayta ishlash kabi algoritmlardan foydalanishni o'z ichiga oladi. Masalan, mashina o'rganish algoritmlari foydalanuvchi ma'lumotlarini tahlil qilib, shaxsiy tavsiyalarni yaratishga imkon beradi. Bu tavsiyalar foydalanuvchilarning oldingi xatti-harakatlari va ularning ehtiyojlariga asoslangan holda ishlab chiqiladi. Shuningdek, sun'iy intellekt yordamida tahlil qilingan ma'lumotlar asosida mijozlarga xizmat ko'rsatish jarayonlarini avtomatlashtirish, masalan, chatbotlar va virtual yordamchilar orqali amalga oshiriladi. Bu texnologiyalar, mijozlarning savollariga tez va samarali javob berish imkonini beradi, shuningdek, ularga xizmat ko'rsatish tajribasini yaxshilaydi. Ma'lumotlarni tahlil qilish orqali hamda sun'iy intellekt yordamida, telekommunikatsiya kompaniyalari foydalanuvchilarning qanday xizmatlardan foydalanayotganini, qaysi xizmatlar ko'proq mashhur ekanligini, shuningdek, foydalanuvchilarning qoniqish darajasini aniqlash imkoniyatiga ega bo'ladi. Bu ma'lumotlar asosida kompaniyalar o'z xizmatlarini takomillashtirish, yangi imkoniyatlar yaratilishi va foydalanuvchilarning ehtiyojlariga mos xizmatlar ishlab chiqish bo'yicha strategiyalarni ishlab chiqadilar. Shuningdek, sun'iy intellekt yordamida amalga oshiriladigan ma'lumotlarni tahlil qilish jarayoni, tarmoqni boshqarish va xizmat ko'rsatish jarayonlarida xatolarni oldini olishda ham muhim rol o'ynaydi. Masalan, tarmoqlarda yuzaga kelishi mumkin bo'lgan muammolarni oldindan aniqlash va ularga tezkor choralar ko'rish imkonini beruvchi prognozlash algoritmlari qo'llaniladi. Bu esa kompaniyalarga xizmat ko'rsatish sifatini oshirishga va foydalanuvchilarga yanada ishonchli xizmatlarni taqdim etishga imkon beradi. Ma'lumotlarni tahlil qilish va mijozlarga xizmat ko'rsatish jarayonida sun'iy intellektning muvaffaqiyatli qo'llanilishi, bir qator tadqiqotlar va tajribalarga asoslangan. Masalan, AT&T va Vodafone kabi yirik telekommunikatsiya kompaniyalari, sun'iy intellektni mijozlarga xizmat ko'rsatish jarayonlarini avtomatlashtirish va xizmat sifatini oshirish maqsadida qo'llamoqda. Ular sun'iy intellekt yordamida olingan ma'lumotlar asosida mijozlarga shaxsiylashtirilgan tavsiyalarni taqdim etish va mijozlar ehtiyojlarini yaxshiroq qondirish imkoniyatini yaratmoqda. Natijada, ma'lumotlarni tahlil qilish va mijozlarga xizmat ko'rsatish jarayonida sun'iy intellektning integratsiyasi, nafaqat telekommunikatsiya kompaniyalari uchun, balki foydalanuvchilar uchun ham ko'plab afzalliklarni taqdim etadi. Ushbu integratsiya orqali, kompaniyalar o'z xizmatlarini yanada takomillashtirishlari va foydalanuvchilarga yaxshiroq tajriba taqdim etishlari

mumkin. Bunday yondashuvlar, kelajakda telekommunikatsiya sohasidagi raqobatni kuchaytirishga va foydalanuvchilar ehtiyojlarini qondirishga yordam beradi.

III. Sun'iy intellekt va telekommunikatsiya ni kelajakdagi òrni

Sun'iy intellekt (SI) va telekommunikatsiya sohalaridagi integratsiya kelajakda bir qator muhim o'zgarishlarni olib kelishi kutilmoqda. Bu integratsiya, avvalo, aloqa tizimlarining samaradorligini oshirish, mijozlarga xizmat ko'rsatishni yaxshilash va yangi xizmatlar ishlab chiqish imkoniyatlarini yaratishda muhim ahamiyatga ega. Sun'iy intellektning telekommunikatsiya sohasidagi o'rni, uning imkoniyatlari va kelajakdagi rivojlanish tendentsiyalari haqida batafsil ma'lumot beramiz.

Birinchidan, sun'iy intellekt telekommunikatsiya sohasida bir qator yangi imkoniyatlar yaratmoqda. Masalan, SI algoritmlari orqali tarmoqlarni optimallashtirish va boshqarish jarayonlari avtomatlashtirilmoqda. Bu esa tarmoqning yuklanishini prognoz qilish, ma'lumotlarni tahlil qilish va xizmat ko'rsatish sifatini oshirish imkonini beradi. Telekommunikatsiya kompaniyalari, masalan, tarmoqdagi muammolarni oldindan aniqlash va ularga tezkor yechimlar topish uchun sun'iy intellektdan foydalanmoqda. Bu usul, ayniqsa, tarmoqda yuzaga keladigan nosozliklarni bartaraf etishda va mijozlar uchun uzluksiz xizmat ko'rsatishni ta'minlashda muhim ahamiyatga ega. Ikkinchidan, sun'iy intellekt orqali mijozlarga xizmat ko'rsatish tizimlari sezilarli darajada yaxshilanmoqda. Chatbotlar va virtual yordamchilar, masalan, mijozlarning so'rovlariga tez va samarali javob berish imkonini beradi. Bunday texnologiyalar yordamida telekommunikatsiya kompaniyalari mijozlarning ehtiyojlarini yaxshiroq tushunish va shunga mos ravishda xizmatlarni shaxsiylashtirish imkoniyatiga ega bo'ladi. Bu esa mijozlar bilan aloqani mustahkamlash va ularning sodiqligini oshirishga xizmat qiladi. Uchinchidan, sun'iy intellektning telekommunikatsiya sohasidagi o'rni yangi xizmatlar va mahsulotlarni rivojlantirishga ham yordam beradi. Masalan, IoT (Internet of Things) texnologiyalari orqali bir qancha qurilmalar bir-biri bilan bog'lanib, ma'lumotlarni almashish imkoniyatiga ega. Sun'iy intellekt ushbu qurilmalar tomonidan to'plangan ma'lumotlarni tahlil qilib, ularni yanada samarali ishlatishga imkon yaratadi. Bu, o'z navbatida, aqlli shaharlar va aqlli uy tizimlarini rivojlantirishga olib keladi. Biroq, sun'iy intellekt va telekommunikatsiya sohalaridagi integratsiya bilan bog'liq bir qator muammolar ham mavjud. Bular orasida ma'lumotlar xavfsizligi va shaxsiy hayotga tahdidlar, shuningdek, sun'iy intellektning etika va adolatli ishlatilishi masalalari alohida ahamiyatga ega. Telekommunikatsiya kompaniyalari, shuningdek, sun'iy intellekt texnologiyalarini joriy etishda kuchli infratuzilma va resurslarga ega bo'lishlari kerak. Kelajakda sun'iy intellekt va telekommunikatsiya sohalaridagi integratsiyaning rivojlanishi, avvalo, bu sohalardagi innovatsiyalarni faol ravishda qo'llab-quvvatlaydigan siyosat va strategiyalarni ishlab chiqishga bog'liq bo'ladi. Shuningdek, sun'iy intellekt dasturlarining samaradorligini oshirish va ularni turli sohalarda kengaytirish uchun keng ko'lamli tadqiqotlar va tajribalar o'tkazilishi zarur. Xulosa qilib aytganda, sun'iy intellekt va telekommunikatsiya sohalaridagi integratsiya kelajakda bir qator

yangi imkoniyatlar va xizmatlarni yaratishda muhim rol o'ynaydi. Ushbu integratsiya, shuningdek, jamiyatning har tomonlama rivojlanishini ta'minlashda muhim ahamiyatga ega bo'ladi.

Xulosa

Telekommunikatsiya va sun'iy intellektning integratsiyasi zamonaviy texnologiyalarning muhim va rivojlanayotgan sohalaridan biridir. Ushbu tadqiqotda, telekommunikatsiya sohasidagi sun'iy intellektning qo'llanilishi, muammolari va yechimlari, shuningdek, ma'lumotlarni tahlil qilish va mijozlarga xizmat ko'rsatishdagi o'rni ko'rib chiqildi. Tadqiqot natijalari ko'rsatadiki, sun'iy intellekt telekommunikatsiya tizimlarining samaradorligini oshirish, ma'lumotlarni real vaqt rejimida tahlil qilish va mijozlarga xizmat ko'rsatishni yaxshilashda muhim rol o'ynaydi. Misol uchun, telekommunikatsiya kompaniyalari sun'iy intellektni foydalanib, tarmoqni optimallashtirish, foydalanuvchilar xulq-atvorini tahlil qilish va mijozlarga xizmat ko'rsatishni shaxsiylashtirishga muvaffaq bo'lishmoqda. Tadqiqotda shuningdek, ushbu integratsiyaning ahamiyati qariyb har bir sohada sezilarli darajada oshayotganini ko'rsatdi. Sun'iy intellekt telekommunikatsiya sohasida kutilmagan muammolarni hal qilishga yordam beradi, masalan, tarmoq xatolarini oldini olish va foydalanuvchilar bilan samarali muloqot qilish. Biroq, ushbu jarayonda ma'lumotlar xavfsizligi va maxfiylik masalalari, shuningdek, infratuzilma barqarorligi kabi muammolar ham mavjud. Shuning uchun, bu sohada kelgusida olib boriladigan tadqiqotlar ko'p jihatdan ushbu muammolarni hal qilishga qaratilishi lozim. Kelajakda, sun'iy intellekt va telekommunikatsiya integratsiyasining o'zaro ta'siri yanada chuqurroq o'rganilishi kerak. Bu, nafaqat texnologik rivojlanish, balki ijtimoiy va iqtisodiy sohalarda ham muhim ta'sir ko'rsatishi mumkin. Shuningdek, axborot texnologiyalari va etika sohalarini birlashtirish orqali yangi yechimlar va yondashuvlarni ishlab chiqish zarur. Shuningdek, sun'iy intellektning telekommunikatsiya tizimlarida qo'llanilishi, shubhasiz, kelajakda jamoatchilik va iqtisodiyotga keng ko'lamli ta'sir ko'rsatadi. Umuman olganda, bu tadqiqot telekommunikatsiya va sun'iy intellekt integratsiyasining ahamiyatini va uning kelajakdagi imkoniyatlarini ta'kidlaydi. Ushbu integratsiyaning muvaffaqiyati ko'p jihatdan ishlab chiqaruvchilar, tadqiqotchilar va siyosatchilar o'rtasida hamkorlik va innovatsiyalarni yanada rivojlantirishga bog'liq bo'ladi.

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SOTSIOLINGVISTIKA VA TIL O'QITISH INTEGRATSIYASI

Annotatsiya: *Ushbu maqolada sotsiolingvistika va til o'qitish integratsiyasi haqida so'z yuritilgan. Sotsiolingvistika tilning ijtimoiy kontekstdagi o'rnini o'rganishga qaratilgan bo'lib, til o'qitish jarayonida madaniy va ijtimoiy omillarni hisobga olish muhimligi ta'kidlangan. Maqolada til o'qitishda sotsiolingvistik yondashuvlar, ularning o'quvchilarning qiziqishini oshirish va bilimlarni samarali o'zlashtirishga ta'siri yoritilgan. Shuningdek, integratsiyaning afzalliklari, jumladan, til va madaniyat o'rtasidagi bog'liqlikni tushunish, ko'p madaniyatli yondashuv va real kontekstda o'qitishning ahamiyati muhokama qilingan.*

Kalit so'zlar: *sotsiolingvistika, til o'qitish, ijtimoiy kontekst, ko'p madaniyatli yondashuv, real kontekst, kod almashinuvi, til va madaniyat uyg'unligi, integratsiya.*

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INTEGRATION OF SOCIOLINGUISTICS AND LANGUAGE TEACHING

Abstract: *This article discusses the integration of sociolinguistics and language teaching. Sociolinguistics is aimed at studying the place of language in the social context, and the importance of taking into account cultural and social factors in the process of language teaching is emphasized. The article describes sociolinguistic approaches to language teaching, their impact on increasing students' interest and effective knowledge acquisition. Also discussed are the benefits of integration, including understanding the connection between language and culture, a multicultural approach, and the importance of teaching in real contexts.*

Key words: *sociolinguistics, language teaching, social context, multicultural approach, real context, code switching, language and culture harmony, integration.*

Sotsiolingvistika — bu tilning jamiyatdagi o'rni va uning ijtimoiy, madaniy, va siyosiy kontekstlarda qanday shakllanishini o'rganadigan ilmiy soha. Til o'qitish esa, tilni o'rgatish va o'rganish jarayonlarini o'z ichiga oladi. Sotsiolingvistika va til o'qitish integratsiyasi bu ikki sohaning birlashib, til o'qitish jarayonida jamiyat, madaniyat va tilning ijtimoiy o'zgarishlarini hisobga olishni anglatadi.

Hozirgi globallashuv davrida til o'qitishning samaradorligini oshirish uchun yangi yondashuvlar zarur bo'lib qolmoqda. Sotsiolingvistika va til o'qitish integratsiyasi bu sohada muhim yondashuvlardan biridir. Sotsiolingvistika tilning jamiyatdagi o'rni, uning ijtimoiy omillar bilan bog'liqligini o'rgansa, til o'qitish esa

tilni o‘rganuvchilar uchun samarali metodlarni ishlab chiqishga qaratilgan. Ushbu maqolada sotsiolingvistika va til o‘qitishning o‘zaro bog‘liqligi va ularning integratsiyasi orqali ta’lim jarayonini qanday yaxshilash mumkinligi tahlil qilinadi.

Sotsiolingvistika tilni ijtimoiy kontekstda o‘rganuvchi fan hisoblanadi. U tilning quyidagi jihatlarini o‘rganadi:

1. Dialektlar va lahjalar: Turli hududlardagi til shakllarining o‘ziga xosliklari.
2. Til maqomi va nufuzi: Jamiyatda tilning ijtimoiy va iqtisodiy ahamiyati.
3. Kod almashinuvi: Bitta muhitda bir nechta tildan foydalanish holati.
4. Til siyosatlari: Mamlakatlardagi tilni rivojlantirish va qo‘llab-quvvatlash bo‘yicha siyosat.

Bu tushunchalar til o‘qitish jarayonida ham muhim o‘rin tutadi. Masalan, o‘quvchilarning lahja va madaniy fonini hisobga olgan holda ta’limni tashkil qilish ularning o‘quv jarayoniga qiziqishini oshiradi.

Til o‘qitish jarayonida sotsiolingvistik g‘oyalarni qo‘llash quyidagi afzalliklarni beradi:

1. Ko‘p madaniyatli yondashuv: O‘quvchilarga turli madaniyatlarga mansub til elementlarini o‘rgatish orqali tolerantlikni shakllantirish.
2. Real kontekstga asoslanish: Tilni faqat grammatik jihatdan emas, balki kundalik hayotdagi qo‘llanilishini o‘rgatish.
3. Til va madaniyat uyg‘unligi: Til o‘qitish jarayonida madaniy elementlardan foydalanish orqali o‘quvchilarning tilga qiziqishini oshirish.
4. Kod almashinuvini o‘rganish: O‘quvchilarga turli tillarni bir vaqtning o‘zida qo‘llash imkoniyatlarini ko‘rsatish.

Masalan, ikkinchi til sifatida ingliz tilini o‘rganayotgan o‘quvchilarga dunyoning turli madaniyatlarida ushbu tilning qo‘llanilishini misol sifatida ko‘rsatish ularning o‘quv jarayoniga ijobiy ta’sir ko‘rsatadi.

Sotsiolingvistika va til o‘qitishning integratsiyasi quyidagi samaralarni beradi:

1. O‘quvchilarning tilni tez o‘zlashtirishi: Ijtimoiy kontekstda tilni o‘rganish orqali ularning amaliy ko‘nikmalari rivojlanadi.
2. Tilga qiziqishning ortishi: Real hayotdagi misollar asosida o‘qitish o‘quvchilarni motivatsiyalaydi.
3. Til va madaniyat o‘rtasidagi bog‘liqlikni tushunish: O‘quvchilar faqat tilni emas, balki unga bog‘liq madaniy qiymatlarni ham anglaydi.
4. Shaxsiy yondashuv: O‘quvchilarning ijtimoiy va madaniy jihatlarini hisobga olgan holda individual ta’lim metodlarini ishlab chiqish.

Sotsiolingvistika va til o‘qitish integratsiyasi zamonaviy ta’lim jarayonida muhim ahamiyat kasb etadi. Bu yondashuv nafaqat til o‘rganuvchilarning bilim va ko‘nikmalarini oshiradi, balki ularning turli madaniyatlarga hurmat bilan munosabatda bo‘lishini ham shakllantiradi. Shuning uchun pedagoglar va metodistlar ushbu integratsiyani ta’lim jarayonida kengroq qo‘llashga harakat qilishlari lozim.

Til o'qitish integratsiyasi: sotsiolingvistik yondashuv

Sotsiolingvistik yondashuvni til o'qitish jarayoniga integratsiya qilish tilni faqat gramatik va leksik shakllarda o'rgatishdan ko'ra, yanada murakkab va dinamik jarayon sifatida qaraladi. Ushbu integratsiya quyidagi jihatlarni o'z ichiga oladi:

1. **Madaniy va ijtimoiy kontekstni hisobga olish**: Til o'qitishda faqat grammatika yoki lug'atni o'rganishdan tashqari, o'quvchilarni tilning madaniy va ijtimoiy kontekstini tushunishga o'rgatish kerak. Bu orqali o'quvchi nafaqat tilni, balki shu til bilan bog'liq ijtimoiy qadriyatlar va urf-odatlarni ham biladi.
2. **Tilning ijtimoiy ko'rinishlarini tushunish**: O'quvchilarga turli ijtimoiy guruhlarning tilini tushunish va hurmat qilishni o'rgatish, shuningdek, lingvistik xilma-xillikni qabul qilish muhimdir. Masalan, ingliz tilini o'rgatishda, britan va amerika ingliz tilining farqlarini tushunish o'quvchiga global miqyosda muvaffaqiyatli muloqot qilish imkonini beradi.
3. **O'qituvchining roli**: O'qituvchi faqat bilim manbai emas, balki ijtimoiy va madaniy kontekstni tushunadigan rahbar sifatida ham ishlaydi. O'qituvchi o'quvchilarning tilni o'rganishdagi ehtiyojlarini, ularning ijtimoiy mavqeyini va madaniy kontekstini hisobga olib, o'rgatish jarayonini moslashtirishi kerak.
4. **Tilni o'rgatishda identifikatsiya**: O'quvchilar tilni o'rgatishda o'z identifikatsiyasini shakllantiradilar. Sotsiolingvistik yondashuvda, til o'qitish jarayonida o'quvchining o'z madaniyati, ijtimoiy pozitsiyasi va lingvistik qarashlari e'tiborga olinadi.

Sotsiolingvistika va til o'qitishning kutilgan natijalari

Sotsiolingvistik yondashuvni til o'qitish jarayoniga integratsiya qilish bir nechta ijobiy natijalarga olib kelishi mumkin:

- **Ko'p madaniyatli muhitda muloqot qilish qobiliyati**: O'quvchilar turli madaniyatlar va til shakllari bilan tanishadilar va shu orqali global miqyosda samarali muloqot qilish qobiliyatiga ega bo'ladilar.
- **Lingvistik farqlarni qabul qilish**: O'quvchilar turli lingvistik an'analarga, dialektlarga va jargonlarga hurmat bilan qarashni o'rganadilar.
- **Tilni ijtimoiy kontekstda tushunish**: O'quvchilar tilni nafaqat grammatika yoki lug'at shaklida, balki uning ijtimoiy va madaniy ahamiyatini tushunib o'rganadilar.

Xulosa

Sotsiolingvistik yondashuvni til o'qitish jarayoniga integratsiya qilish, tilni nafaqat texnik jihatdan, balki uning ijtimoiy, madaniy va kommunikativ jihatlaridan ham o'rgatishni talab qiladi. Bu yondashuv o'quvchilarga dunyoqarashini kengaytirishga, turli tillar va madaniyatlar bilan tanishishga yordam beradi va ularga global muloqotda muvaffaqiyat qozonish imkoniyatini yaratadi.

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COMPREHENSIVE REHABILITATION FOLLOWING SURGICAL TREATMENT OF DIGESTIVE SYSTEM DISORDERS

Abstract. *The postoperative period following surgical interventions for digestive system disorders presents significant challenges, including high risks of complications and impaired quality of life. This study investigates the effectiveness of comprehensive rehabilitation programs compared to standard postoperative care. Conducted at the Republican Specialized Scientific-Practical Medical Center of Therapy and Medical Rehabilitation in Andijan, the study evaluates key outcomes such as complication rates, hospital stay duration, and functional recovery. Findings demonstrate that comprehensive rehabilitation significantly reduces postoperative complications, accelerates recovery, and improves quality of life. These results underscore the importance of multidisciplinary and individualized approaches in postoperative care.*

Keywords: *Digestive system, postoperative rehabilitation, surgical treatment, comprehensive care, quality of life, physiotherapy, interdisciplinary approach.*

Introduction. Surgical treatment of digestive diseases represents a critical milestone in patient management. While the intervention itself addresses the primary pathology, the recovery period often entails substantial risks, including postoperative complications, decreased quality of life, and delayed functional recovery. Addressing these challenges requires a robust and comprehensive rehabilitation strategy, integrating physical, nutritional, psychological, and pharmacological components. This research, conducted at the Republican Specialized Scientific-Practical Medical Center of Therapy and Medical Rehabilitation in Andijan, evaluates the impact of such rehabilitation programs on clinical outcomes [1],[2].

Materials and Methods. Study Design and Population

The study involved 200 patients who underwent surgical treatment for digestive diseases between 2020 and 2023. Participants were allocated into two groups:

-**Main group (n=100):** Received comprehensive rehabilitation interventions, including physiotherapy, dietary adjustments, pharmacological support, and psychological counseling.

-**Control group (n=100):** Received standard postoperative care without specialized rehabilitation measures.

Rehabilitation Protocol

The rehabilitation process was structured into three stages:

1. Preoperative Preparation: Focused on antisecretory therapy and correction of metabolic imbalances to optimize surgical outcomes [3].

2. Early Postoperative Period: Emphasized restoring intestinal motility and managing immediate postoperative symptoms [4].

3. Late Postoperative Period: Targeted long-term physical and social reintegration, utilizing tailored exercise programs and psychological support [5],[6].

Outcome Measures. Key outcomes assessed included:

-Incidence of postoperative complications;

-Duration of hospital stay;

-Quality of life improvements, measured using the SF-36 questionnaire;

-Time to functional recovery of the gastrointestinal tract.

Results

The comparison between the main and control groups is summarized in Table 1.

Parameter	Main Group	Control Group
Incidence of postoperative complications	15%	28%
Average length of hospital stay	12 days	18 days
Improvement in SF-36 scores	+45%	+20%
Restoration of gastrointestinal function	3 days	6 days

Key Findings

-Complication Reduction: The incidence of complications in the main group was nearly halved compared to the control group ($p<0.05$) [2].

-Hospitalization Duration: Comprehensive rehabilitation reduced the average hospital stay by six days.

-Quality of Life: Patients in the main group reported a 45% improvement in SF-36 scores, significantly higher than the control group's 20% improvement [4].

-Functional Recovery: Intestinal motor function was restored within three days in the main group versus six days in the control group [1],[5].

Discussion

The results underscore the efficacy of comprehensive rehabilitation in enhancing postoperative outcomes for patients undergoing digestive system surgeries. The integration of physiotherapeutic techniques, nutritional guidance, and psychological support not only mitigates complications but also accelerates recovery and improves overall well-being. Preoperative preparation emerged as a critical factor, aligning with findings from previous studies [1],[3].

Insights from Additional Studies

Further research highlights the critical role of enhanced recovery protocols (ERPs) in postoperative care. Smith and Brown (2018) emphasize that ERPs can reduce hospital stays and improve patient outcomes by standardizing perioperative processes [6]. Nutritional interventions, as discussed by Doe and Wilson (2020), are also pivotal in mitigating postoperative complications and accelerating healing [7].

Psychological support during recovery, particularly interventions tailored to reduce stress and anxiety, has been found to significantly enhance patient satisfaction and recovery rates [8]. Advances in physiotherapy, as highlighted by Wang and Zhou (2021), further demonstrate the importance of individualized exercise regimens in improving postoperative mobility and reducing complications [9].

The growing consensus on the multidisciplinary approach, as reviewed by Patel and Singh (2019), underscores the importance of coordination among surgeons, dietitians, physiotherapists, and psychologists to optimize patient recovery [10]. These findings align with our study's outcomes, reinforcing the necessity of comprehensive rehabilitation programs in clinical practice.

Conclusion

Comprehensive rehabilitation is pivotal for successful recovery following surgical treatment of digestive system disorders. This approach significantly reduces postoperative complications, shortens hospital stays, and enhances patients' quality of life. Implementing such programs in clinical settings is essential to advancing patient outcomes and healthcare efficiency.

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THEORETICAL PRINCIPLES OF INNOVATIVE DEVELOPMENT OF DIGITAL INDUSTRIAL STRUCTURE

Abstract: *Today, the development of information technologies and systems allows not only to facilitate the work and management of the regional industry, but also to improve the performance of entire industrial enterprises and increase the efficiency of employees. The article presents an analysis of the creation of a "knowledge economy" based on innovative high technologies, scientific and production potential and intellectual property in the conditions of the digital economy.*

Keywords: *Industry, business, globalization, digital technologies, logistics, transformation, artificial intelligence, technologies, enterprise operations, business planning.*

Every year, new technologies are increasingly penetrating not only the daily lives of the population, but also various spheres of economic activity. This trend applies not only to the B2C sector, but also to the B2B sector: more and more enterprises are moving their work online, introducing and using new information technologies and systems. Thus, information technologies are widely penetrating all spheres of human activity and business. Today, the use of new software, computer systems and technologies is closely related to the new information environment and new opportunities (for example, electronic document exchange or the use of electronic digital signatures). Modern technologies help to significantly save time and effort. Building a “knowledge economy” based on innovative high technologies, scientific and production potential and intellectual property is one of the main tasks of today. Innovations are becoming the engine of the modern economy and the basis of the competitiveness of organizations. This is how countries of the world are choosing their own path of industrial development in the conditions of the fourth industrial revolution. The leading countries in the European Union are Germany, the Netherlands, France, the United Kingdom, Italy, and Belgium, but Germany still holds the lead.

Dodgson.M. in his scientific research developed the principles of technological innovation management based on international and strategic approaches and proposed their application in practice. Abramov V.I. in his research developed a methodology for assessing the innovative potential of an enterprise based on the analysis of the main indicators and trends in the development of science and technology and innovative activity, in the scientific works of Lapteva.Ye.A. studies the problems of assessing the innovative potential of industrial enterprises, describes the structures of industrial enterprises by indicating the level of innovative potential.

Nobel Prize laureate R. Solow also considers new technologies to be the most important factor in economic growth. Analyzing the reasons for the rapid growth of labor productivity in the United States (it doubled from 1909 to 1949), the economist concludes that technological change and innovation play a key role (the contribution of innovation is 7/8, and capital is 7/8). growth accounts for only 1/8 of the total productivity growth). The well-known specialist in the field of management theory P. Drucker also notes the crucial importance of technological progress and increasing labor productivity for economies, especially developing countries. In his opinion, protectionist measures have become the first defensive reaction against external competitors. His assessment of the problems faced by innovatively active organizations is of great importance.

P. Drucker, studying innovation risks, identified three main “traps” (Three Traps) into which such an enterprise can fall:

1. The product of scientific and technological progress must correspond to the main strategy of the company. It must also respond to economic, demographic and political realities.

2. The second trap is associated with the replacement of concepts. Most often, innovation is the renewal of an existing product or service. This phenomenon often occurs when the management of the enterprise wants to get out of the regular production cycle, but for one reason or another is not ready for real scientific and technological development.

3. The third trap is associated with the need to sooner or later make a decision to stop producing goods, works, services that have ceased to bring profit. However, if the management does not answer the questions of what happened in the market and how it should develop in the future, fundamental changes will not occur in the enterprise. Mazin.A. acknowledged that practical work is being carried out in his research on the classification of indicators for assessing the innovative potential of an enterprise.

Along with the above scientists, Uzbek scientists Mahkamova.M.A. conducted scientific research on the formation of an organizational and economic mechanism for managing innovative activities at industrial enterprises of the Republic of Uzbekistan and developed practical solutions for a number of industrial sectors of the country. Shonazarova G.B. made a number of thoughtful proposals in her scientific works on improving the mechanisms for managing the innovative potential of industrial enterprises. In the works of Burkhanov A.U., we can see the development of a strategy for ensuring the financial stability of industrial enterprises and the solutions given to the current problems.

Scientists of our country also paid significant attention to the design, development and effective application of information and communication technologies in various sectors and areas of the national economy.

Academician Kobulov V.K., Academician S.S. Gulyamov in their works presented innovative approaches to the formation of an information society, the development of information systems and technologies for various economic entities based on a mathematical, statistical and algorithmic approach. B.Yu. Khodiev., A.A.

Musaliev, R.Kh. Alimov and A.T. Kenzhabaev in their works paid great attention to the methodological aspects of the design and development of information systems and technologies for the management of national economy entities and management in the Republic of Uzbekistan.

According to comparative analyses of scientific research conducted by foreign and domestic scientists, it was concluded that the principles of innovative development of the industrial structure of the region using digital technologies should be emphasized on the gradual formation of a new digital transformation process, and this process is associated with the fourth generation of industry.

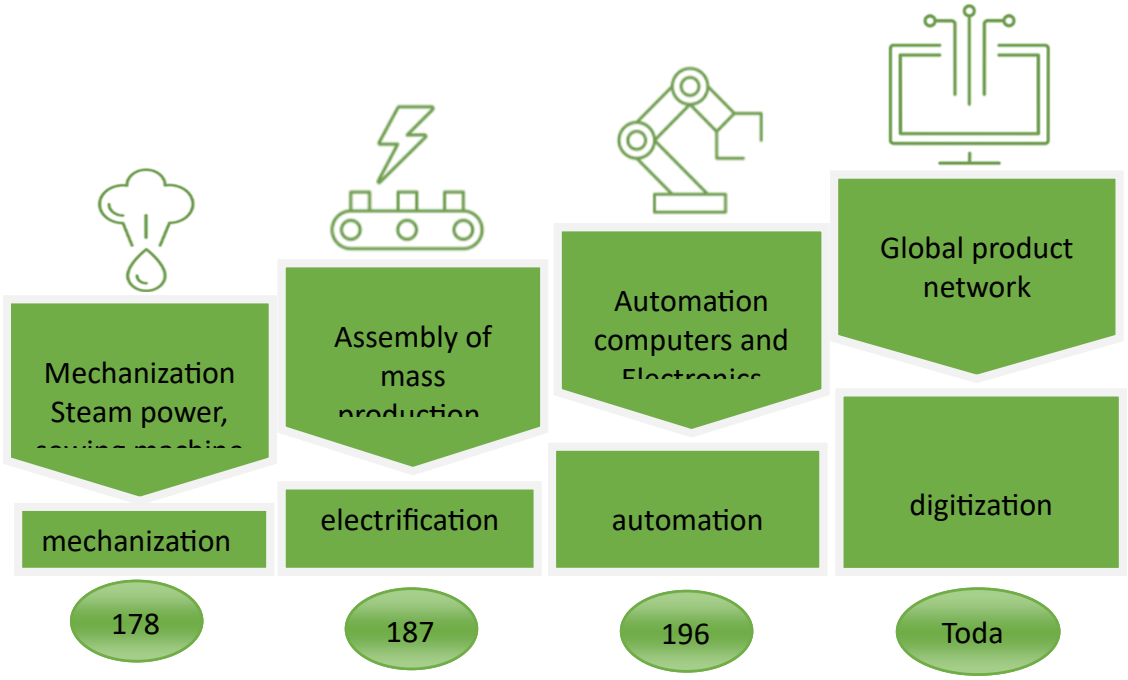

Figure 1.2.1 Stages of development of industrial structures.

As we can see from the figure, the stages of development of industrial structures include the period from mechanization to mass production, from automation to global product networks to digitalization.

At the current stage, the innovative and technological state of the regions is among the leading countries in the world in terms of innovative activity of industrial enterprises, technological level of production, technological sensitivity, etc., as well as the task of developing and implementing methodological tools for managing technological development at the regional level, which will help introduce modern methods of organizing the activities of the regional industrial complex.

The development of the economy of the Republic of Uzbekistan is largely focused on the development of priority sectors, the basis of which is the task of ensuring the material and spiritual well-being of the population. Today, the industrial sector accounts for about 28% of the republic's gross domestic product. In order to further increase the share of industrial sectors in the country's gross domestic product, it is necessary to develop scientifically based theoretical principles using modern technologies. Based on the research conducted in our study,

we have outlined the principles of innovative development of the industrial structure of the region using digital technologies in Table 1.2.1.

Table 1.2.1

Scientific and theoretical principles of innovative development of the regional industrial structure using digital technologies

Principles	Description of principles
Scientific validity	It is expressed in the scientifically justified use of the necessary tools and methods when making decisions that are important for the strategies being developed, while taking into account the existing laws and trends in the development of the industrial complex being developed.
Accounting for scientific and technological progress	It involves taking into account the continuous change in labor tools, technology and production organization, as well as their adaptation to the process of digital transformation and its improvement.
Hierarchy	It consists in building strategies for enterprises of the regional industrial complex that are interconnected with the development strategy of the region and the state as a whole.
Purposefulness	It involves setting and systematizing goals, objectives, taking into account territorial characteristics, solving the identified problems and providing them with modern information and communication technologies (smart) equipment.
Optimality	It is to find the best strategy for the technological development of the industrial complex of the region from the set of fully feasible solutions.
Alternativeness	It involves choosing the optimal solution from the full set of feasible alternatives.
Relevance	It is carried out at two levels:
Criteria	-The first one implies the need to take into account the most important factors in developing a strategy for the technological development of the regional industrial complex;
Distributability	- The second one involves the search for more detailed information and optimal solutions for the components that are important for achieving the goals and objectives of the strategy.

As a result of the reforms carried out to develop the regional industry in the context of the digital economy, methods for developing the industrial structure using modern technologies are emerging. Scientific and theoretical principles of the development of the regional industrial structure are necessary for a methodological understanding of the problems and tasks of managing the innovative economy, in particular, the industrial structure, for the formation of a theoretical basis for making specific management decisions to determine the directions of the innovative economy and the industrial structure of the region.

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COMPARATIVE EVALUATION OF BREATHING EXERCISES IN ACUTE RESPIRATORY INFECTIONS AMONG CHILDREN AND ADULTS

Abstract:*Acute respiratory infections (ARIs) pose significant health challenges globally. This study evaluates the efficacy of structured breathing exercises among children and adults diagnosed with ARIs. Conducted at the Andijan Branch of the Republican Scientific Center for Emergency Medical Care in the Department of Therapy, 80 participants were divided into two groups: children (5–12 years) and adults (18–50 years). The intervention included diaphragmatic breathing, deep breathing with inspiratory pauses, and the Strelnikova method, performed twice daily over 7 days.*

Children demonstrated a more pronounced improvement in oxygen saturation (SpO_2) and peak expiratory flow (PEF) compared to adults. SpO_2 increased from 93.5 ± 1.3% to 97.5 ± 1.0% in children, while adults improved from 92.8 ± 1.5% to 96.0 ± 1.3%. Breathlessness scores on the Borg scale decreased significantly in both groups but more markedly in children. These findings underscore the importance of age-specific respiratory rehabilitation protocols.

Keywords: *Acute respiratory infections, breathing exercises, oxygen saturation, peak expiratory flow, rehabilitation, children, adults.*

Introduction

Acute respiratory infections (ARIs) are a leading cause of morbidity worldwide, impacting individuals of all age groups. ARIs often manifest as hypoxemia, impaired lung function, and breathlessness, which hinder recovery and affect overall quality of life. Non-pharmacological interventions, particularly breathing exercises, play an essential role in improving oxygenation and respiratory function [1, 3, 4].

Physiological differences between children and adults, including lung compliance, respiratory plasticity, and muscle adaptability, suggest that the response to breathing exercises may vary across age groups [2, 5]. Previous studies by Mokin A.A. [3] and Lapshin S.A. [4] have demonstrated the effectiveness of breathing techniques in reducing ARI symptoms. However, comparative studies analyzing pediatric and adult responses remain limited.

This study, conducted at the Andijan Branch of the Republican Scientific Center for Emergency Medical Care, aims to evaluate and compare the outcomes of structured breathing exercises among children and adults with ARIs.

Methods

Study Design

A prospective, interventional study was conducted in the therapy department of the Andijan Branch of the Republican Scientific Center for Emergency Medical Care over 4 weeks.

Participants

A total of 80 patients diagnosed with ARIs were enrolled and categorized into two groups:

- Group 1 (Children): 40 participants aged 5–12 years;
- Group 2 (Adults): 40 participants aged 18–50 years.

Inclusion criteria:

- Clinically diagnosed ARI with oxygen saturation (SpO_2) < 95%;
- Moderate breathlessness (Borg scale ≥ 4);
- No history of chronic respiratory disease.

Exclusion criteria:

- Severe ARI requiring intensive care;
- Neurological or cardiovascular disorders.

Intervention

Participants performed the following breathing exercises under supervision twice daily for 7 days:

1. Diaphragmatic breathing (5 minutes);
2. Deep breathing with inspiratory pauses (5 minutes);
3. Strelnikova breathing method (5 minutes).

Outcome Measures

Outcomes were assessed at baseline (Day 0), Day 3, Day 7, and Day 14 (follow-up):

1. Oxygen saturation (SpO_2);
2. Peak expiratory flow (PEF);
3. Breathlessness severity via the Borg scale;
4. Symptomatic improvement (cough reduction, fatigue).

Statistical Analysis

Data were analyzed using descriptive statistics and paired t-tests, with significance set at $p < 0.05$.

Results

Baseline Characteristics

Parameter	Children (n = 40)	Adults (n = 40)
Mean age (years)	8.2 ± 2.1	34.7 ± 6.8
Baseline SpO_2 (%)	93.5 ± 1.3	92.8 ± 1.5
Baseline PEF (L/min)	175.2 ± 14.6	320.5 ± 17.6
Borg scale (baseline)	6.5 ± 0.8	7.1 ± 0.7

Outcomes

Outcome Measure	Group Day 0	Day 3	Day 7	Follow-up	(Day 14)
SpO_2 (%)	Children	93.5 ± 1.3	95.8 ± 1.0	97.5 ± 1.0	97.2 ± 1.1
	Adults	92.8 ± 1.5	94.5 ± 1.2	96.0 ± 1.3	95.7 ± 1.2
PEF (L/min)	Children	175.2 ± 14.6	195.4 ± 13.8	215.4 ± 15.8	210.5 ± 14.6
	Adults	320.5 ± 17.6	340.2 ± 16.4	365.8 ± 18.3	360.0 ± 17.1
Borg Scale	Children	6.5 ± 0.8	3.2 ± 0.6	1.5 ± 0.4	1.8 ± 0.5
	Adults	7.1 ± 0.7	4.0 ± 0.5	2.5 ± 0.5	2.8 ± 0.6

Discussion

The findings of this study demonstrate that breathing exercises significantly improve respiratory outcomes in patients with ARIs. Consistent with prior studies by Mokin A.A. [3] and Lapshin S.A. [4], structured breathing techniques enhance oxygenation, peak expiratory flow, and alleviate breathlessness.

Children exhibited a more rapid and pronounced improvement compared to adults, likely due to their greater respiratory system adaptability and absence of age-related pulmonary changes. This aligns with Sidorenko I.V.'s observations on pediatric respiratory plasticity [5]. Adults showed slower but steady progress, influenced by reduced lung compliance and muscle function.

The Strelnikova method and deep breathing exercises played a crucial role in improving oxygenation by facilitating alveolar recruitment and optimizing ventilation. These exercises can be integrated into standard ARI rehabilitation protocols for better clinical outcomes.

Conclusion

Breathing exercises are a safe, effective, and non-pharmacological intervention for ARIs in both children and adults. Pediatric patients demonstrated faster recovery in oxygen saturation, peak expiratory flow, and breathlessness reduction, reinforcing the need for age-specific rehabilitation strategies. This study supports the incorporation of breathing exercises into ARI management protocols, particularly in pediatric therapy departments.

Further studies are needed to evaluate the long-term effects of breathing exercises and their combination with other physiotherapy interventions.

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O'ZBEKISTONNING JAHON SAVDO TASHKILOTIGA A'ZO BO'LISHINING FOYDALI JIHATLARI

Annotatsiya*.Ushbu maqola O'zbekistonning Jahon savdo tashkilotiga (JST) a'zo bo'lishining mumkin bo'lgan afzalliklarini o'rganadi. Maqolada a'zolikning iqtisodiy, siyosiy va ijtimoiy ta'sirini tahlil qilib, O'zbekistonning jahon iqtisodiyotiga yanada samarali integratsiyalashuvi imkoniyatlari ko'rsatilgan. Asosiy afzalliklarga bozorga kirishni yaxshilash, to'g'ridan-to'g'ri xorijiy investitsiyalarni kengaytirish, siyosatni isloh qilish orqali iqtisodiyotni modernizatsiya qilish va mahalliy sanoat uchun raqobatbardoshlikni oshirish kiradi. JSTning nizolarni hal qilish mexanizmlari va savdo sheriklarini diversifikatsiya qilish imkoniyatlari ham muhokama qilinadi. Bundan tashqari, maqola a'zolik barqaror rivojlanish maqsadlariga va mintaqaviy hamkorlikka qanday hissa qo'shishi mumkinligini ko'rib chiqadi. Umuman olganda, maqolada JSTga a'zo bo'lish O'zbekistonning iqtisodiy o'sishi, global integratsiya va uzoq muddatli rivojlanish maqsadlarini sezilarli darajada oshirishi ko'rsatilgan.*

Kalit so'zlar: *O'zbekiston, Jahon savdo tashkiloti (JST), savdoni liberallashtirish, to'g'ridan-to'g'ri xorijiy investitsiyalar, bozorga kirish, iqtisodiy islohotlar, raqobatbardoshlik, nizolarni hal qilish, barqaror rivojlanish, mintaqaviy integratsiya, iqtisodiyotni modernizatsiya qilish, savdoni diversifikatsiya qilish, global iqtisodiyot, siyosat islohotlari.*

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USEFUL ASPECTS OF UZBEKISTAN'S MEMBERSHIP IN THE WORLD TRADE ORGANIZATION

Abstract.*This article explores the potential advantages of Uzbekistan becoming a member of the World Trade Organization (WTO). By analyzing the economic, political, and social impacts of membership, the article highlights the opportunities for Uzbekistan to integrate more effectively into the global economy. Key benefits include improved market access, enhanced foreign direct investment, economic modernization through policy reforms, and better competitiveness for local industries. The WTO's dispute resolution mechanisms and the potential for diversification of trade partners are also discussed. Additionally, the article examines how membership could contribute to sustainable development goals and regional cooperation. Overall, the article demonstrates that joining the WTO would*

significantly advance Uzbekistan's economic growth, global integration, and long-term development objectives.

Keywords: *Uzbekistan, World Trade Organization (WTO), trade liberalization, foreign direct investment, market access, economic reforms, competitiveness, dispute resolution, sustainable development, regional integration, economic modernization, trade diversification, global economy, policy reforms.*

Kirish:

Jahon Savdo Tashkiloti (JST) xalqaro tashkilot bo‘lib, a’zo davlatlar o‘rtasida savdo shartnomalarini muzokaralar olib borish va amalga oshirish uchun asos yaratib, global savdoni tartibga soladi. Uning asosiy maqsadi iqtisodiy o'sishni, rivojlanishni va global farovonlikni rag'batlantiradigan savdo-sotiqning iloji boricha silliq, bashorat qilinadigan va erkin harakatlanishini ta'minlashdir. 1995 yilda tashkil etilgan JST 1947 yildan beri amalda bo'lgan Tariflar va savdo bo'yicha Bosh kelishuv (GATT) o'rnini egalladi.Jahon Savdo Tashkiloti (JST) xalqaro tashkilot bo‘lib, a’zo mamlakatlar o‘rtasidagi savdo kelishuvlarini muzokaralar olib borish va amalga oshirish uchun asos yaratish orqali global savdoni tartibga soladi. Uning asosiy maqsadi iqtisodiy o'sishni, rivojlanishni va global farovonlikni rag'batlantiradigan savdoning iloji boricha silliq, bashorat qilinadigan va erkin o'tishini ta'minlashdir. 1995-yilda tashkil etilgan JST 1947-yildan beri amalda bo‘lgan Tariflar va savdo bo‘yicha Bosh kelishuv (GATT) o‘rnini egalladi. 2023 yil holatiga ko'ra, JSTga 164 ta davlat a'zo bo'lib, ular birgalikda global savdoning 98% dan ortig'ini tashkil qiladi.Uning asosiy tamoyillari diskriminatsiyaga yo'l qo'ymaslik, adolatli raqobat va global savdo hamkorligini rag'batlantirish uchun savdo to'siqlarini bosqichma-bosqich kamaytirishdir. O‘zbekistonning JSTga a’zo bo‘lish jarayoni 1994 yilda boshlangan, biroq o‘sha paytda olib borilgan “o‘zini o‘zi ta'minlash” siyosati tufayli 2005 yilda to‘xtatilgan edi. 2018-yilda Prezident Mirziyoyev boshchiligida iqtisodiyotni liberallashtirish va ichki savdo rejimini modernizatsiya qilishga qaratilgan keng ko‘lamli ijtimoiy-iqtisodiy islohotlar va o‘zgarishlar doirasida JSTga a’zo bo’lish jarayoni qayta tiklandi. Liberallashtirish jarayoni O'zbekistondan JST bitimlari va O'zbekiston JST a'zolari bilan oxir-oqibat muzokaralar natijasida olgan majburiyatlariga muvofiq barcha sohalarga ta'sir ko'rsatadigan iqtisodiy/savdo bilan bog'liq bir qator islohotlarni amalga oshirishni talab qiladi.

Asosiy qism.

O'zbekistonning Jahon Savdo Tashkilotiga (JST) potentsial a'zoligi uning iqtisodiy o'sishi, global integratsiya va rivojlanishiga hissa qo'shishi mumkin bo'lgan bir qator afzalliklarni taqdim etadi. Quyida ba'zi asosiy afzalliklar mavjud:

Savdo va bozorga kirish imkoniyatlarini oshirish:

- Global savdo integratsiyasi: O’zbekiston JSTga a’zo bo’lish orqali o’rnatilgan savdo qoidalari asosida jahon bozorlariga chiqish imkoniyatiga ega bo’ladi. Bu esa o‘zbek eksportyorlari uchun a’zo davlatlar bilan erkin savdo qilish imkoniyatlarini ochib beradi, tariflar va kvotalar kabi to‘siqlarni kamaytiradi.

- Eksport imkoniyatlarini yaxshilash: JSTga a’zo bo‘lish O‘zbekistonga yirik savdo hamkorlari bozorlariga, xususan, mamlakat qiyosiy ustunlikka ega bo‘lgan to‘qimachilik, qishloq xo‘jaligi mahsulotlari va mashinasozlik kabi tarmoqlarga kirish imkonini beradi.

Xorijiy investitsiyalarni jalb qilish:

- Yaxshilangan sarmoyaviy muhit: JSTga a’zo bo’lish xorijiy investorlarga O’zbekiston xalqaro savdo va huquqiy me’yorlarga rioya qilishini bildiradi. Bu ko’p millatli korporatsiyalarning investitsiyalarini rag’batlantirishi mumkin, ular ko’pincha JST a’zosi bo’lgan mamlakatlarni bashorat qilinadigan huquqiy va tartibga soluvchi muhit tufayli afzal ko’radi.

- Global kapitalga kirish: Savdo va investitsiya istiqbollari yaxshilangan holda, O’zbekiston ko’proq to’g’ridan-to’g’ri xorijiy investitsiyalarni (TDI) jalb qilishi mumkin, bu esa texnologik transfer, ish o’rinlari yaratish va infratuzilmani rivojlantirishni kuchaytirishi mumkin.

Iqtisodiy islohotlar va modernizatsiya:

- Siyosat islohotlari va shaffoflik: JSTga a’zo bo’lish uchun O’zbekiston o’z savdo va ichki siyosatini xalqaro me’yorlarga moslashtirishi kerak edi. Bunga intellektual mulk, raqobat va bojxona amaliyoti kabi sohalardagi islohotlar kiradi. Bunday islohotlar umumiy biznes muhiti va boshqaruvni yaxshilaydi.

- Bozorga yo’naltirilgan iqtisodiy islohotlar: JSTga a’zo bo’lish jarayoni O’zbekistonni iqtisodiyotini modernizatsiya qilishga, davlat boshqaruvidagi tizimlardan uzoqlashishga va bozor mexanizmlarini qabul qilishga undaydi. Bu iqtisodiyotni diversifikatsiya qilish va raqobatbardoshlikni oshirishga yordam beradi.

Nizolarni hal qilish mexanizmi:

- Nizolarni adolatli hal qilish: JST a’zo mamlakatlar o’rtasidagi savdo nizolarini hal qilishning rasmiy mexanizmini taqdim etadi. Bu O‘zbekistonning har qanday savdo mojarolarini hal qilishning adolatli va xolis tizimiga ega bo‘lishini, boshqa davlatlar tomonidan o‘zboshimchalik yoki proteksionistik harakatlar xavfini kamaytirishini ta’minlaydi.

- Bashorat qilinadigan savdo muhiti: JSTning shaffof qoidalari va tartiblari savdo uzilishlari yoki adolatsiz amaliyotlar bilan bog’liq xavflarni kamaytiradigan, bashorat qilinadigan savdo muhitini yaratishga yordam beradi.

Raqobatbardoshlikni oshirish:

- Mahalliy sanoatni rag’batlantirish: JSTga a’zo bo’lish mahalliy korxonalarni xalqaro raqobatga duchor bo’lishlari sababli ularning mahsuldorligi va raqobatbardoshligini oshirishga undaydi. Bu ishlab chiqarish, qishloq xo‘jaligi va xizmat ko‘rsatish kabi muhim tarmoqlarda innovatsiyalar va samaradorlikni oshirishi mumkin.

- Texnologiya va bilimlarga kirish: Xalqaro savdo orqali o‘zbek korxonalari xorijdan ilg‘or texnologiyalar va ilg‘or tajribalardan foydalanishlari mumkin, bu esa ularga o‘z mahsulotlari, xizmatlari va biznes strategiyalarini yaxshilashga yordam beradi.

Savdo hamkorlarini diversifikatsiya qilish:

- Savdo aloqalarining kengayishi: O’zbekiston iqtisodiyoti hozirda Rossiya va Xitoy kabi bir nechta savdo sheriklariga tayanadi. JSTga a’zo bo’lish mamlakatga savdo aloqalarini diversifikatsiya qilishga, har qanday yagona hamkorga qaramlikni kamaytirishga va iqtisodiy xavfni tarqatishga yordam beradi.

- Rivojlangan mamlakatlar bilan aloqalarni yaxshilash: a’zolik O‘zbekistonning rivojlangan davlatlar bilan savdo aloqalarini ham yaxshilaydi, Yevropa Ittifoqi, AQSh va boshqa yirik global o‘yinchilar bilan mustahkam aloqalarni kuchaytiradi.

Barqaror rivojlanish maqsadlarini qo‘llab-quvvatlash:

- Barqaror o’sishni rag’batlantirish: JST a’zosi sifatida O’zbekiston iqtisodiy o’sishni atrof-muhitni muhofaza qilish bilan muvozanatlashtirib, barqaror savdo amaliyotini qo’llashga da’vat etiladi.Global savdo qoidalari adolatli mehnat amaliyoti, inson huquqlari va atrof-muhitni muhofaza qilishni ta’minlaydigan choralarni qo’llab-quvvatlaydi.
- - Kambag’allikni qisqartirish va rivojlanish: O’zbekiston jahon iqtisodiyotida ishtirok etish orqali xalqaro bozorlarga chiqish imkoniyatlarini kengaytirish, bandlik imkoniyatlari va iqtisodiyotni diversifikatsiya qilish orqali qashshoqlikni kamaytirish uchun yaxshiroq pozitsiyaga ega bo’lar edi.

Mintaqaviy hamkorlik va integratsiya:

- - Mintaqaviy savdo aloqalarini mustahkamlash: O‘zbekistonning JSTga a’zo bo‘lishi mintaqaviy integratsiyani, xususan, Markaziy Osiyoda ham mustahkamlanishi mumkin. Bu qo‘shni davlatlar bilan hamkorlikni kengaytirish, mintaqaviy infratuzilmani yaxshilash va transchegaraviy savdoni tartibga solish imkonini beradi.
- - Mintaqaviy savdo bitimlariga kirish: JSTga a’zolik mamlakatlarga mintaqaviy savdo bitimlari va imtiyozli savdo kelishuvlarida ishtirok etish va ulardan foyda olish imkonini beradi, bu esa qo’shni davlatlar va bloklar bilan yaxshi savdo sharoitlarini yaratadi.

Xulosa

JSTga a’zo bo‘lish O‘zbekistonning jahon iqtisodiyotiga integratsiyalashuvini rag‘batlantirish, raqobatbardoshligini oshirish, xorijiy sarmoyalarni jalb etish va modernizatsiyani rivojlantirish uchun strategik qadam bo‘ladi. Kengaytirilgan bozorga kirish, huquqiy bashorat qilish, iqtisodiyotni diversifikatsiya qilish va barqaror rivojlanishning afzalliklari O‘zbekistonning mustahkam, diversifikatsiyalangan va global miqyosda raqobatbardosh iqtisodiyotga oid maqsadlariga mos keladi. Siyosatni o’zgartirish va bozorni erkinlashtirish kabi muammolar mavjud bo’lsa-da, JSTga a’zolikning umumiy afzalliklari O’zbekistonning iqtisodiy o’sishi va xalqaro mavqei uchun uzoq muddatli katta foyda keltiradi.

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ISSIQSEVAR BALIQCHILIK XO‘JALIKLARINI RIVOJLANTIRISH

Annotatsiya: Baliqchilik sohasini rivojlantirish uchun kichik va o’rta tadbirkorlarni rivojlantirish maqsadida hozirgi zamon talablaridan kelib chiqib arzon va qulay usullarda kurish.

Kalit so‘zlar: *relef, jarlik, daryo, kanal, toshloq, qumlok, shag‘al, oxaktosh kabi joylar, filtratsiya va bug‘lanish, azot birikmalari, fosfatlar, fitoplankton, zooplankton va x.k.z.r*

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HEAT-LOVING FISH FARMS DEVELOPMENT

Annotation: *kurish in inexpensive and convenient ways, based on the requirements of the present time, in order to develop small and medium-sized entrepreneurs for the development of the fishing industry.*

Keywords*: terrain, ravine, river, canal, gravel, gravel, gravel, gravel, limestone, filtration and evaporation, nitrogen compounds, phosphates, phytoplankton, zooplankton and X.k.z.r*

Hovuz baliqchilik xo‘jaligini joynni tanlashda quyidagi talablar hisobga olinishi kerak. Tanlangan joyning tuprog‘i va suv ta’minoti. Bunday xo‘jaliklar uchun yarokdi uchastkalar jarlik, daryo, kanal atroflarn tanlanadi. Eng asosan tanlangan joyning relefi hisobga olinadi. Toshloq, qumlok joylar hovuz qurilishni qiyinlashtiradi. Tanlangan maydonlarda ortiqcha suv turmasligi, o‘z vaktida suv to‘liq chiqarilishi kerak. Suv urib ketmasligi, suv toshqinlarn bo‘lmaydigan joylar tanlanadi.

Kuchli filtrlovchi qumlok, shag‘il, oxaktosh kabi joylar baliqchilik hovuzlari uchun yaroqsiz. Baliq boqiladigan hovuzlar uchun kattik, suv o‘tkazmaydigan er (kattik loy) tanlanishi kerak.

Hovuzlarning mahsuldorligi birinchi yili asosan tuproq unumdordigiga bog‘liq. Lekin xo‘jaliklarining tuproq mahsuldorligi nixoyatda past, ayniqsa qumlok erlarda. Asosan yaxshi suv bilan taminlangan, sifatli suv manbasiga ega bo‘lgan joy tanlanadi.

Hovuzlarni suv bilan ta’minlashda ko‘l, suv ombori, kanal, zovur, daryolardan foydalansa bo‘ladi. Baliqlarni suv bilan ta’minlash va suv sarfi iklim sharoitga bog‘lik, ya’ni suv bug‘lanishi, suv filtratsiyasi ham katta o‘rin tutadi. Filtratsiya va bug‘lanish uchun suv sarfi 0,5-10 l/s, har bir gektar suvlik yuzasidan,

qishlash hovuzlari uchun suv debiti 15— 20 l/s har bir gektar suvlik uchun, yozgi mavsumda har bir gektar maydon uchun 1800 m^3 bir oyda shuncha miqdor suv norma hisoblanadi yoki suv sarfi 0,7 l/s ga to‘g‘ri keladi. Xo‘jalikda suv sarfini aniqlashda, quyidagi normativlarga asoslanadi (1-jadval).

Hovuzlarni suv bilan tuldirilishi va suv almashinuv sarfining texnik normasi.

Hovuz katigoriyalari	Hovuzni to‘ldirish muddati, sutka		Oqar suv miqdori va suvning miqdori (l\sek 1 ga)
	Kerakli bo‘lgan norma (ixtiyoriy)	Ruxsat etilgan norma (me’yoriy)	
nerest	0,2-0,3	0,5 gacha	0,7
chovoq –mayda baliqcha	0,2-0,3	0,5 gacha	0,7
O‘stiruvchi	10-12	20 gacha	0,5-1,0
yaylov	10-15	25 gacha	0,5-1,0
qishlash	0,3-0,5	1,0 gacha	0,5-1,0
Ota-ona	1,0-2,0	3,0 gacha	2,0-3,0
Karantin-izolyator	0,1-0,3	1,0 gacha	1,5

Suvning biologik belgisiga qarab rangi, ta’mi, xidi, suv manbasidagi mahalliy baliqlar va boshqa suv faunasiga qarab sifatini belgilaydilar. Xo‘jalik uchun ajratilgan maydonda sanoat chiqindilari, qishloq xo‘jalik inshootlari, boshqa suvni ifloslantiruvchi vositalar bo‘lmasligi kerak. Suv manbasining baliqchilik xo‘jaligi uchun yaroqliligiga ishonch hosil kilish uchun gidrokimyoviy analiz o‘tkazish zarur.

Suvning kimyoviy analizining natijalari chuqur tekshirilishi lozim va kompleks nuqtai nazardan yondashish kerak. Masalan suvdagi xloridlar yoki sulfatlar miqdori belgilangan normadan oshiq bo‘lsa, oxirgi xulosa uchun asos bo‘lolmaydi, faqat quyidagi ko‘rsatgichlar oksidlanish azot birikmalari, fosfatlar hamda suv manbasining iflosligi va uning baliqchilik hovuz xo‘jaligi uchun yaroqsizlik ekanligiga ishonch hosil qilingandan so‘ng xulosaga kelish mumkin.

Hattoki suvdagi erigan kislorod ko‘rsatkichi, malum qaror uchun asos bo‘lolmaydi. Artezan suvlarda odatga ko‘ra kislorod bo‘lmaydi, lekin sun’iy aeratsiyadan keyin kislorodga boyigandan keyin yoki alohida hovuzga saklanib unga tuban suvutlari va boshka organizmlar o‘stirilib so‘ngra suvdan baliqchilik hovuzlari uchun ishlatish mumkin. Demak, er osti suvini tuban suv o‘tlari yordamida kislorodga boyitib, baliqchilik xo‘jaligi uchun foydalanish mumkin.

Suv harorati suv xavzasining turli chuqurliklarda batometr yordamida maxsus simobli termometr bilan 0,1- 0,2°S gacha bo‘laklar orqali aniqlanadi. Suv harorati xar 3 soat oralig‘ida 9-12-15-18-21-24. olingan natija ko‘shiladi va chikarilgan

umumiy son 6 ga bo‘linadi, o‘rtacha sutkalik suv xarorati aniqlanadi. Exolot yordamida ham suv harorati aniklanadi (turli xil chuqurlikda).

Masalan, karp uchun kislorodning minimal ko‘rsatkichi past haroratdan 12 - 15°S dan 0,5 - 0,6 mg/l bo‘lsa havo harorati 25 - 30°S bo‘l ganda, u 1,2 mg/l gacha o‘zgaradi. Suv havzasining harorati baliq va boshka gidrobiontlar xayoti uchun katta biologik ahamiyatga ega.

Suv tiniqligi. Suv fizikasining yaka bir asosiy xususiyatlardan biri uning chuqurligidir. Suvda fitoplankton, zooplankton kabi organizmlarni tarqalishi, chuqurlikga qarab, aynan suv tiniqligi bilan bog‘liq. Suvi toza bo‘lgan ko‘l hovuzlarda fotosintez jarayoni 10-20 m chuqurlikgacha boradi, zooplankton migratsiyasi ham shu masofada amalga oshiriladi. Suv tiniqligi past bo‘lgan suvliklarga bunday biologik jarayonlar 4—5 m chukurlikdan oshmaydi. Hovuzlarda esa suv tiniqligi 30- 50 sm dan oshmaydi. Suv tiniqligi quyidagi faktlardan iborat: daryoda asosan muallaq zarrachalar sonidan va erigan hamda kolloid moddalardan hovuz, ko‘l va suv omborlarida biologik jarayonlarning borishida, masalan suvning gullashiga bog‘liq.

Suv rangi maxsus shkalalardan iborat I - XX, Forel-Ule pribory orqali aniqlanadi. Bu asbobda maxsus indikatorlar bo‘lib, ular kavshirlangan ampulalarga solingan.

Agarda suv harorati 20 - 22°S bo‘lganda karp har bir kg og‘irligiga nisbatan, bir sutkada 5 — 7 l kislorod talab qiladi. Suv tubi chiqindilari ham chirish jarayonn uchun ham katta miqdorda kislorod sarflaydi. Har yili to‘plangan balchiq ham katta miqdorda kislorod sarflaydi. SHuning uchun ham hovuzni ekin ekish, ayniqsa chopiqli ekin ekib hovuzga dam beradilar (letovanie). SHuni esdan chikarmaslik kerakki karp, ok amur va do‘ngpeshona boqiladigan suvning asosiy ko‘rsatknchlardai yana biri bu suvning hidi xisoblanadi. Baliq boqish mumkinmi yoki yuqmn aynan shu hidga bog‘liq- Toza tabiiy suvging hidi bo‘lmaydi. Hovuzda suv aynib sassik hid ajratadi, ayniqsa balchikda. Balchiq hid acocan kuk- yashil suv o‘tlarning, ayniqsa ossilotoriyaning chukmaga tushib chirishi natijasida hosil bo‘ladi. Bunday balchik hidli suvda o‘stirilgan baliq ham sassik hidli bo‘lib, ta’mi ham buziladi. Suv hidi nixoyatda xis etiladigan belgi. Suv xidining xarakteri va intensivligi bir necha marotaba aniqlanib baxolanadi - baliq hidi, balchiq xidi, oltingugurt angidridi (sasigan tuxum xidi) va xokazo. Iloji boricha hovuzning bunday sasishiga yul qo‘ymaslik kerak. SHuning uchun ham hovuz baliqdan bo‘shagandan keyin u yaxshilab quritiladi va baliq qo‘yishdan oldin suv quyiladi. Baliq boqiladigan hovuzni gullashiga yo‘l kuymaslik kerak.

Suv ta’mi - biologik kursatkichlardan biri hisoblanadi. Organoleptik usuli orqali aniqlanadi. Suv og‘izga olinib (10-15 ml), bir necha sekund saklanadi, so‘ngra tashlanadi (20 sek). Tabiiy suvning shurlanish darajasi 1958 yil Venetsiya sistemasiga asosan: chuchuk - 0,5%, shurrok - 0,5-30%, deigiz - 30-40%, SHo‘r - 40% oshik kabilarga bo‘li- nadi (Konstantinov, 1986).

Ta’miga qarab hovuz suvini shurlik darajasi xarakterni belgilash mumkin. SHurrok ta’m uchun 1g tuz 1l suvda bo‘lsa. Agarda 1l suvda 3 g tuz bo‘lsa, bunday suv ichishga yaroqsiz hisoblanadi. Suvning sho‘rlanishi undagi xloridlarga, asosan

natriy xloridga bog‘liq, suvning achchik ta’mi undagi su- lfatlar miqdoriga bog‘liq. Kuchli sho‘rlangan har bir litrida 7g osh tuzi bo‘ladi yoki undan yuqori bo‘ladi. Suv shurligi darajasi yanada oshsa, 15-20 g/l bo‘lsa, karp va boshqa hovuz baliq turlarining xayoti uchun xavfli hisoblanadi, ayniqsa uvildiriqlari otalaniщ uchun sharoit buzuladi va uvildrik otalanmay qoladi, gipertonik bosim yuz beradi.

Suv havzasi muhitnning ko‘rsatgnchi (pH). Suv sifatini aniqlashda qo‘llanadigan indikator bo‘lib xisoblanadi, Uning kislotaligi yoki ishqorlik ko‘rsatgichi bo‘lib suv havzasini kg gaz rejimi bilan bog‘liq holat. Dala sharoitida pH ni aniqlashda komporator saklaydigan shkalalar yordamida, Mixaels apparat, buyalgan indikatordan iborat bo‘lib pH kattaligi 0,2 gacha belgilanadi. Optimal pH kursatgnchi 7,6 – 8,2. pH ni aniqlash uchun suv harorati 18-20° S optimal hisoblanadi.

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XORIJIY INVESTITSIYALARNI FERMERLAR QO'SHIMCHA SOHA BILAN SHUG'ULLANISHLARI UCHUN JALB QILISH SHART SHAROITLARI

Annotatsiya: *Mazkur maqola xorijiy investitsiyalarni fermerlar qo'shimcha soha bilan shug'ullanishlari uchun jalb qilish shart sharoitlari mavzusini yortishga bag'ishlanadi. Shuningdek, maqolada Qishloq xo'jaligining samarali rivojlanishda xorijiy investitsiyalarning ahamiyati va xorijiy investitsiyalarni jalb qilish yo'llari haqida ma'lumotlar berilgan.*

Kalit so'zlar: *iqtisodiy kategoriyalar, diversifikatsiyalash, xorij texnologiyasi, kapital qo'yilmalar, ekspluatatsiya, amortizatsiya siyosati, moliyaviy resurslar.*

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CONDITIONS FOR ATTRACTING FOREIGN INVESTMENTS FOR FARMERS TO ENGAGE IN ADDITIONAL ACTIVITIES

Annotation*: This article is devoted to the topic of conditions for attracting foreign investments for farmers to engage in additional activities. The article also provides information on the importance of foreign investments in the effective development of agriculture and ways to attract foreign investments.*

Keywords*: economic categories, diversification, foreign technology, capital investments, exploitation, depreciation policy, financial resources.*

Qishloq xo'jaligining samarali va barqaror rivojlanishining zarur sharti ularni yetarlicha investitsiyalashdir. Agrar siyosatning muhim vazifasi qishloq xo'jaliklarini investitsiyalash darajasini oshirish uchun qulay sharoit yaratishdan iborat. Investitsiya – daromad (foyda) olish maqsadida pul mablag'lari (kapital)ni iqtisodiyot tarmoqlariga uzoq muddatga qo'yishdir. Ular o'zlarida asosiy vositalarni yaratish, kengaytirish rekonstruktsiyalash va texnik jihatdan qayta jihozlashni, shuningdek bular bilan bog'liq aylanma fondlar o'zgarishini aks ettiradi. Bundan tashqari, investitsiyalar – bu qimmatli qog'ozlarga patentli intelluktual huquqlarga ega bo'lish va boshqalar. Investitsiyalar daromad (foyda) shakllantiruvchi yoki ma'lum ijtimoiy samaraga erishuvchi tadbirkorlik faoliyati ob'ektlariga qo'yiladi.

Investitsiyalar iqtisodiy kategoriyalar uchun quyidagi xarakterli tuzilishlarga ega: u qishloq xo'jaligida va tarmoqlarning iqtisodiy rivojlanishiga bog'liq bo'ladi; resurslarni sarflash va samara olishni ko'zda tutadi; investitsiya qo'yilmalaridan kelishi mumkin bo'lgan samara ehtimoli, tavakkalchilik xarakteriga ega; resurslarni sarflash va samara olish orasida ma'lum (qoidaga ko'ra, uzoq muddatli)

vaqtinchalik (o‘lchov birligi) mavjud bo‘ladi. Iqtisodiyotda tarkibiy o’zgarishlarni amalga oshirish, mamlakatning eksport salohiyatini mustahkamlash, iqtisodiyotni modernizatsiyalash va diversifikatsiyalash, ilg’or xorij texnologiyasi va boshqaruv tajribasini jalb etish kabi strategik va joriy vazifalarni hal qilishda xorijiy investitsiyalar muhim ahamiyat kasb etadi. Shuning uchun, Respublikamizda xorijiy investitsiyalarni jalb qilishni jadallashtirishga yo’naltirilgan faol siyosat olib borilmoqda. Respublikamiz Prezidenti Shavkat Mirziyoyev 2017 yil 31 mart kuni Investitsiyalar bo’yicha davlat qo’mitasini tashkil etish to’g’risidagi farmonni imzoladi va bu farmonda O’zbekistonda yagona davlat investitsiya siyosatini shakllantirish va amalga oshirishni muvofiqlashtirish hamda xorijiy investitsiyalarni jalb etish uchun mas`ul vakolatli davlat organi hisoblangan Investitsiyalar bo’yicha davlat qo’mitasi tashkil qilinishi belgilab qo’yildi.[1] Respublikamizda jami xorijiy investitsiyalar va kreditlarning 50.7%i tog’- kon sanoati hissasiga to’g’ri keladi. Bu esa bugungi kunda xorijiy investitsiyalarni iqtisodiyotning turli sohalari(qayta ishlash sanoati, qishloq xo’jaligi, sog’liqni saqlash, ta’lim, aholiga maishiy xizmatlar va boshqalar) bo’yicha samarali taqsimlash va uni diversifikatsiyalash vazifasini qo’yadi. Qishloq xo‘jaligida kapital qo‘yilmalardan foydalanishning asosiy yo‘nalishlari quyidagilar:

- ishlab chiqarish va noishlab chiqarishga mo‘ljallangan ob’ektlar qurilishi;
- texnika (qishloq xo‘jaligi mashinalari, traktorlari) uskunalar va transport vositalarini sotib olish;
- ko‘p yillik ko‘chatlar ekish, ularni ekspluatatsiya yoshigacha (hosilga kirguncha) o‘stirish;
- mahsuldor va ishchi chorva hayvonlarining asosiy podasini shakllantirish;
- yerni yaxshilash (inshootlarsiz).

Davlat investitsion siyosatining asosiy tamoyillari zamonaviy bosqichda mavjud foiz stavkalarining pasayishi iqtisodiyotning real sektoridagi investitsiyalarning mos keluvchi samaradorligi darajasigacha pasayishi kerak: mavjud soliq tizimini soddalashtirishdek, amortizatsiya siyosatini takomillashtirish; tashqi va ichki investorlarning bevosita investitsiyalarini rag‘batlantirish maqsadida investitsion risklarni pasaytirish uchun tashkiliy huquqiy nuqtai nazarlarni shakllantirish; byudjet investitsion resurslarini tanlov asosida joylashtirishdan foydalanish samaradorligini oshirish. Bozor munosabatlarining rivojlanishi bilan kapital qo‘yilmalari manbalari va usullari ham o‘zgaradi. Hozirgi zamon bosqichida investitsiyalar qo‘yidagicha moliyalashtiriladi:

- xususiy moliyaviy resurslar va investorlarning xo‘jalik ichidagi rezervlari (daromad va amortizatsiya ajratmalari; fuqarolar va yuridik shaxslarning jamg‘armalari va omonatlari, sug‘urta idoralari tomonidan tabiiy ofatlar, avariyalar va boshqalardagi yo‘qotishlarni qoplash ko‘rinishidagi to‘lov mablag‘lari va boshqa);
- investorlarning qarz ko‘rinishidagi moliyaviy mablag‘lari (bank va byudjet kreditlari, obligatsiya zayomlari);

- jalb qilingan moliyaviy mablag‘lar (mehnat jamoalari a’zolari fuqarolar, yuridik shaxslarning aktsiya sotishdan olgan mablag‘lari, pay va boshqa to‘lovlari;
- davlat, mahalliy byudjetlar va byudjetdan tashqari fondlardan tashkil topishi.

Bozor iqtisodi sharoitida qishloq xo‘jaligiga kapital qo‘yishning asosiy manbasi – xususiy mablag‘: daromad va amortizatsiya ajratmalari hisoblanadi[2]. Qoidaga ko‘ra, amortizatsiya ajratmalari asosiy vositalarning takror ishlab chiqarishini, sodda daromad esa kengaytirilgan holda ta’minlaydi. Xorijiy investitsiyalarni milliy iqtisodiyotga jalb etish orqali quyidagilarga erishiladi:

- Takror ishlab chiqarishni kengaytirilgan siyosatini omalga oshirish;
- Ilmiy-texnik taraqqiyotni jadallashtirish, milliy mahsulotlarni raqobatbardoshiligini ta’minlash, uning sifati va hajmini oshirish;
- Ishlab chiqarishni tarkibiy jihatdan qayta qurish va iqtisodiyot tarmoqlarini bir maromda rivojlantirish;
- Hududlarni iqtisodiy salohiyatini oshirish;
- Milliy iqtisodiyotni xalqaro integratsiyasini kuchaytirish;
- Ishsizlik muammosini yumshatish va ma’lum darajada hal etish;
- Zamon darajasida yuqori mehnat unumdorligiga erishish, mahsulot tannarxini pasaytirish;
- Davlat budjeti daromadlarining oshishi;
- Milliy va jahon iqtisodiyoti ravnaqi va jamiyat farovonligini oshirish.

Bundan tashqari xorijiy investitsiyalarni milliy iqtisodiyotga jalb etish quyidagi makroiqtisodiy barqarorlashuvga olib keladi[3]. Xorijiy investitsiyalarni jalb eqilishda mahalliy hokimiyat organlari tomonidan hududlarning mavjud investitsion muhitini ko’rsatuvchi xalqaro yarmarkalar o’tkazish yuqori samara beradi. Mamlakatda qulay investitsion muhit yaratilgan bo’lsa-yu, lekin bu muhit haqida xorijiy investorlar hech qanday axborotga ega bo’lmasa, bundan hech qanday samaraga erishib bo’lmaydi. Xorijiy investitsiyalar uchun qulay investitsion muhitni yaratish va bu muhit haqida kerakli axborotlar bilan ta’minlash mamlakatga kiritilayotgan xorijiy investitsiyalar hajmini oshiradi. Chet el investitsiyalari ichki investitsiyalardan farqli ravishda valyuta va milliylashtirish kabi qo’shimcha tavakkalchilikka to’qnashishi ehtimoliga ega bo’ladi. Shuning uchun ular bu risklar kafolatlangan va qulay investitsion muhit yaratilgan iqtisodiyotga o’z kapitallarini yo’naltiradi[4].

Xulosa o’rnida shuni ta’kidlash joizki, bizning fikrimizcha, iqtisodiyotga xorijiy investitsiyalarni jalb qilish va qulay investitsion muhitni tashkil qilish uchun quyidagi tadbirlarni amalga oshirish maqsadga muvofiq:

- Bozor infratuzilmasini rivojlantirish va sog’lom raqobat muhitini shakllantirish;
- Xorijiy mulkdor huquqlarini kafolatlovchi huquqiy himoyasini kuchaytirish;

- Joylardagi erkin iqtisodiy hududlar va sanoat zonalarini mavjud infratuzilmasini rivojlantirish;
- Xorijiy investorlarga ma’lum belgilangan tarmoqlarga kiritilgan investitsiyalari uchun imtiyozli muddati tugagach qisman imtiyozlar berish tartibini joriy etish;
- Mamlakatda milliy valyuta tizimini mustahkamlash va uni erkinlashtirish;
- Tashqi aloqalarni rivojlantirishga xizmat qiluvchi transport infratuzilmasini rivojlantirish;
- Xalqaro investitsion shartnomalarni samaradorligini oshirishda xalqaro tashkilotlar bilan hamkorlikda ishlash;

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USING WEBINARS AND VIRTUAL INTERVIEW PLATFORMS TO DEVELOP SPEAKING SKILLS

Abstract. *The rise of digital communication has provided new tools for developing speaking skills, particularly through webinars and virtual interview platforms. This study investigates the effectiveness of these tools in enhancing verbal communication abilities. Data from surveys, case studies, and observational analyses indicate that such platforms offer opportunities for practical, real-world speaking experiences, though challenges related to technical issues and participant engagement remain.*

Key words: *Webinars, Virtual Interview Platforms, Speaking Skills Development, Digital Communication, Public Speaking, Real-Time Feedback, Technical Challenges, Engagement Strategies*

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GAPIRISH KO‘NIKMALARINI O‘RGATISH UCHUN VEBINARLAR VA VIRTUAL INTERVYU PLATFORMALARIDAN FOYDALANISH

Abstrakt. *Raqamli aloqaning o'sishi, ayniqsa, vebinarlar va virtual intervyu platformalari orqali nutq ko'nikmalarini rivojlantirish uchun yangi vositalarni taqdim etdi. Ushbu tadqiqot og'zaki muloqot qobiliyatini oshirishda ushbu vositalarning samaradorligini o'rganadi. So'rovlar, amaliy tadqiqotlar va kuzatuv tahlillari ma'lumotlari shuni ko'rsatadiki, bunday platformalar amaliy, real dunyoda so'zlashish tajribasi uchun imkoniyatlar taqdim etadi, ammo texnik muammolar va ishtirokchilarni jalb qilish bilan bog'liq muammolar saqlanib qolmoqda.*

Kalit so‘zlar: *Vebinarlar, Virtual intervyu platformalari, Notiqlik ko‘nikmalarini rivojlantirish, Raqamli muloqot, ommaviy nutq, real vaqt rejimida fikr-mulohazalar, texnik muammolar, jalb qilish strategiyalari*

Introduction. Speaking skills are critical in professional and academic settings, yet developing them often requires consistent practice and feedback. Traditional methods, such as in-person workshops and public speaking classes, have long been effective but are increasingly complemented by digital alternatives. With

the growth of webinars and virtual interview platforms, individuals now have access to scalable, flexible opportunities to practice and refine their speaking skills.

This study explores the utility of webinars and virtual interview platforms in fostering speaking skills. Specifically, it addresses the following questions:

1. How do these platforms improve speaking abilities?
2. What challenges do users face when leveraging them for skill development?
3. What strategies can maximize the benefits of these tools?

Methodology. This study employed a mixed-methods approach, combining quantitative and qualitative data collection. The primary methods included:

1. **Surveys:** Distributed to 200 participants across various demographics who regularly use webinars and virtual interview platforms for speaking practice.
2. **Case Studies:** In-depth analysis of five individuals utilizing these platforms for personal and professional growth.
3. **Observational Analysis:** Review of recorded webinars and virtual interviews to evaluate participant performance and progress over time.

Data were analyzed using statistical tools for quantitative insights and thematic analysis for qualitative findings.

Results

1. **Improvement in Speaking Skills:**

Fluency and Confidence: 75% of survey respondents reported increased confidence in public speaking after consistent use of webinars.

Articulation and Clarity: Observational data indicated significant improvement in articulation and clarity over six months of regular participation in virtual interviews.

2. **Opportunities for Real-Time Feedback:**

Case studies highlighted that platforms with integrated feedback mechanisms, such as real-time chat or post-event evaluations, were particularly effective in fostering improvement.

3. **Challenges:**

Technical Barriers: 40% of participants reported difficulties with platform functionality, including unstable internet connections and unfamiliar interfaces.

Engagement Issues: Maintaining audience interest in webinars and overcoming the impersonal nature of virtual interviews were cited as key obstacles.

Discussion. Webinars and virtual interview platforms provide unique advantages in developing speaking skills. They simulate real-world scenarios, offer flexibility, and often include feedback mechanisms, making them ideal for learners who cannot attend in-person events. However, their efficacy depends on the user's ability to navigate technical challenges and maintain engagement.

Strategies to maximize their benefits include:

1. Conducting preparatory sessions to familiarize users with the technology.
2. Incorporating interactive elements like polls and Q&A to enhance webinar engagement.

3. Offering structured feedback sessions post-interview or webinar.

Conclusion. The integration of webinars and virtual interview platforms into speaking skill development programs has immense potential. While challenges persist, strategic use of these tools can effectively complement traditional learning methods, equipping individuals with the communication skills necessary for success in a digital world. Further research could explore platform-specific features and their direct impact on different demographic groups.

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BO‘LAJAK TARBIYACHILARNI TAYYORLASH JARAYONIDA KOMMUNIKATIV QOBILIYATLARNI RIVOJLANTIRISH

Annotatsiya: *Ushbu maqolada bo‘lajak tarbiyachilarni tayyorlash jarayonida kommunikativ qobiliyatlarni rivojlantirish haqida so‘z boradi. Muallif pedagogik ma’lumotlarga tayanib, mavjud ilmiy adabiyotlar asosida muammoni tahlil qilgan va bo‘lajak tarbiyachilarni tayyorlash jarayonida kommunikativ qobiliyatlarni rivojlantirish bo‘yicha mavjud o‘ziga xos jihatlarini o‘rgangan.*
Kalit so‘zlar*: tarbiyachi, kommunikatsiya, qobiliyat, rivojlantirish, maktabgacha ta’lim tashkiloti, komunikativ qobiliyat*

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DEVELOPING COMMUNICATIVE SKILLS IN THE PROCESS OF TRAINING FUTURE EDUCATORS

Annotation: *This article discusses the development of communication skills in the training of future educators. Based on pedagogical data, the author analyzes the problem on the basis of existing scientific literature and explores the specifics of developing communicative skills in the process of training future educators.*
Keywords: *educator, communication, ability, development, preschool organization, communicative ability*

Maktabgacha ta’lim tizimi uzluksiz ta’lim tizimining asosiy bo‘g‘ini, poydevori hisoblanadi. Shu munosabat bilan mamlakatimizda bugungi kunda maktabgacha ta’lim tizimini yanada takomillashtirish, maktabgacha ta’lim tashkilotlari sonini ko‘paytirish hamda moddiy texnik bazasini mustahkamlash, maktabgacha ta’lim tashkilotlariga malakali pedagog kadrlarni etkazib berish, bolalarni har tomonlama barkamol inson qilib tarbiyalash uchun kerakli bo‘lgan barcha zamonaviy ta’lim dasturlari va tehnalogiyalarni ta’lim tarbiya jarayoniga joriy etish dolzarb masala bo‘lib kelmoqda. Prezidentimiz Shavkat Miromonovich Mirziyoyevning 2018-yil 30-sentyabrda “Maktabgacha ta’lim tizimini boshqarishni takomillashtrish chora-tadbirlari to‘g‘risida”gi PQ-3955-sonli qarori, 2019-yil 8-may “O‘zbekiston Respublikasi maktabgacha ta’lim tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to‘g‘risida”gi PQ-4312-sonli qarorlarida yuqorida keltirib o‘tilgan fikrlar o‘z aksini topgan. Maktabgacha ta’lim sohasiga qaratilayotgan yuksak e’tibor, sohani takomillashtirish yuzasidan qabul qilinayotgan qarorlardan ko‘zlangan asosiy maqsad Respublikamizda sifatli

maktabgacha ta’lim tizimini yaratishdir. Shu munosabat bilan hozirgi kunga kelib, maktabgacha ta’lim tarbiyachisining kasbiy faoliyatiga qo’yiladigan talablar ham sezilarli darajada oshdi. Bugungi kunda bo‘lajak tarbiyachini har tomonlama rivojlantirish va takomillashtirishga maqsadli yo’naltirish, uning dunyoqarashini shakllantirish zarur. Maktabgacha ta’lim tashkiloti tarbiyachisi har tomonlama etuk, intellektual, o‘z sohasi yuzasidan kasbiy bilim, ko‘nikma malakaga va mahoratga ega bo‘lmog‘i lozim. Shular bilan bir qatorda davr talabiga mos tarbiyachilarni yetishtirish jarayonida ularning kommunikativ qobiliyatlarini rivojlantirish ham alohida ahamiyatga ega. Bo‘lajak tarbiyachi shunday universal va o‘ta kuchli ommabop ta’sir vositalariga ega bo‘lishi kerakki, undan quvvat olgan tarbiyalanuvchi har qanday salbiy ta’sirga tushib qolganda ham uning ta’siridan chiqib keta olsin.

Kommunikatsiya bu - o‘zaro xamfikrlilikka boshlovchi ikki tomonlama axborot almashinuv jarayoni.

Tarbiyachining kommunikativlik qobiliyati – bu bolalar bilan muloqotda bo‘lishga, ular bilan yondashishda to‘g‘ri yo‘l topa bilishga, pedagogik nuqtai nazardan maqsadga muvofiq o‘zaro aloqa bog‘lashga pedagogik taktning mavjudligiga qaratilgan qobiliyatdir.

Tarbiyachilarning kommunikativ kompetensiyasi - bu murakkab muloqot qobiliyatlariga egalik qilishi, muloqotdagi madaniy me’yorlari va cheklovlarini bilishi, odob-ahloq qoidalarini bilishidir.

Rus psixologi M.M. Silakova ishonchli tarzda o'qituvchining kommunikativ vakolati maktabgacha ta’lim yoshi davrida bolaning shaxsiyatini rivojlantirishning universal vositasi mazmunli muloyim muloqot ekanligini ta'kidlaydi.

Rus pedagogi N.A. Moreva yuqori kommunikativ qobiliyatga ega bo'lgan shaxslar uchun quyidagi mezonlarni tavsiflaydi:

• o'zaro va shaxslararo munosabatlarda tez, o'z vaqtida va to'g'ri qaror qabul qilish;

• muayyan vaziyatda boshqa shaxsni tushunish istagi;

• shaxslar bilan aloqa o'rnatish; uning ahvoli va imkoniyatlarini hisobga olgan holda unga nisbatan hurmatli, xayrixoh munosabatda bo'lish;

• o'ziga ishonch, bo'shashmaslik, kirishimlilik;

• vaziyatni boshqarish, moslashuvchanlik, muloqotda moslashuvchanlikni ko'rsatish;

• muloqotdan qoniqish;

• zarur aloqalarni mustaqil ravishda o'rnatish va qo'llab-quvvatlash;

• muayyan jamoada yuqori maqom, mashhurlik;

• do'stona, hamkorlikdagi ishni tashkil etish, faollikning yuqori natijasiga erishish, shu jumladan guruh muammosini hal qilish;

• jamoada qulay muhit yaratish, barqarorlikka erishish qobiliyati.

Bo‘lajak tarbiyachilarda kommunikativ qobiliyatlarini rivojlantirishda quyidagilarni amalga oshirish maqsadga muvofiq bo‘ladi:

- Talabalar o'rtasida kommunikativlik ya'ni samarali muloqot ko'nikmalarini shakllantirish uchun bolalar, ularning ota-onalari, maktabgacha ta'lim tashkiloti ma'muriyati bilan o'zaro suhbatlar, debatlar, munozaralar olib borish;
- Mahoratli, tajribaga ega bo'lgan tarbiyachilarni bolalar, ota-onalar, tashkilot ma'muriyati, xamkasblar bilan kommunikativ xatti-harakatlarini kuzatish;
- Talabalar o'rtasida o'zaro kommunikativlikka oid muammoli vaziyatlar, keyslarni o'rtaga tashlash va ular asosida kommunikativ xarakterdagi vazifalarni tuzish va hal qilish,
- o'z kommunikativ qobiliyatlarini tahlil qilish.

Turli adabiy manbalarda kommunikativ kompetentsiya komponentlarini shakllantirish diagnostikasining quyidagi usullari taklif etiladi: "Muloqotda o'z-o'zini nazorat qilishni baholash" testi (M.Snayder), "O'qituvchining kommunikativ xususiyatlari darajasini baholash" testi (V.F.Ryaxovskiy), pedagogik uslubning kommunikativ komponentining xususiyatlarini aniqlash testi (A .A.Leontev), "Muloqotning tranzaksiyaviy tahlili" so'rovi, "Siz boshqalarga qanday ta'sir qilishni bilasizmi?" va boshq.

Shu bilan birga, talabalarning e'tiborini quyidagi masalalarga qaratish kerak:

• pedagogik jarayonda muloqot muammosining nazariy jihatlari (muloqotning strukturaviy modellari, aloqa to'siqlari, ichki o'zaro ta'sir qonuniyatlari);

• o'zaro munosabatlarning qiyin vaziyatlarida nutq xatti-harakatining o'ziga xos usullari (nizoli vaziyatlar, tanqidni yengish, omma oldida nutq so'zlash, maktabgacha ta'lim tashkilotlarida amalga oshiriladigan aloqalar va boshqalar);

• muloqot jarayonida shaxsning o'zini o'zi bilishi (boshqalar meni qanday qabul qiladi, muloqotda boshqalarga qanday ta'sir o'tkazaman, muloqotimdagi qiyinchiliklar qanday va hokazo).

Kommunikativlikni rivojlantirish amaliyotida turli xil treninglar ayniqsa mashhur bo'lib, unda talabalar o'rganilayotgan voqelik bilan bevosita aloqada bo'ladilar, hayotiy tajribaga ega bo'ladilar. Zamonaviy kommunikativ treninglar quyidagi metodlar va ta'lim texnologiyalari: aqliy hujum, berilgan topshiriqlarni bajarish, rolga kirishish, simulyatsiya o'yinlari, video namoyishlar va boshqalar kabi faol o'rganish usullarining standart to'plamini o'z ichiga oladi.

Shunday qilib, bo'lajak maktabgacha ta'lim tashkiloti tarbiyachilarini pedagogik malakasini oshirish bo'yicha ishlar fan va amaliyot yutuqlariga asoslangan, talabalarning kasbiy mahorat darajasini oshirishga qaratilgan va yuqori sifatga erishishga qaratilgan uzluksiz ta'lim tizimining bir qismidir.

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SAKRAL GEOGRAFIYA VA TURIZM

Anatatsiya: *Maqolada sakral geografiya tushunchasi, uning mohiyati va diniy turizm bilan bog'liq jihatlari yoritib berilgan.*
Kalit so'zlar: *Sakral hudud, sakral geografiya, madaniy landshaft,muqaddas qadamjolar, diniy turizm, ziyorat turizmi.*

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SACRAL GEOGRAPHY AND TOURISM

Abstract: *The article discusses the concept of sacred geography, its essence and aspects related to religious tourism.*
Keywords: *Sacred territory, sacred geography, cultural landscape, sacred sites, religious tourism, pilgrimage tourism.*

Kirish: Bugungi kunda dunyo mamlakatlarida turizmning rivojlanib borishi va uni turizm idustryasiga aylanishi minglab yillardan buyon davom etib kelayotgan dinniy ob'yektlarga qilinadigan ziyorat va dinniy turizmi bilan bevosita bog'liqdir.

Muqaddas qadamjolar - sakral hududlar qadimgi etnoslarning turmush tarzi, urf odatlari, diniy etiqodlarining asosiy markazi sifatida ko'plab makoniy hududlarga egadir.

Ularning geografik joylashishining tabiiy va madaniy tarixiy diniy ob'yektlarning hududiy jihatlarini ochib beradi.

Asosiy qism. Sakral geografiya tushunchasi geografiyaning muhim tushunchasi sifatida muqaddas qadamjolar, tabiiy, dinniy, tarixiy madaniy ob'yektlarni birlashtiruvchi, ularni muqaddaslashtiruvchi kategoriya sifatida yuzaga keldi. Shunga ko'ra sacral geografiya dinniy turizmning sinonimi sifatida uning ijtimoiy iqtisodiy, dinniy funksiyalarni bajaruvchi makoniy tushuncha hisoblanadi. O'tgan asrning 90-yillarida sakral geografiya tushunchasi geografiyaning diniy ziyorat turizm bilan bog'lovchi ijtimoiy-geografik tushuncha sifatida namoyon bo'ldi. O.Shabliy (1993) "Sakral geografiya" atamasini diniy ziyoratlarning geografikligi deb fikr bildirdi. Aksariyat rus olimlari (N.Zametina,I.Metin) Sakral geografiyani gumanitar geografiya sifatida e'tirof etdilar.

Sakral geografiya tushunchasini Yu.Zavgarovniy (2013) muqaddas hududlarni har xil tashkiliy tuzilmalari sakral toposlar sifatida tushuntirib ularni yer va osmon o'rtasidagi diniy-falsafiy an'analarni rivojlantiruvchi makon sifatida e'tirof etadi. O.Lavrenova (2003) sacral yoki diniy mifologik geografiyani madaniy

landshaftlardagi muqaddas geografik obyektlarni arxitiplarini o‘rganuvchi yo‘nalish sifatida e’tirof etadi.

Sakral geografiya ijtimoiy-madaniy yo‘nalishdagi muqaddas hududlar, qadamjolar tabiiy, tarixiy, diniy, sacral obyektlarni o‘ziga birlashtiruvchi funksiyalarni bajaruvchi fan sifatida rivojlanib bormoqda.

Bizning fikrimizga ko‘ra sakral geografiya sakral hududlarni ya’ni landshaftlarni hududiy joylanishi, ularni tabiiy va ijtimoiy muhit bilan bog‘liligi haqidagi ma’lumotlarni o‘ziga to‘playdi. Sakral hududlar geografik makonga ega. Ularning shakllanishi, muqaddas qadamjolarga aylanishi esa turli xil etnoslarning yashash hududlari, urf-odatlari, diniy qarashlari, etiqodlari bilan bog‘liqdir.

Sakral geografiya-turli xil sakral obyektlarning funksiyalari, etnoslarning ijtimoiy faoliyatlarini ular o‘rtasidagi iqtisodiy munosabatlarni ham makoniy tizimlashtiradi. Shunga ko‘ra sakral geografiyaning predmeti sakral hududlar hisoblanadi.

Diniy turizm-bu ziyorat turizmining diniy urf-odatlar, etiqodlar bilan bog‘liq bo‘lgan muqaddas joylar, ziyoratgohlar, diniy obyektlarni ziyorat qilish, diniy amallarni bajarish , ruhiy poklanish uchun qilingan safardir. Ziyorat turizmi uch xil turda ziyorat, diniy ekskursiya, maxsus tur sifatida amalga oshiriladi.

A.Xudoyorovning (2021) fikriga ko‘ra ziyorat turizmi muqaddas qadamjolarni ziyorat qilish, ulug‘ ajdodlarimizga ehtirom ko‘rsatish ularning o‘tmishidagi hayoti va yaratgan madaniy va dunyoviy marosimlarda qatnashish maqsadida amalga oshiriladigan safarlarni o‘z ichiga oladi.

Respublikamizda ziyorat va diniy turizni rivojlantirish ichki va tashqi turlari uchun xalqimizga yetarli shart-sharoitlar yaratish maqsadida O‘zbekiston Respublikasi vazirlar mahkamasining “ichki va ziyorat turizmini rivojlantirish bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida”gi 2021 yil 24-fevraldagi 100-sonli qarori Prezidentning “O‘zbekiston Respublikasida ichki va ziyorat turizmini yanada rivojlantirish chora-tadbirlar to‘g‘risida”gi 2021 yil 9-fevraldagi PF.6165-son Farmoni qabul qilindi va unga ko‘ra moddiy, madaniy, diniy me’ros obyektlarini ichki turizmda foydalanish uchun zarur shart-shaoitlarni yaratish bo‘yicha bir qator ko‘rsatmalar berildi.

Bugungi kunda xalqimizning emin - erkin ziyoratlarni amalga oshirishlari uchun zarur sharoitlar yaratib berilmoqda. Xalqimiz qadimdan muqaddas mozorlarni ziyorat qilish, undan ruhiy va ma’naviy ozuqa olish, orzu niyatlarini ijobat bo‘lishini niyat qilib duolar qilishga odatlanganlar.

O‘zbekistonda islom dini va madaniyatiga oid ko‘plab ziyoratgohlar, buddizm yodgorliklar mavjud. Bunday obyektlarga ziyorat turizmini tashkil etish turizm infratuzilmasini rivojlantirish transport xizmati ko‘rsatish,mehmonxonalar, ovqatlanish va dam olish maskanlarini tashkil etish, tibbiy xizmat ko‘rsatish, savdo shahobchalarini qurish, muqaddas qadamjolarning sanitariya-gigienik sharoitini yaxshilash kabi tadbirlarni majmuali amalga oshirishni talab etiladi.

Xulosa. Sakral geografiya va diniy turizm tushunchalari muqaddas qadamjolar ziyorat obyektlari, ularning hududiy joylashuvi, ijtimoiy funksiyalarining o‘zaro mujassamlashuvi haqidagi ilmiy qarashlardir.Har qanday

sakral obyekt kelib chiqishi va funksiyasiga ko‘ra tabiiy, ijtimoiy, tarixiy-madaniy, diniy turlarga bo‘linib ular alohida yoki guruhlar tashkil etib, hududiy joylanishi mumkin. Shunga ko‘ra har birsakral obektlar diniy va ziyorat turizmi obyekti sifatida e’tirof etiladi.

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ANALYSIS OF COLOR IDIOMS IN UZBEK NOVELS: A LINGUISTIC AND CULTURAL PERSPECTIVE

Abstract:*This study examines color idioms in Uzbek novels to explore their linguistic and cultural significance. By organizing the meanings and equivalents of color-based idioms into associative chains and microsystems, the analysis highlights the cultural nuances and stylistic choices of different Uzbek authors. Findings underscore the symbolic depth of colors and their role in reflecting Uzbek traditions and worldviews.*

Keywords: *Color idioms, Uzbek literature, linguistic analysis, cultural symbolism, associative chains*

Introduction

Idioms are integral to language, encapsulating cultural traditions and worldviews. Color idioms, in particular, carry rich symbolic meanings that vary across cultures. This study focuses on color idioms in Uzbek literature, analyzing their use and significance in novels by prominent Uzbek authors such as Abdulla Qodiriy, Abdulla Qahhor, and G‘afur G‘ulom. By studying these idioms, we gain insight into the cultural values and linguistic nuances of the Uzbek language, enriching our understanding of its literary heritage.

Methods

To analyze the use of color idioms in Uzbek novels, a qualitative approach was employed:

1. Data Collection:

Idioms were extracted from prominent Uzbek novels, including O‘tkan Kunlar by Abdulla Qodiriy, Mehrobdan Chayon by Abdulla Qahhor, and Shum Bola by G‘afur G‘ulom.

2. Categorization:

Idioms were grouped by color (white, red, black, blue, green) and organized into associative chains and microsystems to identify patterns and variations.

3. Cultural and Contextual Analysis:

The cultural and emotional contexts in which idioms appeared were analyzed, focusing on their symbolic meanings and impact on the narrative.

Results

Symbolism of Colors

White: Associated with purity, honor, and blessings in Uzbek culture.

Red: Symbolizes love, danger, or rebellion.
Black: Conveys hardship and grief.
Blue: Represents surprise or lack of awareness.
Examples from Uzbek Literature
White Idioms: "Oq yo‘l" in O‘tkan Kunlar symbolizes hope and blessings. (literally, "White Road!") – This phrase is used to wish someone good luck or success on a journey. The phrase "Oq yo'l" in novels often carries emotional weight, symbolizing hope, optimism, and blessings. Its presence reinforces the communal and familial values deeply rooted in Uzbek culture.

The concept of a "white lie"—a harmless or trivial lie told to avoid hurting someone's feelings—appears in various forms in English literature. Below are examples inspired by well-known novels where characters employ white lies for specific reasons:

In Abdulla Qodiriy’s "O‘tkan Kunlar", the phrase could be used during Otabek's departure from his family to Tashkent:"Otabekning onasi ko‘z yoshlarini artib, unga oq yo‘l tiladi. ‘Oq yo‘l, bolam,’ dedi u mehr bilan, ‘yo‘ling yorug‘ va barakali bo‘lsin”.(Otabek's mother wiped her tears and wished him well. ‘Good luck, my son,’ she said warmly, ‘may your path be bright and blessed.’)This highlights the cultural emphasis on familial blessings when sending someone on their way.

Example from a Modern Uzbek Novel.

In contemporary Uzbek literature, the phrase may appear in a different context, such as during a wedding:"To‘y oxirida, kuyov va kelin eshikdan qadam qo‘yarkan, oqsoqol ularga oq yo‘l tiladi. “Oq yo‘l sizlarga, yangi hayotingiz barokatli bo‘lsin!"(At the end of the wedding, as the bride and groom stepped out, the elder wished them good fortune. ‘Good luck to you both; may your new life be prosperous!”) This usage demonstrates the idiom’s role in significant life transitions.

Red Idioms: Characters cross the "red road" by defying societal norms. Qizil yo'lni kesish (literally, "Cross the red road") – Refers to doing something forbidden or stepping into danger.

The following examples are taken from O‘tkan Kunlar by Abdulla Qodiriy. Otabek’s forbidden love for Kumush and his defiance of societal norms could be seen as crossing the **red road**:"Otabekning Kumushni sevishi va unga uylanish istagi ko‘pchilikning qattiq qarshiligiga uchradi. Ammo u bu qarshiliklarga qaramay, o‘z sevgisini himoya qildi. U bilardi, bu **yo‘l qizil** edi, lekin sevgi uning qo‘rqinchidan ustun edi."(Otabek's love for Kumush and his desire to marry her met with fierce opposition. Yet, despite the resistance, he defended his love. He knew this path was forbidden, but love overpowered his fear.) It is reflecting his willingness to break societal rules for the sake of love.

The following example are taken from Mehrobdan Chayon by Abdulla Qahhor. In Mehrobdan Chayon, Said’s betrayal of the trust placed in him can be interpreted as crossing the red road: "Said, o‘z manfaatlarini ko‘zlab, boshqalarning huquqlarini poymol qilar edi.The idiom "see red"—meaning to become extremely

angry—can be found or symbolized in various English novels, particularly in moments of intense emotional conflict.

Black Idioms: "Qora kunlar" illustrates grief after Kumush's death. Qora kunlar ("Black days") – Describes a period of hardship or sadness. The idiom "Qora kunlar" (literally "black days") in Uzbek culture signifies periods of hardship, grief, or misfortune. It is a common metaphor in Uzbek literature, where characters endure challenging or sorrowful times. Below are examples inspired by well-known Uzbek novels that reflect the concept of qora kunlar: The downfall of Otabek and Kumush's love story epitomizes qora kunlar:"Kumushning vafotidan so'ng, Otabekning hayoti qorong'u tus oldi. U bu kunlarni 'qora kunlar' deb atar, ko'z yoshlarida o'tgan xotiralarini yodga olar edi."(After Kumush's death, Otabek's life took on a dark hue. He called these days his 'black days' as he recalled memories through his tears.)This shows the emotional and symbolic depth of grief in the story.

The next idiom is taken from Mehrobdan Chayon as an example by Abdulla Qahhor. Said's betrayal and its consequences bring qora kunlar to his family: "Saidning qilmishlari uning oilasini qattiq iztirobga soldi. O'sha paytni otasi 'qora kunlarimiz boshlangandi' deb eslar edi."(Said's actions brought immense suffering to his family. His father would later recall that time as 'the beginning of our black days." Here, qora kunlar reflects the consequences of moral and ethical failure. Even in a humorous context, qora kunlar can represent hardship, as in the boy's troubles with the villagers in the following example from Shum Bola by G'afur G'ulom. "Shum bola yana bir marta mahallaning g'azabini qo'zg'adi. U kunlarni u "qora kunlarim" deb

Blue: The idiom "Ko'kdan tushgan" (literally "fell from the sky") in Uzbek means someone who is uninformed, naïve, or surprised about something that should be common knowledge. It reflects a lack of awareness or being caught off guard. While this exact idiom might not be explicitly stated in classic Uzbek literature, its meaning can be illustrated through various scenarios and themes. In Uzbek literature, it can symbolize a lack of awareness about societal issues, personal consequences, or rapid changes in the world. Characters displaying this trait often serve as a reflection of broader themes like tradition versus progress or moral responsibility. Below are examples inspired by well-known Uzbek novels. Example from O'tkan Kunlar by Abdulla Qodiriy illustrate deep meaning of cultural representatives.

In Uzbek literature, it can symbolize a lack of awareness about societal issues, personal consequences, or rapid changes in the world. Characters displaying this trait often serve as a reflection of broader themes like tradition versus progress or moral responsibility.

Example: When Yusufbek hoji outdated views clash with the changing times, he could be described as ko'kdan tushgan. "Yusufbek hoji shahardagi yangi tartiblarni eshitib, go'yo ko'kdan tushgandek qaradi. 'Bularning barchasi nimadan boshlangan?' deb hayron bo'ldi."(Yusufbek hoji listened to the new regulations in the city and looked as though he had fallen from the sky. 'Where did all this begin?' he wondered in astonishment.

The following example reflects his surprise and lack of understanding of societal changes in a scene w here Miryoqub is oblivious to the hardships of the peasants, the idiom could be used metaphorically:"Miryoqub kambag‘al dehqonlarning shikoyatlarini eshitganda, go‘yo ko‘kdan tushgandek o‘zini his qildi. ‘Axir, ular bunday yashayotganini bilmabman,’ dedi u."(When Miryoqub heard the peasants’ complaints, he felt as though he had fallen from the sky. ‘I never realized they lived like this,’ he said.) Here, the idiom illustrates Miryoqub’s ignorance of the struggles around him.

The next idiom “Ko‘kdan tushgan” is used as an example from Shum Bola by G‘afur G‘ulom. The mischievous boy’s antics often leave the adults feeling ko‘kdan tushgan:"Shum bolaning yana bir qiliqlarini eshitib, qishloq oqsoqollari ko‘kdan tushgandek hayratda qolishdi. ‘Bu bola nimani o‘ylaydi o‘zi?’ deyishdi ular."(Hearing about another of the boy’s pranks, the village elders were astonished, as though they had fallen from the sky. ‘What is this boy even thinking?’ they asked.)

This demonstrates how unexpected events can make others feel uninformed or shocked.

That idiom is also utilized in “Mehrobdan Chayon” by famous writer Abdulla Qahhor. Said’s obliviousness to the consequences of his actions can be seen as being ko‘kdan tushgan:"Said qilgan ishlarining oqibatini anglamagan holda, go‘yo ko‘kdan tushgandek boshqalarni ayblay boshladi. ‘Men nima yomonlik qildim?’ deb o‘zini oqladi."(Said, unaware of the consequences of his actions, acted as though he had fallen from the sky, blaming others. ‘What wrong have I done?’ he defended himself.) This reflects the idiom’s use in describing someone unaware of their own faults.

Discussion

Cultural Insights: Uzbek idioms emphasize familiar and societal values, reflecting cultural priorities like respect, community, and resilience. Comparisons with English idioms reveal significant cultural distinctions. For instance, "in the black" (English) conveys positivity, contrasting with Uzbek idioms where black often signifies negativity.

Implications for Language and Literature: Understanding color idioms enhances linguistic comprehension and cross-cultural communication. For language learners, these idioms offer a deeper connection to cultural context and enrich fluency.

Limitations and Future Research: The study focuses on literary examples, which may not represent idiom usage in spoken Uzbek. Further research could analyze idiom usage in contemporary Uzbek media or compare with idioms in other Turkic languages.

Conclusion

Color idioms in Uzbek literature encapsulate rich cultural symbolism and linguistic nuance. By analyzing their use in novels, this study underscores their significance in reflecting Uzbek traditions, values, and emotions. These findings

contribute to cross-cultural understanding and appreciation of the Uzbek language and literature.

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DEVELOPMENT OF THE BANKING SECTOR BY IMPROVING DIGITAL TRANSFORMATION

Abstract. *Currently, digital transformation is seen as an integral element of keeping banks competitive, and on average, one-third of banks' banking operations are already carried out using digital technologies. The introduction of widespread digital technologies in the current stage of innovation, development related to the needs of society, combines all the advantages achieved through the use of technology in the banking sector. It is known that the process of digital transformation should be based on a digital strategy developed taking into account the characteristics and needs of a particular bank. A rationally implemented transformation strategy allows individual banks, and then the entire banking sector and financial institutions, to increase business efficiency and move to a new stage of economic development.*

Keywords: *Digital transformation, banking sector, digitization, financial and credit organizations, modern banking services, digital economy, digital technologies, strategy, banking operations.*

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RAQAMLI TRANSFORMATSIYANI TAKOMILLASHTIRISH ORQALI BANK SEKTORINI RIVOJLANTIRISH

Annotatsiya. *Hozirgi vaqtda raqamli transformatsiya banklar raqobatbardoshligini saqlashning ajralmas elementi sifatida qaralmoqda hamda banklar o'rtacha hisobda bank operatsiyalarining uchdan bir qismi allaqachon raqamli texnologiyalar yordamida amalga oshirilmoqda. Keng tarqalgan raqamli texnologiyalarni joriy etish innovatsiyalarning hozirgi bosqichida jamiyat ehtiyojlari bilan bog'liq taraqqiyot bank sohasida texnologiyalardan foydalanish orqali erishilgan barcha afzalliklarni o’zida jamlamoqda. Ma’lumki, raqamli transformatsiya jarayoni muayyan bankning xususiyatlari va ehtiyojlarini hisobga olgan holda ishlab chiqilgan raqamli strategiyaga asoslanishi kerak. Ratsional tarzda amalga oshirilgan transformatsiya strategiyasi alohida banklarga, keyinchalik butun bank sektoriga va moliya-kredit tashkilotlariga biznes*

samaradorligini oshirish va iqtisodiyot rivojlanishining yangi bosqichiga o'tish imkonini beradi.

***Kalit so'zlar**: Raqamli transformatsiya, bank sektori, raqamlashtirish, moliya-kredit tashkilotlari, zamonaviy bank xizmatlari, raqamli iqtisodiyot, raqamli texnologiyalar, strategiya, bank operatsiyalari.*

Introduction. Due to the digital transformation, business models and development concepts of the banking sector are being improved. Innovative development is the main opportunity for stable and long-term growth of banks' activity efficiency. In recent decades, the development of the digital sector of finance has accelerated, and the smart application of digital transformation in the banking sector has also grown significantly and become a means of gaining an indispensable advantage in the competitive environment. The main goal of digital transformation processes is to improve existing business models, as well as increase the efficiency of using digital technologies for business development. This process involves the continuous introduction of innovative technologies, which will lead to a complete digital transformation of the entire economy.

Research methodology and empirical analysis. Analytical comparison, grouping methods, logical and comparative analysis, as well as research works of foreign and local scientists on the subject were widely used in this research work.

Analysis and results. The use of digital technologies is manifested on the basis of improving the methods of interaction between banks, the state and potential customers.

The main part. Digital transformation implies the widespread introduction of modern methods in the provision of banking services. As a result, the number of bank branches is reduced, many services are transferred to online services, especially when it comes to lending or investing funds. Of course, the process of digital development of the banking sector has its own drawbacks, the older generation may not be able to keep up with such accelerations. Therefore, while it is beneficial for banks to go fully online, and there are already banks that operate only on mobile digital platforms, it is also a good decision to completely abandon the traditional ways of doing business. no, the changes should be implemented step by step while accustoming the customers. For example, "Atom Bank" in the UK does not have physical offices to work with customers, and all banking services (from opening a current account to issuance) are performed using a mobile application. The application of digital technology advances is expanding the customer base due to the universal and round-the-clock availability of banking services. The process of digital transformation of the banking sector includes the following elements:

- customer experience analysis
- Digitization of offered products and services
- change the internal processes of the organization.

Digital transformation is driven by in-depth research and analysis of customer experience and identifying both existing and new needs. Consumers of

banking services are the driving force of innovative development of banks, as they form requirements for modern banking products and services by expressing their needs. Customers evaluate the experiences of banks depending on how easy and convenient it was to work with banks, to get a certain thing for them, the quality of service, therefore, the banking sector should constantly study the experience of customers, identify the shortcomings of the bank, because new customers demand the use of more modern technologies. Bank performance has been judged by how it delivers products and services to customers, but in the era of the digital economy, banks must reckon with modern digital challenges. Billions of potential customers can be served through the use of a mobile phone connected to the Internet, forcing banks to constantly improve their digital technologies to maintain a competitive edge. Barclays Bank was one of the first to implement a fully online banking system, and according to their accounts, customers now visit bank branches on average twice a month, and use mobile banking services up to 18 times a month.[1]

Changing the internal processes of banks is also an important condition for the development of the digital banking sector. Alongside the introduction of digital, customer-centric technologies, there is a need to improve approaches to management, leadership and control. The main obstacle to the complete digital transformation of banks can be the lack of necessary skills, and the use of opportunities in the digital economy, technologies of temporal data analysis through customer relationship management systems are one of the elements of the digital transformation of banks. Digital transformation of banks requires a comprehensive development-based approach and the application of a digital strategy. Digital transformation covers all aspects of economic and financial activities, including bank management mechanisms, credit activities. To achieve maximum business efficiency, digital transformation should be coordinated with other development strategies in the banking sector to develop solutions to problems. Successful implementation of digital strategy requires coordination of development directions. This largely depends on the bank's operating model. The bank's new digital products combine business, IT and marketing competencies. Most large banks tend to drive the digital experience in-house, focusing on traditional IT departments and proprietary solutions. The bigger banks get, the harder it is for them to innovate and the more ways they need to accelerate.

A digital bank provides most of its products and services remotely using digital channels. The infrastructure of such a bank will quickly adopt technology changes and be optimized for digital communication. The activities of such digital banks are developing all over the world

The world's leading digital banks by number of customers [2]

Table 1

No	Bank	Founder	State	Number of customers (million)
1	ING Diba	ING Group	Germany	8.5
2	Capital One 360	Capital One Financial	USA	7.8
3	USAA Bank	USAA	USA	7
4	FNBO Direct	First National of Nebraska	USA	6
5	Rakuten Bank	Rakuten	Japan	5
6	Tinkoff Bank	-	Russia	5
7	TIAA Direct	TIAA-CREF Trust Company	USA	3.9
8	Discover Bank	Discover Financial Services	USA	3.5
9	Alior Bank	-	Poland	3
10	DKB AG	-	Germany	3

From the data in the table above, we can see that the USA is one of the leading countries in terms of the number and weight of digital banks. Most banks state that they cannot find a suitable solution for entering the market, and therefore they analyze the foreign platforms as well. Major banks are interested in increasing their competitive advantage through digitization.

Digital banking is a modern stage of development of the relationship between the bank and its customers, which includes innovations in the financial services market and digital, multi-information (big data) and technological strategies in this sector. As a result of the research conducted, 70% of financial institutions worldwide considered digital banking as one of their strategic priorities.

Analyzing the modern developments in digital banks, we can show the main directions in this field:

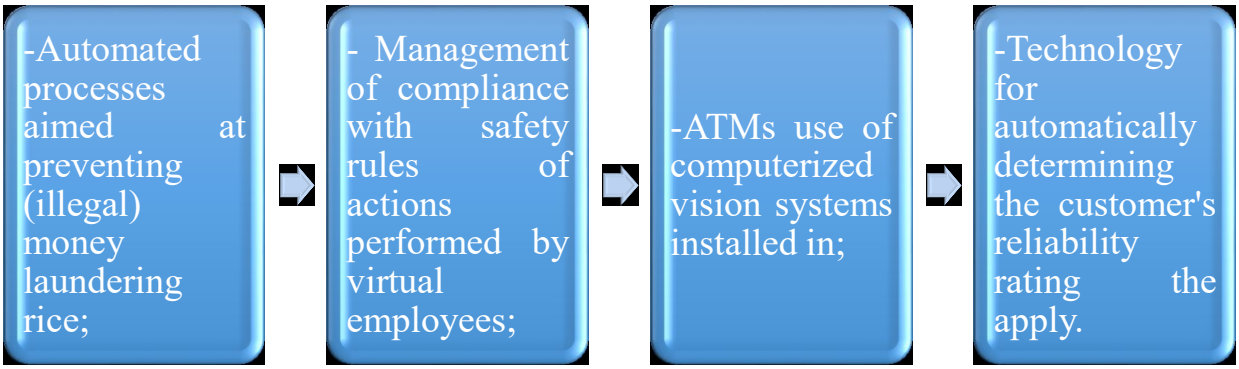

Figure 1. The main areas of digital banking[3]

Money relations, banking services for everyone of life almost all also available in the fields . Today's to the day come , bank and of the client mutual " relationships " completely new - interactive color enter , digital thinking the concept also appeared it has been that is , now, when performing operations related to money, the client and bank employees do not have to wait in lines and perform operations.

Digital transformation will develop the financial sector and improve financial performance by creating a new digitized work environment. Today, the number of users of systems providing remote banking services is increasing due to the needs of the times.

Remote banking services showing of users of the systems number as of January 1, 2024 [4]

No	Bank	Legal persons and alone in order entrepreneurs	Physical persons	Total
1	National Bank	97 411	2 001 214	2 098 625
2	Uzbekistan industrial construction bank	73 177	6 296 325	6,369,502
3	Agrobank	201 760	5 878 174	6,079,934
4	Mortgage - bank	167 567	3 220 676	3 388 243
5	Microcredit bank	69 672	1 232 520	1 302 192
6	People bank	120 118	4,587,680	4,707,798
7	Guarantee bank	6 853	119 728	126 581
8	Business development bank	27,085	401 985	429 070
9	Turonbank	48 473	530 093	578 566
10	Partner bank	126,047	1 741 682	1 867 729
11	Asaka Bank	36 586	1 073 040	1 109 626
12	Silk The way bank	61 938	2 353 516	2 415 454
13	Ziraat Bank Uzbekistan	4 552	63 298	67,850
14	Trustbank	49 454	218 287	267 741
15	Aloqabank	64 685	1 604 832	1 669 517

16	KDB Bank Uzbekistan	1 317	48,065	49 382
17	Soderot Bank Tashkent	366	2 676	3 042
18	Universal Bank	12,749	158,810	171 559
19	Kapitalbank	35 323	1 296 654	1 331 977
20	Octobank	2 703	67 753	70 456
21	Period - bank	26,088	228 620	254 708
22	Invest Finance bank	17 731	416 290	434 021
23	Asia Alliance Bank	26 743	614 157	640,900
24	Orient Finance Bank	30 366	577 648	608 014
25	Madad Invest Bank	1 106	3 359	4 465
26	AVO bank	109	564	673
27	Capital Bank	1 114	11 223	12 337
28	Tenge Bank	2 592	660 435	663 027
29	TBC bank	-	2,051,728	2,051,728
30	ANOR bank	25,924	3,827,971	3,853,895
31	UZUM bank	-	1 470 988	1 470 988
Total		1 339 609	42,759,991	44,099,600

Above table as we can see from the data possible , remote banking services the number of users of reporting systems as of January 1, 2024 "National Bank", " Industry construction bank" and " Agrobank". the most high indicators organize reached

Summary. Digital banking is a set of software that provides a user-friendly interface and enables everyone to use banking services and products remotely. As a result of the digital transformation of banks, the emergence of modern banking services and new payment methods, as well as the appearance of different ways of communicating with the bank, will especially speed up the relationship between the bank and the client.

Such innovations in the banking system may cause several major changes in the activities of other financial organizations, in their relationship with customers and in ensuring their economic security. In order to ensure their economic security in the conditions of digitization of banks, it is advisable to implement the following:

1. Centralization of the database;
2. Constant monitoring and updating of software products;
3. Full and accurate implementation of legal and regulatory frameworks to ensure economic security; [5]

Digital modernization of the economy is one of the most popular issues today. In the context of the development of world economic relations, the integration of the economy of individual countries and the development of payment systems , in particular , cashless payment forms of banks digital the direction of development of types of services is being observed. As a result of the ongoing reforms, market mechanisms of service provision are being introduced in the banking system, their types expanding , entrepreneurs and population financial openness is increasing.

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O'SMIRLARDA ZO'RAVONLIK HISSI NAMOYON BO'LISHINING IJTIMOIY-PSIXOLOGIK XUSUSIYATLARI

Annotatsiya. *Mazkur maqolada o'smirlik davrida zo'ravonlik hissining shakllanishi va uning psixologik, ijtimoiy omillari chuqur tahlil qilinadi. O'smirlik davrining psixologik va ijtimoiy o'ziga xosliklari, shuningdek, zo'ravonlikning shaxs va jamiyat rivojlanishiga salbiy ta'siri yoritilgan. Tadqiqot davomida zo'ravonlikning individual va ijtimoiy darajadagi namoyon bo'lish shakllari tahlil qilinib, bu muammoni bartaraf etish bo'yicha samarali usullar taklif etiladi. Ma'lumotlar o'smirlarning zo'ravonlik hissini boshqarish va uning oldini olish bo'yicha amaliy va nazariy asoslarni ishlab chiqishga xizmat qiladi.*

Kalit so'zlar: *o'smirlik davri, zo'ravonlik hissi, psixologik xususiyatlar, ijtimoiy omillar, emotsional barqarorlik, ta'lim va tarbiya, profilaktika, shaxs rivojlanishi, kiberzo'ravonlik, oila va jamiyat.*

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SOCIAL-PSYCHOLOGICAL CHARACTERISTICS OF THE EXPRESSION OF VIOLENCE IN ADOLESCENTS

Abstract. *This article provides an in-depth analysis of the formation of a sense of violence in adolescence and its psychological and social factors. The psychological and social characteristics of adolescence, as well as the negative impact of violence on the development of the individual and society, are highlighted. During the study, the forms of manifestation of violence at the individual and social levels are analyzed, and effective methods are proposed to eliminate this problem. The data serve to develop practical and theoretical foundations for managing and preventing the feeling of violence in adolescents.*

Keywords: *adolescence, sense of violence, psychological characteristics, social factors, emotional stability, education and upbringing, prevention, personal development, cyberbullying, family and society.*

O'smirlik davri inson hayotining muhim bosqichlaridan biri bo'lib, unda jismoniy, psixologik va ijtimoiy o'zgarishlar jadallashadi. Bu davrda shaxs o'zligini anglash, jamiyatda o'z o'rnini topish va o'ziga xos shaxsiy qadriyatlarni shakllantirishga intiladi. O'smir o'z qadr-qimmatini anglashga harakat qiladi, o'z-o'zini tasdiqlash va mustaqillikni izlaydi. Biroq bu jarayon ko'pincha turli ziddiyatlarga olib keladi. Gormonlar faoliyati va miya rivojlanishi bilan bog'liq bo'lgan tebranishlar emotsional notinchlikka sabab bo'ladi. O'smirlar ba'zan

tezkor, ammo noxolis qarorlar qabul qilishi, o‘zlarini o‘ta ishonuvchan yoki aksincha, shubhalanuvchan tutishi mumkin.

O‘smirlar uchun o‘rtoqlari orasida qabul qilinish va mavqeini mustahkamlash muhim ahamiyat kasb etadi. Bu jarayon ayrim hollarda nosog‘lom raqobat yoki zo‘ravonlik harakatlarini keltirib chiqaradi. Oiladagi tarbiya sifati va ota-onalar bilan bo‘lgan muloqot o‘smirning shaxsiyati shakllanishida katta rol o‘ynaydi. Ijtimoiy muhit, maktabdagi o‘qituvchilar va atrofdagi odamlarning munosabati o‘smirning xulq-atvori va hissiyotlarini shakllantiradi. Zo‘ravonlik hissi o‘smirlarning emotsional va psixologik rivojlanishiga jiddiy ta’sir ko‘rsatadi. Bu hisning kuchayishi, odatda, o‘z-o‘zini boshqarish qobiliyatining sustligi va ijtimoiy muloqot ko‘nikmalarining yetishmasligi bilan bog‘liq. Zo‘ravonlik hissi o‘smirning o‘z-o‘zini qadrlashiga zarar yetkazadi, bu esa depressiya va xavotir holatlariga olib kelishi mumkin. Agresiv xulq odati shakllanishi natijasida jamiyat bilan integratsiya qilish qiyinlashadi. Empatiya va ijtimoiy mas’uliyat hissining rivojlanishi to‘xtaydi. Zo‘ravonlik harakatlari jamoaviy ishonchni zaiflashtiradi va ijtimoiy mojarolarni kuchaytiradi.

Zo‘ravonlikning ommalashishi natijasida jamiyatda jinoyatchilik darajasi ortadi. Ijtimoiy muhitdagi salbiy hodisalar (masalan, kiberzo‘ravonlik) yoshlar orasida keskinlikni oshiradi. O‘smirlik davridagi zo‘ravonlik hissi nafaqat shaxsning ruhiy holatiga, balki jamiyatning barqarorligiga ham xavf tug‘diradi. Hozirgi davrda media vositalarining keng tarqalishi, internet va ijtimoiy tarmoqlarda zo‘ravonlikni targ‘ib qiluvchi kontentlarning mavjudligi bu muammoni yanada kuchaytirmoqda.

Mazkur mavzu bo‘yicha ilmiy izlanishlarning ahamiyati quyidagilarda namoyon bo‘ladi: o‘smirlar psixologiyasini chuqur tushunish va ularga mos yondashuvlar ishlab chiqish, jamiyatda zo‘ravonlikka qarshi profilaktika dasturlarini shakllantirish va amalga oshirish, o‘smirlarning emotsional va ijtimoiy qobiliyatlarini rivojlantirish orqali jamiyatda sog‘lom muhit yaratish.

Shunday qilib, bu muammoni o‘rganish nafaqat yoshlar tarbiyasini yaxshilash, balki ijtimoiy barqarorlikni ta’minlashda ham muhim ahamiyat kasb etadi.

O‘smirlik davri – inson psixologiyasi va shaxsiyati shakllanishidagi eng murakkab bosqichlardan biri. Bu davrda zo‘ravonlik hissining shakllanishi turli psixologik, ijtimoiy va madaniy omillar ta’sirida yuzaga keladi. Ushbu hisning shakllanishiga sabab bo‘luvchi omillarni quyida batafsil yoritamiz.

Psixologik omillar. Shaxsiy o‘zlikni anglash va o‘z-o‘zini tasdiqlash jarayonidagi ziddiyatlar. O‘smirlar o‘z shaxsiy qadr-qimmatini anglashga intiladigan, jamiyatda o‘z o‘rnini topishga harakat qiladigan davrda turli ichki va tashqi ziddiyatlarga duch keladilar. O‘zini kattalar bilan teng huquqli deb his qilish istagi va kattalar tomonidan tan olinmaslik hissi ularda norozilikni kuchaytiradi. Bu norozilik ba’zan zo‘ravonlik orqali namoyon bo‘lishi mumkin. O‘smirlar o‘zlarining jismoniy va hissiy rivojlanishida o‘zgarishlarni boshdan kechiradi. Bu o‘zgarishlar o‘z-o‘zini qabul qilishdagi qiyinchiliklarni keltirib chiqaradi va agressiv xulqni qo‘zg‘atishi mumkin. Emotsional barqarorlikning pastligi va

empatiya yetishmasligi. O‘smirlik davrida hissiy o‘zgarishlar juda tez-tez sodir bo‘ladi, bu esa o‘z-o‘zini boshqarish qobiliyatining sustligiga olib keladi. O‘smirlar o‘zlarini himoyalangan his qilish uchun boshqalarga agressiv munosabatda bo‘lishlari mumkin. Empatiyaning past darajasi boshqalarning his-tuyg‘ularini tushunmaslikka va ularning ehtiyojlarini e’tiborsiz qoldirishga olib keladi. Bu esa boshqalarni ranjitish yoki ularga zarar yetkazishga olib keladi.

Ijtimoiy omillar. Oiladagi tarbiya va ijtimoiy munosabatlar ta’siri. Oilaviy tarbiya uslubi o‘smirning hissiy va ijtimoiy rivojlanishida muhim rol o‘ynaydi. Haddan tashqari qattiqqo‘l yoki loqayd tarbiya usullari zo‘ravonlik hissini kuchaytirishi mumkin. Oilada zo‘ravonlik holatlarining mavjudligi o‘smirlar tomonidan bunday xatti-harakatlarning normal holat sifatida qabul qilinishiga sabab bo‘ladi. Oilaviy qo‘llab-quvvatlovning yetishmasligi o‘smirda ichki konfliktlarni keltirib chiqaradi va bu konfliktlar agressiv xulq orqali namoyon bo‘ladi. Maktabdagi bosim va haddan tashqari talablar o‘smirlarning o‘zini noqulay his qilishiga olib keladi, bu esa agressiv xulqni yuzaga keltirishi mumkin. Tengdoshlari orasida o‘z o‘rnini topish uchun o‘smirlar ba’zan zo‘ravonlikka murojaat qilishadi. Bu ularga o‘zlarini kuchliroq va ta’sirchanroq his qilish imkonini beradi. Maktabda boshqa o‘quvchilar bilan kelib chiqadigan mojaro va zo‘ravonlik holatlari “javob chorasi” sifatida zo‘ravonlikni shakllantiradi. Zo‘ravonlikni targ‘ib qiluvchi filmlar, televizion dasturlar va video o‘yinlar o‘smirlarning agressiv xulqini oshiradi. Ularda zo‘ravonlikni normal yoki mardlik sifatida qabul qilish tendensiyasi shakllanadi. Media orqali zo‘ravonlikning ijobiy ko‘rinishda tasvirlanishi yoshlarning xulq-atvorida bunday harakatlarni takrorlashga rag‘batlantiradi. Ayrim madaniy stereotiplar o‘smirlar orasida gender, ijtimoiy mavqe yoki etnik guruhlar asosida zo‘ravonlikni qo‘zg‘atishi mumkin. Masalan, kuch va agressiyani erkaklik belgisi sifatida ko‘rsatadigan stereotiplar. Global madaniy tendensiyalar, jumladan, internetda keng tarqalgan zo‘ravonlik mazmunidagi memlar va postlar o‘smirlarning shaxsiy qadriyatlariga salbiy ta’sir ko‘rsatadi.

Zo‘ravonlik hissining shakllanishi ko‘p omilli jarayon bo‘lib, psixologik, ijtimoiy va madaniy jihatlar birgalikda ta’sir ko‘rsatadi. Ushbu omillarni erta aniqlash va ularga nisbatan mos choralarni ko‘rish orqali o‘smirlik davridagi zo‘ravonlikka qarshi samarali profilaktika choralari amalga oshirilishi mumkin.

O‘smirlik davridagi zo‘ravonlik hissi turli shakllarda namoyon bo‘lib, bu shaxsiy, oilaviy va ijtimoiy omillarga bog‘liq bo‘lishi mumkin. Ushbu shakllar o‘smirning hissiy va xulq-atvoridagi muammolarni ifodalaydi va jamiyatda o‘zini namoyon qilish usuli sifatida yuzaga chiqadi.

O‘smirlik davridagi zo‘ravonlik hissining namoyon bo‘lish shakllari:

1. Jismoniy zo‘ravonlik. Jismoniy zo‘ravonlik eng aniq ko‘rinadigan shakldir va unga quyidagilar kiradi: urish, itarish, zarba berish kabi harakatlar, shaxsiy mulkni buzish yoki talon-toroj qilish, jismoniy jarohat yetkazish.

Bu shakl ko‘pincha o‘zining kuchli ekanligini ko‘rsatishga urinish yoki his-tuyg‘ularni nazorat qila olmaslik natijasida yuzaga keladi. Jismoniy zo‘ravonlik uzoq muddatda jabrlanuvchilarda qo‘rquv, xavotir va depressiyaga olib kelishi mumkin.

2. Og‘zaki zo‘ravonlik. Og‘zaki zo‘ravonlik jismoniy harakatlarga qo‘l urmasdan turib, boshqalarga psixologik zarar yetkazish shaklidir. Bu quyidagilarni o‘z ichiga oladi: haqorat qilish, masxara qilish va xo‘rlash, qichqirish yoki do‘q-po‘pisa qilish, doimiy tanqidlar orqali shaxsiy qadr-qimmatni kamsitish.

Bu turdagi zo‘ravonlik, odatda, maktabda, oilada yoki o‘smirlar guruhlarida tez-tez uchraydi. U jabrlanuvchilarning o‘ziga bo‘lgan ishonchini yo‘qotishi va ruhiy tushkunlikka tushishiga sabab bo‘ladi.

3. Ijtimoiy ajratish. Bu shakl zo‘ravonlikning noaniq, ammo juda ta’sirli turi bo‘lib, boshqalarni maqsadli ravishda jamiyatdan chetlatish yoki izolyatsiya qilishni o‘z ichiga oladi: tashqi ko‘rinish, millat, jins yoki boshqa belgilarga asoslanib kamsitish, guruhdan chetlatish va ijtimoiy tan olinmaslik. Munosabatlarda e’tiborsizlik yoki qasddan inkor etish. Bu zo‘ravonlik turi jabrlanuvchining yolg‘izlik va o‘zini jamiyatdan ajratilgan his qilishiga olib keladi.

4. Virtual zo‘ravonlik (kiberzo‘ravonlik). Zamonaviy texnologiyalarning rivojlanishi bilan zo‘ravonlik onlayn platformalarda ham tez-tez uchraydigan hodisaga aylangan. Bu quyidagilarni o‘z ichiga oladi: internetda haqoratli yoki tahqirlovchi izohlar qoldirish, jabrlanuvchining shaxsiy ma’lumotlarini oshkor qilish, yolg‘on xabarlar tarqatish yoki qasddan obro‘sizlantirish. Virtual zo‘ravonlik, ayniqsa, o‘smirlar orasida jiddiy psixologik zarar yetkazishi mumkin, chunki onlayn muhit doimiy nazorat ostida emas va har qanday harakat ko‘pchilik tomonidan ko‘rilishi mumkin.

Muammoni hal qilish yo‘llari:

1. Ta’lim va tarbiya jarayonida profilaktika. Maktab va ta’lim muassasalarida zo‘ravonlikning oldini olish bo‘yicha profilaktika ishlari muhim o‘rin tutadi. Ijtimoiy-psixologik treninglar o‘tkazish: O‘smirlarga stressni boshqarish, agressiyani kamaytirish va muammolarni hal qilish ko‘nikmalarini o‘rgatish.

Zo‘ravonlikning zararini tushuntirish dasturlari: o‘quvchilarga zo‘ravonlikning oqibatlari haqida maxsus dasturlar orqali ma’lumot berish. Bu dasturlar doirasida empatiya va jamoaviy ko‘nikmalarni rivojlantirishga e’tibor qaratiladi.

2. Oiladagi ijtimoiy-psixologik yondashuvlar. Oilada sog‘lom munosabatlar zo‘ravonlikning oldini olishda muhim omil hisoblanadi. Ota-onalar uchun psixologik maslahatlar va treninglar yordamida farzandlar bilan qanday muloqot qilish, ularga e’tibor qaratish va hissiy qo‘llab-quvvatlash bo‘yicha ko‘nikmalarni oshirish. Oilaviy muhitni yaxshilash, oilada hamkorlik va mehr-muhabbat muhitini yaratish, oilaviy nizolarni bartaraf etish orqali bolalarda barqarorlik va xavfsizlik hissini shakllantirish.

3. Jamiyat va davlatning roli. Zo‘ravonlikka qarshi kurashda jamiyat va davlat tashkilotlari muhim rol o‘ynaydi. Maxsus qo‘llab-quvvatlash markazlarini tashkil etish, jabrlangan o‘smirlarga psixologik yordam ko‘rsatadigan va ularga zarar yetkazganlar bilan ishlaydigan markazlarni tashkil qilish. Zo‘ravonlikni targ‘ib qiluvchi axborot vositalarini cheklash, televidenie, internet va boshqa ommaviy axborot vositalarida zo‘ravonlikni targ‘ib qiluvchi kontentni nazorat qilish va cheklash.

O‘smirlik davrida zo‘ravonlik hissining mavjudligi yoshlarning hissiy, intellektual va ijtimoiy rivojlanishiga jiddiy salbiy ta’sir ko‘rsatadi. Bu hissiyot nafaqat o‘smirning o‘ziga, balki uning atrofidagi odamlarga, oilasiga va jamiyatga ham zarar yetkazadi. Zo‘ravonlik hissi psixologik barqarorlikni buzib, o‘smirlarni stress, xavotir, depressiya va boshqa ruhiy muammolarga duchor qilishi mumkin. Zo‘ravonlik bilan bog‘liq xulq-atvor ularning kelajakdagi munosabatlariga, shaxsiy qadr-qimmatlariga, hatto jamiyatdagi o‘rniga ham salbiy ta’sir o‘tkazadi.

Profilaktika ishlari. O‘smirlar bilan psixologik trening va maslahatlar o‘tkazish orqali ularga agressiyani boshqarish va konfliktlarni hal qilish ko‘nikmalarini o‘rgatish. Ta’lim muassasalarida zo‘ravonlikning salbiy oqibatlari haqida tushuntirish ishlari olib borish. Jamiyatda zo‘ravonlikni targ‘ib qiluvchi stereotiplar va axborot vositalarini nazorat qilish. Oilalar uchun psixologik yordam dasturlarini ishlab chiqish va ularga amaliy yordam ko‘rsatish. Zo‘ravonlikka qarshi maxsus davlat dasturlari va qo‘llab-quvvatlash markazlarini tashkil etish.

Zo‘ravonlik hissining kelib chiqish sabablarini chuqur o‘rganish, ularni bartaraf etish yo‘llarini aniqlash va yangi yondashuvlarni ishlab chiqish bo‘yicha ilmiy tadqiqotlar davom ettirilishi zarur. Tadqiqotlar quyidagi yo‘nalishlarda olib borilishi lozim:

- Zo‘ravonlik hissini keltirib chiqaruvchi psixologik va ijtimoiy omillarni aniqlash.
- Profilaktika choralari va davolash usullarining samaradorligini o‘rganish.
- Yangi texnologiyalar yordamida kiberzo‘ravonlikni nazorat qilish usullarini ishlab chiqish.
- Amaliy tadqiqotlar orqali mavjud muammolarga yechim topish, tajribaviy usullarni joriy qilish va o‘smirlar tarbiyasi va ta’limida innovatsion yondashuvlarni keng qo‘llash mumkin.

Zo‘ravonlik hissi o‘smirlik davrida shaxsning rivojlanishiga, jamiyatdagi o‘rniga va uning kelajakdagi hayotiga jiddiy ta’sir ko‘rsatadi. Ushbu muammoni samarali hal qilish uchun ta’lim, oila va jamiyatning birgalikdagi sa’y-harakatlari zarur. Ilmiy va amaliy tadqiqotlarning davom ettirilishi, profilaktika choralari va psixologik yordamning kengaytirilishi orqali ushbu muammoni bartaraf etish mumkin. Bu, o‘z navbatida, o‘smirlarning sog‘lom rivojlanishiga va jamiyatning barqaror bo‘lishiga hissa qo‘shadi.

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QORAKO‘LCHILIK TARMOG‘INING BARQAROR RIVOJLANISHI

Annotasiya. *Maqolada* ***qorako‘lchilik tarmog‘ining barqaror rivojlanishi*** *masalasi bayon etilgan. Qorako‘lchilik mahsulotlarini tayyorlash, qayta ishlash va sotish tizimida qo‘shilgan qiymat zanjiri dinamikasi bo‘yicha innovasion fikrlar bildirilgan.*

Kalit so‘zlar: *yaylov, chorvachilik, qorako‘lchilik, mutaxassis, naslchilik, degradatsiya, modernizatsiya, samaradorlik*

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SUSTAINABLE DEVELOPMENT OF THE KARAKUL BREEDING INDUSTRY

Abstract. *The article examines key aspects of sustainable development in the karakul breeding industry, including environmental, economic, and social factors. Special attention is given to the rational use of natural resources, the improvement of the genetic potential of karakul breeds, and the enhancement of the industry's competitiveness in the global market. Recommendations are provided on implementing innovative technologies and government support mechanisms.*

Keywords: *karakul breeding, sustainable development, natural resources, innovations, competitiveness, economy.*

Kirish. Qorako‘lchilik tarmog‘i o‘zining tarixiy va iqtisodiy ahamiyati bilan O‘zbekistonda va Markaziy Osiyoning boshqa hududlarida alohida o‘rin egallaydi. Qorako‘l qo‘ylari mahsulotlari, jumladan, teri, go‘sht va jun, nafaqat mahalliy ehtiyojlarni qondiradi, balki xalqaro bozorlarda ham yuqori talabga ega. Shu bilan birga, ushbu soha ko‘plab iqtisodiy, ekologik va ijtimoiy muammolar bilan bog‘liq. Bu muammolar tarmoqning rivojlanishini sekinlashtiradi va uning barqarorligini xavf ostiga qo‘yadi.

Barqaror rivojlanish tushunchasi nafaqat iqtisodiy samaradorlikni oshirishni, balki tabiiy resurslardan oqilona foydalanishni, ekologik muvozanatni saqlashni va jamiyatning manfaatlarini hisobga olishni nazarda tutadi. Qorako‘lchilik

tarmog‘ining barqaror rivojlanishini ta’minlash, nafaqat iqtisodiy foyda olishni, balki sohaning uzoq muddatli istiqbolini yaratishni ham talab qiladi.

Qorako‘lchilik tarmog‘idagi mavjud muammolarni tahlil qilish, ularni bartaraf etish yo‘llarini aniqlash va barqaror rivojlanish strategiyalarini taklif qilish dolzarb vazifa hisoblanadi. Bunda iqtisodiy samaradorlikni oshirish, ekologik xavfsizlikni ta’minlash va ijtimoiy muvozanatni saqlash muhim ahamiyatga ega.

Qorako‘lchilik tarmog‘i turli iqtisodiy, ekologik, va ijtimoiy muammolarga duch kelishi mumkin. Quyida asosiy muammolarni ko‘rib chiqamiz:

1. Iqtisodiy muammolar:

- Bozor narxlarining barqarorsizligi: Qorako‘l terisi va go‘shti narxi xalqaro bozorlarda o‘zgaruvchan bo‘lib, bu ishlab chiqaruvchilarning daromadiga salbiy ta’sir ko‘rsatadi.
- Moliyaviy resurslarning yetishmasligi: Mayda fermerlar va qorako‘lchilik bilan shug‘ullanuvchi xo‘jaliklarda ishlab chiqarishni kengaytirish yoki modernizatsiya qilish uchun mablag‘ yetishmasligi.
- Texnologiyalarni qo‘llashda orqada qolish: Qorako‘lchilikda zamonaviy texnologiyalardan yetarlicha foydalanilmasligi samaradorlikni pasaytiradi.

2. Ekologik muammolar:

- Cho‘llanish va o‘tloq yerlarning degradatsiyasi: Qorako‘l qo‘ylari asosan cho‘l va yarim cho‘l hududlarda boqiladi. Haddan tashqari o‘tlatish natijasida o‘tloq yerlari degradatsiyaga uchraydi.
- Iqlim o‘zgarishi: Iqlim o‘zgarishi suv va oziq-ovqat resurslarini cheklaydi, bu esa qorako‘l qo‘ylarini boqish imkoniyatlariga ta’sir qiladi.

3. Ijtiomiy va kadrlar masalalari:

- Malakali ishchi kuchi yetishmasligi: Qorako‘lchilikni rivojlantirish uchun malakali mutaxassislar va yangi avlodning ushbu sohaga qiziqishi past.
- Yoshlarning sohani tark etishi: Yosh fermerlar ko‘pincha bu sohada ishlashni qiyin va kam daromadli deb bilib, boshqa sohalarga o‘tmoqda.

4. Tashkiliy muammolar:

- Kooperatsiyaning sust rivojlanishi: Fermer xo‘jaliklari o‘rtasida kooperatsiya va hamkorlik yetarli darajada rivojlanmagani ularga bozorda raqobatlashishni qiyinlashtiradi.
- Eksport va marketingdagi muammolar: Mahalliy qorako‘l mahsulotlarini xalqaro bozorlarda sotish va brend qilish bo‘yicha strategiyalar sust.

5. Sog‘liqni saqlash va veterinariya xizmatlari:

- Veterinariya xizmatlarining yetarli emasligi: Qo‘ylarning sog‘ligini nazorat qilish va kasalliklarning oldini olishda muammolar mavjud.
- Sifatli ozuqa va suv ta’minoti: Yuqori sifatli ozuqa va suv resurslarining cheklanganligi qorako‘l qo‘ylari mahsuldorligiga salbiy ta’sir qiladi.

Muammolarni hal qilish bo‘yicha tavsiyalar:

- Modernizatsiya va texnologiyalarni joriy qilish: Zamonaviy texnologiyalarni qo‘llash orqali mahsulot sifati va samaradorligini oshirish.

- Davlat ko‘magini kuchaytirish: Subsidiyalar, grantlar va qulay kreditlar orqali fermerlarni qo‘llab-quvvatlash.
- Tajriba almashish: Fermerlar va mutaxassislar o‘rtasida tajriba almashinuvini rag‘batlantirish va malaka oshirish dasturlarini yo‘lga qo‘yish.
- Yaylovlarni boshqarish: Yaylovlarning degradatsiyasini oldini olish uchun cho‘l hududlarida resurslarni to‘g‘ri boshqarish.
- Marketing va eksportni rivojlantirish: Mahsulotlarni xalqaro bozorda targ‘ib qilish.

Bu choralar qorako‘lchilik tarmog‘ini yanada barqaror va samarali qilishga yordam beradi.

Qorako‘lchilik tarmog‘ini istiqbolda yanada barqaror rivojlantirish uchun quyidagi chora-tadbirlarni amalga oshirish zarur:

1. Yaylovlarni barqaror boshqarish

- Yaylovlarni qayta tiklash: Degradatsiyaga uchragan yaylovlarni meliorativ tadbirlar orqali tiklash, ularni barqaror boshqarish uchun zamonaviy agrotexnik usullarni joriy etish.
- Bozordagi yaylov yuklamasini kamaytirish: Hayvonlar sonini yaylov resurslariga moslashtirish, ozuqa bazasini boyitish orqali yaylovlar ustida ortiqcha yuklanishni oldini olish.
- Suv ta’minotini yaxshilash: Yaylovlar uchun suv resurslarini tejovchi texnologiyalarni joriy qilish va cho‘l hududlarida suv saqlash inshootlarini qurish.

2. Naslchilik ishlarini rivojlantirish

- Naslchilik markazlarini tashkil etish: Yuqori sifatli qorako‘l zotlarini ko‘paytirish uchun maxsus seleksiya markazlarini rivojlantirish.
- Genetik tadqiqotlarni qo‘llab-quvvatlash: Ilmiy-tadqiqot institutlarini jalb qilib, qorako‘l zotlarini sog‘lomlashtirish va sifatli genofondni saqlashga qaratilgan dasturlarni ishlab chiqish.
- Innovatsion texnologiyalarni qo‘llash: Genetik muhandislik va sun’iy urug‘lantirish texnologiyalarini keng joriy qilish.

3. Zamonaviy texnologiyalarni tadbiq etish

- Qayta ishlash sanoatini rivojlantirish: Qorako‘l terilarini zamonaviy usullar bilan qayta ishlash, mahsulot sifatini oshirish va xalqaro standartlarga moslash.
- Mahsulotlarni diversifikatsiya qilish: Qorako‘l terisidan nafaqat kiyim-kechak, balki boshqa mahsulotlar ishlab chiqarish, qo‘shimcha qiymat zanjirini yaratish.
- Raqamli texnologiyalarni joriy qilish: Yaylov monitoringi va naslchilik jarayonlarini raqamli boshqaruv tizimlari orqali samaradorligini oshirish.

4. Moliyaviy yordam va investitsiyalarni jalb qilish

- Subsidiyalar va grantlar ajratish: Davlat tomonidan qorako‘lchilik bilan shug‘ullanuvchilarga moliyaviy yordam ko‘rsatish dasturlarini ishlab chiqish.
- Xususiy sektorni jalb qilish: Xorijiy va mahalliy investorlar bilan hamkorlikni rivojlantirish, klaster tizimlarini yaratish.

- Sug‘urta tizimini rivojlantirish: Hayvonlar va mahsulotlarni sug‘urtalash tizimini yo‘lga qo‘yish orqali ishlab chiqaruvchilarni turli tavakkallardan himoya qilish.

5. Bozor infratuzilmasini takomillashtirish

- Eksportni kengaytirish: Qorako‘l mahsulotlari uchun yangi xalqaro bozorlarni topish, ularni eksport jarayoniga moslashtirish.
- Marketing va brendlash: Qorako‘l mahsulotlarini global bozorda taniqli brend sifatida targ‘ib qilish uchun marketing kampaniyalarini tashkil qilish.
- Savdo zanjirlarini optimallashtirish: Ishlab chiqaruvchilar va iste’molchilar o‘rtasidagi vositachilarni qisqartirish orqali foyda ulushini oshirish.

6. Kadrlar tayyorlash va ilmiy izlanishlarni qo‘llab-quvvatlash

- Mutaxassislar tayyorlash: Qorako‘lchilik sohasi uchun maxsus o‘quv dasturlari va markazlarini tashkil qilish, kadrlarni xalqaro darajada o‘qitish.
- Ilmiy izlanishlarni kengaytirish: Yaylovlarning ekologik holati, qorako‘l terilarining sifatini oshirish bo‘yicha ilmiy izlanishlarni moliyalashtirish va amaliyotga joriy etish.
- Xalqaro hamkorlikni rivojlantirish: Ilmiy va texnologik tajribalarni o‘rganish uchun xorijiy institutlar bilan hamkorlik qilish.

7. Ekologik muvozanatni saqlash

- Barqaror qishloq xo‘jaligi amaliyotlarini qo‘llash: Qorako‘lchilikni ekologik muvozanatni buzmasdan rivojlantirishga yo‘naltirilgan texnologiyalarni keng joriy etish.
- Iqlim o‘zgarishiga moslashish strategiyasi: Cho‘l hududlarida harorat va qurg‘oqchilik sharoitlariga moslashgan qorako‘l zotlarini ko‘paytirish.

8. Qishloq hududlarining iqtisodiy rivojlanishi

- Ish o‘rinlari yaratish: Qishloq aholisining bandligini oshirish maqsadida qorako‘l mahsulotlarini ishlab chiqarish va qayta ishlash sanoatida yangi ish o‘rinlarini tashkil qilish.
- Kooperatsiyalarni rivojlantirish: Mayda fermer xo‘jaliklarini yagona tizimga birlashtirish orqali ularning raqobatbardoshligini oshirish.

Bu chora-tadbirlar qorako‘lchilikning iqtisodiy, ekologik va ijtimoiy jihatdan barqaror rivojlanishiga hissa qo‘shadi hamda milliy iqtisodiyotdagi ahamiyatini yanada oshiradi.

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TALABALARDA KASBIY REFLEKSIYA SHAKLLANISHINING PSIXOLOGIK XUSUSIYATLARI

Annotatsiya. *Maqola talabalik davrida kasbiy refleksiya shakllanishining psixologik xususiyatlarini o'rganishga bag'ishlangan. Kasbiy refleksiya talabalarning o'z kasbiy faoliyatini anglash, baholash va takomillashtirishga xizmat qiluvchi muhim jarayon sifatida tahlil qilingan. Ta'lim muhiti, shaxsiy xususiyatlar va kasbiy maqsadlarning ushbu jarayondagi o'rni hamda refleksiyani rivojlantirish uchun treninglar, reflektiv jurnal yuritish va guruhiy munozaralar kabi samarali usullar ko'rsatilgan. Maqola kasbiy rivojlanish va talabalarning psixologik tayyorgarligini oshirish uchun nazariy va amaliy asos sifatida ahamiyatlidir.*

Kalit so'zlar: *kasbiy refleksiya, talabalar psixologiyasi, kasbiy faoliyat, ta'lim muhiti, psixologik xususiyatlar.*

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PSYCHOLOGICAL FEATURES OF THE FORMATION OF PROFESSIONAL REFLECTION IN STUDENTS

Abstract. *The article is devoted to the study of the psychological characteristics of the formation of professional reflection during student life. Professional reflection is analyzed as an important process that helps students understand, evaluate and improve their professional activities. The role of the educational environment, personal characteristics and professional goals in this process, as well as effective methods for developing reflection, such as training, reflective journaling and group discussions, are shown. The article is important as a theoretical and practical basis for professional development and increasing the psychological readiness of students.*

Keywords: *professional reflection, student psychology, professional activity, educational environment, psychological characteristics.*

Kasbiy refleksiya – bu shaxsning o'z kasbiy faoliyatini tanqidiy tahlil qilish, baholash va samaradorlikka erishish maqsadida o'z ustida ishlashga qaratilgan jarayon bo'lib, u kasbiy rivojlanishning ajralmas qismi hisoblanadi. Refleksiya jarayonida shaxs o'z faoliyatini anglash va unga baho berish orqali kasbiy ko'nikmalarini rivojlantirish imkoniyatiga ega bo'ladi. Ushbu jarayon talaba shaxsining nafaqat kasbiy, balki shaxsiy rivojlanishi uchun ham katta ahamiyatga ega. Chunki refleksiya o'zini bilish, tushunish va rivojlantirishning asosiy

vositalaridan biridir. Talabalik davri har bir insonning hayotida muhim bosqichlardan biri bo‘lib, ushbu davrda kasbiy rivojlanish uchun qulay shart-sharoitlar yaratiladi. Ayniqsa, bugungi globallashuv davrida mehnat bozori dinamikasi, kasblar talabi va o‘qish jarayonida o‘zgaruvchan muhit talabalarni doimiy o‘zgarishlarga moslashuvchan bo‘lishga undaydi. Shu nuqtai nazardan, talabalarda kasbiy refleksiya shakllanishi ularning kelajakda malakali mutaxassis bo‘lib yetishishi uchun zarur bo‘lgan sifatlarni rivojlantirishga xizmat qiladi.

Kasbiy refleksiya talabalarga quyidagi imkoniyatlarni yaratadi:

O‘z faoliyatini chuqur tahlil qilish: Talabalar o‘z o‘quv va amaliy faoliyatlarida yuzaga keladigan muammolarni aniqlash, ularning sabablarini tushunish va yechimlarini izlash imkoniga ega bo‘ladilar.

Tanqidiy fikrlashni rivojlantirish: Refleksiya orqali talabalar o‘z bilimlari va qobiliyatlariga tanqidiy yondashishni o‘rganadilar. Bu esa ularning yangi sharoitlarga moslashuvchanligini oshiradi.

Yangi bilim va ko‘nikmalarni samarali o‘zlashtirish: Refleksiya talabalarning o‘quv jarayonida o‘zlashtirilgan bilimlarni amaliyotga tatbiq etish jarayonini osonlashtiradi.

Shu bilan birga, kasbiy refleksiya nafaqat talabaning faoliyatini rivojlantirish, balki uning o‘ziga bo‘lgan ishonchi, kasbga bo‘lgan munosabati va mas’uliyat hissini mustahkamlashda ham muhim ahamiyat kasb etadi. Bu jarayon ta’lim jarayonidagi turli usullar, xususan, amaliy mashg‘ulotlar, loyihalar va guruhiy ishlar orqali rivojlantiriladi. Shuni alohida ta’kidlash joizki, kasbiy refleksiya faqat shaxsiy rivojlanishga emas, balki jamiyat uchun malakali kadrlar yetishtirishga xizmat qiladi. Bugungi kunda yuqori raqobatli mehnat bozorida muvaffaqiyatga erishish uchun nafaqat bilim va ko‘nikmalar, balki o‘z-o‘zini anglash va takomillashtirish qobiliyati ham muhim hisoblanadi. Shuning uchun talabalik davrida kasbiy refleksiyaning shakllanishi va rivojlanishi zamonaviy ta’lim jarayonining asosiy yo‘nalishlaridan biri bo‘lishi zarur.

Ushbu maqola talabalarda kasbiy refleksiya shakllanishining psixologik xususiyatlarini tahlil qilish, uning tarkibiy qismlarini aniqlash va rivojlantirish uchun samarali metodlarni yoritishga qaratilgan. Maqolada talabalarning kasbiy rivojlanishida refleksiyaning o‘rni va uning samaradorligini oshirish usullari keng yoritiladi.

Refleksiya inson tafakkuri va o‘z-o‘zini anglash jarayonining ajralmas qismi bo‘lib, uning tarixiy ildizlari antik falsafa davriga borib taqaladi. Aristotel tafakkur va o‘z-o‘zini bilishni insonning oliy qobiliyatlaridan biri deb hisoblagan. Uning nazariyasida refleksiya insonning fikrlash faoliyatini o‘zida aks ettirish, ya’ni “fikr haqida fikr yuritish” sifatida talqin qilingan. Keyinchalik, Descartes refleksiyani “Men fikrlayapman, demak, men mavjudman” degan mashhur falsafiy tamoyil asosida rivojlantirib, uni insonning ongli faoliyatini anglash va tahlil qilish qobiliyati sifatida ko‘rsatgan.

XX asrda refleksiya psixologiya fanida chuqur tadqiqot obyekti sifatida o‘rganila boshladi. J. Devey refleksiyani o‘zaro bog‘langan tajriba va tahlil jarayonlari orqali shaxsiy o‘sishni ta’minlovchi asosiy vosita sifatida ta’rifladi.

Uning fikriga koʻra, refleksiya insonning bilish faoliyati samaradorligini oshirish va uning shaxsiy rivojlanishini taʼminlash vositasidir. Lev Vigotskiy esa refleksiyani shaxsning oʻz-oʻzini tushunishi va ijtimoiy oʻzaro taʼsir orqali rivojlanishi bilan bogʻladi. Kasbiy refleksiya tushunchasi esa asosan XX asr oxirida shakllangan boʻlib, bu oʻzini kasbiy faoliyatda anglash, faoliyat natijalarini tahlil qilish va uni takomillashtirish jarayoni sifatida qaraladi. Kasbiy refleksiya professional rivojlanish va shaxsiy oʻsishning muhim tarkibiy qismi hisoblanadi. Ayniqsa, bu jarayon oʻquv muassasalari va kasbiy taʼlim tizimida muhim ahamiyatga ega.

Kasbiy refleksiya bu koʻp qirrali jarayon boʻlib, unda shaxsning bilim, hissiyot va amaliy tajribasi bir-biriga chambarchas bogʻliq. Ushbu jarayonning asosiy tarkibiy qismlari quyidagilardan iborat:

Kognitiv (bilim darajasini tahlil qilish):

Bu refleksiya jarayonining intellektual jihati boʻlib, shaxsning oʻz bilimlarini, oʻrgangan materiallarini va kasbiy koʻnikmalarini qay darajada oʻzlashtirganligini aniqlashga qaratilgan. Kognitiv refleksiya talabalarga oʻz bilimlarini qaysi darajada tushunganligini anglash, oʻquv jarayonidagi kuchli va zaif tomonlarini aniqlash, kelgusida rivojlantirish zarur boʻlgan koʻnikmalarni aniqlash imkonini beradi. Masalan, talaba oʻzining nazariy bilimlarini amaliyotda qanday qoʻllay olishini tahlil qilsa, bu uning kognitiv refleksiya qobiliyatining namunasidir.

Emotsional (hissiy tahlil) refleksiya jarayonining ushbu tarkibiy qismi faoliyat davomida shaxsda yuzaga keladigan stress, qoniqish yoki xavotir kabi hissiy holatlarni anglash va tahlil qilishni oʻz ichiga oladi. Emotsional refleksiya orqali talabalar faoliyat davomida yuzaga kelgan hissiy toʻsiqlarni aniqlash, hissiy holatlarning kasbiy faoliyatga taʼsirini tahlil qilish ijobiy va salbiy his-tuygʻularni boshqarishni oʻrganadilar. Masalan, talabalar amaliyot davomida oʻzlarini ishonchsiz his qilishlari mumkin, ammo bu hissiy toʻsiqlarni tahlil qilish orqali ular oʻzlarini rivojlantirish yoʻllarini aniqlay oladilar.

Amaliy (faoliyatni takomillashtirish) refleksiyaning eng muhim tarkibiy qismlaridan biri boʻlib, shaxsning oʻz kasbiy vazifalarini bajarishdagi tajribasini tahlil qilish va undan xulosa chiqarishga qaratilgan. Amaliy refleksiya talabalarga oʻz faoliyatidagi kamchiliklarni aniqlash va ularni bartaraf etish, samarali usullarni aniqlab, ularni takomillashtirish, innovatsion yondashuvlarni qoʻllash imkonini beradi. Masalan, talaba kasbiy amaliyot davomida qilgan xatolarini tahlil qilsa va kelajakda ularni takrorlamaslik uchun reja tuzsa, bu amaliy refleksiya hisoblanadi.

Kasbiy refleksiya bu nafaqat bilimlarni anglash va rivojlantirish jarayoni, balki shaxsning kasbiy oʻsishini taʼminlovchi muhim vositadir. Kognitiv, emosional va amaliy tarkibiy qismlar refleksiyani koʻp qirrali va kompleks jarayon sifatida taqdim etadi. Talabalarda ushbu jarayonni shakllantirish nafaqat ularning taʼlim jarayonidagi samaradorligini oshiradi, balki kelajakda kasbiy faoliyatda muvaffaqiyatga erishishlariga ham xizmat qiladi.

Kasbiy refleksiya talabaning oʻz kasbiy faoliyatini anglash, baholash va takomillashtirish jarayoni boʻlib, u shaxsning individual xususiyatlari, taʼlim muhiti va kasbiy maqsadlar kabi omillar bilan uzviy bogʻliqdir. Ushbu omillar refleksiya jarayonining sifatli shakllanishi va rivojlanishiga taʼsir koʻrsatadi.

1. Shaxsning individual xususiyatlari. Har bir insonning kasbiy refleksiyani shakllantirish qobiliyati uning individual psixologik xususiyatlariga bog‘liq. Quyidagi jihatlar ayniqsa muhimdir:

O‘z-o‘zini tahlil qilish qobiliyati. Talabaning o‘z faoliyatini tanqidiy tahlil qila olish qobiliyati refleksiya jarayonining asosiy tarkibiy qismidir. Ushbu qobiliyatni rivojlantirish uchun talabalar o‘z kuchli va zaif tomonlarini anglash, faoliyatdagi xatolarni aniqlash va ulardan saboq olishni o‘rganishlari kerak. O‘zini tahlil qilish qobiliyatiga ega bo‘lgan talabalar o‘zlariga real baho bera oladilar va kelgusida qanday jihatlarini rivojlantirish zarurligini tushunadilar.

Motivatsiya darajasi. Motivatsiya bu shaxsning maqsadga erishish yo‘lidagi ichki energiyasi bo‘lib, kasbiy refleksiya jarayonida muhim rol o‘ynaydi. Yuksak motivatsiyaga ega bo‘lgan talabalar o‘z faoliyatlariga tanqidiy yondashib, bilim va ko‘nikmalarini takomillashtirishga intiladilar. Aksincha, past motivatsiya refleksiya jarayonini sustlashtiradi va shaxsning kasbiy rivojlanishiga to‘siq bo‘ladi. Motivatsiyani oshirish uchun maqsadga erishish yo‘lidagi kichik g‘alabalar va ijobiy fikrlarni qo‘llab-quvvatlash muhimdir.

O‘ziga bo‘lgan ishonch. Shaxsning o‘ziga bo‘lgan ishonchi, ya’ni o‘z imkoniyatlariga va qobiliyatlariga ishonishi, refleksiya jarayonini samarali amalga oshirish uchun zarur shartlardan biridir. O‘ziga ishonchi baland talabalar o‘z tajribasini ochiq-oydin tahlil qilib, faoliyatdagi xatolaridan saboq olishga moyil bo‘ladilar. Bu jihat, ayniqsa, talabalar amaliyot davomida qiyin vazifalarni hal qilishda o‘zini namoyon qiladi.

2. Ta’lim muhitining roli. Ta’lim muhiti kasbiy refleksiya shakllanishida hal qiluvchi omillardan biri hisoblanadi. Refleksiya jarayoni ko‘p jihatdan ta’lim tizimining o‘quv-uslubiy yondashuvlariga, talabalar va o‘qituvchilar o‘rtasidagi munosabatlarga bog‘liq:

Ta’lim tizimidagi metodikalar. Ta’lim jarayonida innovatsion usullar, masalan, muammoli ta’lim, loyiha uslubi va amaliy mashg‘ulotlar, talabalarni faol fikrlashga va o‘z faoliyatlarini tahlil qilishga undaydi. O‘qituvchilarning tanqidiy fikrlashni rivojlantirishga yo‘naltirilgan darslari kasbiy refleksiya uchun qulay muhit yaratadi.

Amaliy mashg‘ulotlar. Nazariy bilimlarni amaliyotda qo‘llash talabalarni o‘z faoliyatlariga yanada sinchkovlik bilan qarashga undaydi. Amaliy mashg‘ulotlar davomida talabalar o‘z bilimlarini real vaziyatlarda sinab ko‘rishlari, yuzaga kelgan qiyinchiliklarni tahlil qilishlari va yechim topishlari lozim bo‘ladi.

O‘qituvchi va talabalar o‘rtasidagi muloqot. O‘qituvchi va talabalar o‘rtasidagi ochiq va konstruktiv muloqot kasbiy refleksiyaning shakllanishiga ijobiy ta’sir qiladi. O‘qituvchilar tomonidan berilgan fikr-mulohazalar, qo‘llab-quvvatlash va konstruktiv tanqid talabalarning o‘z ustida ishlashlariga yordam beradi. Shuningdek, o‘quv guruhidagi talabalar bir-biridan o‘rganib, reflektiv yondashuvni rivojlantiradilar.

3. Kasbiy maqsadlarning mavjudligi. Kasbiy refleksiyaning samaradorligi ko‘p jihatdan talabaning aniq maqsadlarga ega ekanligiga bog‘liq.

Aniq kasbiy maqsadlar. Agar talabaning kelajak kasbiy faoliyati uchun aniqlangan maqsadlari bo‘lsa, u o‘z faoliyatiga chuqurroq e’tibor beradi va refleksiyani samarali amalga oshiradi. Masalan, kelajakda yaxshi pedagog bo‘lishni maqsad qilgan talaba dars berish usullarini o‘zlashtirish va ularga tanqidiy baho berishga ko‘proq e’tibor qaratadi.

Motivatsiyalovchi maqsadlarning aniqligi. Maqsadlarning aniq va o‘lchanadigan bo‘lishi refleksiya jarayonining natijadorligini oshiradi. Talaba maqsadlariga erishish jarayonida o‘z faoliyatini baholab, qayta rejalashtirishga tayyor bo‘ladi. Bu jarayon nafaqat rivojlanish imkoniyatlarini aniqlashga yordam beradi, balki talabaning kelajakka nisbatan ishonchini mustahkamlaydi.

Maqsadlar bilan bog‘liq ichki va tashqi motivatsiya. Kasbiy maqsadlar talabaning ichki motivatsiyasini oshiradi, bu esa refleksiya jarayonini yanada samarali qiladi. Tashqi omillar, masalan, mukofot yoki tan olinish, talabaning refleksiya jarayonida faolligini oshirishi mumkin. Talabalarda kasbiy refleksiya shakllanishiga ta’sir qiluvchi omillar shaxsning individual xususiyatlari, ta’lim muhiti va kasbiy maqsadlarning mavjudligi bilan chambarchas bog‘liq. Ushbu omillarni hisobga olgan holda, ta’lim tizimi refleksiyani rivojlantirish uchun qulay sharoit yaratishi kerak. Shaxsiy xususiyatlar, ta’lim jarayonidagi samarali metodikalar va aniq kasbiy maqsadlar uyg‘unligi refleksiya jarayonining samaradorligini oshiradi va talabaning kelajak kasbiy rivojlanishiga xizmat qiladi.

Kasbiy refleksiya talabalarni o‘z kasbiy yo‘nalishlarida muvaffaqiyatli bo‘lishlariga zamin yaratadi. Refleksiya jarayonini izchil shakllantirish uchun bosqichma-bosqich yondashuv va samarali metodlardan foydalanish zarur. O‘quv-reflektiv, tajriba-reflektiv va innovatsion-reflektiv bosqichlar talabaning kasbiy rivojlanishida muhim rol o‘ynaydi. Treninglar, reflektiv jurnal va guruhiy munozaralar esa talabaning bu jarayonni muvaffaqiyatli amalga oshirishiga yordam beradi.

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PSIXOLOG TALABALARDA KASBIY REFLEKSIYANI RIVOJLANTIRISH: ZAMONAVIY YONDASHUVLAR VA DETERMINANTLARNING AHAMIYATI

Annotatsiya. *Ushbu maqola psixolog talabalarda kasbiy refleksiyani rivojlantirishning zamonaviy yondashuvlari va determinantlarini o'rganishga bag'ishlangan. Maqolada zamonaviy ta'lim metodlari, psixologik yondashuvlar va shaxsiy rivojlanish strategiyalari ko'rib chiqiladi. Shuningdek, kasbiy refleksiyaning asosiy determinantlari, jumladan, shaxsiy motivatsiya, o'qituvchi va mentorlarning roli, shuningdek, ijtimoiy va madaniy omillar tahlil qilinadi. Maqola psixolog talabalarning kasbiy tayyorgarligini oshirish va ularning kelajakdagi professional faoliyatlariga tayyorgarlik ko'rishlariga yordam berishga qaratilgan.*

Kalit so'zlar: *Kasbiy refleksiya, zamonaviy yondashuvlar, eterminantlar, rofessional rivojlanish, ta'lim metodlari, motivatsiya, mentorlik, ijtimoiy omillar.*

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DEVELOPMENT OF PROFESSIONAL REFLECTION IN PSYCHOLOGY STUDENTS: THE IMPORTANCE OF MODERN APPROACHES AND DETERMINANTS

Abstract. *This article is devoted to the study of modern approaches and determinants of the development of professional reflection in psychology students. The article considers modern educational methods, psychological approaches and personal development strategies. It also analyzes the main determinants of professional reflection, including personal motivation, the role of teachers and mentors, as well as social and cultural factors. The article is aimed at improving the professional readiness of psychology students and helping them prepare for their future professional activities.*

Keywords: *Professional reflection, modern approaches, determinants, professional development, educational methods, motivation, mentoring, social factors.*

Psixologik fanlarning rivojlanishi zamonaviy jamiyatda insonning ruhiy dunyosini chuqur o'rganishga qaratilgan muhim yondashuvlarni taqdim etmoqda. Xususan, psixolog mutaxassislar faoliyatida kasbiy refleksiya jarayonini rivojlantirish dolzarb masalalardan biri hisoblanadi. Kasbiy refleksiya, psixologning o'z faoliyatini baholashi, tahlil qilishi va takomillashtirish uchun amalga oshiriladigan ichki mulohazalar jarayonidir. Bu kompetensiya, nafaqat

kasbiy sifatlarning shakllanishi uchun, balki zamonaviy psixologning samarali faoliyat ko'rsatishi uchun ham zarurdir.

Bugungi kunda kasbiy refleksiyaning rivojlanishiga ta'sir etuvchi determinantlarni aniqlash va ular asosida samarali ta'lim texnologiyalarini ishlab chiqish masalasi ilmiy-amaliy ahamiyat kasb etadi. Shu bilan birga, zamonaviy yondashuvlarni qo'llash orqali talabalarni mustaqil fikrlash, ijodkorlik va mas'uliyatni his qilish kabi fazilatlarni rivojlantirish mumkin. Mazkur maqola psixolog talabalarida kasbiy refleksiyani rivojlantirishga xizmat qiluvchi yondashuvlar va determinantlarning ahamiyatini tahlil qilishga qaratilgan bo'lib, ushbu jarayonga oid innovatsion texnologiyalar va usullarning samaradorligini o'rganishni maqsad qiladi.

Refleksiya nima? Refleksiya qadimdan falsafa va psixologiya fanlarining asosiy tushunchalaridan biri sifatida tadqiq etilgan. Lotincha "reflexio" so‘zi “tushunish uchun qayta qarash” degan ma'noni anglatadi. Psixologik nuqtai nazardan refleksiya – bu shaxsning o‘zi va o‘z faoliyati haqida o‘ylash, ma'lumotlarni qayta ishlash va o‘z xatti-harakatlarini anglash jarayonidir.

Refleksiya orqali inson:

1. O‘z-o‘zini baholaydi – muvaffaqiyatlari va kamchiliklarini aniqlaydi.
2. Yangi bilimlarni qabul qilishga va mavjud ko‘nikmalarni takomillashtirishga qaratilgan qarorlar qabul qiladi.
3. Xatolarni aniqlab, ularni takrorlamaslik yo‘llarini ishlab chiqadi.

Refleksiya, shuningdek, ijodiy va tanqidiy fikrlash ko‘nikmalarini rivojlantiradi. Bu qobiliyat insonning shaxsiy va professional hayotida muvaffaqiyatli bo‘lishiga yordam beradi, chunki u insonni doimiy ravishda o‘zini yaxshilashga undaydi.

Professional rivojlanish – bu doimiy jarayon bo‘lib, u yangi bilim va ko‘nikmalarni o‘zlashtirish, mehnat samaradorligini oshirish va faoliyatni takomillashtirishni o‘z ichiga oladi. Refleksiya bu jarayonda quyidagi sabablar tufayli markaziy rol o‘ynaydi:

1. *O'z faoliyatini samarali tahlil qilish:* refleksiya mutaxassisga o‘z faoliyatining natijalarini ob'yektiv baholash va xatolarni aniqlash imkonini beradi. Bu jarayon ish sifati va samaradorligini oshirishga xizmat qiladi.
2. *Innovatsiyalarni qabul qilishga tayyorlik:* refleksiya mutaxassisning yangi texnologiyalar va usullarni o‘zlashtirishga qanchalik tayyor ekanligini aniqlashga yordam beradi. Bu ayniqsa zamonaviy, o‘zgaruvchan mehnat bozorida muhimdir.
3. *Professional o'sishni ta'minlash:* refleksiya orqali mutaxassis o‘z kuchli va zaif tomonlarini aniqlaydi, maqsadlarini belgilaydi va o‘sishga qaratilgan strategiyalarni ishlab chiqadi.
4. *Qaror qabul qilish ko'nikmalarini takomillashtirish:* refleksiya qarorlar qabul qilish jarayonida tanqidiy va tizimli yondashuvni rivojlantirishga yordam beradi. Bu esa kasbiy muvaffaqiyatga erishishning asosiy omillaridan biridir.

Psixologiya sohasida refleksiya ayniqsa dolzarbdir, chunki psixologning asosiy vazifasi – bu boshqalarga yordam berish va ularning ichki dunyosini

tushunishdir. Shu bois, o‘z-o‘zini anglash va o‘z faoliyatini tahlil qilish ko‘nikmalari professional samaradorlikning ajralmas qismi hisoblanadi. Psixologiya – bu inson ruhiy holatlarini chuqur tushunishni talab qiluvchi soha. Ushbu sohaga oid faoliyatning murakkabligi sababli, psixolog talabalar uchun refleksiya ko‘nikmalarini rivojlantirish alohida ahamiyat kasb etadi. Psixologlar insonning ichki kechinmalari, hissiy holatlari va muammolari bilan ishlaydi. Ularning vazifasi – odamlarning psixologik sog‘lig‘ini yaxshilash, shaxsiy o‘sishiga ko‘maklashish va turli xil psixologik muammolarni hal qilishdir. Shu sababli, bu sohada ishlovchi mutaxassis nafaqat boshqalarning, balki o‘zining ham ruhiy holatini chuqur anglab yetishi kerak.

Psixologiya sohasida quyidagi murakkab jihatlar mavjud:

1. *Inson ruhiyatining xilma-xilligi:* har bir insonning o‘ziga xosligi psixologlar uchun murakkab tahlil va yondashuvlarni talab qiladi.
2. *Etik mas'uliyat:* psixologlar ish jarayonida maxfiylik, halollik va odob me'yorlariga rioya qilishlari shart.
3. *Tuyg'ularni boshqarish zaruriyati:* psixologlar o‘z his-tuyg‘ularini nazorat qilishni o‘rganishi, professional masofani saqlashi kerak.

Psixolog talabalarga kasbiy refleksiyani o‘rgatish – ularning kelajakdagi professional rivojlanishi uchun muhim ahamiyatga ega. Refleksiya ularga:

1. *O'z imkoniyatlarini anglashga yordam beradi:* talabalar o‘z bilimlari va ko‘nikmalarini tahlil qilib, kelajakda rivojlantirish zarur bo‘lgan sohalarni aniqlaydi.
2. *Shaxsiy chegaralarni belgilashni o'rgatadi:* refleksiya yordamida talaba o‘z imkoniyatlarini, kuchli va zaif tomonlarini aniq baholaydi va professional chegaralarni belgilashni o‘rganadi.
3. *Professional etika me'yorlarini tushunadi:* refleksiya orqali talabalar kasbiy etikaning ahamiyatini chuqurroq anglab yetadi va uni o‘z faoliyatida qo‘llashga tayyor bo‘ladi.
4. *Stress va charchoqni boshqarish ko'nikmalarini rivojlantiradi:* refleksiya jarayoni stress va charchoqni kamaytirishga yordam beradi, bu esa psixologlar uchun muhimdir.

Pedagogik qo'llab-quvvatlash talabalarning psixologik va intellektual rivojlanishiga yordam beradi. Bu qo'llab-quvvatlash o'qituvchilarning talabalarga ta'lim jarayonida to'g'ri yo'nalishlar berish, ularga motivatsiya yaratish, ishonchni oshirish, va individual ehtiyojlarga asoslangan yondashuvlarni o'z ichiga oladi. Bu talabalar o'zlari uchun aniq maqsadlar belgilab olishlariga va bu maqsadlarga erishishda o'zlariga ishonch hosil qilishlariga imkon yaratadi. Ijtimoiy muhit talabaning psixologik holatiga katta ta'sir ko'rsatadi. O'zaro aloqalar, guruh muhitidagi faoliyat, va ijtimoiy ta'sirlar talaba psixikasining shakllanishida muhim omillar hisoblanadi. Shaxsiy omillar esa har bir talabaga xos individual xususiyatlar, qobiliyatlar va qiziqishlarga asoslanadi. Bu omillar talabaning o'z-o'zini anglashini, o'z qobiliyatlariga ishonch hosil qilishini va o'qishdagi muvaffaqiyatlarini ta'minlaydi.

Innovatsion usullar o'qitish jarayonida talabalarning ijodiy fikrlashini, mustaqil o'rganishni va yangi bilimlarni o'zlashtirishni rag'batlantiradi. Masalan, interaktiv usullar, o'quv texnologiyalarini qo'llash, va kreativ mashg'ulotlar talabalar uchun qiziqarli va samarali bo'lishi mumkin. Zamonaviy o'qitish metodlari talabalar uchun o'qish jarayonini yanada ko'proq qiziqarli va samarali qiladi.

Xulosa o’rnida shuni takidlash lozimki, psixolog talabalarida kasbiy refleksiyani rivojlantirish zamonaviy psixologiya ta'limining ajralmas qismidir. Tadqiqot natijalari shuni ko'rsatadiki, bu jarayon faqatgina individual faoliyatni yaxshilash uchun emas, balki jamiyatdagi psixologik xizmatlar sifatini oshirish uchun ham muhim ahamiyatga ega. Zamonaviy yondashuvlar va determinantlarni to'g'ri qo'llash orqali talabalarni nafaqat nazariy, balki amaliy jihatdan ham puxta tayyorlashga erishish mumkin. Kasbiy refleksiyaning rivojlanishi, bir tomondan, talabalar o'rtasida professional mas'uliyatni oshirishga, boshqa tomondan, ularning ijtimoiy moslashuvchanligi va ijodkorligini yuksaltirishga yordam beradi. Kelajakda mazkur yo'nalishda olib boriladigan ilmiy tadqiqotlar psixologiya ta'limining yanada rivojlanishi va amaliyot bilan uyg'unlashuvini ta'minlash uchun zarur ilmiy asoslarni yaratadi.

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KANALLARIDAGI QIRG'OQNING DEFORMATSIYASI

Annotatsiya. *Ushbu maqolada grunt o'zanli irrigatsiya kanallaridagi yon devor deformatsiyasi jarayonini gidravlik hisoblashda mavjud usullar va yondoshuvlar tahlil qilingan. Shuningdek bog'langan grunt o'zanli Amu-Buxoro va Qarshi magistral kanallari misolida qirg'oq deformatsiyalanishi holatlari hamda ko'ndalang kesim bo'yicha tezlik taqsimotlari dala-tajriba ma'lumotlari taqdim qilingan.*

Kalit so'zlar: *ochiq o'zanli kanallar, qirg'oq deformatsiyasi, urinma zo'riqish, oqim tezligi taqsimoti, ruxsat etilgan tezliklar.*

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SHORE DEFORMATION IN CHANNELS

Abstract. *The article analyzes existing methods and approaches to hydraulic calculation of the process of deformation of lateral slopes of irrigation canals with a soil channel. Also, using the example of the Amu-Bukhara and Karshi main canals with a connected soil channel, cases of bank deformation and transverse velocity distribution are presented.*

Keywords: *open channels, bank deformation, shear stress, flow velocity distribution, permissible velocities.*

Kirish. Qoplamali va qoplamasiz mustahkam ochiq o'zanli kanallarni loyihalashning asosiy vazifasi bu hisobiy suv sarfida kuzatiladigan o'zan va oqim

chegarasidagi maksimal urinma zo‘riqishning kanal o‘zani materiali uchun ruxsat etilgan kritik urinma zo‘riqishdan oshib ketmasligini ta’minlash hamda shunga qarab o‘zan qoplamasi turini tanlashdan iborat [1].

Ayni paytda mamlakatimizda 196.0 ming kilometrdan ortiq irrigatsiya kanallari mavjud bo‘lib, Mirishkor va Qarshi bosh kanali kabi grunt o‘zanli kanallar o‘zanlarida loyqa bosishi jarayoni kuzatilayotgan bo‘lsa, Amu-Buxoro mashina kanalining (ABMK) ba’zi uchastkalarida intensiv qirg‘oq yuvilishi jarayoni kuzatilmoqda, 1-rasm.

1-Rasm. Amu-Buxoro mashina kanalining PK 1201 da o‘ng qirg‘oq yuvilishi holati

Dunyo bo‘yicha mustahkam o‘zanli kanallarni hisoblash uchun mavjud usullar shartli ikki guruhga bo‘lishimiz mumkin. Birinchi guruhdagi usullar rejim nazariyasiga asoslangan dinamik mustahkam kanallarni empirik formulalar bilan hisoblashga, ikkinchi guruhdagi usullarda kanalning statik mustahkamligini aniqlash uchun urinma zo‘riqish, ruxsat etilgan tezliklar, minimal energiya dissipatsiyasi tushunchalariga asoslanadi.

Respublikamizda shaharsozlik normalari va qoidalari bo‘yicha (SHNQ 2.06.03-12) ruxsat etilgan tezliklar usuli foydalanilib kelinayotgan bo‘lib, ushbu usulga ko‘ra kanallarni loyihalashda kanaldagi o‘rtacha tezlik quyidagicha bo‘lishi kerak:

$$\vartheta_l < \vartheta < \vartheta_{yu} \qquad (1).$$

ShnQ bo‘yicha ochiq o‘zanli kanallar turli o‘zan materiallari uchun ruxsat etilgan maksimal tezliklar qiymatlari S.Ye.Mirsxulava metodikasi va tajribalariga asoslangan bo‘lib, unda bog‘langan grunt materiallari uchun qiymatlar keltiriladi, [2, 10, 11].

Alluvial oqim oqadigan o‘zan materialini tashkil etuvchi grunt zarralariga ta’sir qiluvchi urinma zo‘riqish τ_0 ma’lum bir kritik miqdor τ_{cr} dan kichik bo‘lsa

oqim ushbu zarralarni harakatga keltira olmaydi. Yuvilish jarayoni sodir bo‘lishi uchun nisbiy ko‘taruvchi kuch η_* birdan katta bo‘lishi zarur bo‘ladi [3, 12].

1.

bunda τ_{cr} - kritik urinma zo‘riqish, N/m^2

Kanal yon devorida joylashgan bog‘langan va bog‘lanmagan gruntlar xossalari o‘rtasidagi katta farq tufayli ularning flyuvial yuvilish natijasidagi massiv o‘pirilishi hodisalari har xil yuz beradi.

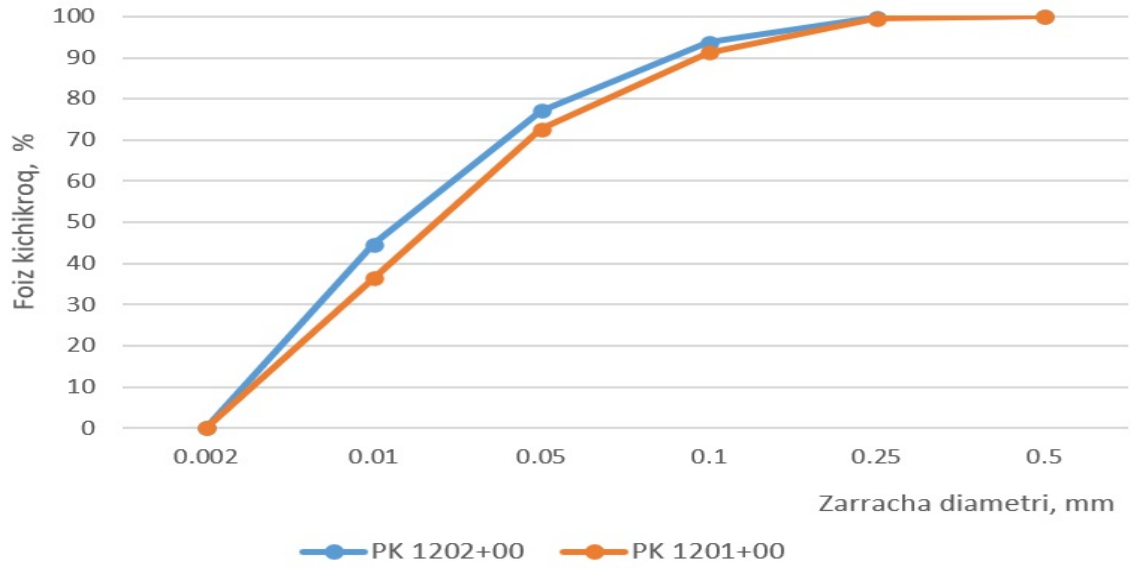
Oqim ta’siridagi eroziya yon devor yuzidagi grunt zarralarini ko‘chirishi tufayli qirg‘oqdagi massiv o‘pirilishning asosiy sabablaridan biri hisoblanadi. Shuning uchun grunt o‘zanli kanallar yon devorlarining oqim ta’sirida yuvilishini oldini olish maqsadida gidravlik hisoblar bajariladi. Tadqiqotimiz obekti Amu-Buxoro mashina kanali yon devorlari asosan bog‘langan gruntlardan tashkil topgan, 1-jadval.

Amu-Buxoro mashina kanali o‘zani grunt zarrachalarining fraksion tarkibi

1-jadval

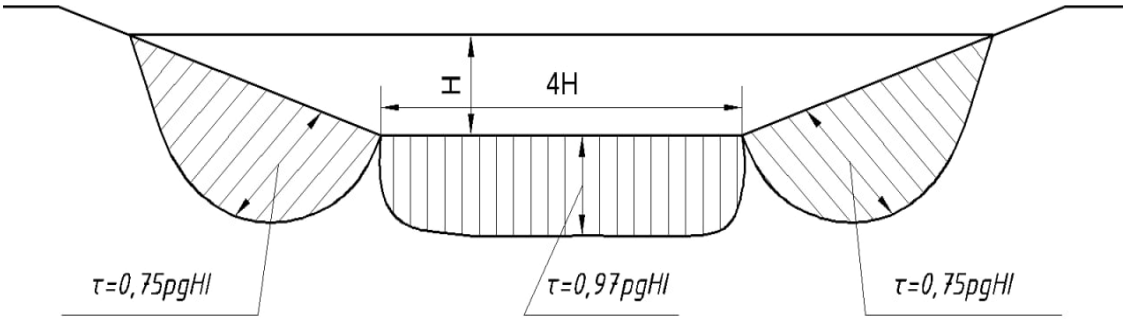
Olingan joyi	Hamma fraksiyalar tarkibi (mm), % da						Jami fraksiya miqdori	D_{10}	D_{30}	D_{50}	D_{60}	Turli jinslilik koeffisenti $Cu=\frac{D_{60}}{D_{10}}$
	0,5>-0,25	0,25-0,10	0,10-0,05	0,05-0,01	0,01-0,002	<0,002						
PK 1202+00	0,3	6,0	16,6	32,5	39,4	5,2	100,0 %	0,00297	0,00704	0,0166	0,0290	9,73
PK 1201+00	0,6	8,2	18,6	36,2	34,1	2,3	100,0 %	0.00381	0,00850	0,02503	0,03608	9,48

Grunt o’zanli kanallar ko’ndalang kesimi deformatsiyasini tadqiq qilishda oqim va o’zan chegarasidagi urinma zo’riqish τ_0 ning ko‘ndalang kesim bo‘yicha taqsimotini aniqlash boyicha Olsen, Florey, Leyn va boshqa bir qator olimlar tomonidan tadqiqotlar olib borilganiga qaramasdan ushbu tadqiqot natijalari unchalik ham ishonarli emasligicha qolmoqda.



2 -rasm. ABMK o‘zan grunti zarrachalarining kumulyativ fraksion tarkib grafigi

Olsen va Floreylar tomonidan membrana analogiyasi usuli boyicha urinma zo’riqishning trapetseidal kanal ko’ndalang kesimi boyicha tipik taqsimoti namunasi quyidagi 3-rasmda keltiriladi [6].



3-rasm. Trapetseidal kanal ko‘ndalang kesimi bo‘yicha urinma zo’riqishning tipik taqsimoti

Ko'pgina tadqiqotchilar (Engelund, Lundgren va Jonson, Knayt, Shiono, Abril va boshqalar) turli shakldagi kanallarning ho'llangan perimetrlari atrofida vaqt bo'yicha o'rtachalashtirilgan chegaraviy urinma zo‘riqishning ho‘llangan perimetr bo'ylab taqsimlanishini bashorat qilishga yoki o'lchashga harakat qilishdi. Ushbu tadqiqotlar asosan laboratoriya sharoitida qulaylik uchun to‘g‘ri burchakli, trapesoidal yoki yoysimon ko‘ndalang kesimlardan foydalangan holda o'tkazilgan.

XULOSA

Shuni ta’kidlash kerakki, ochiq o‘zanli ko‘ndalang kesimidagi yuvilish hisobiga o‘zan deformatsiyalarini ro‘y bermasligini ta’minlash uchun hisoblashlarda faqatgina o‘zandagi o‘rtacha oqim tezligini asosiy mezon sifatida qabul qilib olinishi yetarli emasligini Amu-Buxoro mashina kanalidagi mavjud holat ko‘rsatib turibdi. Chunki, kanal o‘zanining ayniqsa yon devorlar yuvilishiga

kanal ko‘ndalang kesimi bo‘yicha oqim tezliklarining, oqim va o‘zan materiali chegarasidagi urinma zo‘riqish va dinamik tezlikning taqsimoti hamda yon devorlar qiyaligi, ko‘ndalang kesim shakli (o‘zan kengligining chuqurlikka nisbati) kabilar ham muhim rol o‘ynaydi.

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PARRANDACHILIKDA SELEKSIYA VA NALSCHILIK ISHLARINI AHAMIYATI

Annotatsiya: *Ushbu maqolada Tuxum va parranda go‘shti ishlab chiqarishning o‘sishi ko‘p jihatdan yuqori mahsuldor liniyalar va krosslarni yaratish va ularni doimiy ravishda yaxshilash, shuningdek, to‘liq va muvozanatli oziqlantirish va yangi resursni joriy etishga qaratilgan seleksiya tejamkor va samarali texnologiyalar haqida so‘z yuritilgan.*

Kalit zo‘zlar: *naslchilik ishi, seleksiya, menejment, marketing, fiziologiya, parranda go‘shti, tuxum, reproduksiya, inkubatsiya.*

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IMPORTANCE OF SELECTION AND BREEDING IN POULTRY FARMING

Abstract: *In this article, the growth of egg and poultry production is largely focused on the creation of high-yielding lines and crosses and their continuous improvement, as well as on the introduction of complete and balanced nutrition and new resource selection, economical and efficient technologies. held.*

Key words*: breeding, selection, management, marketing, physiology, poultry, eggs, reproduction, incubation.*

Kirish. Naslchilik ishlari - bu yosh parrandalarni baholash, tanlash, saralash, juftlash, maqsadga muvofiq yo‘naltirilgan holda boqish va ko‘paytirish usullari, parrandalarni ratsional boqish va saqlash, naslchilik va xo‘jalik hisobi, parrandalarni veterinariya-profilaktika ishlarini, shuningdek, tashkiliy-zootexnik, menejment, marketing, naslchilik ishlab chiqarishni sertifikatlash va h.k.tadbirlarning yagona tizimidir.

Adabiyotlar tahlili. Seleksiyaning fan sifatida paydo bo‘lgan vaqti 1859- yil 24 -noyabr, evolyusiya haqidagi ta’limotni Charlz Darvin tomonidan yaratilgan vaqt hisoblanadi.

Odamlar chorvachilikda naslchilik ishi bilan uning biologik mohiyati haqida aniq g‘oya va tushunchalar paydo bo‘lishidan ancha oldin shug‘ullana boshlaganlar,. Insonning uy hayvonlariga ongli va tizimli ta’siri qadimgi davrlarda - miloddan avvalgi 2 ming yillikda boshlanganligi haqida ma’lumotlar mavjud.

Muhokama. Organizmlarning belgilari va o‘zgaruvchanligini meros qilib olish qonuniyatlarini o‘rganish chatishish paytida parrandalarni maqsadli tanlash va tanlashga yordam beradi va seleksiya samaradorligini ta’minlaydi.

Parrandalarni yetishtirishda asosiy vazifa galaga xos mahsuldorlik darajasini saqlab qolish yoki uni sezilarli darajada oshirishdir. Shu bilan birga, seleksioner mavjud bo‘lgan avlodlarni o‘z vaqtida va ob’ektiv baholashi, galani ko‘paytirish uchun eng yaxshi parrandani (eng yaxshi genotiplarni) tanlashi va eng yomonini (istalmagan genotiplarni) brak etishi kerak.

Bunday avlodlarni, bunday genotiplarni ajratib olish parrandachilik seleksiyasi da eng muhim usullardan biridir. Agar belgi bir yoki bir nechta gen bilan bog‘liq bo‘lsa (toj shakli, pat- parlar rangi, mittilik), unda kerakli avlodlarni tanlash juda soddalashadi. Agar belgi juda ko‘p sonli genlarga bog‘liq bo‘lsa (tana vazni, tuxum vazni, tuxum ishlab chiqarish, mahsuldorlik, inkubatsiya qobiliyati va boshqalar), unda tanlash juda qiyin. Naslchilikning muvaffaqiyati nafaqat parranda go‘shtini baholash va tanlash usullariga, balki yaxshilangan mahsuldorlik va naslchilik fazilatlariga ega bo‘lgan yangi genotiplarni yaratishga imkon beradigan naslchilik usullariga, parrandalarning fiziologik ehtiyojlarini hisobga olgan holda parrandalarni maqsadli boqishga bog‘liq.

Sog‘lom parrandaning belgilari: Toj- to‘q qizil, ko‘z- toza va yorqin, tumshuq-to‘g‘ri, qiyshaymagan ,burun-quruq, shilimshiqsiz, pat, parlar- toza, yaltiroq, kana va bitlar yo‘q, oyoq tangachalari- kanalarsiz, barmoqlar- to‘g‘ri qo‘yilgan,qiyshaymagan, kloaka- toza, parazitlarsiz, atrofi fekal bilan ifloslanmagan.

Natija. Tuxum va parranda go‘shti ishlab chiqarishning o‘sishi ko‘p jihatdan yuqori mahsuldor liniyalar va krosslarni yaratish va ularni doimiy ravishda yaxshilash, shuningdek, to‘liq va muvozanatli oziqlantirish (30%) va yangi resursni joriy etishga qaratilgan seleksiya (40%) tejamkor va samarali texnologiyalar (30%). bilan belgilanadi.

Bunday holda, ayniqsa, otalik va onalik liniyalarini birlashtiruvchi maxsus loyihalash muhim ahamiyatga ega, ularning chatishtirilishi yakuniy gibrid - broyler, tuxum tug‘ayotgan makiyonlar va boshqalarda geterozisning ta’sirini aniqlaydi.

Tuxum tug‘uvchi makiyon tovuqlarni tanlash tendensiyalari jinsiy yetuklik yoshining pasayishi va shunga mos ravishda tuxum qo‘yishning 50%, 18 haftalik tovuqlarning tirik vazni, tuxum ishlab chiqarish davomiyligining 112-haftagacha oshishi, tuxum ishlab chiqarish intensivligi), tuxum og‘irligi va ozuqa konversiyasi hisoblanadi.

Naslchilik parrandachilik zavodi tuxum yo‘nalishi tovuqlarining seleksion galasi tarkibiga seleksion o‘zak-yadro va seleksion uyaga bir liniyadan 60-100 ta yosh makiyonlar, liniyadagi va gibrid parrandalardan sinaladiganlari, yakuniy liniyalarni ko‘paytiruvchilari, ota-ona va katta ota-onalar shakllari kiradi.

Seleksion gala tovuqlari aloxida qafaslarda saqlanadi, ularning asosiy urchitish usuli sifatida –sun’iy urug‘lantirish qo‘llaniladi.

Tuxum yo‘nalishidagi tovuqlarning asosiy ajratib olinadigan seleksiya belgilari quyidagilardir:

Makiyon hayotining 40-, 45-, va 68- (72) haftaligidagi tuxum mahsuldorligi, tuxum tug‘ishning jadalligi, jinsiy balog‘atga yetish (tuxum tug‘ish vaqtining boshlanishi) va tuxum tug‘ishning eng cho‘qqiga chiqishi va bu cho‘qqiga chiqishning turishi davomiyligi;

6-7 kun mobaynida tug‘ilgan barcha tuxumlarning og‘irlik vazni ko‘rsatkichi 30 (35) haftaligida xar bir tovuq uchun aloxida, individual tarzda va 52 haftaligida guruh bo‘yicha;

Tovuq va xo‘rozlarning tirik vazni aloxida xolda 16 haftaligida , 40 (42) haftaligida esa guruh bo‘yicha;

52 haftaligida tovuqlarning tirik vazni, 10 ta tuxum yetishtirish uchun sarf bo‘lgan ozuqa, olingan tuxumlardan ochirilgan jo‘jalar ko‘rsatkichlari;

Jo‘jalarning 17 (16) haftaligida saqlanib qolish ko‘rsatkichlari, katta bo‘lgan makiyonlarning tuxum tug‘ish davrining oxirigacha saqlanish ko‘rsatkichlari, tuxum ko‘rsatkichlari;

Naslchilik parranda I va II reproduktorlarida makiyonlar xar yili kamida 4 marta almashtiriladi, 1 bosh yosh makiyon olish va ularni katta galaga o‘tkazish uchun 1,15–1,20 ta sutkalik makiyon jo‘ja , 1 bosh katta ota xo‘roz hisobidan 2,0–2,5 bosh sutkalik jo‘ja xo‘rozlar qoldiriladi.

Parranda reproduktorlarida urchitishning ajralmas sharti sifatida tuxumlarni alohida inkubatsiya qilish va bir kunlik jo‘jalarni liniyalar va ota-onalik shakllari bo‘yicha belgilash, urg‘ochi va erkaklarni jinsi bo‘yicha alohida boqish, sanoat parrandachiligida parrandalarni o‘z o‘zini cho‘qib qo‘yish, patlarini, oyoqlarini va tuxumni cho‘qish, xo‘rozlarni makiyonlarga shikast yetkazmasligi uchun 7–10 kunligida yoki 6–7 haftaligida tumshuqlarini qirqib qo‘yilishi tadbiri o‘tkaziladi.

Xo‘rozlarda 28 kunligida tojisi qirqiladi yoki o‘si-shi to‘xtatiladi. Galani remont qiluvchi yoki to‘l-diruvchi yosh par-randalar 6 va 7 haftaligida tana tuzilishi, tirik vazni, tojisi va sirg‘asi kattaligi, oyoq va tumshuq pigmentatsiyasi ko‘rsatkichi bo‘yicha baholanadi va tanlanadi.

Xulosa. 15-16 haftaligida yosh parrandalar katta yoshli parrandalar saqlanadigan tovuqxonaga o‘tkazilayotganida eksterer ko‘rsatkichi bo‘yicha, tumshug‘i va ko‘krak to‘sh suyaklari qiyshaygan, bo‘g‘imlari shishgan, oyoq panjalari qiyshiq bo‘lsa, ko‘zlari qisilgan va nursiz bo‘lsa va orqasida bel sohasida parlari bo‘lmaganlari, shuningdek pat va parlari xurpayib turganlari ajratilib brak qilinadi.

Go‘sht yo‘nalishi parrandachiligida tuxum berish, tuxum mahsuldorligi ko‘rsatkichlari yaxshilanishiga, mahsulot birligi hisobiga ozuqa sarfi xarajatini qoplanishi, pati yulingan go‘sht nimtasi va tush muskullari miqdoriga e’tibor qaratiladi.

Go‘sht yo‘nalishi parrandachiligi seleksion guruhi liniyasida 60 ta uya bo‘lishiga erishilishi kerak.

Go‘sht yo‘nalishi parrandachiligida tanlash - seleksiya belgilari quyidagilardir: 5 haftalik jo‘jalar tirik vazni, otalik shakl parrandalarda suyaklar mustaxkamligi, oyoq va panjalar to‘g‘riligi, 5 (6) va 17 (18) haftaligida 3-ballik shkala bo‘yicha to‘sh muskullarining chiqishi, sutkalik jo‘jalarda yelpig‘ich va

qoplovchi parlari bilan tananing qoplanishi, 5(6) haftalik jo‘jalarda par va pat bilan tananing qoplanishi, tanasi pat va par bilan to‘liq qoplanmagan va to‘sh suyagi qirrasi, beli qiyshiq bo‘lgan jo‘jalar brak qilinadi, jinsiy balog‘atga yetishish payti, inkubatsiyaga qo‘yiladigan tuxumlar soni, 10 ta dona tuxum va 1 kg semirish uchun ozuqa xarajati.

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DAVLAT SOLIQ TIZIMINING IQTISODIY O‘SISHGA STRATEGIK TA’SIRI

ANNOTATSIYA. *Ushbu maqolada davlat soliq tizimining iqtisodiy o‘sishga ta’siri strategik nuqtai nazardan tahlil qilinadi. Soliq siyosatining turli jihatlari, jumladan, soliq stavkalari, imtiyozlar va ma‘muriy jarayonlarning soddalashtirilishi orqali investitsiya, tadbirkorlik va bandlikni rivojlantirishdagi ahamiyati yoritiladi. Mazkur tadqiqot xalqaro tajribalarga asoslanib, O‘zbekistonning iqtisodiy sharoitlariga mos strategiyalarni taklif etadi.*

KALIT SO‘ZLAR: *Soliq tizimi, iqtisodiy o‘sish, soliq strategiyasi, investitsiya, O‘zbekiston.*

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THE STRATEGIC IMPACT OF THE TAX SYSTEM ON ECONOMIC GROWTH

ABSTRACT. *This article analyzes the strategic impact of the state tax system on economic growth. It discusses various aspects of tax policy, including tax rates, benefits, and the simplification of administrative processes, with a focus on their role in fostering investment, entrepreneurship, and employment. Based on international experiences, the research proposes strategies tailored to Uzbekistan's economic conditions.*

KEYWORDS: *Tax system, economic growth, tax strategy, investment, Uzbekistan.*

KIRISH

Soliq tizimi davlat iqtisodiy siyosatining asosiy tarkibiy qismi hisoblanadi. U mamlakatning moliyaviy barqarorligini ta’minlash, ijtimoiy muammolarni hal qilish va iqtisodiy o‘sishni rag‘batlantirish uchun asosiy vosita sifatida xizmat qiladi. Jahon tajribasidan ma’lumki, samarali va strategik soliq siyosati mamlakatlarning iqtisodiy rivojlanishini tezlashtiruvchi muhim omil bo‘lib, resurslarni oqilona taqsimlash va investitsion muhitni yaxshilash imkonini beradi (OECD, 2021).

Davlatning fiskal siyosatida soliq stavkalari va ularning samaradorligini belgilash iqtisodiy o‘sishga sezilarli ta'sir ko‘rsatadi. Masalan, Chodorow-Reich va boshqalar (2019) tomonidan olib borilgan tadqiqotlar shuni ko‘rsatadiki, korporativ

soliq stavkalarini pasaytirish natijasida korxonalar tomonidan qo‘shimcha investitsiyalarni jalb qilish, ish o‘rinlarini yaratish va bandlik darajasini oshirish mumkin. Shu bilan birga, soliq yukining haddan tashqari yuqoriligi Afrika mamlakatlarida iqtisodiy faollikning pasayishiga olib kelgani qayd etilgan.

O‘zbekiston tajribasi ham shuni ko‘rsatadiki, oxirgi yillarda amalga oshirilgan soliq islohotlari iqtisodiy o‘sishga ijobiy ta’sir ko‘rsatmoqda. 2017–2023 yillar davomida davlat tomonidan soliq stavkalarini pasaytirish, bilvosita soliqlarning ulushini kamaytirish va soliq ma’muriyatchiligini soddalashtirish bo‘yicha qator chora-tadbirlar amalga oshirildi. Ushbu islohotlar compliance darajasini oshirish va iqtisodiy faollikni rag‘batlantirishga yordam berdi (O‘zbekiston Respublikasi Moliya vazirligi, 2023).

Shu bilan birga, O‘zbekistonning hozirgi fiskal landshafti qator qiyinchiliklarga ham duch kelmoqda. Jumladan, kichik va o‘rta biznes sub’yektlari uchun soliq imtiyozlarining cheklanganligi va yuqori bilvosita soliq yuklari investitsion faollikni to‘laqonli rag‘batlantirish imkonini bermaydi. Bu muammolarni hal qilish uchun xalqaro ilg‘or tajribalar asosida strategik yondashuvlarni ishlab chiqish lozim.

Mazkur maqolada soliq siyosati va iqtisodiy o‘sish o‘rtasidagi bog‘liqlikning nazariy asoslari, xalqaro tajribalar va O‘zbekiston kontekstidagi natijalar tahlil qilinadi. Maqsad - soliq tizimini takomillashtirish orqali iqtisodiy rivojlanishni jadallashtirishga qaratilgan amaliy tavsiyalarni ishlab chiqishdir.

ADABIYOTLAR TAHLILI VA METODLAR

Soliq siyosati va iqtisodiy o‘sish o‘rtasidagi o‘zaro bog‘liqlik masalasida boy nazariy va empirik adabiyotlar mavjud. Masalan, Chodorow-Reich va boshqalar (2019) tomonidan olib borilgan tadqiqotlarda korporativ soliq stavkalarining pasayishi iqtisodiy faollikni oshirishda hal qiluvchi omil sifatida ko‘rsatildi. Tadqiqotda investitsiyalar va bandlik darajasining oshishi soliq stavkalarining optimallashtirilishi bilan uzviy bog‘liqligi asoslab berilgan. Shu bilan birga, OECD (2021) tomonidan olib borilgan tahlil soliq tizimining murakkabligi soliq to‘lashga bo‘lgan rag‘batni pasaytirishini va iqtisodiy o‘sishga to‘sqinlik qilishini ta’kidlaydi.

Dunyo bo‘yicha tajribalar shuni ko‘rsatadiki, soliq siyosati soddalashtirilgan va samarali bo‘lsa, u nafaqat iqtisodiy faollikni oshiradi, balki davlatning fiskal barqarorligini ham ta’minlaydi. Masalan, Estoniyaning raqamli soliq tizimi soliq yig‘ilishini oshirishda va resurslarni samarali boshqarishda muvaffaqiyatli bo‘lgan.

Metodologik jihatdan ushbu maqolada qiyosiy tahlil va statistik tadqiqot usullari qo‘llanildi. Xalqaro adabiyotlardan olingan ma’lumotlar O‘zbekistonning iqtisodiy sharoitlariga moslashtirildi. Shuningdek, O‘zbekiston Respublikasi Moliya vazirligi tomonidan taqdim etilgan statistik ma’lumotlar tahlil qilinib, xalqaro tajribalar bilan taqqoslandi. Ushbu yondashuv soliq siyosatining O‘zbekistonda iqtisodiy o‘sishga ta’sirini holisona baholash imkonini berdi. Maqolada xalqaro va mahalliy manbalar o‘rtasida uzviy bog‘liqlikni ta’minlash uchun ma’lumotlar mukammal tahlil qilinib, ular asosida real amaliy tavsiyalar ishlab chiqilgan.

MUHOKAMA VA NATIJALAR

1. **Soliq siyosati va iqtisodiy o‘sish o‘rtasidagi bog‘liqlik** Soliq tizimining yaxshi tashkil etilishi iqtisodiy o‘sish uchun muhim omil hisoblanadi. Mazkur tadqiqot natijalari shuni ko‘rsatadiki, soliq stavkalarining optimallashtirilishi va ma’muriyatchilik jarayonlarining soddalashtirilishi iqtisodiy faollikni oshirishda hal qiluvchi rol o‘ynaydi. Chodorow-Reich va boshqalar (2019) tadqiqotlariga ko‘ra, korporativ soliq stavkalarini pasaytirish bilan bog‘liq islohotlar O‘zbekiston uchun ham mos strategiya bo‘lishi mumkin.

2. **Xalqaro tajribalar va O‘zbekiston sharoitlari** Xalqaro tajribalar tahlili shuni ko‘rsatadiki, Estoniya, Janubiy Koreya va Singapur kabi davlatlar tomonidan amalga oshirilgan soliq tizimi islohotlari iqtisodiy o‘sishga sezilarli hissa qo‘shgan. O‘zbekiston bu tajribalarni moslashtirish orqali o‘z soliq siyosatini kuchaytirishi mumkin. Ayniqsa, raqamlashtirish va sektorlar bo‘yicha imtiyozlarni kiritish kabi yondashuvlar samaradorlikni oshirishi kutilmoqda.

3. **O‘zbekistonda iqtisodiy o‘sish uchun soliq siyosati tavsiyalari**

- **Soliq stavkalarini moslashtirish:** Investitsiyalarni jalb qilish uchun korporativ soliqlarni maqsadli pasaytirish.
- **Sektorlar bo‘yicha rag‘batlantirish:** Agrar sektor va texnologiya rivojlanishi uchun maxsus soliq imtiyozlari.
- **Raqamlashtirishni jadallashtirish:** Soliq to‘lovchilar uchun raqamli tizimni keng joriy etish orqali ma’muriy xarajatlarni kamaytirish va soliqlarning yig‘ilishini oshirish.

4. **Natijalar** Ushbu tadqiqot natijalari O‘zbekistonning fiskal strategiyasini takomillashtirishda xalqaro tajribalardan foydalanish muhimligini ko‘rsatadi. Soliq tizimini soddalashtirish, imtiyozlarni kengaytirish va raqamlashtirish iqtisodiy o‘sishni rag‘batlantirishda asosiy yo‘nalishlar sifatida aniqlangan.

XULOSA

O‘zbekiston iqtisodiy o‘sishini jadallashtirishda soliq tizimini strategik optimallashtirish muhim rol o‘ynaydi. Ushbu maqolada o‘tkazilgan tahlillar asosida xalqaro tajribalar va O‘zbekiston sharoitlariga mos yondashuvlar aniqlangan. Xususan, soliq stavkalarini pasaytirish, raqamlashtirishni joriy etish va sektorlar bo‘yicha maxsus imtiyozlar taqdim etish iqtisodiy faollikni oshirishda hal qiluvchi ahamiyatga ega. Shu bilan birga, davlat fiskal barqarorligini ta’minlash uchun soliq bazasini kengaytirish va samarali boshqaruv tizimini yaratish lozim.

O‘zbekistonning soliq siyosatiga doir islohotlari mamlakat iqtisodiy rivojlanishini yangi bosqichga olib chiqishi uchun kuchli asos yaratmoqda. Ushbu strategiyalarni hayotga tatbiq etish iqtisodiy o‘sishni rag‘batlantiradi va ijtimoiy barqarorlikni ta’minlashga xizmat qiladi.

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AHOLI O’LIMI DINAMIKASINI GEODEMOGRFIK O’RGANISH (ANDIJON VILOYATI MISOLIDA)

Annotatsiya: *Ushbu maqolada Andijon viloyatida aholi o’limi dinamikasi hamda uning hududiy tafovutlari o’rganilgan. Shuningdek, aholi o’limiga ta’sir qiluvchi geografik omillar tahlil qilingan.*

Kalit so’zlar: *O’lim jarayoni, aholi salmog’i, o’lim koeffitsenti, kasalliklar, o’rtacha umr, o’lim dinamikasi.*

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GEODEMOGRAPHIC STUDY OF POPULATION DEATH DYNAMICS (IN THE CASE OF ANDIJAN REGION)

Abstract: In this article, the dynamics of population death in Andijan region and its regional differences are studied. Geographical factors affecting population mortality were also analyzed.

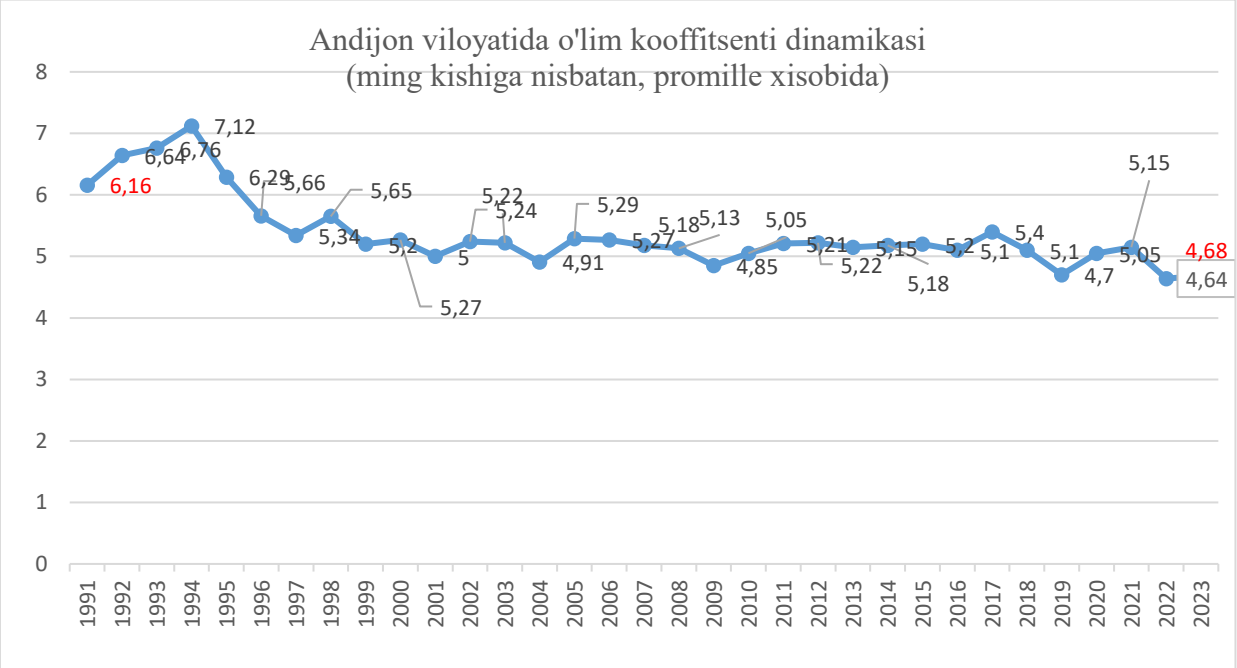
Key words: *Death process, population weight, death rate, diseases, life expectancy, death dynamics.*

O‘lim jarayoni aholi takror barpo bo‘lishining ikkinchi asosiy qismi bo‘lib, avlodlar almashinuvida faol ishtirok etadi. O‘lim jarayoni aholi salomatligi, ijtimoiy holati va yashash sharoitiga bevosita bog‘liqdir. Hududlarni ijtimoiy-iqtisodiy, ayniqsa tibbiy xizmat ko‘rsatishning rivojlanishi bilan aholining umr ko‘rish davri uzayib boraveradi. Bugungi davrda dunyo bo’yicha aholi o’lim ko’rsatkichlari Osiyo, Afrika, Amerika, Okeaniya hududlarida kamayib, Yevropa hududida esa, ortib borayotganligi kuzatiladi. Umuman, sayyoramiz aholisi orasida o’lim jarayoni XX asr ikkinchi yarmi - XXI asr boshlarida 2-2,5 marta kamaygan. Hozirgi davrda o’limga ekzogen omillar (organizmning qarishi va uning kasallanishi tufayli sodir bo’lgan ichki muhit omillari) sabab bo’lmoqda. Bu jarayon, ayniqsa jamiyatning

ijtimoiy-iqtisodiy rivojlanishi, turmush tarzining yaxshilanishi, aholiga tibbiy xizmat ko'rsatishning oshib borishi bilan bog'liq. Holbuki, Yevropa davlatlarida aholi o'lim ko'rsatkichlarining birmuncha ko'tarilishiga demografik omil, ya'ni aholi tarkibida qariyalar (60-65 yosh va undan yuqori) salmog'ining ortib borishi ta'sir etgan. Ma'lumki, aholi o'limining umumiy koeffitsienti aholining yosh tarkibiga bevosita bog'liq hisoblanadi. Agar aholi tarkibida bolalar (0-14 yosh) va yoshlar (16- 29 yosh) ulushi yuqori bo'lsa, o'lim koeffitsienti kamayadi. Dunyoning juda ko'p davlatlarida XX asr boshlarida aholi o'rtacha 35-40 yil umr ko'rgan bo'lsa, hozirgi vaqtda – o'rtacha 63-68 yosh umr ko'rishi kuzatiladi.

O'zbekistonda aholi salomatligi borasida amalga oshirilayotgan islohotlar negizida o'lim ko'rsatkichi pasayib bordi. Jumladan, Andijon viloyati tumanlarida 1991-2023 yillarda o'limning umumiy koeffitsiyenti har mingta aholiga nisbatan 6,2 kishidan 4,6 kishiga kamaydi. Vafot etganlar va aholi salmog'i mamlakat ko'rsatkichi bilan tengligi, tadqiq etilayotgan hudud o'lim jarayonlarini o'rganish o'ziga xos bo'lgan xususiyatlar mavjud ekanligini ko'rsatdi. O'zbekiston aholisi o'lim ko'rsatkichlarining hududiy tafovutlarini tadqiqotchi N.J.Muxammedova o'zining doktorlik (PhD) dissertatsiyasida quyidagicha yoritgan. "Andijon viloyati aholi soni eng zich hudud bo'lib, turar joy bilan ta'minlanish darajasining pastligi, tug'ilishning qisqarishiga, asosiy mehnat resursi, ya'ni mehnatga layoqatli aholisining aksariyati boshqa viloyat va respublikalarda yashayotganligi, aholi tarkibida qariyalar salmog'ining ortib borayotganligi o'lim ko'rsatkichining ko'tarilib borilishiga olib kelmoqda", deb ta'kidladi Z.Temirov doktorlik (PhD) dissertatsiyasida.

Andijon viloyati tumanlarida o'limning umumiy ko'rsatkichi davriy dinamikaga ega (1-rasm).



1-rasm. Andijon viloyati tumanlarida o'lim koeffitsenti

Jumladan, 1991-1995 yillarda Andijon viloyatida o‘lim ko‘rsatkichi respublika ko‘rsatkichidan yuqori bo‘lgan. O‘sha davrda Andijon viloyatida aholining og‘ir turmush sharoiti va tibbiy xizmat ko‘rsatish darajasining past ekanligi asosiy omil sifatida qaraladi. Mamlakatda tibbiy xizmat ko‘rsatish sohasida amalga oshirilgan islohotlar, aholi turmush darajasining ortib borishi natijasida o‘lim ko‘rsatkichi pasayib bordi. Jumladan, 1995-2009 yillarda Andijon viloyatida o‘lim darajasi, mamlakat o‘lim ko‘rsatkichidan past bo‘ldi. Andijon viloyatida shahar va tumanlarida ham o‘limning umumiy koeffitsiyentida hududiy tafovutlar ko‘zga tashlanadi. Viloyat markazlari va yirik shaharlarida aholi va transport tugunining zichligi, sanoat korxonalarining shahar va shahar atrofida joylashganligi sababli yuqori bo‘lib kelgan. So‘nggi yillarda o‘lim ko‘rsatkichi pasayib, so’ngi 2020 yilda vodiyda “yuqori” daraja kuzatilmadi. Dastlabki 1991 yilda Keyingi yillarda o‘limning “yuqori” darajasi kamayib, “o‘rtacha” va “past” darajalari ortib bordi. Jumladan, 1994 yilda birgina o‘limning “yuqori” darajasi kuzatilgan holos. Shu o‘rinda, 2020 yil pandemiya sharoitida o‘lim darajasi ortganligini ham e’tiborga olish lozim.

Yillar mobaynida aholi o‘lim ko‘rsatkichi yuqori bo‘lgan hududlar, Andijon shaharlarida aholi zichligining yuqoriligi, transport tugunida joylashganligi, shuningdek, ekologik muvozanatning buzilishi bilan izohlash mumkin. So‘nggi yillarda ushbu shaharlarda ham aholi o‘lim darajasi pasayib bordi, shu bilan birga, boshqa tumanlarga nisbatan yuqoriligi bilan ajralib turadi. O‘zbekiston Respublikasida, shu jumladan, Andijon viloyatlari aholi o‘limida eng katta salmoqni qon aylanish tizimi kasalliklari bilan vafot etganlar tashkil etdi (61,8 foiz). Ushbu kasallik bilan vafot etish darajasi mamlakat ko‘rsatkichidan yuqoriligi bilan ham dolzarb ahamiyatga ega. Keyingi o‘rinlarda o‘simtalar bilan vafot etish 7,9 foiz, nafas olish organlari kasalliklari bilan 6,9 foiz, ovqat hazm qilish organlari kasalliklari bilan 4,9 foiz, baxtsiz hodisalar, zaharlanish va jarohatlanishlar bilan 4,1 foiz, yuqumli va parazitar kasalliklar bilan 2,3 foiz va boshqa sabablar bilan 12,1 foiz aholi vafot etmoqda. Mazkur kasalliklar jinsiy tarkib bo‘yicha ham sezilarli farq kuzatiladi. Jumladan, qon aylanish tizimi kasalliklari bilan vafot etish erkaklarda 60,7 foiz bo‘lsa, ayollarda 63,0 foizni tashkil etdi. Baxtsiz hodisalar, zaharlanish va jarohatlanishlar bilan vafot etish erkaklarda 5,8 foiz va ayollarda 2,2 foizni tashkil etmoqda. O‘simta kasalliklari bilan vafot etish erkaklarga nisbatan ayollarda ko‘p o‘chramoqda.Qon aylanish tizimi kasalliklari bilan vafot etayotganlar Andijon viloyatining Asaka, Marhamat, Bo‘ston, Buloqboshi tumanlarida 65-70 foizni tashkil etmoqda. Baxtsiz hodisalar, zaharlanish va jarohatlanish bilan Ulug‘nor tumanlari nisbatan yuqori ko‘rsatkichga ega. O‘zbekiston Respublikasida, shu jumladan, Andijon viloyati aholi o‘limida eng katta salmoqni qon aylanish tizimi kasalliklari bilan vafot etganlar tashkil etdi (61,8 foiz). Ushbu kasallik bilan vafot etish darajasi mamlakat ko‘rsatkichidan yuqoriligi bilan ham dolzarb ahamiyatga ega. Keyingi o‘rinlarda o‘simtalar bilan vafot etish 7,9 foiz, nafas olish organlari kasalliklari bilan 6,9 foiz, ovqat hazm qilish organlari kasalliklari bilan 4,9 foiz, baxtsiz hodisalar, zaharlanish va jarohatlanishlar bilan 4,1 foiz, yuqumli va parazitar kasalliklar bilan 2,3 foiz va boshqa sabablar bilan 12,1

foiz aholi vafot etmoqda. Mazkur kasalliklar jinsiy tarkib bo‘yicha ham sezilarli farq kuzatiladi. Jumladan, qon aylanish tizimi kasalliklari bilan vafot etish erkaklarda 60,8 foiz bo‘lsa, ayollarda 63,0 foizni tashkil etdi. Baxtsiz hodisalar, zaharlanish va jarohatlanishlar bilan vafot etish erkaklarda 5,8 foiz va ayollarda 2,1 foizni tashkil etmoqda. O‘simta kasalliklari bilan vafot etish erkaklarga nisbatan ayollarda ko‘p uchramoqda.

Andijon viloyatida o‘limning umumiy ko‘rsatkichlari viloyat markazi Andijon shahrida yuqori bo‘lishiga, aksincha, aholisi siyrak bo‘lgan cho‘l, tog‘ oldi va tog‘li hududlarda joylashgan chekka tumanlarda past bo‘lishiga geografik hamda ekologik omillar katta ta’sir ko‘rsatgan.

Viloyatda qon aylanish tizimi kasalliklari bilan vafot etish sabablarini o‘rganish va bu kasallikdan aholi o‘limi darajasini kamaytirish tibbiyot sohasidagi asosiy muammolardan hisoblanadi.

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HUYNH TAN PHAT - "THE INTELLECTUAL WHO BEAUTIFIED THE COUNTRY, BEAUTIFIED THE REVOLUTION, BEAUTIFIED LIFE"

Abstract:*Huynh Tan Phat was an eminent intellectual, a talented architect, and an exceptional leader of the Vietnamese revolutionary movement. Born in 1913 in Ben Tre, he demonstrated his architectural talent early on, with several remarkable works in the South. However, he abandoned a promising career to join the revolution, dedicating all his intellect and abilities to the cause of national independence and development. As a leader, he made significant contributions to the southern revolutionary movement, particularly as the Chairman of the Provisional Revolutionary Government of the Republic of South Vietnam. After 1975, he continued to leave a profound impact on urban planning and architecture. His life and career stand as a noble symbol of sacrifice and creativity for the nation.*

Keywords: Huynh Tan Phat, Architectural Legacy, Revolutionary Leadership, Vietnamese Independence, Urban Planning

1. From Architectural Talent to Revolutionary Aspirations

Huynh Tan Phat was a prominent intellectual and renowned political activist who dedicated his entire life and career to the destiny of the nation. From his youth, he harbored great ambitions and a burning desire to use his talent and intellect to enhance the beauty of life. During the years of joining the Vietnamese people in following the Party to carry out the revolution for independence in the fall of 1945, through two resistance wars against French colonialism and American imperialism, and even in the early years of national construction, he devoted all his heart and energy to the fight for freedom, the defense of independence, and the building of a prosperous and beautiful homeland.

Huynh Tan Phat was born on February 15, 1913, in Chau Hung Commune, Binh Dai District, Ben Tre Province (formerly My Tho), into a bankrupt landlord family. As a child, he attended My Tho High School, where witnessing the terror inflicted by French forces during the 1930 movement in Cai Lay deeply instilled revolutionary consciousness within him. He later moved to Saigon to study at Petrus Ky School, driven by an ardent desire to gain knowledge and accomplish great and noble deeds.

In 1933, Huynh Tan Phat passed the entrance exam to the 8th class of the architecture department at the Indochina College of Fine Arts in Hanoi. During his studies, he supported himself by teaching at Thang Long School in Hanoi, writing for the newspapers *La Lutte* (Struggle) and *Le Travail* (Labor) in Northern Vietnam, and designing residential houses. Additionally, in mid-1936, he actively participated in the Indochina Congress movement as a member of the Indochina Student General

Association and the Southern Student Friendship Association. In January 1937, he led a student delegation to meet Justin Godart, an envoy of the French government sent to investigate the situation in Indochina, presenting a "Petition" demanding democracy as per the agenda of the Popular Front.

In 1938, after five years of study, Huynh Tan Phat graduated as valedictorian and returned to Saigon later that year to work at the office of French architect Chauchaon, located at 68-70 Mayer Street (now Vo Thi Sau Street). Despite being a recent graduate and intern, his extraordinary creative talent earned him the responsibility of designing a large-scale project—the Saigon Navy Club, a five-story building with a basement. This structure was later repurposed by the Republic of Vietnam government as the Prime Minister's Office and currently serves as the Southern Office of the Government at 7 Le Duan Street, District 1. Although the Navy Club was architect Huynh Tan Phat's first project, "its spatial organization was tight, coherent, and dynamic, offering many aesthetically pleasing perspectives. The building's design, resembling a ship gliding over waves, was highly appropriate for the Navy Club's purpose and essence". This project cemented Huynh Tan Phat's reputation as a talented architect, earning him trust and recognition from within and beyond the architectural community.

In 1940, Huynh Tan Phat opened an architectural office at 68-70 Mayer Street (now Vo Thi Sau Street), becoming the first Vietnamese architect to establish a private architectural office in Saigon. Despite facing significant challenges and oppression, his virtue and talent earned him admiration and trust from many people. In 1941, he won first prize in a design c[63]ompetition for the Indochina Fair and Exhibition Center, organized by Governor-General Jean Decoux, which was planned to be constructed at Ong Thuong Garden (now Tao Dan Park) in Saigon.

To this day, many of his works, especially villas and townhouses, not only in Saigon-Gia Dinh but also in provinces such as My Tho, Can Tho, Long Xuyen, and Da Lat, retain their original charm, which is well-suited to the hot and humid climate of the South. Notable examples include Villa 7 Le Duan (now the Southern Office of the Government), Villa 150 Nguyen Dinh Chieu (the Japanese Consulate), and Villa 6 Nguyen Huy Luong. He was also a co-designer of Dinh 3, King Bao Dai's summer palace in Da Lat, which stands as a prominent architectural heritage site. Reflecting on Huynh Tan Phat's designs from this period, architect Nguyen Huu Thai remarked: "The designs of the young architect Huynh Tan Phat at that time deviated from the antiquated styles of his Indochinese contemporaries of the 1930s-1940s, boldly embracing modern aesthetics suited to the South's tropical climate, characterized by intense sunlight and heavy rains"[64].

During this period, Huynh Tan Phat had the opportunity to achieve substantial wealth through legitimate means. However, he chose to set aside such prospects, and in the early 1940s, he made the resolute decision to follow the call of the nation's destiny, embracing a life of hardship and danger for the greater cause.

[63] "Talent and Intelligence of Huynh Tan Phat", *Tin Tuc* newspaper, issue dated September 30, 2014.
[64] Nguyen Huu Thai, "Remembering You, Forever Remembering the Way of Being a Human", *Hồn Việt* Magazine.

2. Outstanding Leader of the Southern Revolutionary Movement

As one of the prominent revolutionary intellectuals, architect Huynh Tan Phat quickly became a source of inspiration for intellectuals and youth in Saigon. In 1944, he founded and served as Editor-in-Chief of the *Thanh Nien* newspaper, which promoted anti-French and anti-Japanese sentiments while fostering and developing the Vanguard Youth movement. He also participated in the National Language Propagation Association and worked on famine relief efforts in the South. On March 5, 1945, he was secretly admitted into the Indochinese Communist Party.

When the August Revolution broke out, Huynh Tan Phat, alongside Southern intellectuals such as Huynh Van Tieng, Mai Van Bo, and Luu Huu Phuoc, took part in the seizure of power in Saigon-Cho Lon. He personally designed the 15-meter-high Flag Tower to support the revolution, listing the names of 11 members of the Provisional Administrative Committee of Southern Vietnam. The tower, located at the intersection of Charner (Nguyen Hue) and Bonard (Le Loi) streets, was completed overnight from August 24 to the morning of August 25, 1945. It left a strong impression on the people during the pivotal day of the power seizure in Saigon. Professor Tran Van Giau, a leader of the August 1945 Revolution in Saigon, recounted: "At exactly 10 p.m., Huynh Van Tieng and I walked out to check whether Huynh Tan Phat had finished the tower. By then, a majestic, brightly illuminated square pillar stood tall at the Bonard-Charner (now Le Loi-Nguyen Hue) intersection, announcing to the people that the revolutionary government would be declared at 10 a.m. on August 25 during an armed rally of a million compatriots from the city and surrounding areas, filling today's Nguyen Hue, Le Loi, Ham Nghi avenues, and Cuniac Square (now Quach Thi Trang Square)"[65].

Following the revolution's success, on October 9, 1945, Huynh Tan Phat led a delegation of Southern youth to meet Uncle Ho and attend the National Youth Congress in Hanoi. This marked a significant milestone in his life. In 1946, he was elected as a delegate to the First National Assembly of the Democratic Republic of Vietnam.

When the Vietnam-France War broke out, Huynh Tan Phat operated covertly in Saigon but was eventually arrested by the French. In 1949, he escaped to the war zone, where he held the positions of Member of the Southern Resistance Administrative Committee, Director of the Southern Information Department, and was directly responsible for the Free Saigon-Cho Lon Radio Station.

After the Geneva Conference in 1954, Huynh Tan Phat was assigned by the Party to remain in Saigon and work in the inner city. To maintain a legal and public position, he worked at the office of architect Nguyen Huu Thien. From that time, he actively participated in movements advocating for peace, freedom, democracy, national unification, and the implementation of the Geneva Agreement, while also composing and designing various architectural works. In 1954, his design project for the Cultural House, intended to be built at the Big Prison in Saigon, won Second Prize (as no First Prize was awarded), as well as for the Saigon National Library,

[65] "Talent and Intelligence of Huynh Tan Phat", *Tin Tuc* newspaper, issue dated September 30, 2014.

now the Ho Chi Minh City General Science Library (co-designed with architects Nguyen Huu Thien and Pham Quang Hanh).

In 1960, Huynh Tan Phat escaped to the war zone and joined the National Liberation Front of South Vietnam, holding the positions of Vice President and General Secretary of the Central Committee, as well as Chairman of the National Liberation Front Committee of Saigon-Gia Dinh. In June 1969, he was elected Chairman of the Provisional Revolutionary Government of the Republic of South Vietnam, a position he held until Vietnam's reunification.

In every role assigned by the Party, Huynh Tan Phat made significant and positive contributions. As the leader of the National Liberation Front of South Vietnam, he played a pivotal role in enhancing the prestige and influence of the Front. During his international trips, he and other members of the Front denounced the crimes of American imperialism, conveyed the just cause of the Southern people, generated widespread international support, and called on countries to sympathize with and back Vietnam's struggle for independence.

Within a short period, the Front established representatives in the executive committees of 11 international organizations, maintained diplomatic relations with 18 countries, and was recognized by 26 international organizations, political parties, and mass organizations worldwide.

As Chairman of the Provisional Revolutionary Government of the Republic of South Vietnam, Huynh Tan Phat actively continued to demonstrate his capabilities, contributing alongside other members of the government to carry out the functions of a legitimate state government for the people of the South. At its first meeting, he and the Provisional Revolutionary Government announced a 12-point Action Program to mobilize the entire military and populace of South Vietnam. The program focused on fighting against the U.S., achieving national salvation, fostering national reconciliation, ensuring freedom and democracy for the people, and restoring economic and cultural development.

Four representative committees of the Government were established in the Central Central, South Central, Southeast, and Southwest regions, addressing the requirements for managing the liberated areas. Revolutionary People’s Committees were established and strengthened in 44 provinces, 6 cities, 182 districts, and over 1,500 communes. From June 1969 to the end of 1975, more than 50 countries worldwide (including many capitalist countries) recognized and established diplomatic relations with the Provisional Revolutionary Government[66]. These achievements were partly due to the considerable contributions of Chairman Huynh Tan Phat.

3. Architectural Heritage and Vision for the Country

One remarkable aspect of Huynh Tan Phat is that, despite being busy day and night, he never abandoned his brush to beautify life. His friends, who worked with him during the two resistance wars, recalled how he used simple materials such as

[66] Professor, Major General Bui Phan Ky, “The Historical Mission of the Provisional Revolutionary Government of the Republic of South Vietnam in the Resistance War Against the US to Save the Country”, *National Defense Magazine*, issue dated August 9, 2011.

forest wood, bamboo, and thatch to build meeting rooms, halls, and accommodations for delegates attending conferences in revolutionary base areas. Notably, the hall for the National Liberation Front Congress in the Saigon - Cho Lon Special Zone. The first National Liberation Front Congress hall in Lo Go (R) was constructed from bamboo, wood, and thatch. Despite its simplicity, he skillfully worked with the dense forest foliage to create a spacious and beautiful hall. Today, the town of Loc Ninh still maintains the housing area of the Provisional Revolutionary Government of the Republic of South Vietnam, which was designed by him.

Mr. Mai Hoang Le, assistant to architect Huynh Tan Phat in the war zone, wrote: “In the deep forests and under wartime conditions, the base for the Provisional Revolutionary Government of the Republic of South Vietnam, like other agencies, was simply constructed using forest materials. But if you look closely, the Government's base had its own distinct features. What was even more important was that Mr. Tam Chi (Huynh Tan Phat's alias) directed us to plan the layout to avoid carpet bombing by American B-52s. If it was hit, the bombs would only pass over the side, not destroy the entire facility... In selecting the location for the base, Mr. Tam Chi personally chose the site and reviewed the layout. In his bag, he always carried a compass and a military map to help plan the construction”.

Engineer Huynh Kim Truong, former Chairman of the Ho Chi Minh City Association of Science and Technology for Construction, also wrote: “When he was still in War Zone B2, Mr. Bay Hong, also known as Comrade Pham Hung, Secretary of the Central Office for Southern Vietnam, often visited Mr. Tam Chi to discuss work. Despite his many duties as the President of the Provisional Revolutionary Government, Mr. Tam still found time to sketch a guest house the government planned to build in the ‘capital of Loc Ninh’. As an old classmate of Mr. Tam at My Tho High School, seeing Mr. Phat working diligently on his sketches, Comrade Pham Hung jokingly patted his shoulder and said, 'Mr. Tam, remember you're the President of the Government, not the architect from 68 Mayer office in Saigon!' Then they both laughed and turned back to their work”[67].

In 1972, architect Huynh Tan Phat also sketched out the town of Loc Ninh, the capital of the Provisional Revolutionary Government of the Republic of South Vietnam. His work included 60 urban planning designs and dozens of public works and housing projects for the new town, including the administrative building, Martyrs' Monument, Uncle Ho's Temple, communication areas, children's palace, cultural and information center, outdoor theater, hall, hotel, department store, market, school, hospital, and sports facilities. This further demonstrates Huynh Tan Phat's profound understanding of urban planning and construction, and his mature, sophisticated design approach. In addition to his architectural work, he was also a talented portrait artist. To this day, we still have a portrait that Huynh Tan Phat drew of the famous Australian journalist, Wilfred Burchett, when he visited the war zone to interview him in 1964. Another vivid sketch records the scene of a buffalo

[67]Nguyen Huu Thai, “Remembering You, Forever Remembering the Way of Being a Human”, *Hồn Việt* Magazine.

stabbing ceremony performed by the Central Highlands people. Resistance artist Le Thanh Tru recalled: "He still maintained his strong, sharp, spirited strokes. In 1964, when hosting Australian journalist Burchett in the war zone, architect Huynh Tan Phat, having paper and pencils on hand, immediately drew a portrait of this outstanding international journalist to send to *Van Nghe Giai Phong* magazine. Or when he visited the art room in the war zone in 1963, he and fellow artists drew a few portraits for fun. His model was artist Huynh Phuong Dong. He not only painted portraits but also landscapes. The *Buffalo Stabbing Festival* painting he created was inspired by his visit to the old battlefield in the Central Highlands"[68].

After the reunification of the country in 1976, Huynh Tan Phat was appointed Deputy Prime Minister, Chairman of the State Capital Construction Committee, and Vice President of the Vietnam Association of Architects. He also served as Head of the Steering Committee for Capital Planning and the Chief of the Hanoi Construction Design Project. He directly supervised and contributed many architectural sketches for projects in the capital, such as Noi Bai International Airport, the Central Children's Palace, Hanoi Pedagogical University, and the Ho Chi Minh Museum, among others.

Additionally, Huynh Tan Phat provided leadership and valuable input for urban planning projects across the country, including in Ho Chi Minh City, Phan Thiet, Nha Trang, Vung Tau, Con Dao, Tay Ninh, and Lang Son. He directly sketched initial concepts for the Hoa Binh Theater in District 10, Ho Chi Minh City, co-authoring the project with architect Nguyen Thanh The.

As Chairman of the Vietnam Association of Architects (1983-1989), he served as Chairman of the Judging Council for International Architectural Competitions, providing numerous insights and selecting high-quality projects for international competitions, including "Hanoi Flower Village House", "Alibaba Space", and "To Exist or Not to Exist". As a result, by the late 1980s, many young architects in Vietnam had won First Prizes in international architectural competitions. In April 1989, despite his advanced age and poor health, he was elected Honorary Chairman at the Fourth Congress of the Vietnam Association of Architects.

In 1996, the late architect Huynh Tan Phat was honored with the Ho Chi Minh Prize for Literature and Arts (Phase I), presented by the President of Vietnam. The award recognized his contributions to the following works: the Hanoi Capital Planning project, designed in 1981, and his direct involvement in the design of Noi Bai International Airport, Hanoi Pedagogical University, Central Children's Palace (designed in 1978), and the Ho Chi Minh Museum (designed between 1979-1985).

Following his years of dedication, Huynh Tan Phat was bestowed many prestigious honors by the State, including the Gold Star Medal, the Ho Chi Minh Medal, the First Class Resistance Medal, the First Class Resistance Medal for National Salvation, the National Great Unity Medal, and the 40-year Party

[68] Nguyen Huu Thai, "Remembering You, Forever Remembering the Way of Being a Human", *Hồn Việt* Magazine.

Membership Badge. Due to complications from high blood pressure, he passed away at 0:30 on September 30, 1989, in Ho Chi Minh City.

Conclusion

Huynh Tan Phat's life and career were rich and diverse. He was both a talented architect and an exceptional leader of the revolutionary movement in the South. In any context, period, or position, his architectural talent was always harmoniously combined with his leadership qualities, mobilizing revolutionary forces, particularly among intellectuals—a "battleground not easily replaced" (as noted by comrade Tran Bach Dang). This combination of skills made him both an outstanding revolutionary leader and a masterful architectural artist. His legacy was summed up in his eulogy: "The people and comrades across the country were deeply moved, mourning him—the intellectual who beautified the Fatherland, beautified the revolution, and beautified life".

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RESEARCH ON ORDOS' CONTRIBUTIONS TO FORGING A STRONG SENSE OF COMMUNITY FOR THE CHINESE NATION AND THE CONSTRUCTION OF AN EXEMPLARY AUTONOMOUS REGION[69]

鄂尔多斯在铸牢中华民族共同体意识与模范自治区建设中的贡献研究

Abstract: *Ordos City has been actively engaged in the process of forging a strong sense of community for the Chinese nation and the construction of an exemplary autonomous region. Through a series of multi-faceted and far-reaching measures, it has made remarkable and unique contributions. In the economic realm, its booming energy and emerging industries have not only spurred local economic prosperity but also provided a solid material bedrock for ethnic harmony. For instance, the Yili Group's industrial park in Ordos has recruited a large number of employees from different ethnic backgrounds, where they collaborate and communicate, enhancing mutual understanding. Culturally, Ordos has been committed to inheriting and innovating ethnic cultures. The annual Ordos International Nadam Festival has attracted numerous domestic and foreign tourists, presenting a splendid stage for the exchange and integration of traditional Mongolian culture and modern cultural elements. In education, the city has continuously optimized its ethnic education system. Schools like Ordos Mongolian School have incorporated both ethnic minority language and cultural courses and national common language and history education, nurturing students with a strong sense of ethnic unity. Socially, innovative community ethnic work and extensive ethnic unity demonstration activities have been carried out. In some communities, special ethnic cultural activity centers have been established, regularly organizing handicraft exhibitions and cultural salons, promoting harmonious coexistence among ethnic groups. In ecological protection, all ethnic groups have joined hands. The successful transformation of the Kubuqi Desert, where local herdsmen and volunteers from different ethnic groups participated in afforestation and sand control work, is a vivid example. Ordos' efforts have effectively promoted the unity and progress of all ethnic groups, serving as a model and providing valuable experience for the construction of an exemplary autonomous region and national ethnic work.*

[69] 本文⊠2023年度鄂尔多斯市社会科学⊠⊠重点⊠⊠：“以⊠牢中⊠民族共同体意⊠⊠主⊠落⊠全方位建⊠‘模范自治区’任⊠”（立⊠⊠号：2023p014）研究成果。This article is the research result of the key topic of Ordos City’s social science project in 2023: "Implementing the task of building a ‘model autonomous region’ in all aspects with the goal of strengthening the sense of community of the Chinese nation as the main line" (Project No.: 2023p014).

Keywords: *Ordos; Strong sense of community for the Chinese nation; Exemplary autonomous region; Ethnic unity; Cultural inheritance*

I. Introduction

Ordos, a land rich in resources and cultural diversity, plays a crucial role in the journey of forging a strong sense of community for the Chinese nation and building an exemplary autonomous region. It has actively explored and implemented a variety of measures to enhance ethnic relations and promote common development.

II. Economic Development Promoting Ethnic Unity

1. The Rise of Characteristic Industries

The energy industries in Ordos, such as coal and natural gas, have been the mainstay of its economic growth. These industries have created a large number of employment opportunities, attracting workers from different ethnic groups. For example, the Ordos Energy Group has a workforce composed of Han, Mongolian, and other ethnic minorities. They work together in various departments, from exploration and extraction to management and marketing. The company also provides professional training and career development opportunities for employees of all ethnic groups, promoting their personal growth and mutual cooperation. In addition to the traditional energy industry, Ordos has also been actively developing emerging industries such as modern agriculture and high-tech. The Ordos Modern Agricultural Demonstration Zone has introduced advanced agricultural technologies and management models, and has attracted many ethnic minority farmers to participate. They learn new skills and knowledge, and jointly promote the development of local agriculture.

2. Industrial Poverty Alleviation and Cooperation

Ordos has carried out a series of industrial poverty alleviation projects in ethnic minority areas. For instance, in some pastoral areas, the government has supported the development of characteristic livestock breeding and processing industries. The local Mongolian herdsmen have increased their income by raising high-quality livestock and processing dairy products and meat products. At the same time, Ordos has strengthened industrial cooperation with other regions. It has established cooperation relationships with economically developed areas in the east, introducing capital, technology, and talent. For example, through cooperation with a certain city in the east, a new industrial park has been established in Ordos, which has promoted the transformation and upgrading of the local industrial structure and provided more employment opportunities for ethnic minorities.

III. Cultural Inheritance and Integration

1. Excavation and Protection of Traditional Cultures

Ordos has made great efforts in protecting traditional ethnic cultures. The Ordos Museum has a rich collection of cultural relics related to the Mongolian and other ethnic minorities, including traditional costumes, handicrafts, and historical documents. The museum regularly organizes exhibitions and cultural activities to promote the inheritance and protection of these cultures. In addition, the local government has also supported the research and recording of intangible cultural

heritages such as Mongolian long-tune singing and horse-head fiddle playing. Special research institutions and cultural heritage protection centers have been established to ensure the survival and development of these precious cultural heritages.

2. Cultural Innovation and Exchange Activities

The Ordos International Nadam Festival is a major event for cultural exchange. In addition to traditional Nadam activities such as horse racing, wrestling, and archery, the festival also includes modern cultural performances, art exhibitions, and cultural seminars. Artists and performers from different ethnic groups and regions gather here to exchange and cooperate. For example, in a certain year's festival, a modern dance troupe combined Mongolian dance elements with modern dance techniques to create a unique dance performance, which was well received by the audience. In addition, Ordos also promotes cultural exchange through various cultural platforms. The Ordos Cultural and Art Center regularly hosts ethnic cultural exchange activities, inviting ethnic minority artists to perform and exhibit their works, and promoting the integration of different cultures.

IV. Education Helping to Improve Ethnic Awareness

1. Improvement of the Ethnic Education System

Ordos has continuously improved its ethnic education system. In addition to the existing ethnic primary and secondary schools, the city has also increased investment in vocational education and higher education for ethnic minorities. For example, the Ordos Vocational College for Ethnic Minorities has set up a series of professional courses related to ethnic cultures and modern industries, such as ethnic handicraft design, ethnic catering management, and modern information technology. These courses not only inherit and carry forward ethnic cultures but also meet the needs of modern social development. In higher education, some universities in Ordos have established ethnic research institutes and cultural inheritance centers, which carry out research and teaching activities on ethnic cultures and ethnic relations.

2. Expansion of Educational Exchanges and Training

Ordos actively promotes educational exchanges and training activities. The city regularly organizes teachers and students to participate in ethnic cultural exchange activities and competitions. For example, the Ordos Ethnic Minority Student Cultural Exchange Camp has invited students from different ethnic groups in the country to participate in cultural exploration and experience activities. Through field visits, cultural performances, and group discussions, students have a deeper understanding and respect for different ethnic cultures. In addition, Ordos also sends teachers and students to other regions and countries for exchanges and studies. Teachers go to advanced education institutions to learn advanced teaching concepts and methods, and students participate in international cultural exchange programs to broaden their international horizons.

V. Construction of Social Harmony and Stability

1. Innovation in Community Ethnic Work

Ordos has carried out innovative community ethnic work. In some communities, ethnic cultural activity centers have been established, which provide a place for ethnic minority residents to carry out cultural activities and exchanges. The centers regularly organize handicraft making classes, ethnic dance training, and cultural salons. For example, in a community in Ordos, the ethnic cultural activity center invites local ethnic minority elders to teach young people traditional handicraft making skills, such as Mongolian leather carving and felt making. At the same time, the community also organizes volunteer activities to help ethnic minority residents solve practical difficulties in life, such as providing language translation services, legal consultation, and medical care guidance.

2. Activities for Creating Demonstration Units of Ethnic Unity

The city has widely carried out activities for creating demonstration units of ethnic unity. Through the selection and recognition of demonstration units, it has promoted the formation of a good atmosphere of ethnic unity. For example, some schools, enterprises, and communities have been rated as ethnic unity demonstration units. These units actively promote ethnic unity education and cultural exchanges, and set an example for other units. In addition, Ordos also uses various media platforms to promote ethnic unity. The local TV station and newspaper regularly report on the deeds of ethnic unity and the achievements of ethnic work, and publicize the concept of ethnic unity and harmony.

VI. Ecological Protection Gathering Ethnic Strengths

1. Coordinated Actions for Ecological Governance

In the face of ecological problems such as grassland degradation and desertification, all ethnic groups in Ordos have actively participated in ecological governance. The local Mongolian herdsmen have played an important role in grassland protection. They have changed their traditional grazing methods and adopted scientific and sustainable grazing models. For example, some herdsmen have joined the grassland ecological cooperatives, which jointly manage and protect the grassland. At the same time, volunteers from different ethnic groups have also actively participated in desert control work. The "Green Guards" volunteer team composed of Han, Mongolian, and other ethnic groups has carried out afforestation and sand fixation activities in the Kubuqi Desert for many years, making great contributions to the transformation of the desert.

2. Promotion and Dissemination of Ecological Culture

Ordos combines ecological culture with ethnic culture to promote ecological protection. The local government has established a number of ecological and cultural tourist attractions, such as the Engebei Ecological Tourism Area. These attractions not only show the achievements of ecological governance but also integrate ethnic cultural elements. For example, in the tourism area, tourists can visit the desert forest and wetland ecosystems, and at the same time watch Mongolian ethnic cultural performances and experience traditional nomadic life. Through these activities, tourists can have a deeper understanding and respect for nature and ethnic cultures, and promote the spread of ecological and cultural concepts.

VII. Conclusion

Ordos has made outstanding and comprehensive contributions to forging a strong sense of community for the Chinese nation and the construction of an exemplary autonomous region. Through economic, cultural, educational, social, and ecological measures, it has effectively promoted ethnic unity and common development. In the future, Ordos should continue to explore and innovate, continuously improve various work, and make greater contributions to the great unity and rejuvenation of the Chinese nation.

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O'ZBEKISTON VILOYATLARINING IQTISODIY-IJTIMOIY GEOGRAFIK O'RNI

Annotatsiya. *Mazkur maqola O'zbekiston viloyatlarining iqtisodiy-ijtimoiy geografik o'rnini tahlil qiladi. Hududlarning tabiiy-iqlimiy sharoitlari, ijtimoiy va iqtisodiy rivojlanish omillari, shuningdek, transport-logistika imkoniyatlari o'rganilib, statistik ma'lumotlar asosida tavsiyalar ishlab chiqilgan.*

Tayanch iboralar: *iqtisodiy rivojlanish, hududiy ixtisoslashuv, transport-logistika, demografik o'sish, sanoat klasterlari.*

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ECONOMIC AND SOCIAL GEOGRAPHICAL LOCATION OF THE REGIONS OF UZBEKISTAN

Abstract*. This article analyzes the economic and social geographical position of the regions of Uzbekistan. Natural and climatic conditions of the regions, factors of social and economic development, as well as transport and logistics possibilities were studied, and recommendations were developed based on statistical data.*

Key words*: economic development, regional specialization, transport-logistics, demographic growth, industrial clusters*

O'zbekiston Respublikasi Markaziy Osiyo mintaqasining markazida joylashgan bo'lib, hududning tabiiy boyliklari va iqtisodiy geografik o'rni mamlakat rivojlanishida muhim ahamiyat kasb etadi. Viloyatlar bo'yicha iqtisodiy-ijtimoiy farqlar mavjud bo'lsa-da, respublika bir butun iqtisodiy tizim sifatida taraqqiyot strategiyasini amalga oshirmoqda.2022-2026 yillarga mo'ljallangan taraqqiyot strategiyasida viloyatlarning ijtimoiy-iqtisodiy salohiyatini kuchaytirish, aholi turmush darajasini oshirish va iqtisodiy barqarorlikni ta'minlash bo'yicha ustuvor yo'nalishlar belgilangan.

1. Hududlarning tabiiy-iqlimiy sharoitlari

O'zbekistonning hududlari iqlimiy farqlarga ega. Shimoliy hududlarda quruq kontinental iqlim, janubiy hududlarda esa issiq va subtropik iqlim hukmron. Bu farqlar qishloq xo'jaligi va resurslardan foydalanish darajasiga ta'sir ko'rsatadi.

Masalan, Surxondaryo va Qashqadaryo viloyatlari paxta va bug‘doy yetishtirishda yetakchi, Farg‘ona vodiysi esa meva-sabzavot va ipakchilik markazi hisoblanadi.

2. Aholi va demografik rivojlanish

O‘zbekiston aholisi 2023-yilda 36,4 million kishiga yetdi. Aholining tabiiy o‘sish sur’ati mamlakatda mehnat resurslari zaxiralarini kengaytirmoqda. Toshkent shahri va Samarqand aholining zich joylashgan hududlari bo‘lib, infratuzilma va xizmat ko‘rsatish sohalarida tez o‘sishni ko‘rsatmoqda.

3. Sanoat va iqtisodiy faoliyat tarmoqlari

- **Toshkent viloyati va shahri**

❖ **Iqtisodiy yo‘nalishlar:** Toshkent – mamlakatning yirik sanoat markazi. Avtomobilsozlik ("GM Uzbekistan"), elektrotexnika (konditsioner va boshqa maishiy texnika), tekstil sanoati, farmatsevtika va oziq-ovqat mahsulotlari ishlab chiqarish muhim o‘rin tutadi.

❖ **Hududiy o‘ziga xoslik:** Toshkent viloyatida logistika va transport tarmoqlari rivojlangan. Toshkent shahri ichki va tashqi savdoning markazi hisoblanadi.

- **Navoiy viloyati**

❖ **Iqtisodiy yo‘nalishlar:** Navoiy tog‘-kon sanoati bo‘yicha yetakchi. "Navoiy kon-metallurgiya kombinati" (oltin, uran qazib olish) viloyat iqtisodiyotining asosi. Shuningdek, kimyo sanoati va sement ishlab chiqarish rivojlangan.

❖ **Hududiy o‘ziga xoslik:** Viloyatdagi "Navoiy erkin iqtisodiy zonasi" xorijiy sarmoyalarni jalb qilish uchun yaratilgan.

- **Samarqand viloyati**

❖ **Iqtisodiy yo‘nalishlar:** Samarqandda oziq-ovqat, tekstil, qurilish materiallari ishlab chiqarish muhim. Shuningdek, turizm viloyat iqtisodiyotining o‘sib borayotgan sektori hisoblanadi.

❖ **Hududiy o‘ziga xoslik:** Samarqandning ijtimoiy-iqtisodiy rivojlanishi ko‘p jihatdan tarixiy obidalar va turizm sohasiga bog‘liq.

- **Qashqadaryo viloyati**

❖ **Iqtisodiy yo‘nalishlar:** Neft va gaz sanoati bu viloyat iqtisodiyotining yetakchi tarmog‘i. Shuningdek, kimyo sanoati ("Sho‘rtan gaz-kimyo majmuasi") va qishloq xo‘jaligi mahsulotlarini qayta ishlash muhim o‘rin tutadi.

❖ **Hududiy o‘ziga xoslik:** Viloyatda karbonsuv resurslari boyligi bor, bu esa xalqaro investorlarni jalb qilmoqda.

- **Andijon viloyati**

❖ **Iqtisodiy yo‘nalishlar:** Avtomobilsozlik ("UzAuto Motors"), tekstil va charm-poyabzal sanoati rivojlangan. Shuningdek, qishloq xo‘jaligi mahsulotlarini qayta ishlashda katta salohiyatga ega.

❖ **Hududiy o‘ziga xoslik:** Viloyat Farg‘ona vodiysining eng zich joylashgan va iqtisodiy jihatdan faol hududi.

- **Buxoro viloyati**

❖ **Iqtisodiy yo‘nalishlar:** Neft va gaz qazib olish, ipakchilik, va oziq-ovqat sanoati rivojlangan. Hunarmandchilik va turizm sohalari ham ahamiyatga ega.

❖ **Hududiy o‘ziga xoslik:** Buxoroning tarixiy obidalari turizmni rivojlantirish uchun muhim imkoniyat yaratmoqda.

➢ **Farg‘ona viloyati**

❖ **Iqtisodiy yo‘nalishlar:** Kimyo sanoati ("Farg‘onaazot"), neftni qayta ishlash zavodlari, elektrotexnika va charm mahsulotlari ishlab chiqarish rivojlangan.

❖ **Hududiy o‘ziga xoslik:** Qishloq xo‘jaligi mahsulotlarini qayta ishlash, ayniqsa bog‘dorchilik rivojlanmoqda.

➢ **Xorazm viloyati**

❖ **Iqtisodiy yo‘nalishlar:** Ipakchilik, oziq-ovqat sanoati (guruch va sabzavotlar qayta ishlash) muhim. Hududda an’anaviy hunarmandchilik rivojlangan.

❖ **Hududiy o‘ziga xoslik:** Turizm sohasida katta salohiyat mavjud.

4. Transport va logistika imkoniyatlari

O‘zbekistonning transport geografiyasi Markaziy Osiyo bo‘ylab savdo yo‘llarini rivojlantirishda muhim ahamiyatga ega. Yangi temir yo‘l va avtomobil magistrallari mintaqaviy aloqalarni mustahkamlashda asosiy omil bo‘lib xizmat qilmoqda. Masalan, Toshkent – Andijon yo‘nalishidagi zamonaviy temir yo‘l infratuzilmasi mamlakat sharqidagi viloyatlarning iqtisodiy aloqalarini mustahkamlaydi.

Xulosa va takliflar

O‘zbekiston viloyatlarini rivojlantirish uchun quyidagi tavsiyalar ilgari suriladi:

1. Har bir viloyatning tabiiy resurslariga asoslangan sanoat tarmoqlarini rivojlantirish.
2. Transport-logistika infratuzilmasini modernizatsiya qilish orqali hududlararo aloqalarni mustahkamlash.
3. Ijtimoiy himoya va bandlikka yo‘naltirilgan dasturlarni amalga oshirish.
4. Demografik o‘sishni mehnat bozori bilan uyg‘unlashtirish uchun yangi iqtisodiy zonalarni tashkil etish.

Foydalanilgan adabiyotlar

1. O‘zbekiston Respublikasi Prezidenti qarorlari va farmonlari.
2. Jahon Bankining O‘zbekiston bo‘yicha hisobotlari
3. "Yangi O‘zbekiston" taraqqiyot strategiyasi (2022-2026).
4. O‘zbekiston Respublikasi Davlat statistika qo‘mitasi ma’lumotlari.

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RESEARCH PAPER: IMPROVING ENGLISH PRONUNCIATION AND ACCENT

Abstract: *Pronunciation and accent are integral components of language acquisition that significantly affect communication and comprehension in English. Nonnative speakers often face challenges in mastering pronunciation due to differences in phonetic systems between English and their native languages. This paper examines various approaches to improving English pronunciation and accent, considering both traditional and modern methods. The paper discusses the importance of phonetic awareness, the role of listening and imitation, the application of technology, and practical exercises for mastering English sounds. Through a review of literature and evidencebased strategies, this paper aims to provide effective guidelines for enhancing English pronunciation and accent, contributing to clearer communication and reduced barriers in language learning.*

Keywords: *english pronunciation, accent modification, phonetic awareness, listening and imitation, International Phonetic Alphabet (IPA), minimal pairs, shadowing technique, pronunciation apps, speech recognition technology, accent reduction, pronunciation exercises ,stress and intonation patterns , language learning technologies, speech coaching, accent neutralization, language fluency, communicative competence, pronunciation feedback, self-assessment in pronunciation*

Pronunciation and accent are key aspects of language proficiency that can influence the clarity and effectiveness of communication. In English, pronunciation is not just about articulating individual sounds correctly, but also mastering stress, intonation, and rhythm. Accent, on the other hand, reflects the regional or social variation in speech patterns. For nonnative English learners, achieving nativelike pronunciation and neutralizing a strong accent can be particularly challenging, as English phonetics can differ greatly from those of their native languages. Despite these challenges, improving pronunciation and accent is not only feasible but essential for effective communication in English.

This paper explores the main strategies for improving English pronunciation and accent, highlighting their practical applications and effectiveness for language learners. It includes an analysis of various techniques such as phonetic training, listening and imitation, interactive technologies, and immersion practices.

The Importance of Phonetic Awareness: Phonetic awareness is the foundation of good pronunciation. English contains a vast array of sounds that do not exist in many other languages, including vowel sounds like /æ/ (as in "cat") or diphthongs like /aɪ/ (as in "my"). Many learners struggle with these sounds, resulting

in mispronunciations that hinder intelligibility. Phonetic training learning the International Phonetic Alphabet (IPA) and practicing the articulation of sounds is a critical first step in improving pronunciation.

1. **International Phonetic Alphabet (IPA)**:Learning the IPA symbols for English sounds can help learners recognize and produce unfamiliar sounds accurately. The IPA provides a standardized system for phonetic transcription, making it easier for learners to connect spoken language with written symbols. This practice supports the development of a more accurate phonetic system in the learner's mind.

2. **Minimal Pairs**:Minimal pairs are pairs of words that differ by only one sound (e.g., "ship" vs. "sheep"). Practicing minimal pairs helps learners discern subtle sound distinctions in English, enhancing their ability to produce the correct sounds.

The Role of Listening and Imitation: One of the most effective ways to improve pronunciation and accent is through listening and imitation. Listening to native speakers and imitating their speech patterns helps learners internalize proper pronunciation, rhythm, and intonation.

1. **Listening to Native Speakers**: Exposure to authentic speech in various contexts—such as podcasts, movies, TV shows, or conversations—provides learners with models of native pronunciation. By mimicking the speech of native speakers, learners can adjust their own pronunciation to more closely resemble the target language.

2. **Shadowing Technique**:Shadowing involves listening to a native speaker and attempting to repeat the speech immediately after hearing it. This technique helps learners focus on pronunciation, intonation, and rhythm. It also encourages them to match the speed and natural flow of native speech.

Technological Advancements in Pronunciation Training: The advancement of technology has greatly enhanced language learning, providing learners with various tools to improve pronunciation and accent.

1. **Pronunciation Apps**:Several mobile apps, such as *Elsa Speak*, *Speechling*, and *Pronunroid*, use speech recognition technology to provide realtime feedback on pronunciation. These apps can detect pronunciation errors and offer corrective exercises, allowing learners to practice their pronunciation independently and at their own pace.

2. **Interactive Websites**:Websites like *Forvo* and *YouGlish* provide learners with recordings of native speakers pronouncing words and phrases in various accents. These platforms allow learners to hear how words are pronounced in different contexts, which helps them adjust their accent according to their learning goals.

3. **Speech Recognition Software**:Tools like Google Translate, Siri, and Cortana offer realtime voice recognition, which can be used to test pronunciation accuracy. These systems offer learners an opportunity to practice speaking and immediately receive feedback on their pronunciation.

Practical Exercises for Pronunciation Improvement: In addition to phonetic awareness and listening practice, several exercises can help learners improve their pronunciation and reduce their accent.

1. **Recording and Playback**:Recording one's speech and comparing it to that of native speakers is an effective method for selfassessment. This exercise allows learners to identify areas of improvement and work on specific sounds or patterns that may be difficult for them.
2. **Mouth and Tongue Exercises**:Certain sounds in English require specific mouth and tongue movements. For example, producing the /θ/ sound (as in "think") requires placing the tongue between the teeth, while the /r/ sound requires different tongue positioning. Regular practice of these exercises improves articulation and helps learners produce accurate sounds.
3. **Stress, Rhythm, and Intonation Practice**:English is a stresstimed language, meaning that stressed syllables occur at regular intervals, with unstressed syllables occurring in between. Practicing stress patterns and intonation helps learners develop a naturalsounding rhythm. Techniques like clapping or tapping along with the rhythm of speech can reinforce these patterns.

The Impact of Accent Modification: Accent modification focuses on helping learners reduce the influence of their native accent and adopt a more neutral or target accent. It is important to note that a "perfect" accent is not necessary for effective communication. However, accent modification can significantly improve intelligibility, reducing misunderstandings and increasing confidence when speaking.

1. **Accent Neutralization**:For learners aiming to adopt a more neutral English accent, working with a speech coach or taking accent reduction classes can be helpful. These classes focus on specific sound changes, stress patterns, and intonation to modify an accent without completely erasing a learner's linguistic background.
2. **Cultural Sensitivity**:It is important to approach accent modification with sensitivity to cultural and linguistic diversity. Every accent reflects a rich cultural heritage, and the goal of pronunciation training should not be to erase identity but to enhance clarity and communication effectiveness.

Improving English pronunciation and accent is a multifaceted process that involves phonetic awareness, listening practice, technological tools, and practical exercises. While achieving nativelike pronunciation may not always be necessary, enhancing pronunciation and reducing an overly strong accent can lead to clearer communication, increased confidence, and a better understanding of the English language. By employing a combination of traditional and modern strategies, learners can significantly improve their pronunciation and accent, making their spoken English more intelligible and effective in a global context.

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UMUMIY O’RTA TA’LIM MUASSASALARIDA “TARBIYA” FANINI O’QITISHNING ILMIY – METODIK ASOSLARI

Annotatsiya: *O’zbekiston Respublikasi Prezidentining tashabbusi bilan o’zbek “Pedagogika”fani tarixida ilk bor “Tarbiya” yangi fani ishlab chiqarildi,bu borada Ozbekiston Respublikasi Vazirlar Mahkamasining “Umumiy o’rta ta’lim muassasalarida “Tarbiya” fanini bosqichma-bosqich 5 amaliyotga joriy etish chora-tadbirlari to’g’risida”gi qarori qabul qilindi. Tarbiya - bu ota-onalar, ta'lim muassasalari va jamiyat tomonidan bolalarni tarbiyalashning ongli va maqsadli jarayoni bo‘lib, u bolalarning yoshi, psixologik va individual xususiyatlarini hisobga olish asosida amalga oshiriladi.*

Kalit so’zlar: *Ma’naviyat,xususiyat,aqliy tarbiya, axloqiy tarbiya Ijtimoiy taraqqiyot, barkamol avlod,taraqqiyot,tarbiya,o‘qitish,ma’naviy va ma’rifiy ishlar, jamiyat.*

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SCIENTIFIC AND METHODOLOGICAL FOUNDATIONS OF TEACHING EDUCATIONAL SCIENCE IN GENERAL SECONDARY EDUCATIONAL INSTITUTIONS

Abstract: *At the initiative of the President of the Republic of Uzbekistan, for the first time in the history of the Uzbek "Pedagogy" science, the new science "Education" was developed, in this regard, the Cabinet of Ministers of the Republic of Uzbekistan introduced the science "Education" in 5 stages in general secondary educational institutions. "On the measures to achieve" was adopted. Education is a conscious and purposeful process of raising children by parents, educational institutions and society, which is carried out on the basis of taking into account the age, psychological and individual characteristics of children.*

Key words: *Spirituality, character, mental education, moral education, social development, mature generation, development, education, teaching, spiritual and educational work, society.*

Zamonaviy maktab oldiga har tomonlama yetuk yangi shaxs, ma’naviy boylik, axloqiy poklik, jismoniy kamolotga ega shaxsni tarbiyalash vazifasi turibdi. Bu muhim masalani hal etish zamonaviy tarbiya usullari tizimidan keng foydalanishni taqozo etadi. Tarbiya metodlari va usullarini bilish nafaqat

o‘qituvchilar va tarbiyachilar uchun, balki ota-onalar va bolalarni tarbiyalash bilan shug'ullanadigan barcha kishilar uchun ham zarurdir.

Tarbiya metodlari va usullari o`z maqsadi, mazmuni va mohiyatiga ko`ra axloqiy-diniy usullardan butunlay farq qiladi. Mamlakatimizda bolalarni g‘arazgo‘ylik, molparastlik, ochko‘zlikka qarshi tarbiyalash, ular ulg‘aygach, umumiy manfaatni afzal ko‘rishlari, “Bir kishi hamma uchun, hamma bir kishi uchun” tamoyili asosida ish yuritadi.

O’zbekiston Respublikasi Prezidentining tashabbusi bilan 2020 yilda o’zbek “Pedagogika”fani tarixida ilk bor “Tarbiya” yangi fani ishlab chiqarildi.Bu borada Ozbekiston Respublikasi Vazirlar Mahkamasining 2020 yil 6 iyuldagi 422-sonli “Umumiy o’rta ta’lim muassasalarida “Tarbiya” fanini bosqichma-bosqich 5 amaliyotga joriy etish chora-tadbirlari to’g’risida”gi qarori qabul qilindi. Mazkur qaror bilan “Umumiy o‘rta ta’lim muassasalari o‘quvchilari uchun “Tarbiya” fani Konsepsiyasi” tasdiqlandi. Qarorga binoan “Tarbiya” fani amaldagi quyidagi fanlarni qo‘shish hisobiga tashkil etildi:

- Odobnoma
- Vatan tuyg’usi
- Dunyo dinlar tarixi
- Milly istiqlol g’oyasi va ma’naviyat asoslari

Tarbiya - bu ota-onalar, ta'lim muassasalari va jamiyat tomonidan bolalarni tarbiyalashning ongli va maqsadli jarayoni bo‘lib, u bolalarning yoshi, psixologik va individual xususiyatlarini hisobga olish asosida amalga oshiriladi.Hozir biz texnologiya juda rivojlanayotgan davrda yashayapmiz. Mamlakatimizda amalga oshirilgan islohotlar tufayli xalqimizning turmushi yaxshilandi, barcha sohalarda o‘zgarishlar va rivojlanishlar ko‘zga tashlanmoqda, ammo shunga rivojlanishga qaramay ba’zi o‘smirlar va yoshlarning ma’naviyati pastligi, ota-onalarning farzandlarining xulq-atvoriga befarqligi nazarga tushmoqda.Bu masalaning oldi olinmasa, savodsizlar safi ortishi mumkin. Bilimsizlik savodsizlikdan boshlanadi.Buning natijasida yangi fan shakllantirildi. Ushbu “Tarbiya” fanining metodologik asoslarini quyidagilar tashkil etadi:

- ta’lim-tarbiyaga oid me’yoriy hujjatlar;
- tarbiya asoslari va manbalari;
- tarbiya qonuniyatlari, metodlari va texnologiyalari;
- tarbiyaning amaliy masalalari.

Aynan mazkur asoslar o‘quv fanining negizini tashkil etadi. Bo‘lajak boshlang‘ich sinf o‘qituvchilari bu asoslarni talab darajasida o‘zlashtirishi kerak. Aks holda, ularning mazkur fan metodikasi bo‘yicha kasbiy tayyorgarligi talab darajasida bo‘lmaydi. Shuningdek, qaror bilan 2021-2022 o‘quv yilidan boshlab “Tarbiya” fani bo‘yicha pedagog kadrlar tayyorlash yo‘lga qo‘yildi.“Umumiy o‘rta ta’lim muassasalari o‘quvchilari uchun “Tarbiya” fani Kontsepsiyasi”ga ko‘ra, mazkur fanning umumiy asoslarini quyidagilar tashkil etadi:

- huquqiy asoslar;
- tashkiliy asoslar;
- ilmiy-metodik asoslar.

Bunda huquqiy asoslar ta’lim-tarbiyaga oid me’yoriy-huquqiy hujjatlardan iborat, tashkiliy asoslar fanni umumta’lim maktablarida, jumladan,boshlang‘ich ta’limda talab darajasida o‘qitishni va ilmiymetodik asoslar esa fanning metodologiyasini anglatadi.

Qarorga ko‘ra, “Tarbiya” fanining asosiy tamoyillarini quyidagilar tashkil etadi:

- Milliy va umuminsoniy qadriyatlarning ustuvorligi
- Ongli vatanparvarlik ruhini rivojlantirish;
- Tarbiya sohasiga doir siyosatni amalga oshirishda ishtirok etuvchi davlat organlari,nodavlat notijorat tashkilotlari va xususiy sector faoliyatining muvofiqligi hamda mutanosibligi;
- Fanga oid zamonaviy ilmiy-tadqiqotlarga asoslanish;
- Ochiqlik va shaffoflik;
- Tarbiya sohasigaoid tashabbuslarni qo’llab-quvvatlash va rag’batlantirish.

Bo‘lajak boshlang‘ich sinf o‘qituvchilarining fanga oid bu tamoyillarini chuqur o‘zlashtirishi taqozo etiladi. Shu sababli oliy pedagogik ta’lim jarayonida, tarbiyaviy tadbirlarda va mustaqil ta’lim izlanishlarida ana shu tamoyillarni o‘zlashtirish, faoliyatda qo‘llash ko‘nikmasiga ega bo‘lish hamda kasbiy faoliyatda ularga amal qilish kompetentsiyasini egallash dolzarb masalalardan biridir. Buning uchun har bir talabaning individual shug‘ullanishi, ustozlar bilan hamkorlikda faol ishlashi va tarbiya tamoyillarining hayotdagi ifodasini o‘rganib borishi taqozo etiladi. Bunda oliy ta’lim muassasalarining imkoniyatlari, ta’lim jarayonining sharoitlari va faoliyatning amaliy samaradorligidan oqilona foydalanish kerak. Har bir talabaning mazkur fan tamoyillarini, asoslarini va istiqbolli maqsad-muddaolarini o‘zlashtirishi kasbiy tayyorgarlikning negizlaridan biri hisoblanadi.

Shu bois, O‘zbekiston Respublikasida “Tarbiya” fani konsepsiyasi mazkur fanni davlatning ta’lim-tarbiya sohasidagi siyosatini amalga oshirishda mavjud bo‘lgan dolzarb muammolarni hal etishga yo‘naltiriladi. Konsepsiya yosh avlod tarbiyasidagi ishlarni yangi bosqichga olib chiqishga qaratilgan ustuvor vazifalar, asosiy maqsad va yo‘nalishlarni belgilab beradi.Shuningdek, Konsepsiyada belgilangan yo‘nalishlar mamlakat yoshlarini ma’nan va jismonan barkamol qilib tarbiyalash, iqtidori va salohiyatini ro‘yobga chiqarish, ularni davlat va jamiyatning rivojiga keng jalb etish, tashabbuslarini yetarli darajada qo‘llab-quvvatlash maqsadida huquqiy asoslar, iqtisodiy imkoniyatlar va tashkiliy mexanizmlarni yanada kengaytirishga xizmat qiladi.

Mazkur Konsepsiya O‘zbekiston Respublikasining Konstitutsiyasi, O‘zbekiston Respublikasining “Ta’lim to‘g‘risida”gi, “Yoshlarga oid davlat siyosati to‘g‘risida”gi qonunlari, xalqaro huquqning umume’tirof etilgan hujjatlari, xususan “Bola huquqlari to‘g‘risida”gi, “Bola huquqlarining kafolatlari to‘g‘risida”gi konvensiyalar, Birlashgan Millatlar Tashkilotining “Yoshlar-2030” strategiyasi hamda O‘zbekiston Respublikasining ta’lim to‘g‘risidagi qonun.

Konsepsiyada belgilangan vazifalar O‘zbekiston Respublikasini rivojlantirishning beshta ustuvor yo‘nalishi bo‘yicha Harakatlar strategiyasi

talablari, Uzluksiz ma’naviy tarbiya konsepsiyasi, milliy va jahondagi ilg‘or tajribalar, mamlakatimizdagi ijtimoiy-siyosiy o‘zgarishlar bilan uyg‘un ravishda amalga oshiriladi.

Konsepsiya umumiy o‘rta ta’lim tizimida o‘quvchilarning yoshiga mos ma’naviy rivojlanishini ta’minlash va faol fuqarolik kompetensiyalarini shakllantirish maqsadida umumiy o‘rta ta’lim maktablarida o‘qitilayotgan “Milliy istiqlol g‘oyasi: asosiy tushuncha va tamoyillar” turkumiga kiruvchi fanlar “Odobnoma”, “Vatan tuyg‘usi”, “Milliy istiqlol g‘oyasi va ma’naviyat asoslari”, “Ma’naviyat asoslari”, “Dunyo dinlari tarixi” fanlarini birlashtirgan yagona Tarbiya fanining asosiy yo‘nalishlarini belgilab beradi. Shu maqsadda, Xitoy Xalq Respublikasi, Singapur, Yaponiya, Koreya Respublikasi, Avstraliya, Germaniya, Buyuk Britaniya, Fransiya va Rossiya Federatsiyasi kabi davlatlarning tajribalari o‘rganildi, amaldagi fanlarning o‘quv dasturlari har tomonlama qiyosiy tahlil qilindi.

Tarbiya – muayyan,aniq maqsad hamda ijtimoiy-tarixiy tajriba asisda shaxsni har tomonlama o’stirish, uning ongi,xulq-atvori va dunyoqarashini tarkib toptirish jarayoni.

Ta’lim-tarbiya jamiyatning asosiy vazifalaridan biri bo‘lib, u shaxsni maqsadli va tizimli shakllantirish, keksa avlod tajribasini kelajak avlodga o‘zlashtirish, ularning ongi va ijobiy xulq-atvorini rivojlantirish jarayonidir. Keksa avlod bilimni ijtimoiy-tarixiy hayotda to‘plangan tajribasi, yosh avlodni tarbiyalash jarayoni orqali beradi.

Pedagogika bolani o‘qitish va tarbiyalash tajribalarini umumlashtiradi va ta'lim va rivojlanish uchun zarur shart-sharoitlarni belgilaydi.

Tarbiya jamiyatning tarixiy ijtimoiy-iqtisodiy sharoitlaridan kelib chiqadigan ob’ektiv jarayondir.

Tarbiyaning o‘ziga xos xususiyatlari:

- Aniq maqsadga qaratilgan jarayon
- Tarbiyaning variantivligi
- Ko’p qirraligi hamda ikki tomonlama jarayon
- Uzoq muddatli jarayon
- Qarama qarshiliklardan iborat jarayon

Mamlakatimizda milliy tarbiya konsepsiyasi aholining keng qatlamlari, ayniqsa, o‘sib kelayotgan yosh avlodning milliy ta’lim- tarbiyasini ta’minlash borasidagi davlatning bugungi siyosati va istiqbollarini belgilab beradi.U yangi tarixiy bosqichda milliy tarbiyaning mohiyati, maqsadi, vazifasi va mazmunini tartibga solib, uning komil inson shaxsini shakllantirishdagi roli va mavqeini belgilaydi.Konsepsiya mamlakatimizning butun aholisiga, joylashuvi, millati va irqidan qat’i nazar, komil inson bo‘lish uchun ta’limning turli yo‘llarini tanlash va amalga oshirish imkonini beradi.

Tarbiya ijtimoiy, madaniy, psixologik va pedagogik hodisa bo‘lib, inson hayoti va jamiyat taraqqiyotini tartibga solishga xizmat qiladi. Bu shaxsning shaxsiy rivojlanishi va real hayot oqimiga kirishi va madaniy hayot qurilishi uchun maxsus maqsadli faoliyati sifatida yo‘naltirilgan.

Tarbiya maqsadi – davlat, jamiyat va har bir fuqaro manfaatlarini amalga oshirishga qaratilgan davlat maqsad va vazifalarining tarkibiy qismidir. Shuningdek, davlat inson hayoti va faoliyatiga, fuqarolarning milliy tarbiyasiga hissa qo‘shadigan qoidalar va qoidalarni joriy qiladi. Milliy tarbiya fuqaroda yuksak axloqiy fazilatlar, milliy o‘zlikni anglash, insonparvarlik, mustaqillik, fuqarolik pozitsiyasi, tashabbuskorlik va shu kabilarni shakllantiradi. Bunday fuqaro milliy manfaatlardan kelib chiqqan holda ish yurita oladi, jamiyatdagi salbiy ko‘rinishlarga tanqidiy nazar bilan qaraydi, o‘z vatanini sevadi va uning manfaatlarini himoya qiladi, milliy qadriyatlar egasi sifatida jamiyat taraqqiyotiga hissa qo‘shadi.Milliy tarbiyaning pirovard maqsad va vazifalari komil inson, vatanparvar, milliy g‘urur, intellektual, ma’naviy-axloqiy, madaniy va boshqa insoniy qadriyatlar sohibini shakllantirishdan iborat.Ta'lim jarayonida bola o‘zining rivojlanishi uchun zarur bo‘lgan sharoitlardan foydalanishi kerak. Tabiiy va ijtimoiy muhit uning qarashlarini rivojlantiradi.

Tarbiya tushunchasiga turlicha qarash va yondashuvlar mavjud, jumladan, K. D. Ushinskiy o‘z faoliyatining aniq maqsadini ko‘rmaydigan pedagogni qurilish materiallarini bir joyga yig‘ib, undan nima olishni bilmaydigan me’morga qiyoslaydi. Pedagog yosh avlodga beriladigan bilim, ishbilarmonlik, malaka, tarbiyaviy tuyg‘ularni biladi, tarbiyaviy ishlarni rejali va maqsadli olib boradi.

Ya.A. Komenskiy "Tarbiyaning maqsad va vazifalari, uning ahamiyati, amalga oshirish yo‘llari shaxsning jamiyatdagi mavqeiga qarab belgilanishi kerak",“Tarbiya insonni shakllantiradigan va takomillashtiruvchi uyg‘un jarayondir” – Komenskiy ta’lim maqsadini quyidagi asosiy elementlarga ajratgan:

- insonga hamma narsani bilish – “ilmiy bilim”;
- narsalarni va o‘zini o‘zlashtirish - "axloq";
- Xudoga sig‘inish, ob'ektlar - "diniy ta'lim";
- jismoniy salomatlik - "jismoniy tarbiya".

I.G. Pestalotsining fikricha, ta’limning maqsadi bolaga boshlang‘ich ta’lim, mehnat, aqliy va jismoniy tarbiya berish hamda har tomonlama barkamol rivojlanishdir.

K.D. Ushinskiy tarbiyasining maqsadi jamiyatga foydali insonparvar shaxsni tarbiyalashdan iborat. U axloqiy tarbiyani aqliy va mehnat tarbiyasi bilan chambarchas bog‘liq deb hisoblaydi.

P.P.Blonskiyning tarbiyaviy maqsadi bolaga butun insoniyat va millat madaniyatini egallashga, shaxsning umuminsoniy ideallarini shakllantirishga yordam berishdir.

A.S.Makarenko ta’limning davlat vazifasidan kelib chiqqan holda pedagogik vazifani qo‘yish orqali o‘qituvchilar mehnatini nazorat qilish mumkinligini ta’kidladi. U "Ta'limning asosiy maqsadi - bolani har tomonlama rivojlantirish" taklifini qo‘llab-quvvatladi, V. A. Suxomlinskiy uni amalga oshirdi.

Xulosa sifatida shuni aytish lozimki,tarbiya tushunchasining lug‘aviy ma’nosi ilm o‘rgatish, odob- axloq o‘rgatish, jazo berish, ovqatlantirish, tarbiyalash kabi ma’nolarni o‘z ichiga oladi. Tarbiya so‘zi bugungi kunda qo‘llanilayotgan va ko‘proq axloqiy ma'noni anglatuvchi tuzilishdan tashqari o‘zbek xalqi farzandlarini

tarbiyalashda har qanday kognitiv rivojlanishni ifodalovchi tuzilishga ega. O‘zbek xalqining ming yillik tajribaga asoslangan milliy o‘zligi va ongini kelajak avlodlarga o‘tkazish imkonini beruvchi an’anaviy ta’lim/tarbiya usullari mavjud. Oila ham, jamiyat ham tarbiya vazifasini birgalikda bajaradi.

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TARIX JANRINING SHARQ XALQLARI ADABIYOTIDAGI GENEZISI

Annotatsiya. *Ushbu maqolada ta’rix janrining qisqacha mazmun-mohiyati va uning arab, fors-tojik adabiyotidagi ilk namunalari haqida bahs yuritiladi. Ayni tahqiqot uchun olingam materiallar ilmiy jihatdan tadqiq etiladi.*

Kalit so‘zlar. *Ta’rix janri, Musulmon Sharq xalqlari adabiyoti, tadrij, takomil, lug‘at, raqam qiymati, abjad hisobi, jummal hisobi, istilohiy ma’no.*

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THE GENESIS OF THE GENRE OF HISTORY IN THE LITERATURE OF THE PEOPLES OF THE EAST

Abstract. *This article discusses the brief essence of the genre of history and its first examples in Arabic, Persian-Tajik literature. The materials obtained for this research are scientifically researched.*

Keywords. *History genre, literature of the Muslim East, progress, improvement, vocabulary, numerical value, abjad arithmetic, jummal arithmetic, terminological meaning.*

Tarix moddasi shu nomga asos bo’lgan she’riy san’atlardan biri bo‘lib, muayyan voqea tarixini so‘zlardan foydalangan holda sabt qilishlikdir. Shunga ko‘ra tarix moddasini yaratishlik sohasini naqqoshlik, musiqa va boshqalar kabi tarix yozish mavzusining eng muhim sohalaridan biri deb bilish mumkin. Bu fanni biladigan bilimdon tarixchi yoki shoir jummal hisobi yordamida har harfning adad qiymati orqali muayyan bir yilga she’r bitish orqali ayni sananing barpo bo‘lish tarixini bunyod etadilar. Ali Akbar Dehxodaning “Dehxudo lug‘atida” bu so‘zga shunday ta’rif berilganining guvohi bo‘lishimiz mumkin: “Tarix moddasi abjad hisobi asosida biron bir misra yoki baytdagi harflarning yig‘indisidan muayyan tarixiy voqeani sanasini chiqarishlikdir”[Ali Akbar Qazviniy.Lug‘oti Dehxudo. Tehron, 1385-yil. 2456-b.] Ta’rix san’ati abjad hisobiga asoslanadi. Abjad hisobi-arab alifbosida harflarning har biri ma’lum songa tengligi asosida yuritiluvchi hisobdir. Ya’ni arab harflarining har biri alifbo tartibida ma’lum sonni ifodalaydi. Oson eslab qolinishi uchun sonlarni ifodalayotgan harflarni qat’iy alifbo tartibida biriktirish orqali sakkizta sun’iy so‘z hosil qilingan bo‘lib, ular hech qanday lug‘aviy ma’noga ega emas: abjad (ابجد), havvaz (هوز),hutti (حطی), kalaman (کلمن), sa’fas (سعفص), qarashat (قرشت), saxxaz (ثجذ), zazag‘ (ضظغ). [Saloh Abdussattor Muhammad ash-Shahoviyning “Jummal hisobi va she’riyatdagi ta’rix moddasi”. Misr, 1430-yil. 1-b] Abjad hisobi atamasi mazkur so‘zlarning birinchisi nomidan kelib chiqqan. Shu sakkiz so‘z tarkibidagi qisqa unlilar istisno qilinsa, qolgan

harflar 1 dan 1000 gacha bo‘lgan sonlarni bildiradi (bu o‘rinda o‘zbek alifbosidagi “t”, “s”, “h,x”, “z” harflarining arab alifbosida turli ko‘rinishlari mavjudligini hisobga olish kerak). Sharq Mumtoz she’riyatida Abjad hisobidan u yoki bu voqea-hodisaning yuz berish vaqtini qayd etish, she’rda turli so‘z o‘yinlarini yuzaga keltirish kabi maqsadlarda samarali foydalanilgan. Shuningdek, Abjad hisobi imkoniyatlari chiston, muammo kabi she’riy boshqotirma janrlarida ham keng istifoda etilgan.

Abjadning har bir harfi quyidagi raqamga ega:

ابجد هوز حطی کلمن سعفص قرشت ثخذ ضظغ

الف =ء=1 ، ب=2 ،ج=3، د=4 ،ه=5، و=6 ،ز=7 ،ح=8، ط=9، ی=10، ک=20، ل=30 ، م=40 ، س=60، ن=50 ،

ع=70 ف=80 ص=90 ق=100 ر=200 ش=300 ت=400 ث=500 خ=600 ذ=700 ض=800 ظ=900 غ=1000

Bu fanning ixtiro qilingan sanasi va vaqti haqida ko‘p ma’lumot yo‘q, lekin biz bilgan narsa shuki, u arablar orasida islom dinining boshida qo‘llanilgan, Abbosiylar xalifaligi davrining oxirida esa undan foydalanish keng tarqalgan. Ba’zilarning aytishicha, “Abjad harflarining tartibi va ularning muayyan raqam qiymatini ifoda etishi hurufiylar deb ataluvchi bir firqaga borib taqalib, ular samoviy kitoblarning, jumladan Qur'onning ma'nolari va talqinlari uning harflari va o‘sha harflarning raqam qiymati va bildirgan ramzlariga qarab belgilanishi kerak, deb hisoblagan mazhab bo‘lganlar” [Bahman Bani Hoshimiyning. Fanni moddayi ta’rixsozi va zebohoyi on. Eron. 1437-yil.].

Manbashunos olim Mahmud Hasaniy abjad kalimalarining kelib chiqishi haqida Xoja Muhammad Xoksor qalamiga mansub “G’iyos ul-lug’ot”ning “Mador ul-afozil” qismida keltirilgan ma’lumotlarni shunday izohlaydi: “Bu so’zlarning ma’nosi quyidagichadir:

Abjad (**أبجد - أي أبي وُجد في المعصية**) (Ay-abiy vujida fil-ma’siyati)-ya’ni mening otam Odam alayhissalom gunoh ustida topildi. Ya’ni undan gunoh sodir bo’ldi.

Havvaz (**هوز - أي إتبع هواه**) (Ay-ittaba’ havohu)-ya’ni o’z nafsiga tobe’ bo’ldi.

Huttiy (**حطي- أي حطى ذنبه بالتوبة والاستغفار**) (Ay-hutta zanbuhu bittavbati val-istig’fori)-ya’ni uning gunohi tavba va istig’for aytish bilan kamaydi.

Kalaman (**كلمن-أي تكلم بكلمات فتاب عليه بالقبول و الرحمة**) (Ay-takallama bikalimatin fatoba alayhi bil-qabuli var-rohmati)-ya’ni u so’zladi(tavba) so’zi bilan, so’ng tavbasi qabul bo’ldi.

Sa’fas (**سعفص-أي ضاق عليه الدنيا فأُفز عليه**) (Ay- zoqa alayhid-dunyo, fa-ufiza alayhi)-ya’ni dunyo unga tor bo’ldi, so’ng unga rahm sochildi.

Qarashat (**قرشت-أي أقرّ بذنبه فشرُف بالكرامة**) (Ay-aqorra bi zanbihi, fa-sharufa bil-karomati)-ya’ni o’z gunohiga iqror bo’ldi, so’ng lutf-u marhamatga noil bo’ldi.

Saxxaz (**ثخذ-أي أخذ من الله قوةً**)-(Ay-axoza minallohi quvvatan)-ya’ni Haq taolodan quvvat oldi.

Zazag’ (**ضظغ-أي صد عنه نزغ الشيطان بالعظيمة**) (Ay- sudda anhu nazg’ush shaytoni bil-azimati)-ya’ni duo bilan shayton nazg’i (zalolati) undan qaytdi, ya’ni haq va tavhid so’zlari bilan. [Mahmud Hasaniy. Ta’rixlarda temuriylar siymosi. Toshkent, 2020. 4-bet.]

Saudiyalik olima Lajin bint Ibrohim G’oziy Majiduddin Feruzobodiyning “Ad-durar ul-mubassasati fil-g’orar il-musallasati”asariga tayanib abjad kalimalarining kelib chiqishi haqida shunday yozadi: “ Abjad hisobidagi dastlabki olti kalima (abjad, havvaz, hutiy, kalaman, sa’fas, qarashat) Madyan podshohlarining ismlari bo’lib, Kalaman ularning eng kattasi bo’lgan. Ularning bari Shuayb alayhissalom qavmi bilan birga Yavmuz-zullati da halok bo’lganlar. Bu xususda Qur’onda shunday deyiladi: “Bas, u(Shuayb)ni yolg’onchiga chiqardilar. Bas, “soyabon kuni” azobi tutdi. Albatta, u buyuk kunning azobi edi.” Zullat-bu sovuq shamol bilan birga yuborilgan bulut bo’lib, Shuayb alayhissalom qavmi Alloh taolo tomonidan yuborilgan otashdan omonlik topish maqsadida uylaridan qochib uning ostiga jamlanishadi. Vaqtiki ular jamuljam bo’lishgach Haq taolo bir otash yuborib ularni otashda kuygan chigirtkalardek kuydirib yubordi. Osim bin Nasr al-Laysiy[70]ning yozishicha yuqorida nomlari zikr etilgan podshohlar somiylarning nazdida ismlari tartibidan arabcha yozma kitobatga birinchi bo’lib asos solishgan. Keyinchalik bu tartibdagi harflarga yana 6 ta harf qo’shilgan va bu umumiy alifbo arab alifbosini yuzaga keltirgan.” [Lajin bint Ibrohim G’oziy. Sayd ul-favoid]

Bu fanning fors tiliga kirib kelishi hijriy 5-asrga to‘g‘ri keladi. Bu she’riy fanni birinchi qo‘llagan shaxs Masud Saad Salmon bo‘lib, Hindiston hukumatini Sayfuddavla Mahmud ibn Ibrohimga topshirilish sanasi uchun quyidagi tarix parchasini tuzgan:

به سال پنجه از این پیش بوریحان در آن کتاب که کردست نام او تفهیم

که پادشاهی صاحبقران شود پیدا چو سال هجری بگذشت تی و سین و سه جیم

Ba soli panja az in pesh bu rayhon Dar on kitobki kardast nomi u tafhim.

Ki podshohi sohibqiron shud paydo, Chu soli hijriy bguzasht teyu sin-u se jim

(Bu holatdan oz-u ko‘p yil o‘tib, uning nomini bayon ayladim. Sohibqiron podshohning yilini hijratdan so‘ng to, sin va uchta jimdan topdim)

Ushbu ta’rixning yilini yopishlik uchun abjad hisobidan foydalanamiz. Arab alifbosidagi to sin va uchta jim harfining raqam qiymatini qo‘shib chiqsak 463-hijriy sana hosil bo‘ladi: 469=3+3+3+60+400=ج+ج+ج+س+ت

Ushbu fanning mutaxassislari ta’rix fanining forsiy tilda yuqoridagi ta’rixning aksi o‘laroq muayyan mazmunga ega bo‘lgan tarixni birinchilardan bo‘lib Xojuyi Kirmoniyga nisbat berishadi.

Arab olimi Mustafo Sodiq Rofe’iy o‘zining “Tarixu adabil arab” nomli as arid ta’rix san’atini she’r asosida qo‘llanishining ilk namunalari sifatida abbosiylar zamonida yashagan shoir Ibn Shabibning zamona xalifasi Almustanjid billahning xalifalik o‘rni haqidagi she’rini misol qilib ko‘rsatadi. Unda shunday deyiladi:

أنت الإمام الذي يحكى بسيرته

من ناب بعد رسول الله أو خَلَفَا

أصبحت لب بني العباس كلهم

إن عددت بحروف الجمل الخلفا

Anta al-imamullaziy yuhka bisiyratih,

[70] Mashhur arab grammatik olimi. Arab alifbosida harakatlarni ixtiro qilgan Abul Asvad Duvaliyning shogirdi. Arab alifbosidagi harflarni bir tartibda alifbo shakliga keltirgan va ularga nuqtalar qo’yishlikni joriy qilgan nahv olimi.

Man naba ba’da rosulillahi av xalafan.
Asbahta “labba” bani al-abbos kullahum,
(In adadta bi hurufil jummal al-xulafo.
Siyrati hikoya qilingan imom sensan,
Rasululloh sollallohu alayhi vasallamga noib xalifa.
Xalifalarni jumal hisobi-la sanasang,
U barcha abbosiylarning asosi bo‘ladir.)

Mazkur baytda ishora qilinayotgan so‘z lub (لب) bo‘lib, lom 30ga, be 2 ga teng. Abjad hisobida ushbu so‘zning raqam qiymati 32 ga teng. Bundan kelib chiqadiki, Almustanjid billah abbosiylarning 32 xalifasi bo‘lgan. Ibn Shabib o‘z she’rida shuni ixcham nazmiy yo‘l orqali bayon etgan.[Mustafo Sodiq Rofe’iy. Tarixu adabil arab. Hindoviy. 125-b.] Shuningdek Mustafo Sodiq Rofeiy hijriy sakkizinchi asrda yashagan shoir Salohiddin Safdiyning zamonasidagi Badriddin ismli insonga atab yozgan qasidasida ham arab adabiyotidagi dastlabki ta’rix janri borligini ta’kidlaydi. She’r quyidagicha:

لصفات بدر الدين فضل شائع
تصبو له الأفكار والأسماع
انظر إلى «القلم» الذي يحوي فقد
«صح الحساب بأنه «نَفَّاع

(Lisifoti Badriddin fazlun shoiun,
Tasubbu lahul afkor val asmo‘.
Unzur ila “al-qolam” allaziy yahviy faqod.
Sahho al-hisabu biannahu “naffo‘”.)
Badriddinning sifatlarida ko‘p fazl bordir,
Tafakkuri keng va diqqati ravon.
Olingan “Qalam”ga nazar solsang,
“Naffo‘” so‘zini hisobini qil.

Ushbu she’riy parchada “qalam” va “naffo‘” so‘zlari ta’rix san’atini yuzaga keltirgan so‘zlar bo‘lib, muallif ishora qilayotgan qalam va naffo so‘zlarini abjad hisobida hisoblasak 201 raqami hosil bo‘ladi. Bu she’r tugallanmay qolgani uchun uning nazarda tutgan ta’rixi qanday voqeani ifoda etgani mavhum. Ammo ayni she’riy parcha ta’rix janrining arab adabiyotidagi ilk namunalaridandir.

Rifoiy qilgan tahqiqotlari asosida ta’rix janrining tarixi haqida shunday yozadi: “Qilgan tahqiqotlarim natijasida she’riy ta’rixlarning eng qadimiy namunalari haqida yolg‘iz ma’lumot beruvchi “Ash-shaqoiq un-no‘moniyya fi ulamo ud-davlatil usmoniyya” kitobidan boshqasini topaolmadim. Bu kitobda zikr etilgan eng qadimgi she’riy ta’rix Shayx Tojuddin ibn Ibrohimning vafoti sanasi hqida yozilgan bo‘lib, u quyidagichadir:

انتقل الشيخ وتاريخه
قد سَكَ الله بسر رفيع[71]
Intaqola ash-shayxu va torixuhu,

[71] Alloh taolo uning yuksak sirrini pinhon etdi

“Qod sakkallohu bisirrin rafie’”
Shayx rihlat qildi va uning tarixi:
“Qod sakkallohu bisirrin rafi’” jumlasidadir.

Ta’rix moddasi islom madaniyati, xususan, turkiy xalqlar milliy ma’naviy merosining ajralmas bir qismi hisoblangani holda uning tadrijiy takomilining tarixi ayni janr bo‘yicha birlamchi bilimlarning ziyodalashuviga asos bo‘lib xizmat qiladi.

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ERKIN DARAJASI CHEKLI QOVUSHOQ–ELASTIK MEXANIK SISTEMANING ERKIN TEBRANISHI

Annotatsiya: *Maqolada erkinlik darajasi oltiga teng bo'lgan, to'rtta diferensialanuvchi tayanchga o'rnatilgan paralelopiped ko'rinishidagi apparatning erkin tebranishi o'rganilgan. Aparatning xarakat tenglamasi umumiy holda lagranjning ikkinchi tur differensial tenglamasidan olingan. Chastota tenglamasi Myuller usuli bilan sonli yechilgan va natijalar tahlil qilingan.*

Kalit so'zlar*: chastota, elastik tayanch, xos forma, Lagranj tenglamasi, sonli yechim.*

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FREE VIBRATION OF A JOINT–ELASTIC MECHANICAL SYSTEM WITH FINITE DEGREES OF FREEDOM

Abstract: *The article studies the free oscillation of a parallelepiped apparatus with six degrees of freedom mounted on four differentiating supports. The equation of motion of the apparatus is generally derived from Lagrange's second-order differential equation. The frequency equation is numerically solved using the Muller method and the results are analyzed.*

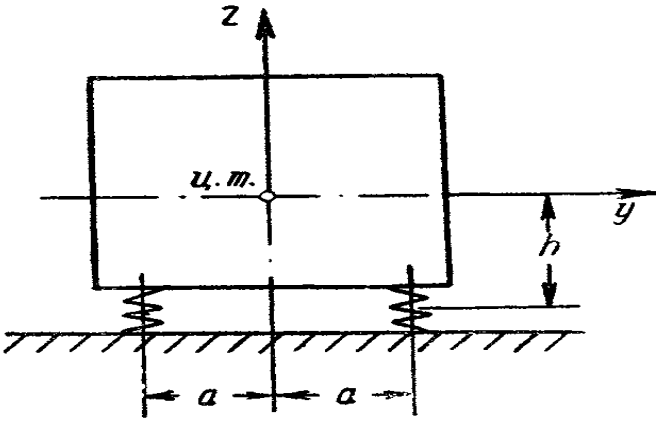
Keywords: *frequency, elastic support, eigenform, Lagrange equation, numerical solution.*

Kirish. Erkin tebranish masalasi uchuvchi apparatlarga o'rnatilgan turli xil konstruksiyalarni vibratsiyadan himoyalashga ilmiy asos bo'lib xizmat qiladi. Deformatsiyalanuvchi tayanchga o'rnatilgan qattiq jismning tebranishlarini

o’rganishga judda ko’p ilmiy ishlar bag’ishlangan [1,2,3]. Ular deformatsiyalanuvchi elimentlarning qovushqoqligini hisobga olib majburiy tebranishlarini o’rganishgan [4,5]. Lekin erkin tebranishlar masalasi to’liq o’rganilmagan.

Masalani qo’yilishi va yechish usuli.

Faraz qilaylik erkinlik darajasi olti bo’lgan konstruksiya berilgan bo’lsin (1-rasm). Bu konstruksiyani erkin tebranishini o’rganish masalasi qo’yilsin.



1-rasm. Xisob sxemasi.

Harakat differensial tenglamasi Lagranjning 2-tur differensial tenglamasidan olinadi va quyidagicha bo’ladi

Bu yerda , , , jismning og‘irlik markazining mos ravishda X, Y, Z o‘qlari bo‘yicha siljishi;-jismning koordinata o‘qlar atrofida aylanish burchaklari; -mos keladigan o‘qlar yo‘nalishi bo‘yicha elastik elementlarning (amortizatorlar) qattiqlik koeffitsientlari;

jismning og‘irlik markazidan o‘tuvchi X, Y, Z o‘qlariga nisbatan inersiya momentlari va markazdan qochma inersiya momentlari. Bunday holda, XY tekisligi yelastik tayanchlar joylashgan tekislikka parallel bo‘lib, X va Y o‘qlarining yo‘nalishlari hisoblash qulayligi asosida ixtiyoriylik bilan tanlanadi; x, y, z - X, Y, Z koordinata sistemasidagi amortizatorlarning koordinatalari.(1) Differensial tenglamalar sistemasining xususiy yechimlari quyidagi ko‘rinishga ega:

Bu yerda -doimiy koeffitsientlar, -burchak chastotasi,

-tebranishlarning boshlang‘ich fazasi.Ushbu yechimlarni (1) ga qo‘yib, biz quyidagi bir jinsli algebraik tenglamalar sistemasini hosil qilamiz:

Бу система детерминанти нолга тенг бўлганда, нолдан фарқли йечимларга ега бўлади

Oxirgi tenglama ( ) chastota tenglamasi deb ataladi. Bu determinantni yoyib, ga nisbatan oltinchi darajali tenglamani olamiz

bu yerda A, B, G doimiy koeffitsientlar. (2) tenglamaning ildizlari jismning oltita xos tebranish chastotasi sistemasini tashkil qiladi.. Ushbu tenglamani qulay taxminiy usuldan foydalanmasdan hal qilish juda mashaqqatli ishdir. Biroq,

amaliyotda tez-tez uchraydigan bir qator xususiy holatlarda, izolyatsiya qilingan tizimning xos chastotalarini topish juda soddalashtirilishi mumkin.

Xulosa sifatida shuni aytish mumkinki, ikkala tangensial harakat X o‘qi bo‘ylab yo‘naltirilgan chastotali sof bo‘ylama tebranishga yoki og‘irlik markazi atrofida chastotasi bo‘lgan sof aylanish tebranishiga o‘tadi.XZ tekisligi uchun bu yerda keltirilgan mulohaza YZ tekisligi uchun ham amal qiladi.Agar izolyatsiya qilingan jismga chastota spektri raqamli o‘qning keng oralig‘ida joylashgan davriy qo‘zg‘alish kuchlari ta’sir qilsa, u holda tebranish izolyatsiyasining yuqori samaradorligini ta’minlash uchun izolyatsiya qilingan tizimning barcha oltita xos chastotasi yoki hech bo‘lmaganda rezonansda yeng katta ampulutudaga olib kelgan holatda, ular teng yoki taxminan bir-biriga tenglashtiradi. xos chastotalarning kombinatsiyasiga amortizatorlarning qattiqligi va ularning nisbiy joylashuvini to‘g‘ri tanlash orqali erishish mumkin.

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KASBIY REFLEKSIV MALAKALARNI SHIFOKOR KASBIY FAOLIYATINI SHAKLLANISHIGA TA’SIRI

ANNOTATSIYA: *Maqolada shifokorlar kasbiy mahoratining shakllanishi, bosqichlari va o'sish omillari orasida refleksiyaning roli to'g'risida fikr yuritilgan. Shifokor kasbiy mahorati tuzilmasida refleksiyaning ahamiyati va darajasiga alohida e'tibor qaratilgan. Bo‘lajak shifokorlarning kasbiy tayyorgarlik darajasiga va kasbiy mahoratlarini rivojlantirishga nisbatan talablar yildan yilga ortib bormoqda. Hozirgi paytda avval o‘zlashtirilgan pedagogik mahorat namunalari va uslublarini shunchaki ishga solish emas, balki yangi va ijodiy yondashuvlar asosida ishlab chiqib, so‘ngra o‘zining kasbiy va shaxsiy fazilatlarini muntazam rivojlantirish talab qilinmoqda.*

Kalit so'zlar*: shifokor kasbiy mahorati,metodika,refleksiya, shifokor refleksiyasi,faoliyat,mahorat,malaka,maqsad,vosita,rivojlanish*

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THE INFLUENCE OF PROFESSIONAL REFLECTIVE SKILLS ON THE FORMATION OF THE PROFESSIONAL ACTIVITY OF THE PHYSICIAN

ABSTRACT: *The article discusses the role of reflection among the formation, stages and growth factors of professional skills of doctors. Special attention is paid to the importance and level of reflection in the structure of the doctor's professional skills. The level of professional training of future doctors and requirements for the development of professional skills are increasing year by year is going Currently, it is required not only to use previously acquired pedagogical skills and methods, but to develop new and creative approaches, and then regularly develop one's professional and personal qualities.*

Keywords: *doctor's professional skill, methodology, reflection, doctor's reflection, activity, skill, qualification, goal, tool, development*

KIRISH

O’zbekiston respublikasi davlat rahbari va vazirlar mahkamasi tomonidan oxirgi yillarda chiqarilayotgan bir qator qaror va farmonlarda tibbiyot shifokorlarining kasbiy mahorati juda yuqori darajada bo’lishligi ta’kidlanmoqda.Oliy ta’lim muassasalaridagi o’quv-tarbiya jarayonini modernizatsiyalash, pedagog mutaxassislar tayyorlash tizimi sifat darajasini oshirishda bo’lajak shifokorlarning kasbiy kompetentligini rivojlantirish, ularni sohaga oid zamonaviy kasbiy bilim, malaka va ko’nikmalar bilan qurollantirish, ilmiy-texnik innovatsiyalardan mustaqil ravishda, ijodiy foydalanish hamda istiqbolli vazifalarni hal qila olish ko’nikmalarini rivojlantirish muhim vazifalardan sanaladi.

Shifokor faoliyati uchun zarur bo‘lgan bilim va ko‘nikmalar murakkab tuzilmaga ega bo‘lib ularning orasida refleksiya alohida o‘rin tutadi. Mazkur tushunchaning fanga kirib kelishi buyuk fransuz olimi Rene Dekart nomi bilan bog‘liq edi. Refleksiyaning shaxs takomilidagi ahamiyatini ta’kidlar ekan, Dekart “O‘zini o‘rganishdan ko‘ra samaraliroq mashg‘ulot yo‘q”, degan edi.

Faoliyatga psixologik tayyorgarlikni o'rganish g'oyasi, inson shunchaki kasbiy talablarni bajarishga moslashmaydi, aksincha, mavjud sharoitlarni rivojlantiradi va yengib o'tishga intiladi, degan fikrga asoslanadi. Bu holat faqat moslashish jarayonlarining yetarli emasligini tavsiflaydi, bu shaxsning kasbiy rivojlanish g'oyasini, insonning individual xususiyatlarini, uning kasbiy yaroqlilik darajasini va o'ziga xos xususiyatlarini hisobga olgan holda akmeologik rivojlanish variantlariga erishishni aks ettiradi. U yoki bu akmeologik variantni amalga oshirishning muvaffaqiyati, bir tomondan, ma'lum bir shaxsda rivojlanish zarurati qanchalik kuchli namoyon bo'lishiga bog'liq bo'lib, u tegishli qobiliyatlar bilan qo'llab-quvvatlanadi va boshqa tomondan, ushbu variantni noaniq sharoitlarda amalga oshiradi.

Hozirgi davrda refleksiya-o‘zini o‘rganish, o‘zini boshqarish, o‘zini rivojlantirish yo‘nalishlarida talqin qilinadi.Mazkur atama ifodalaydigan hodisaning turli jihatlari qadimgi Yunonistonlik olimlar Suqrot va Aflotun, mamlakatimizdan yetishib chiqqan ulkan allomalar Abu Ali Ibn Sino, Abu Rayhon Beruniy asarlarida tavsiflangan. Dekartning xizmati ana shu olimlarning asarlarida bayon qilingan hodisalarni tizim holiga keltirishdan iborat bo’ldi.Refleksiyaning inson faoliyatidagi o‘rni muhimligini hech kim inkor etmaydi

Ayni paytda refleksiyaning turli kasb vakillari faoliyatidagi o‘rnini yoritishda jiddiy notekisliklar kuzatiladi. Pedagoglar mahorati shakllanishida refleksiyaning rolini tadqiq qilishga bag‘ishlangan kitoblar MDHga a’zo mamlakatlarda o‘nlab chop etilgan, shu mavzuda o‘nlab nomzodlik va doktorlik dissertatsiyalari ham himoya qilingan. Shu bilan birga refleksiyaning turli kasb egalari, xususan pedagoglar faoliyatining turli jihatlardagi rolini o‘rganishga qaratilgan metodikalar ham ishlab chiqilgan (“O‘qituvchi shaxsi kasbiy deformatsiyasini tashxislash metodikasi” (Orel B.E., Andreyev S.P).), “Hayot mazmunini o‘rganishga yo‘naltirilgan test” (D.A.Leontev), “O‘zini namoyon

qilish darajasini aniqlash anketasi" (N.F.Kalina) "Kasbiy qadriyatlar" anketasi (O.S. Nojenkin) va boshqalar. Refleksiya, umuman olganda, odamning mulohazalari, o'zini kuzatishi, ruhiy holati va o'zining harakatlari va faoliyatini o'rganishini anlatadi. Refleksiya ruhiy faoliyatning bir turi bo'lib u individning ichki dunyosiga qaratilgan bo'ladi. Gegel birinchi bor refleksiyani tafakkurdan tashqari hissiyotlar bilan bog'lashga harakat qilgan edi. Bu haqda u quyidagicha fikr bildirgan edi: "Ma'naviyat rivojlanishida refleksiyaning roli ulkandir. Refleksiya bevositalikdan chetga chiqishdan boshlanadi [2].

I.Kant ta'rifiga ko'ra," refleksiya tasavvurlarning bilishimiz manbalariga munosabati bo'lib shunga munosib tarzda ularning bir-biriga munosabatini to'g'ri aniqlash mumkin" [3].

I.N. Semenov va I.S. Ladenkolarning ma'lumotiga ko'ra, "u (ya'ni refleksiya-E.M.) ijtimoiy jihatdan rivojlangan odamning nazariy faoliyati shakli bo'lib u o'zining barcha harakatlari va ularning qonuniyatlarini anglashga qaratilgandir" [4].

Shundan kelib chiqib aytish mumkinki, shifokor refleksiyasi uning o'ziga, avvalroq bajargan harakatlari, faoliyatiga, ruhiy sifatlari hamda holatlariga qaratilgan bo'lib, uning o'zini o'zi tahlil qilishga moyilligini anglatadi.

Hozirgi psixologiya va tibbiy psixologiya fanlarida refleksiya shifokorning kelajakka emas, o'tgan davrda yuz bergan terapevtik faoliyatini tahlil qilishi va baholashini bildiradi. Uning ana shu tahlili va baholashida o'ziga qay darajada tanqidiy munosabatda bo'la olishi, bemorni davolashda qanchalik imkoniyatlarga ega ekani, bu imkoniyatlarni boyitish imoniyatlari qay darjada ekanini ifodalaydi. Refleksiya o'tmishga qaratilgan bo'lsa ham, usiz kelajakdagi faoliyatning muvaffaqiyatli bo'lishini ta'minlash qiyin bo'ladi. Refleksiya shifokorning o'zini o'zi boshqarishida muhim rol o'ynash barobarida uning o'zgarib borayotgan vaziyatga moslashuvini, o'zi davolayotgan bemorlarning davolanish jarayoni samaradorligini oshirish uchun yana nimalar qilish kerakligini belgilab olishida muhim ahamiyat kasb etadi. Ayni paytda refleksiya vrachning terapevtik faoliyatida qaysi jihatlarni o'zgartirish, qanday yangi taktikalarni qo'llash, qanday farmakologik vositalarni davolash tizimiga kiritish kabilarni ham belgilab olishiga yordam bedi. Shu bilan birga u bemorlar bilan munosabatlarni davolash samaradorligini oshirishga yo'naltirish uchun yana qanday choralar ko'rish kerakligini aniqlab olishga ham xizmat qiladi.

Aytish mumkinki, yuqorida bayon qilinganlarning bari shifokor refleksiyasi qaratilishi mumkin bo'lgan hodisalar qanchalik turli-tuman ekanini ifodalaydi. Shu bilan birga u shifokor ning jamoadagi kasbdoshlari bilan munosabatlari, bemorni davolashda ularning ko'magiga tayanishi mumkinligi, o'zi ham hamkasb jamoadoshlariga bemorlarni davolashda ko'mak berishi mumkinligini ifodalaydi. Shifokorlarning bemorlarni davolashda konsilium o'tkazishlari va konsilium natijalarini kelajakdagi muolajalarda hisobga olishlari shifokorlarning jamoadagi hamkorligi, ularning o'zaro munosabatlari ham refleksiya predmeti bo'lishi mumkinligini bildiradi.

Refleksiya shifokorning muolaja jarayonida egiluvchan fikr yuritishi, o‘zining fikrlarini samaraliroq amalga oshirishini, bemorlar bilan optimal munosabatlar o‘rnatishini ta’minlashga xizmat qiladi. Ijodiy yondashuvni talab qiladigan vazifalarni bajarar ekan, shifokor o‘zining avvalgi tajribalarini qayta ko‘rib chiqish, ulardan yanada ijobiyroq va samaraliroq xulosalar chiqarishga harakat qiladi.

Shifokor refleksiyasining eng muhim xususiyatlaridan biri uning muolaja jarayonida bir tomondan cheklashga harakat qilsa,ikkinchi tomondan, ijodiylik uni erkinroq harakat qilishga undaydi. Endi u o‘zining kasbiy ehtiyojlarini, burchini to‘laroq va chuqurroq anglashga harakat qiladi.

Refleksiya ijtimoiy-madaniy fenomen ekan u shifokorning kasbiy ma’naviyati, kasbiy qadriyatlarini to‘laroq tushunishiga, ularni tabiat va jamiyat qonunlariga mos ravishda anglashiga yordam beradi.

Refleksiya evristik usul bo‘lib shifokor tomonidan o‘z faoliyatini anglash va tahlil qilishga yo‘naltiradi. Refleksiyaning quyidagi turlarini farqlash mumkin:

-elementar refleksiya. Refleksiyaning bu turidan kundalik turmushda foydalaniladi. Uning yordamida atrofdagi voqea-hodisalar va ularga o‘zining munosabati xususiyatlari anglaniladi.

-ilmiy refleksiya. Refleksiyaning bu turi ilmiy bilish qonuniyatlari asosida nazariy bilimlarni tahlil qilish va tanqidiy yondoshuvga yo‘naltiradi.

-falsafiy refleksiya. Bu tur obyektiv dunyo va ong mavjudligi va rivojlanishining eng umumiy qonuniyatlari va kishilik madaniyatini yaxlit holda tanqidiy o‘rganishni taqozo qiladi.

-kasbiy refleksiya. Refleksiyaning bu turi turli kasb vakillari tomonidan o‘z kasbi obyekti doirasida o‘ziga va o‘z kasbiga munosabatini shakllantiradi. Kasbiy refleksiya turlaridan biri shifokor refleksiyasi bo‘lib u shifokorning o‘ziga, kasbiga, bemorlarga hamda hamkasblariga munosabatlarini tanqidiy tahlil qilishini taqozo etadi.

Shifokor o‘zining tibbiyot to‘g‘risidagi, bemorlar to‘g‘risidagi, hamkasblar to‘g‘risidagi, davolash usullari va vositalaridan foydalanish yo‘llari to‘g‘risidagi bilimlarni boyitib borishi va ko‘nikmalarini muntazam rivojlantirishini ta’minlashga xizmat qiladi.

XULOSA

Shifokor refleksiyasini shakllantirish va ilmiy asosda olib borish tibbiyot oliygohlari yoki fakultetlaridagi ta’lim jarayonida o‘rgatilishi maqsadga muvofiq. Hozirgi kungacha mamlakatimizdagi tibbiyot oliygohlarida bu yo‘nalishda maqsadga yo‘naltirilgan ishlar kam olib borilgan. Bu kamchiliklarni bartaraf etish mamlakatimiz sog‘liqni saqlash tizimini Yangi O‘zbekistonni yaratish bo‘yicha mamlakatimizda olib borilayotgan ulkan ishlarning maqsadiga mos bo‘ladi.

Ushbu tamoyil shaxsning o‘zini o‘zi boshqarishning turli darajalarida namoyon bo‘ladi: neyrofiziologiya shaxsning o‘z-o‘zini anglash jarayonlarini

ifodalab, tartibga solish va konstruktiv funksiyalarini bajaradi hamda insonning ichki ma’naviy dunyosining yaxlitligi va dinamizmini ta’minlaydi.

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OLIY TA'LIM TIZIMIDA PEDAGOGLARDA KREATIV YONDASHISH MALAKALARINI RIVOJLANTIRISH

Annotatsiya: *Talabalarning kreativ qiziqishlari va ehtiyojlarini qondirishga xizmat qiladigan g'oyalar, kontseptsiyalar hamda ilg'or pedagogik tajribalar asosida o'qitish jarayonini tashkil etish kreativlikni rivojlantirishga nisbatan mazmunli-faoliyatli yondashuvnishakllantirishga xizmat qiladi.*

Kalit so'zlar: *kreativ, kreativlik, ijodiy faoliyat, amaliy kreativ fikrlash ko'nikmalari, xalqaro standartlar, integratsiyalashuv.*

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DEVELOPMENT OF CREATIVE APPROACH SKILLS IN TEACHERS IN THE HIGHER EDUCATION SYSTEM

Annotation: *Organizing the teaching process based on ideas, concepts, and advanced pedagogical practices that serve to satisfy students' creative interests and needs helps to form a meaningful and active approach to the development of creativity.*

Keywords: *creativity, creativity, creative activity, practical creative thinking skills, international standards, integration.*

Kirish. O'zbekiston Respublikasida oliy ta'lim tizimini 2030 yilgacha rivojlantirish Kontseptsiyasida oliy ma'lumotli mutaxassislar tayyorlash sifatini oshirish, talabalarda mustaqil ta'lim olish, tanqidiy va ijodiy fikrlash, tizimli tahlil qilish, tadbirkorlik ko'nikmalarini shakllantirish, o'quv jarayonida kompetentsiyalarni kuchaytirishga qaratilgan metodika va texnologiyalarni joriy etish, o'quv jarayonini amaliy ko'nikmalarni shakllantirishga yo'naltirish, bu borada o'quv jarayoniga xalqaro ta'lim standartlariga asoslangan ilg'or pedagogik texnologiyalar, o'quv dasturlari va o'quv-uslubiy materiallarni keng joriy qilish borasida chora-tadbirlar belgilab berildi.[2] Kreativlik shaxsni yaxlit holda yoki uning muayyan xususiyatlarini, zehni o'tkirlikni tavsiflaydi. Shuningdek, kreativlik iqtidorning muhim omili sifatida aks etadi. Pedagog o'z-o'zidan ijodkor bo'lib qolmaydi. Uning ijodkorlik qobiliyati ma'lum vaqt ichida izchil o'qib-o'rganish, o'z ustida ishlash orqali shakllanadi.

Tahlil va natijalar. Shaxsning kreativligi uning tafakkurida, muloqotida, his-tuyg‘ularida, muayyan faoliyat turlarida namoyon bo‘ladi. Kreativlik shaxsni yaxlit holda yoki uning muayyan xususiyatlarini tavsiflaydi. Kreativlik iqtidorning muhim omilisifatida ham aks etadi. Qolaversa, kreativlik zehni o‘tkirlikni belgilab beradi, talabalar e’tiborini ta’lim jarayoniga faol jalb etishni ta’minlaydi. Xorijiy mamlakatlarda barcha sohalarning mutaxassislari kabi o‘qituvchilar ham o‘zlarida kreativlik sifatlari mavjudligi va uning darajasini aniqlab boradi. Buning uchun ular E.P.Torrens tomonidan 1987-yilda asoslangan va shaxsning kreativ tafakkurga egaligini aniqlovchi testdan o‘tadi. Mazkur test shaxs kreativligi va uning darajasini ijodiy faoliyatni tashkil etishdagi faollik, tezkor fikrlash, o‘ziga xoslik va takomillashganlik kabi mezonlar bo‘yicha baholash imkoniyatini yaratadi. O‘quvchi tomonidan tavsiya etilgan savollarga beriladigan javoblar aynan mana shu to‘rtta mezonni qanotlantirishi lozim. E.P.Torrens fikricha, “kreativlik” tushunchasi negizida quyidagi yoritiladi.

- muammoni yoki ilmiy farazlarni ilgari surish;
- farazni tekshirish va o‘zgartirish;
- qaror natijalarini shakllantirish asosida muammoni aniqlash;
- muammo echimini topishda bilim va amaliy harakatlarning
- o‘zaro qarama-qarshiligiga nisbatan ta’sirchanlik

Pedagogning kreativlik sifatlariga ega bo‘lmasligi tufayli talabalar ham qiziqarli va ajoyib g‘oyalarga ega bo‘lsada, biroq, ularni ifodalashda sustkashlikka yo‘l qo‘yadi. Buning sababli ta’lim jarayonida qo‘llanilayotgan metodlar talabalarda erkin, mustaqil fikrlash ko‘nikmalarini shakllantirishgaxizmat qilmasligi bilan belgilanadi. Muallif tomonidan tavsiya qilingan vosita va strategiyalar talabalarda kreativlikni rivojlantirishda o‘qituvchilar uchun qo‘l keladi hamda talabalarda o‘quv fanlarini o‘rganishga bo‘lgan qiziqish, intilishni rivojlantiradi.

Talabalarni kreativ fikrlashga o‘rgatish, ularda kreativ tafakkurni shakllantira olish uchun avvalo o‘qituvchining o‘zi kreativ, ijodkor shaxs bo‘lishi zarur. Bordiyu, uning o‘zi kreativlik sifatlariga ega bo‘lmasa, u holda qanday qilib, talabalarni kreativ fikrlashga rag‘batlantira oladi. CHiqariladigan yagona xulosa quyidagicha: o‘qituvchining o‘zi kreativ, ijodkor bo‘lsagina, talabalar ham shunday bo‘la oladi. O‘qituvchining ijodkor va kreativ bo‘lishi yoki bo‘lmasligi emas, balki darslarni ijodkorlik, kreativlik ruhida tashkil etishi, yangi g‘oyalarni ta’lim jarayonida sinab ko‘rishga intilishi zarur. Darslarda o‘qituvchi “kreativlik yo‘l xaritasi”ga ko‘ra quyidagi 4 ta yo‘nalish bo‘yicha harakatlanadi va ulardagi harakatlar pedagoglarning kreativligini ifodalovchi belgilar sanaladi:

1. ijodiy fikrlash ko‘nikmalarini namoyon etish;
2. talabalarni o‘quv fanlarini qiziqish bilan o‘zlashtirishga rag‘batlantiruvchi strategiyalardan foydalana olish;
3. innovatsion yondashuv va pedagogik masalalarning echimini topishga kreativ yondashish;
4. kutiladigan natija.

Pedagogning kreativlik salohiyati uning umumiy xususiyati sifatida aks etadi. U ijodiy faoliyatning dastlabki sharti va natijasi sanaladi. Mazkur sifat shaxsning o‘z-o‘zini namoyon qilish layoqatiga egalikni va tayyorlikni ifodalaydi. Qolaversa, kreativ potensial negizida har bir mutaxassisning shaxsiy qobiliyatlari, tabiiy va ijtimoiy quvvati yaxlit holda namoyon bo‘ladi. Kreativ salohiyat bilish jarayoniga yo‘naltirilgan ijodkorlik bilan chambarchas bog‘liq. Pedagogning kreativ salohiyati an’anaviy tafakkur yuritishdan farqli ravishda quyidagilarda namoyon bo‘ladi: - tafakkurning tezkorligi va egiluvchanligi; - yangi g‘oyalarni yaratish qobiliyati; - bir qolipda fikrlamaslik; - o‘ziga xoslik; - tashabbuskorlik; - noaniqlikka toqat qilish; Pedagog kreativlik potensialiga ega bo‘lishi uchun kasbiy faoliyatida quyidagilarga e’tiborini qaratishi zarur: - kasbiy faoliyatiga ijodiy yondashish; - yangi-yangi g‘oyalarni yaratishda faollik ko‘rsatish; - ilg‘or pedagogik yutuq va tajribalarni mustaqil o‘rganish; - hamkasblar bilan pedagogik yutuqlar xususida fikr almashish. Har bir pedagogning o‘zini o‘zi rivojlantirishi va o‘zini o‘zi namoyon eta olishi bevosita uning kreativlik qobiliyatiga egaligi bilan bog‘liq. Odatda pedagoglarning kreativlik qobiliyatiga ega bo‘lishlari pedagogik muammolarni hal qilishga intilish, ilmiy-tadqiqot ishlari yoki ilmiy loyihalarni amalga oshirish va o‘zaro ijodiy hamkorlikka erishishlari orqali ta’minlanadi. Pedagog o‘z-o‘zidan ijodkor bo‘lib qolmaydi. Uning ijodkorlik qobiliyati ma’lum vaqt ichida izchil o‘qib-o‘rganish, o‘z ustida ishlash orqali shakllantiriladi va u asta-sekin takomillashib, rivojlanib boradi. Har qanday mutaxassisda bo‘lgani kabi bo‘lajak pedagoglarning kreativlik qobiliyatiga ega bo‘lishlari uchun talabalik yillarida poydevor qo‘yiladi va kasbiy faoliyatni tashkil etishda izchil rivojlantirib boriladi. Bunda pedagogning o‘zini o‘zi ijodiy faoliyatga yo‘naltirishi va bu faoliyatni samarali tashkil eta olishi muhim ahamiyatga ega. Pedagog ijodiy faoliyatni tashkil etishda muammoli masalalarni echish, muammoli vaziyatlarni tahlil qilish, shuningdek, pedagogik xarakterdagi ijod mahsulotlarini yaratishga alohida e’tibor qaratishi zarur. Muammoli masala va vaziyatlarni hal qilar ekan, pedagogning masala echimini topishga ijodiy yondashishi unda hissiy-irodaviy sifatlarning rivojlanishiga yordam beradi. Pedagog o‘z oldiga muammoli masalalarni qo‘yish orqali mavjud bilimlari va hayotiy tajribalariga zid bo‘lgan dalillar bilan to‘qnash keladi. Buning natijasida o‘z ustida ishlash, mustaqil o‘qib o‘rganishga nisbatan ehtiyoj sezadi. O‘qituvchilar darslarda talabalarning erkin fikr yuritishlarini ta’minlay olishlari kerak. Xuddi shu holatdagina ularning fikrlari kreativlik kasb etadi. “Kreativlik darslarida talabalar birgina “to‘g‘ri” javobni izlash o‘rniga o‘zlarini erkin va hotirjam sezishlari va yuzaga kelgan muammolarga turli echimlarni izlab topishlari maqsadga muvofiqdir. Qancha ko‘p g‘oya va fikrlarni o‘rtaga tashlasalar, shuncha ko‘p g‘oyalar kreativ bo‘ladi. O‘quvchilar “Aqliy hujum” metodidan foydalanganlarida noaniqlikka duch kelishlari mumkin. Talabalarni to‘g‘ri yo‘lga yo‘naltirish va keyinchalik ularni mustaqil “sayohatga” qo‘yib yuborish ularda kreativ va, hattoki noaniq bo‘lsada, turli g‘oyalarni o‘ylab topishga bo‘lgan intilishni kuchaytiradi. Talabalarni yo‘naltirish talabalarda o‘qituvchiga bog‘liq bo‘lib qolmay, ularda avtomatik ravishda harakat qilish ko‘nikmasini shakllantiradi. O‘qituvchilar talabalarga manbalar bilan ta’minlash,

maslahat berish, yo‘l-yo‘riq ko‘rsatish, ularning progress va muvafaqqiyatini aniqlashda mezonlarni ishlab chiqishda murabbiy sifatida xizmat qiladilar. Shuningdek, yuqori kurs talabalari nafaqat ichki kreativlikni shakllantirish, balki kichik guruhlarda ishlash, kreativlik va sharhlar berishga qiziqtira oladilar ham. Kreativlik potensialiga ega pedagog o‘zida quyidagi malakalarni namoyon eta oladi: - bajariladigan vazifaning mohiyati va ahamiyatini belgilay bilish; - masalaning qo‘yilishini tahlil qila olish; - masalani hal qilish rejasini tuzish; - masalani hal qilishda samarali metodlarlarni qo‘llash; - masalani hal qilish usullarini tanlay olish; - qabul qilingan qarorning to‘g‘riligini asoslash va qayta tekshirish; - masalani hal qilishda kichik tadqiqotni olib borish; - masalani hal qilish sharoiti, jarayonning borishi va masala echimi yakunlarini umumlashtirishga oid dalillarni rasmiylashtirish.

Xulosa. Xulosa qilib aytganda, pedagogik faoliyatning individual uslubini shakllantirishda har bir oliy ta'lim o'qituvchisi o'zi uchun talabalarni o'qitish har qanday evristik usullarni tanlashi mumkin. Shu bilan birga, ularni qo'llash yordamidagi tarix o'qituvchilarining kreativlikni rivojlantirishga yaxshilash bilan ta'sir ko'rsatishini ta'minlash kerak.

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KREATIV YONDASHUVNI RAG'BATLANTIRISHDA SEMINAR MASHG'ULOTLARNING ROLI

Annotatsiya: *Maqolada talabalarda kreativlik sifatlarini rivojlantirish bosqichlari, omillari, imkoniyatlari va tarkibiy qismlari haqida bayon etilgan.*

Kalit so'zlar: *Kreativ yondashuv, rag'bat, mashg'ulot, g'oyalar, fikrlashni shakllantirish, jarayon.*

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THE ROLE OF SEMINARS IN PROMOTING A CREATIVE APPROACH

Annotation: *The possibilities and components of the development of creative qualities of future specialists are also described in detail. At the same time, the stages and factors of the development of creative qualities in students are highlighted.*

Keywords: *Creative approach, motivation, training, ideas, shaping thinking, process.*

Kirish. O'zbekiston Respublikasi Prezidenti Sh. M. Mirziyoyev: "Oldimizda yoshlarga tarbiya berish, psixologiya va boshqa turli sohalarda kadrlarni tayyorlash va qayta tayyorlash bo'yicha murakkab vazifalar turibdi. Yana bir muammoni hal etish muhim hisoblanadi: bu – pedagoglar va professor-o'qituvchilar tarkibining professional darajasi, ularning maxsus bilimlaridir. Bu borada ta'lim olish, ma'naviy-ma'rifiy kamolot masalalari va haqiqiy qadriyatlarni shakllantirish jarayonlariga faol ko'mak beradigan muhitni yaratish zarur." [1]deb ta'kidlab o'tganlar.

Mamlakatimizda ta'lim tizimini tubdan takomillashtirish davlat siyosatining ustuvor yo'nalishi sifatida e'tirof etilmoqda. Bu maqsadni amalga oshirishda ta'limning yangi-yangi modellari yaratilmoqdaki, uning nazariy-metodik asoslari yetakchi mutaxassis-olimlar tomonidan ilmiy-amaliy tarzda isbotlab berilmoqda.

Tahlil va natijalar. Kreativlik turli vaziyatlarda ta'lim va tarbiyaga oid masalalar yuzasidan qarorlarni qabul qilishda yaqqol namoyon bo'lib, u pedagogning ijodiy faolligini tavsiflaydi. Mohiyatiga ko'ra OTM pedagoglarida kreativlik sifatlarini rivojlantirish ular tomonidan pedagogik, psixologik hamda mutaxassislik fanlari asoslaridan to'la xabardor bo'lish, ular tomonidan

o‘zlashtirilgan bilimlarni amaliyotda faol qo‘llay olish ko‘nikma va malakalarini shakllantirish hisobiga kechadi. Har qanday shaxsda bo‘lgani kabi pedagoglarda ham ijodiy-kasbiy xarakterdagi sifatlardan biri sifatida kreativlik muayyan bosqichlarda rivojlanadi. Ta’lim amaliyotini kuzatish, talabalar va malaka oshirish kursi tinglovchilarining faoliyatini o‘rganish, tashxislovchi metodlarni qo‘llash natijasida mu’lum bo‘ldiki, pedagoglarda kreativlik quyidagi to‘rt bosqichda shakllanadi va rivojlanadi.

Kreativ shaxsning shakllanish bosqichlari.

1. Pedagogik, psixologiya, falsafa, estetika kabi fanlar (turkum fanlar)ning nazariy metodologik asoslarini o‘zlashtirish.
2. O‘zlashtirilgan nazariy bilimlarni uzlukli va uzluksiz pedagogik amaliyot davrida, shuningdek, amaliy mashg‘ulotlar va mustaqil ta’lim jarayonida amaliyotga tadbiq etish ko‘nikmalarini hosil qilish.
3. Mustaqil ravishda o‘qib-o‘rganish va ijodiy izlanish asosida hosil qilingan amaliy ko‘nikmalarning malakalarga aylanishiga erishish.
4. Mavjud nazariy bilim, amaliy ko‘nikma va malakalarga tayangan holda kasbiy faoliyatni samarali tashkil etishga psixologik jihatdan tayyorlanish.

Talabalarda kreativlik sifatlarining o‘zlashtirilishiga erishish yo‘lida pedagogik faoliyatni tashkil etishda yuqorida qayd etib o‘tilgan barcha bosqichlar birdek ahamiyatli sanaladi. Patti Drapeauning yondashuviga ko‘ra talabalarda kreativlik ko‘nikmalarini shakllantirish va rivojlantirishda quyidagi bosqich va g‘oyalar muhim ahamiyatga ega:

1. Boshlang‘ich savollar ravon fikrlash ko‘nikmasini shakllantirishda quyidagi vaziyatlar o‘quvchilar e’tiborini jalb etishda yordam beradi:

- Muammoni yechish yo‘llari.
- Bir maqsadga xizmat qiluvchi strategiyalar.
- Ihtiro qilingan narsalar va ob’ektlardan boshqa maqsadlarda foydalanish.
- Ma’lum bir ishni turlicha amalga oshirish.
- Yuzaga kelgan vaziyatning natijasini tahlil qilish.

Moslavshuvchanlikni shakllantirishda “aqliy hujum” mashqlari katta samara beradi. Bunda talabalar nafaqat bir qator g‘oyalar, balki turli-tuman g‘oyalarni topishlari lozim. O‘quvchilarda moslavshuvchan fikrlashni faollashtirishda quyidagi savollar qo‘l keladi:

- sizningcha hayotda va ta’lim tizimida nimalarga o‘zgartirishlar kiritish lozim?
- ... ta’sir etishi mumkin bo‘lgan vaziyat, muammo, mavzular ro‘yhatini tuzing.
- ... rivojlantirishning qanday usullari mavjud? O‘ziga xoslikni (originallik) shakllantirishda quyidagi savollardan foydalanish o‘quvchilarda original javoblarni berishni faollashtiradi:

2. Turli kategoriyaga mansub savollar. Odatda o‘qituvchilar bir hil savolar berishga moyil bo‘ladi. Bu esa bir hillikni keltirib chiqaradi. Turli kategoriyaga

mansub savollar esa o‘quvchilarda noodatiy javoblar berish, tahmin qilish, natijani oldindan ko‘ra bilish kabi ko‘nikmalarni shakllantiradi. Bunday savollar quyidagilarni tashkil etadi:

- Foydalanishning boshqa usullari. Masalan, mobil telefonlardan yana qanday maqsadla va qanday vaziyatlarda foydalanish mumkin? Комьуterga ma’lumot kiritishda qo‘llaniladigan disklardan yana qanday maqsadlarda foydalanish mumkin?
- Mahsulot (predmet, ob’ekt, qonun va h.k.)ni yaxshilash, takomillashtirish. Mustaqillik Deklaratsiyasiga o‘zgartirishlar kiritish. Ob-havoni oldindan aytib beruvchi uskunani takomillashtirish.
- Istiqbolga intilmoq. Mashhur insonlarning turli muammola, ta’lim tizimi, siyosiy rejimrga nisbatan bo‘lishi mumkin bo‘lgan munosabati, fikrini yozing.
- Sabab va oqibat. Masalan, Fuqarolar urushining sabab va oqibatlarini yozing. Adabiy asar qahramoni hatti-harakatining sabab va oqibatlarini yozing. CHiqindini qayta ishlash sabab va oqibatlarini keltiring.

3. Qarama-qarshi aqliy hujum strategiyasi. Qarama-qarshi aqliy hujum strategiyasi yuzaga kelgan muammoga teskari tomondan qarash va uni boshqacha yondashuv bilan tahlil qilish demakdir. Bunday strategiya o‘quvchilardan erkin fikrlash, maslashuvchanlikni talab etibgina qolmay, balki ularda turli original fikr va qarashlarning yuzaga kelishiga zamin yaratadi. Qarama-qarshi aqliy hujum strategiyasi g‘oyalari quyidagicha bo‘lishi mumkin:

- Havo ifloslanishini oldin olish emas, balki havoni yanada ko‘proq ifloslantirish.
- Ichimlik suvini tejash emas, balki behudaga sarflash.
- Boshqalarni hursand qilish o‘rniga yoqimsiz vaziyatlarni keltirib chiqarish.
- Ijobiy fikrlashni emas, balki salbiy fikrlashni targ‘ib etish.
- A’lochi emas, ikkichi bo‘lish.

4. Nuqtai nazarni ifodalash. Mazkur strategiyani munozara deb nomlash ham mumkin. Bunda talabalar boshqalarning fikrini inobatgan olgan holda o‘z qarashlari to‘g‘ri ekanligini isbotlashlari lozim. O‘qituvchi o‘quvchilarni ikki guruhga ajratib, ikki xil nuqtai nazarni o‘rtaga tashlaydi. Har bir o‘quvchi o‘z fikrini himoya qilgan holda kichik bayon yozadi, so‘ng kichik guruhdagi boshqa talaba bilan bo‘lishadi. O‘quvchilar har bir bayondan eng asosiy fikrlarni saralab oladilar va boshqa guruhdagi o‘quvchilarga qarshi turishda ulardan foydalanadilar. Har bir fikr og‘zaki bildirilib, bir o‘quvchi bittadan gap o‘qiydi. O‘quvchilar guruhlarda har bir fikr va qarashlarning ketma ketligini ham muhokama orqali kelishib oladilar. Bunday usul o‘quvchilarda jamoa bo‘lib, hamkorlikda ishlash ko‘nikmasini tarbiyalaydi.

Xulosa. Yuqoridagilardan kelib chiqib, xulosa qilish mumkinki, talabalarning pedagogik ehtiyojlari, qiziqishlari, alohida ahamiyatga ega bo‘lgan yo‘nalishlarini tizimli tarzda o‘rganish, bunda ularning kreativ faoliyatni tashkil etish ida

uchraydigan kontrsuggestiv, tezaurus va interaksion baryerlarning bartaraf etishning samarali yo‘llarini belgilash lozim. Shuningdek, talabalarning kreativ qiziqishlari va ehtiyojlarini qondirishga xizmat qiladigan g‘oyalar, konsepsiyalar hamda ilg‘or pedagogik tajribalar asosida o‘qitish jarayonini tashkil etish kreativlikni rivojlantirishga nisbatan mazmunlifaoliyatli yondashuvni shakllantirishga xizmat qiladi. Talabalarning kreativlik ko‘nikmalarini rivojlantirish asosida ulardagi ixtisoslashgan ya’ni pedagogik kreativlik kompetentligini rivojlantirishga alohida e’tibor qaratish, bunda zamonaviy axborot komunikatsiya texnologiyalari, innovatsion strategiyalar, interfaol ta’lim metodlari va texnologiyalaridan keng foydalanish maqsadga muvofiq. Mutaxassislar ta’kidicha, oliy ta’lim muassasalarida talabalar kreativlik qobiliyatlarini rivojlantirishning reproduktiv, ijodiy-izlanish va novatorlik bosqichlari samaradorligini ta’minlashga xizmat qiluvchi ijodiy yo‘naltirilgan ta’lim dasturlarini ishlab chiqish va talabalarning kreativ ko‘nikma va malkalarini rivojlanishining o‘zgarishini baholab borish lozim. Oliy ta’lim muassasalari pedagog kadrlarining kreativ kompetentligini uzluksiz rivojlantirishga yo‘naltirilgan o‘qitish dasturlarini va texnologiyalarini takomillashtirib borish, shuningdek talabalarning kreativlik qobiliyatlarini rivojlantirishga xizmat qiluvchi zamonaviy axborot-metodik ta’minotni yaratish jarayon samaradorligini oshirishga xizmat qiladi .

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ENHANCING READING SKILLS TO B2 LEVEL IN ESL/EFL STUDENTS

Abstract:*This article reviews the literature on strategies and interventions that have been shown to enhance reading skills for B2-level ESL/EFL students. The focus is on the role of vocabulary development, reading fluency, extensive reading programs, and the use of reading strategies such as inference, prediction, and summarization.*

Key words: *CEFR, extensive reading programs, vocabulary development, reading strategies, fluency.*

Reading is a fundamental skill for language acquisition, and achieving a high level of reading proficiency is essential for academic success and effective communication in English. The CEFR categorizes language proficiency into six levels, from A1 (beginner) to C2 (proficient), with B2 considered an upper-intermediate level. B2-level students are expected to read and understand texts on a wide range of topics, including abstract and complex materials, and extract both explicit and implicit meaning from texts (Council of Europe, 2020).For ESL/EFL students, enhancing reading skills at the B2 level involves improving vocabulary, developing reading strategies, and increasing reading fluency. This article reviews current research on how these factors contribute to reading skill development and identifies practical methods for teachers to enhance B2-level reading proficiency.

Vocabulary size and depth are closely correlated with reading comprehension ability (Grabe, 2009; Nation, 2013). B2-level students typically have a vocabulary range sufficient to understand everyday texts, but they still encounter difficulty with more complex or specialized vocabulary. Research indicates that extensive vocabulary knowledge—especially in terms of word frequency and collocation—significantly enhances reading comprehension. According to Coxhead (2000), academic texts require specialized vocabulary, which learners must acquire to achieve proficiency in academic reading.

Research on reading has categorized readers based on their use of strategies and reading comprehension outcomes, labeling them as good or poor, successful or unsuccessful, skilled or unskilled, and high- or low-proficient readers. Generally, researchers aim to identify the positive aspects of these categories. It is important to note the clear connection between a reader's proficiency level, their strategy use, and the results of the reading process. Skilled readers tend to be adept at using strategies because they apply both cognitive and metacognitive techniques, which enhance their comprehension. These readers not only utilize a variety of strategies but also use them more frequently than less successful readers. Effective strategy users benefit from both bottom-up and top-down reading approaches (Singhal, 2001; 2006). Furthermore, they excel in declarative, procedural, and conditional

knowledge, which helps them determine which strategies to use, when to apply them, and how to do so effectively. A key trait of good strategy users is their ability to coordinate multiple strategies (Anderson, 1991). In contrast, poor strategy users tend to misunderstand the reading process—they are unaware of its demands and make less use of their cognitive resources. They exert less mental effort, struggle to monitor their comprehension, and apply fewer and less effective strategies while processing text.

There are various approaches to vocabulary instruction that have been proven effective. For example, direct teaching of high-frequency academic words, as well as incidental vocabulary learning through reading, has shown positive effects on reading skills (Schmitt, 2008). Additionally, the use of context to infer word meaning (Haastrup, 2013) and strategies like guessing from context or word-part analysis have been found to improve comprehension in B2-level learners (Zhang, 2012).

Reading fluency refers to the ability to read texts smoothly and efficiently, with appropriate speed, accuracy, and prosody (Kuhn & Stahl, 2003). At the B2 level, students must be able to read both silently and aloud with adequate fluency to comprehend the text without excessive cognitive load. The importance of fluency lies in the fact that it enables students to focus their mental resources on understanding the meaning of the text, rather than decoding individual words.

Fluency-building activities, such as repeated reading and timed reading exercises (Samuels, 2002), have been found to improve both reading speed and comprehension. Moreover, reading aloud and practice with varied sentence structures can help students gain confidence and reduce anxiety during reading tasks.

Extensive reading (ER) involves reading large quantities of text for pleasure, without the need for intensive analysis or vocabulary study. This approach has been shown to increase reading fluency and vocabulary acquisition, as students are exposed to a wide range of language in context. Research supports that extensive reading can have a significant impact on the development of reading comprehension and language skills, particularly at the B2 level (Day, Bamford, 2002).

Several studies have demonstrated that extensive reading programs help students to engage with authentic texts, which can build both vocabulary knowledge and the ability to read for gist. Furthermore, extensive reading allows students to gradually become more familiar with a variety of genres, writing styles, and cultural contexts, all of which are crucial for B2-level proficiency.

The integration of technology in language learning has opened new avenues for enhancing reading skills. Digital tools, such as e-readers, language learning apps, and online reading platforms, provide students with immediate access to a wealth of texts and vocabulary support (Chun, 2001). For instance, e-readers offer features such as instant dictionary look-ups and text-to-speech functions, which support comprehension and fluency development (Zheng et al., 2018).

Online reading platforms, such as extensive reading websites, also allow learners to select texts suited to their level and interests, promoting both motivation

and language acquisition. Furthermore, web-based activities like interactive quizzes and comprehension exercises can provide instant feedback, helping students track their progress (Guthrie & Humenick, 2004).

Collaborative reading, in which students work together to analyze texts and discuss content, is another effective strategy for enhancing reading skills. Peer discussion fosters critical thinking and allows students to clarify misunderstandings, share interpretations, and reinforce learning. Studies have found that cooperative learning environments enhance both reading comprehension and motivation (Slavin, 1991).

Furthermore, task-based language teaching (TBLT) has been used successfully to promote reading skills through real-world, problem-solving activities. TBLT encourages learners to focus on communicative tasks that require active engagement with texts, such as summarizing articles, comparing viewpoints, or solving problems based on information in a text (Ellis, 2003).

Enhancing reading skills to B2 level in ESL/EFL students involves a multifaceted approach that combines vocabulary development, reading fluency, strategic reading, and technology-based tools. By implementing evidence-based strategies such as extensive reading programs, inference-making, and collaborative learning, teachers can significantly improve their students' reading abilities. Furthermore, with the support of digital resources and task-based activities, students are better equipped to tackle the complexity and diversity of texts they encounter at the B2 level.

As research continues to explore the most effective methods for reading instruction, it is clear that a balanced approach, integrating both traditional and modern techniques, is the key to fostering high-level reading proficiency in ESL/EFL learners.

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MODERN PERSPECTIVES ON INVESTIGATING THE ROLE OF THE FETOPLACENTAL SYSTEM IN PRETERM BIRTH

Annotation. *Infection of the fetoplacental system is a widespread obstetric and gynecological pathology, which is one of the main causes of spontaneous miscarriages, often causes intrauterine fetal death and premature birth, is the leading cause of purulent-septic complications in puerperas and is one of the most significant etiological factors of neonatal morbidity and infantile mortality. The high medical and social significance of this problem has led to the growing interest of specialists in all issues related to the infectious pathology of the reproductive system of women, placenta, fetuses and newborns. Despite the fact that a number of works are devoted to the study of the fetoplacental complex (FPC) in preterm birth, most of them do not affect the relationship between the state of the fetus, biochemical parameters of the fetoplacental system (FPS) and the morphological state of the placenta.*

Key words: *prematurity, fetoplacental insufficiency, microbiota.*

Relevance of the topic. The problem of miscarriage continues to be one of the priority areas in obstetrics. The frequency of premature births is 5-12‰ of the total number of births. Their increase is associated with indicators such as perinatal and early neonatal morbidity and mortality. Premature babies account for up to 50% of stillbirths, 60-70% of early neonatal and 65-75% of infant mortality. Premature babies are born stillborn 8-13 times more often than full-term babies, and die in the first week of life 20-30 times more often. Perinatal mortality for preterm birth is 33 times higher than for full-term birth.

Among women of childbearing age, there are many people with extragenital infections and foci of chronic infection. Their health index does not exceed 50%. Premature babies account for up to 50% of stillbirths (60-70% of early neonatal and 65-75% of infant mortality).

Currently, there are six groups of reasons leading to termination of pregnancy: endocrine, genetic, infectious, anatomical, immune, idiopathic. According to modern concepts, any unfavorable course of pregnancy is transformed for the fetus, first of all, into hypoxia, which develops with chronic placental insufficiency.

Despite the fact that a number of studies have been devoted to the study of the fetoplacental complex (FPC) during premature birth, most of them do not study the correlation between the condition of the fetus, immunological parameters and the morphological state of the placenta.

The lack of common views on immunological relationships in the mother-placenta-fetus system prevents effective pathogenetic therapy for preterm pregnancy. Currently, there are practically no studies devoted to the study of functional changes in the FPS with various types of immunocorrection for the purpose of preventing preterm birth. Despite the fact that a number of studies have been devoted to the study of the fetoplacental complex (FPC) during preterm birth, most of them do not address the relationship between the condition of the fetus, the biochemical parameters of the fetoplacental system (FPS) and the morphological state of the placenta.

At this time, extensive material has been accumulated regarding the morphological manifestations of placenta pathology. At the same time, numerous questions have arisen regarding the optimal methodological approaches to practical placentology, the rational interpretation of those structural and functional changes that occur in the placenta, fetal membranes and umbilical cord during infectious pathology of the mother and fetus, as well as the optimal interaction of obstetric and neonatal services. According to many researchers, depending on the nature of the damage to the placenta, 3 forms of FPN are distinguished: placental-membrane with a decrease in the ability of the placental membrane to transport metabolites; cellular-parenchymal - due to a violation of the cellular activity of the trophoblast; hemodynamic – a decrease in placental blood flow [7, 9].

However, a number of authors believe that in the clinic it is rarely possible to identify an isolated violation of one of these structures of the placenta, since they are closely interconnected, and a violation of one of them inevitably entails changes in other links. In addition, placental insufficiency (PI) develops mainly with pathological variants of maturation, manifested by changes in all structural elements of the placenta. These include premature, delayed and dissociated “maturation” of the placenta. [5,8] Premature or early “maturation” of the placenta is characterized by shortening and decreased thickness of the stem villi and a large number of terminal villi, which are sometimes located so closely to each other that they impede blood circulation in the intervillous space. The essence of the delayed “maturation” of the placenta is that immature villi do not mature, but turn into stromal villi. The villous tree and the entire placenta become larger, with terminal villi sparsely distributed. In the dissociated variant, all types of villi maturation are observed [3, 5, 6]. Thus, the condition of the fetus and the outcome of pregnancy with STIs depends both on the degree of structural changes in the placenta (impaired maturation, involutionary dystrophic and inflammatory changes), and on the intensity of the development of compensatory devices in it, the development of syncytial nodules and syncytiocapillary nodules and synitiocapillary membranes, as well as the volume of circulating blood in the intervillous space [1, 2].

Recurrence of infection in the second and early third trimester of pregnancy contributes to the intensification of fibroplasia and foci of necrotic changes. reduction of the vascular bed, intensification of inflammation processes in it.

Purpose of the study: to develop a concept of the pathogenesis of premature birth based on morpho-functional studies

Material and methods. In order to study the characteristics of the clinical course and outcome of Since then, we have analyzed 120 birth histories, of which 90 were premature and 30 were timely. Depending on the duration of pregnancy, all women with premature birth were divided into 3 groups: the first group consisted of 30 (25%) women whose pregnancy was terminated between 22 and 27 weeks; the second group consisted of 30 (25%) women with abortion in the period from 28 to 32 weeks and the third group included 30 (25%) women with pregnancy loss in the period of 33-37 weeks. The control group consisted of 30 women whose pregnancy proceeded without the threat of termination, and they were admitted for childbirth at a gestational age of 38-40 weeks.

Results. The study of anamnesis from birth histories revealed a high frequency of previous diseases in women with preterm birth. From the data obtained it is clear that the frequency of detection of extragenital pathology among women with premature and timely births is not the same. In women with preterm birth, extragenital pathology was observed much more often than in the control group. It should be noted that chronic tonsillitis was more common in women with premature births than in women with timely births. 10.6% of women in group 1, 15.0% of women in group 2 and 9.5% of women in group 3 suffered from chronic tonsillitis, while in women with timely births this figure was significantly lower (4.6%). The most common pathology was pyelonephritis, which was observed 2-3 times more often than in women who gave birth on time. Irregular menstrual cycles, algomenorrhea, oligomenorrhea were observed significantly more often in women with premature birth, especially in women in group 1, compared to women in the control group.

Timely onset of menarche (11-14 years) was noted in 96.9% of women with timely births, and also in 37.1%, 34.4% and 35.7% of women with premature births, respectively.

Late onset of menarche (15-16 years) was detected in 3.1% of the control group and, accordingly, in the groups 64.6%, 65.6% and 64.3% of women with preterm birth.

Almost every fifth woman with a history of premature birth had an irregular cycle, while in the control group this figure was 5.4%. Significantly more often than in the group of women with timely births, algodismenorrhea occurred in women with premature births (21.4%, 13.1% and 15.2%, respectively) in the group of women whose pregnancy was terminated between 22 and 27, from 28 to 33 weeks and 34-37 weeks, while in the control group this pathology was observed in 4.6% of women. A high percentage of polymenorrhea was revealed in women with premature birth compared to the control group: 18.6%, 17.5% and 16.7% versus 2.3%, respectively.

Consequently, as the menstrual function of the female body is disrupted, the risk of premature birth arises.

Based on the above clinical and statistical analysis, we can distinguish three main groups of factors that influenced the incidence of preterm birth:

• the first group - socio-economic and demographic factors (nature of work, level of medical care, marital status of the mother);

• second group - socio-biological factors (age of pregnant women, outcome of previous pregnancies, multiple births);

• third group - clinical factors. They can be systematized as follows:

- infectious diseases of the mother (viral infection, toxoplasmosis, chlamydia);

- complications of pregnancy (hypertensive conditions during pregnancy, abnormal position of the fetus);

- pathological changes in the female genital organs (chronic inflammation of the uterine appendages, endometritis, uterine fibroids, uterine malformation, colpitis);

- extragenital diseases of the mother (chronic tonsillitis, pyelonephritis, rheumatism).

Conclusion: The problem of miscarriage continues to be one of the priority areas in obstetrics. The frequency of premature births is 5-12‰ of the total number of births. Their increase is associated with indicators such as perinatal and early neonatal morbidity and mortality. Premature babies account for up to 50% of stillbirths, 60-70% of early neonatal and 65-75% of infant mortality. Premature babies are born stillborn 8-13 times more often than full-term babies, and die in the first week of life 20-30 times more often. Perinatal mortality for preterm birth is 33 times higher than for full-term birth.

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The lack of common views on immunological relationships in the mother-placenta-fetus system prevents effective pathogenetic therapy for preterm pregnancy. Currently, there are practically no studies devoted to the study of functional changes in the FPS with various types of immunocorrection for the purpose of preventing preterm birth. Conclusions: When UGI persists in pregnant women, complications arise that can be considered as a positive feedback mechanism that increases the inflammatory response in the uterus, which leads to

premature birth and thereby protects the maternal body from infection by getting rid of an infected pregnancy. The identified deviations in the uterus and the structure of the placenta indicate an unfavorable effect of ultrasonography on almost all parts of the placenta, causing changes in them, which subsequently, in the event of a breakdown in adaptive-compensatory reserves, lead to functional fetoplacental insufficiency and depend on the period gestation.

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USING INTERACTIVE METHODS IN ASSESSING YOUR STUDENTS' KNOWLEDGE, SKILLS AND SKILLS IN THE PROCESS OF TEACHING THE SCIENCE OF EDUCATION

Abstract: *in this article, the systematic reforms in the field of education implemented by New Uzbekistan in the path of development, the social importance of the subject "Education" introduced in 2020, the role of this subject in bringing the young generation to adulthood, and the subject "Education" in the process of teaching the merits of using interactive methods in the assessment of students' knowledge, skills and qualifications are highlighted.*

Key words*: education, training, knowledge, skills, competence, assessment, interactivity, interactive method, approach, goal, conditions, individuality*

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TARBIYA FANINI O`QITISH JARAYONIDA O`QUVCHILARING BILIM, KO`NIKMA VA MALAKALARINI BAHOLASHDA INTERFAOL METODLARDAN FOYDALANISH

Annotatsiya: *ushbu maqolada Yangi O`zbekistonning taraqqiyot yo`lida amalga oshirayotgan tarbiya sohasidagi tizimli islohotlari, 2020-yilda joriy etilgan “Tarbiya” fanining ijtimoiy ahamiyati, yosh avlodni voyaga yetkazishda ushbu fanning tutgan o`rni hamda “Tarbiya” fanini o`qitish jarayonida o`quvchilarning bilim, ko`nikma va malakalarini baholashda interfaol metodlardan foydalanishning munosib jihatlari yoritilgan.*

***Kalit so`zlar:*** *ta`lim, tarbiya, bilim, ko`nikma, malaka, baholash, interfaollik, interfaol metod, yondashuv, maqsad, sharoit, individuallik.*

Har bir jamiyatning ravnaq topishi unda o`sib borayotgan avlodning aqliy salohiyati, dunyoqarashi, intilishi, mustaqil fikrlari va eng asosiysi ularning komil shaxs bo`lib yetishishlarini ta`minlashda eng zarur omil – husni xulqiga hamda tarbiyasiga chambarchas bog`liqdir. Buyuk qomusiy olim Abu Nasr Farobiyning " Fozil odamlar shahri" asarida shunday yoziladi: "Tarbiya oqillikni vujudga keltiradi. Kishining tarbiyasi bo'lmasa , u bema'nilikni xush ko'radi. Qonun farovonlik yo 'lidir , shunday ekan , sohibi qonun tarbiyani mustahkamlashga alohida harakat qilishi zarur". Demak, o`z oldiga milliy yuksalish va dunyo hamjamiyatida munosib o`rinni egallash maqsadini qo`ygan har qanday davlatda eng avvalo, e`tibor yosh avlodning tarbiyasiga qaratilmog`i zarur. Bu borada muhtaram Prezidentimiz SH. M. Mirziyoyevning ham quyidagi fikrlari diqqatga sazovordir: "Hech qachon unutmaylik, dunyodagi o'tda yonmaydigan, suvda cho'kmaydigan eng katta boylik bu – bilim va tarbiyadir". Darhaqiqat, ushbu boylikni ko`paytirish va ezgu maqsad yo`lida sarflash jamiyat rivojining muhim omili sifatida alohida ahamiyat kasb etadi.

Shu o`rinda, "Yangi O`zbekiston taraqqiyot strategiyasi"da ham yoshlarda milliy tarbiya asoslarini rivojlantirish hamda sifatli ta`limga erishishning eng muhim vazifalari belgilanib, amalga oshirilayotganligini ta`kidlash joizdir. Ushbu amaliy ishlar negizida yosh avlodga uzluksiz ta`lim tizimida sifatli ta`lim berish hamda ularni yuksak milliy tarbiya asosida voyaga yetkazish eng muhim vazifa sifatida belgilab berilgan . Xususan , 2019- yil 31-dekabrda qabul qilingan "Uzluksiz ma`naviy tarbiya konsepsiya"sida ham O'zbekiston "Milliy tiklanishdan — milliy yuksalish sari" tamoyili asosida taraqqiyotning yangi bosqichiga qadam qo'yganligi hamda yangi davr shiddati ta'lim-tarbiya tizimiga ham o'zining aniq, qat'iy talablarini qo`yishi ta`kidlanadi. Ushbu talablar, avvalo ,umumiy o`rta ta`lim maktablarida tarbiya tizimini isloh etish bilan bajarilishi ko`zda tutiladi. Tarbiya tizimidagi ulkan islohot sifatida O'zbekiston Respublikasi Prezidentining tashabbusi bilan 2020- yilda o'zbek "Pedagogika"fani tarixida ilk bor "Tarbiya" yangi fani ishlab chiqilganligini ko`rishimiz mumkin. Shuningdek, O`zbekiston Respublikasi Vazirlar Mahkamasining 2020- yil 6- iyuldagi 422-sonli "Umumiy o'rta ta'lim muassasalarida "Tarbiya" fanini bosqichma-bosqich amaliyotga joriy etish chora-tadbirlari to'g'risida"gi qarori qabul qilindi. Mazkur qaror bilan "Umumiy o'rta ta'lim muassasalari o'quvchilari uchun "Tarbiya" fani Konsepsiyasi" ham tasdiqlandi.

"Uzluksiz ma`naviya tarbiya konsepsiyasi"ning bosh maqsadi— yosh avlodda mustaqil va baxtli hayot uchun zarur ijtimoiy malaka hamda fazilatlarni yoshiga mos, bosqichma-bosqich shakllantirishdan iboratligi qayd etilgan hamda ushbu maqsadni amalga oshirish uchun qator vazifalar belgilab berilgan. Vazifalardan biri ma'naviy-axloqiy tarbiyani baholashning ilmiy asoslangan indikatorlarini ishlab chiqish bo`lib, ushbu vazifa pedagog mutaxasssislarga ulkan mas`uliyatni yuklaydi. Vazifani ado etish esa umumiy o`rta ta`lim maktablarida "Tarbiya" fanini o`qitish jarayonida amalga oshishi maqsadga muvofiqdir.

"Tarbiya" fanini o`qitish jarayonida o`quvchilarning bilim, ko`nikma va malakalarini baholash uchun turli xil yondashuvlar, xususan interfaol yondoshuv

orqali ushbu vazifani hal etish masalasi “Tarbiya” fani o`qituvchilarini interfaol metodlar bilan qurollantirishni taqozo etadi.

Bilim — kishilarning tabiat jamiyat hodisalari haqida hosil qilgan voqelik ma’lumotlarning inson tafakkurida aks etishi. Voqelik haqidagi bilgan ma’lumotlarimiz bilim darajasiga ko‘tarilishi uchun quyidagi shartlarni qanoatlantirishi lozim: birinchidan, bu ma’lumotlarning voqelikka mutanosibligi; ikkinchidan, bu ma’lumotlar dalillar bilan asoslangan bo‘lishi lozim.

Ko‘nikma — insonning ilgarigi tajribalari asosida muayyan faoliyat yoki harakatni amalga oshirish qobiliyati. Ko‘nikmalar amaliy faoliyatga, bilimlarni amalda qo‘llay bilishga oid faoliyatning tarkibiy qismidir. Ko‘nikma mazmunan amaliy (jismoniy) va aqliy, shaklan oddiy va murakkab turlarga ajratiladi. Amaliy ko‘nikmalar mehnat faoliyatini amalga oshirishga, aqliy ko‘nikmalar bilim olishga, uni o‘zlashtirishga yo‘naltirilgan bo‘ladi.

Malaka — muayyan kasb, ishni yaxshi o‘zlashtirish natijasida orttirilgan mahorat. Odatda, biron ish jarayonida harakatlar anglanilgan yoki anglanilmagan tarzda amalga oshiriladi. Harakatni bajarishda ongning borgan sari kamroq ishtirok etishi tufayli ish avtomatik ravishda ijro etila boradi. Buning natijasida topshiriq ravon, ortiqcha kuch sarflamay, tez va sifatli bajarila boradi. Masalan, tajribali kompyuter foydalanuvchisi klavishlarga qaramasdan yozaveradi. Malaka hosil qilish tezligi uning murakkablik darajasi, kishining yoshi, individual xususiyati, bilimi va boshqa omillarga bog‘liq. Kishidagi malaka ko‘pincha, boshqa mahoratni hosil bo‘lishida yordam beradi. Masalan, mukammal nutqiy mahorat egasi, keyinchalik boshqaruvga yoki pedagogikaga oid sohalarda ham qiyinchilikka uchramasdan faoliyatlarini olib boradilar .

Ta’lim tizimida, bilim, ko‘nikma va malakalar Vazirlar Mahkamasining 2017-yil 6-apreldagi 187-son qarori bilan tasdiqlangan umumiy o‘rta va o‘rta maxsus ta’limning davlat ta’lim standartlarida belgilab qo‘yilgan.

Baholash — bu ta’limdagi turli darajadagi yutuqlar uchun standartlashtirilgan o‘lchovlarni qo‘llash jarayoni. Ushbu tizimdan tarbiya jarayonida o`quvchilarning har tomonlama yetuk shaxs bo`lib yetishishlarini ta`minlash maqsadida foydalanish uchun interfaol yondashuvdan foydalanish maqsadga muvofiqdir.

Interfaol yondashuvda o’qituvchilar dars jarayonini yaxshi tashkil etish uchun qulay muhit yaratadilar. O’quvchilarning o’zaro fikr (axborot) almashishlariga imkon beriladi. Ular yechimini kutayotgan masalalarni hamjixatlikda muhokama etadilar, yechadilar. Vaziyatdan chiqishda hamkorlikda yechim topadilar. Olgan axborotlari asosida bilimlarini bir-birlariga namoyish etadilar. Interfaol usullarni yana boshqaca ta‘riflaydigan bo‘lsak interfaol ta’lim jarayonida dars o’quvchilarning o’zaro muloqotlari asosida amalga oshiriladi.

Interfaol metod - ta’lim jarayonida o’qituvchi va o’quvchilar o’rtasidagi faollikni oshirish orqali ularning o’zaro harakati, ta’siri ostida bilimlarni o’zlashtirishni kafolatlash, shaxsiy sifatlarni rivojlantirishga xizmat qiladi. Ushbu usullarni qo’llash dars sifati va samaradorligini oshirishga yordam beradi. Uning asosiy mezonlari — norasmiy bahs-munozaralar o’tkazish, o’quv materialini erkin

bayon etish, mustaqil o'qish, o'rganish, seminarlar o'tkazish, o'quvchilarni tashabbus ko'rsatishlariga imkoniyatlar yaratilishi, kichik guruh, katta guruh, sinf jamoasi bo'lib ishlash uchun topshiriq, vazifalar berish, yozma ishlar bajarish va boshqalardan iborat. Ushbu amaliy ishlar o`quvchilarda ijodkorlik va interfaollikni rivojlantirishga hamda o`qituvchining dars jarayonida o`quvchilarni bilim, ko`nikma va malakalarini baholashi uchun qator imkoniyatlarni yaratadi.

Interfaollik— o'zaro ikki kishi faolligi, ya'ni, bunda o'quv-biluv jarayoni o'zaro suhbat tariqasida, dialog shaklda (kompyuter aloqasi) yoki o'qituvchi-o'quvchilarning o'zaro muloqotlari asosida kechadi.Interfaollik — o'zaro faollik, harakat, ta'sirchanlik, o'quvchi-o'qituvchi, o'quvchi-o'quvchi (sub'yekt sub'yekt) suhbatlarida sodir bo'ladi. Interfaol metodlarning bosh maqsadi — o'quv jarayoni uchun eng qulay muhit vaziyat yaratish orqali o'quvchining faol, erkin, ijodiy fikr yuritish, uni ehtiyoj, qiziqishlari, ichki imkoniyatlarini ishga solishga muhit yaratadi.

Metodning samaradorligini u qo'llanilayotgan sharoit nuqtai nazaridan baholash mumkin. Tarbiya fanini o`qitish jarayonida interfaol metodlarini maqsadga muvofiq tanlash bir qator omillarga bog'liq.

1. Tarbiyaning maqsad va vazifalari. Maqsad nafaqat metodlarni oqlaydi, balki ularni aniqlab beradi. Maqsad qanday bo'lsa, unga erishish metodlari unga muvofiq bo'lishi zarur.

2. Tarbiya mazmuni. Unutmaslik kerakki, aynan bitta vazifa turli xil fikrlar bilan to'ldirilgan bo'lishi mumkin. SHuning uchun metodlarni umuman mazmun bilan emas, balki aniq fikr bilan bog'lash g'oyat muhimdir.

3. Tarbiyalanuvchilarning yosh xususiyatlarini hisobga olish. U yoki shunga o'xshash vazifalar tarbiyalanuvchilarning yoshi bilan bog'liqlikda hal qilinadi. Yosh bu oddiygina qancha yashaganligi son ko'rsatkichi emas. Unda egallangan ijtimoiy tajriba, psixologik va ahloqiy sifatlarning rivojlanganlik darajasi o'z aksini topadi. Aytaylik, mas'uliyat tuyg'usini boshlang'ich ta'lim, o'rta ta'lim va o'rta maxsus, kasb-hunar ta'limi muassasalarida ta'lim olayotgan o'quvchilarda ham shakllantirish mumkin. Biroq har bir bosqichda mazkur sifatni shakllantirish borasida turli metodlar qo'llaniladi.

4. Jamoaning shakllanganlik darajasi. O'zini o'zi boshqarishning jamoa shaklining rivojlanishi bilan bog'liqlikda pedagogik ta'sir ko'rsatish metodlari ham o'zgarmasdan qolmaydi. Bizga ma'lumki boshqaruvning moslashuvchanligi tarbiyachining tarbiyalanuvchilar bilan muvafaqqiyatli hamkorligining zaruriy sharti.

5. Tarbiyalanuvchilarning individual o'ziga xosliklari. Umumiy metodlar, umumiy dasturlarning o'zi tarbiyaviy o'zaro ta'sir etishning asosi bo'la olmaydi. Ularni indivudual va shaxsiy tuzatish zarur. Insonparvar pedagog har bir shaxs o'ziga xosligini rivojlanishiga, o'ziga xosligini saqlashga, o'zining «Men»ini amalga oshirishiga imkon beradigan metodlarni qo'llashga harakat qiladi.

6. Tarbiyaviy shart-sharoitlar. Unga moddiy, psixofiziologik, sanitar-gigienikdan tashqari sinfda yuzaga keladigan munosabatlar: jamoadagi iqlim,

pedagogik rahbarlik usuli va boshqalar tegishlidir.Ma’lumki, mavhum shart-sharoitlar bo‘lmaydi, ular hamisha aniq. Ularni birlashuvi aniq holatlarda ko‘rinadi.

7. Tarbiya vositalari. Tarbiya metodlari tarbiya jarayonining tarkibiy qismlari sifatida yuzaga chiqadigan tarbiya vositalaridan tashkil topadi. Metodlar ular bilan mustahkam bog‘langan va birgalikda qullaniladigan boshqa tarbiya vositalari ham mavjud. Masalan, metodlarni samarali qo‘llanilishi uchun zaruriy yordam beruvchi ko‘rgazmali qo‘llanmalar, tasviriy san’at asarlari va musiqa san’ati, ommaviy axborot vositalari shular jum;lasidandir

8. Pedagogik malakani egallaganlik darajasi. Tarbiyachi odatda faqat o‘zi biladigan va qo‘llashni egallagan metodlarni tanlab oladi. Ko‘plab metodlar murakkab bo‘lganligi bois, o‘qituvchida ko‘p kuch ishlatishni talab etadi. Bunday mas’uliyatdan bo‘yin tovlaydigan pedagoglar ularsiz faoliyatni tashkil etishga harakat qiladi. Natijada turli obrazli, xilma-xil maqsad, vazifa, sharoitlardan kelib chiqib metodlardan foydalanishga qaraganda samarasi past bo‘ladi.

9. Tarbiya vaqti. Qachonki, vaqt kam , maqsad esa katta bo‘lsa, «kuchli harakatlantiruvchi» metodlar qo‘llaniladi, qulay sharoitlarda esa, tarbiyaning «ayaydigan» metodlaridan foydalaniladi. Tarbiyani «kuchli harakatlantiruvchi» va «ayaydigan» metodlarga bo‘linishi shartli: birinchisi tanbeh berish va majbur qilish bilan, ikkinchisi nasihat qilish va doimiy o‘rgatish bilan bog‘liq.

10. Kutiladigan natija. Metodni tanlayotganda, tarbiyachida muvafaqqiyatga erishishiga ishonch bo‘lishi kerak. Buning uchun qo‘llanilayotgan metod qanday natijaga olib kelishini oldindan ko‘ra bilish kerak.

Tarbiya jarayoni ijtimoiy hayotdagi barcha o`zgarishlarni hisobga olgan holda tashkil etilgani kabi undagi qo`llanilayotgan interfaol metodlar ham ana shu o`zgarishlarga bo`ysunadi. Interfaol metodlar orqali butun bir sinfning tarbiyalanganlik darajasi va tafakkuri haqida birdek ma`lumotga ega bo`lish va ularni baholash nihoyatda mushkul. Shunday bo`lsada, ma`lum darajada ulardagi bilimga bo`lgan intilish, kelajakka ishonch, ertadan umid, baxt va muvaffaqiyat kabi tushunchalarga nisbatan qarashlarini aniqlab olish interfaol metodlarni qo`llash orqali amalga oshiriladi. Tarbiyalashning ilk va so`nggi bosqichini ham baholash orqali amalga oshirish jarayondan kutilgan natijani yanada yuqori ko`rsatkichda bo`lishini ta`minlaydi. Quyida keltirilgan interfaol metodlardan foydalanish o`z navbatida “Tarbiya” fanini o`qitish jarayonida nafaqat o`quvchilarning bilim, ko`nikma va malakalarini baholashda balki, ularning o`z maqsadlari sari olg`a borishlarini ham ta`minlashda maqbul faollashtirish vositasi sifatida ahamiyatga molikdir.

Loyihalash metodi - o’quvchilar uzluksiz ravishda murakkablashib boradigan amaliy topshiriqni rejalash, konstruksiyalash va bajarish jarayonida bilim, ko’nikma va malakaga ega bo’ladigan o’qitish tizimidir.Ta’lim oluvchilar keng miqyosdagi muammoli (ijodiy, axborot, kommunikatsiya va h.k.)masalalar bilan bog‘liq loyihalarni bajaradilar. Mazkur metodning yuqori samara berishi uchun loyihani bajarishda o’quvchilarda motivatsiyaning yuqori darajada bo’lishi, shart hisoblanadi. Loyihalash metodi orqali o’quvchilarda quyidagi shaxsiy kompetensiyalar shakllanadi: komandada ishlash; ishchanlik; ma’suliyatni his etish;

o’ziga ishonch; o’qitishlilik; tezkor fikrlash; jarayon rivojini bilish; mushohada motivatsiya.

Keys-study metodi – (Keys-stadi inglizcha case – aniq vaziyat, study – ta’lim co`zlarining birikuvidan hosil qilingan) aniq vaziyatlarni o`rganish, tahlil etish va ijtimoiy ahamiyatga ega natijalarga erishishga asoslangan ta’lim metodidir. Mazkur metod muammoli ta’lim metodidan farqli ravishda real vaziyatlarni o`rganish asosida aniq qarorlar qabul qilishga asoslanadi. Agar u o`quv jarayonida ma’lum bir maqsadga erishish yo`li sifatida qo`llanilsa, metod xarakteriga ega bo`ladi, biror bir jarayonni tadqiq etishda bosqichma-bosqich, ma’lum bir algoritm asosida amalga oshirilsa, texnologik jihatni o`zida aks ettiradi. Tarbiya fani darsliklarida ham ko`plab pedagogic vaziyatlar kichik keyslar ko`rinishida keltirilgan. Keyslarning didaktik vazifasi sifatida tahlil va baholashga o`rgatuvchi xususiyati alohida izohlanadi. Keyslarni tahlil etish va ularga yechim topa olish orqali barcha o`quvchilarda mustaqil fikrlash, keng mushohadalilik, shaxsiy tahlil, vaziyatga adekvat baho bera olish kompetensiyalari shakllanadi va rivoj topadi. Keys topshiriqlarini bajarishlari davomida o`quvchilardagi mavjud bilim, ko`nikma va malakalar o`qituvchi tomonidan nazorat qilinadi va baholanadi.

Klaster (Klaster-tutam, bog‘lam)-axborot xaritasini tuzish yo’li - barcha tuzilmaning mohiyatini markazlashtirish va aniqlash uchun qandaydir biror asosiy omil atrofida g‘oyalarni yig‘ish. Bilimlarni faollashtirishni tezlashtiradi, fikrlash jarayoniga mavzu bo’yicha yangi o’zaro bog‘lanishli tasavvurlarni erkin va ochiq jalb qilishga yordam beradi. Klasterni tuzish qoidasi bilan tanishadilar. Yozuv taxtasi yoki katta qog‘oz varag‘ining o’rtasiga asosiy so’z yoki 1-2 so’zdan iborat bo’lgan mavzu nomi yoziladi. Birikma bo’yicha asosiy so’z bilan uning yonida mavzu bilan bog‘liq so’z va takliflar kichik doirachalar "yo’ldoshlar” yozib qo’shiladi. Ularni "asosiy” so’z bilan chiziqlar yordamida birlashtiriladi. Bu "yo’ldoshlarda” "kichik yo’ldoshlar” bo’lishi mumkin. Yozuv ajratilgan vaqt davomida yoki g‘oyalar tugagunicha davom etishi mumkin. Toifa-xususiyat va munosabatlarni muhimligini namoyon qiluvchi (umumiy) alomat. Ajratilgan alomatlar asosida olingan ma’lumotlarni birlashtirishni ta’minlaydi. Tizimli fikrlash, ma’lumotlarni tuzilmaga keltirish, tizimlashtirish ko’nikmalarini rivojlantiradi. Toifalarni jadval ko’rinishida rasmiylashtiradilar. G`oyalar va ma’lumotlarni toifaga mos ravishda bo’ladilar. Ish jarayonida toifalarning ayrim nomlari o’zgarishi mumkin. Yangilari paydo bo’lishi mumkin. Ish natijalarining taqdimoti bilan metod nihoyalanadi. Klaster tuzish tarbiya fanini o`qitish jarayonida zararli odatlardan qutulish, maqsadlar xaritasini yaratish, minnatdorlik bildirish, axloqiy me`yorlar bilan tanishish, o`tgan davrlarni sarhisob qilish kabi mavzularni ochib berish hamda o`quvchilarning ushbu tushunchalar yuzasidan bilim va ko`nikmalarini baholashda alohida o`ringa ega. Ushbu metodni yanada qiziqarli , o`quvchi yoshi va qiziqishlariga munosib tarzda o`tkazish o`qituvchining innovatsion qobiliyatiga bog`liqdir.

BBB Jadvali - fikrlash, Bilaman/ Bilishni hohlayman/ Bilib oldim. Mavzu, matn, bo’lim bo’yicha izlanuvchilikni olib borish imkonini beradi. Tizimli tuzilmaga keltirish, tahlil qilish ko’nikmalarini rivojlantiradi. Jadvalni tuzish

qoidasi bilan tanishdilar. Alohida kichik guruhlarda jadvalni rasmiylashtiradilar. "Mavzu bo'yicha nimalarni bilasiz" va "Nimani bilishni hohlaysiz" degan savollarga javob beradilar (oldindagi ish uchun yo'naltiruvchi asos yaratiladi). Jadvalning 1- va 2-bo'limlarini to'ldiradilar. Ma'ruzani tinglaydilar, mustaqil o'qiydilar. Mustaqil kichik guruhlarda jadvalning 3-bo'limini to'ldiradilar. Ushbu metod nafaqat ta`limiy maqsadni amalga oshirishda balki tarbiyaviy jarayonni to`laqonli tashkil etishga ham hissa qo`sha oladi. 1-sinfdan 11-sinfgacha bo`lgan o`quvchilarda egallangan va egallanmagan bilimlar, tarbiyaviy, axloqiy qonun qoidalar, turli ma`lum va noma`lum tushunchalar mavjuddir. Bu haqida Tarbiya fani o`qituvchisida ma`lumotlarning bo`lishi, uning dars jarayonini maqsadli tashkil eta olishini ta`minlaydi.

VENN diagrammasi - 2- va 3-jihatlarini hamda umumiy tomonlarini solishtirish yoki taqqoslash yoki qarama-qarshi qo'yish uchun qo'llaniladi. Ushbu metod tizimli fikrlash, solishtirish, taqqoslash, tahlil qilish ko'nikmalarini rivojlantiradi. Avval o`quvchilar VENN diagrammasini tuzish qoidasi bilan tanishadilar. Alohida kichik guruhlarda diagramma Vennani tuzadilar va kesishmaydigan joylarni (x) to'ldiradilar. Juftliklarga birlashadilar, o'zlarining diagrammalrini taqqoslaydilar va to'ldiradilar. Doiralarni kesishuvchi joyida, ikki-uch doiralar uchun umumiy bo'lgan, ma'lumotlar ro'yxatini tuzadi. 1. Aylana yoki to'g'ri to'rtburchak shakllaridan foydalanishni o'zingiz tanlaysiz. 2. Chizmaning ko'rinishini - mulohazalar zanjirini to'g'ri chiziqli, to'g'ri chiziqli emasligini o'zingiz tanlaysiz. 3. Yo'nalish ko'rsatkichlari sizning qidiruvlaringizni: dastlabki holatdan izlanishgacha bo'lgan yo'nalishingizni belgilaydi.

Venn diagrammasi "Tarbiya" fanini o`qitish jarayonida turli tarbiyaviy masalalar, g`oyalar va tarbiyaga oid yondashuvlarni farqlash va o`quvchidagi ustuvor tarbiyaviy omillarni aniqlash uchun qo`llaniladi. Masalan, "Men uchun maktab va oilamning o`rni","Mahalladagi va maktabdagi do`stlarim", "Multfilm va ertaklarga munosabatim", "Televizormi yoki telefon" kabi mavzular yuzasidan o`quvchilarning fikr mulohazalarini o`rganishda ko`plab imkoniyatlar taqdim etadi.

XULOSA: xulosa o`rnida aytish mumkinki, yuqorida qayd etilgan interfaol metodlar turli fanlarni o`qitish va ta`lim samaradorligini aniqlash bilan bir qatorda tarbiya fanini o`qitishda ham alohida ahamiyat kasb etadi. Izlanishlar davomida ishlab chiqilgan, o`rganilgan va takomillashtirilgan interfaol metodlarning hammasi ham ta`lim va tarbiyaning maqsadidan kelib chiqqan holda qo`llanilganda o`z samarasini beradi. Tarbiya jarayonini muvofiq tashkillash uchun o`quvchilarning birinchi navbatda tarbiyalanganlik darajasini aniqlash muhim sanalar ekan, o`quvchilarni shunchaki an`anaviy tarzda sinovdan o`tkazmasdan, ularni interfaol yondashuv asosida baholash maqsadga muvofiqdir. Tarbiya fanini o`qitishdan kutilayotgan natijalarga erishishda interfaol metodlarni qo`llash nafaqat o`quvchiga faollik taqdim etadi, balki o`qituvchiga ham o`z kasbiy faoliyatini mazmunli va samarali tashkil etishida ko`mak vazifasini o`taydi.

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KONFLIKTLARNI BOSHQARISHGA YORDAM BERADIGAN USULLAR

Annotatsiya:*Ushbu maqolada konfliktli vaziyatlardan chiqish yo'llari, konfliktli situatsiyalarni boshqarishga yordam beradigan usullar, jamoalarda ziddiyatlardan holi bo'lgan munosabatlar o'rnatishga tavsiyalar keltirilgan.Mojaroli vaziyatlarda o'zini qnday tutish haqida so'z yuritilgan.*
Kalit so'zlar: *konflikt, hissiyot, frustratsiya,fikrlar, qadriyatlar,muammo, hamdardlik bildirish, ish joylari.*

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METHODS TO HELP MANAGING CONFLICTS

Annotation: *In this article, there are ways to get out of conflict situations, methods to help manage conflict situations, recommendations for establishing conflict-free relationships in teams.*
Keywords: *conflict, emotion, frustration, thoughts, values, problem, empathy, workplaces.*

Odamlar qayerda bo'lsa , o'sha yerda konflikt bo'lishi tabiiy holat. Har bir inson o'zining qadriyatlari va odatlariga ega, boshqalarning xatolarini yoki tushunmovchiliklarini osonlik bilan payqaymiz. Konfliktli vaziyatlar noqulay situatsiyalarni, nazorat qilinmagan holatlarni keltirib chiqarganda, insonlar bir-birilarini haqorat qilishlari, qadr-qimmatlarini toptash holatlari uchraydi.Tashkilotlardan shuni anglash mumkinki, konfliktli situatsiyalarda mahsulot aylanmasi tushib ketadi, ishga kelmaslik holatlari , qobiliyatlarning namoyon bo'lmasligi kuzatiladi. Shaxsiy konfliktlar yoki odamlar bir-birini tushunmasligi, biz bu vaqtda stress, frustratsiya, jahl chiqqan holatni qabul qilgan bo'lamiz. Ammo, har doim ham konfliktli vaziyatlar yechilmaydi. Muammolarni yoritish, kuchliroq munosabatlarni o'rnatishga olib kelishi mumkin. Faktlarga asoslangan konflikt sezish mumkin bo'lgan konfliktli vaziyatlar, bunda qarorlarni liderlar qabul qiladi yoki sizning kompaniyangiz tomonidan ko'rsatmalar beriladi. Agar vaqt davomida konflikt yechilmay aylanaversa, konfliktni yechimini jarayonni anglash bilan aniqlash mumkin. Ish joylarida yuzaga keladign konfliktlarni eng ko'p uchraydigan sabablari quyidagilar:

Aniq bo’lmagan munosabatlar: ba’zi jamoa ishtirokchilari o’zlarini boshqalardan ko’ra ko’proq ishlaydi deb o’ylashadi. Boshqalardan g’azablangan yoki ranjigan holda munosabat ko’rsatadilar. G’azab va frustratsiya bilan topshiriqlarni oxirigacha bajara olmaydilar.

Qachonki siz konfliktli vaziyatlarga tushsangiz quyidagi 5 usul sizga bunday vaziyatlardan tez va samarali chiqib ketishingiz mumkin:

1.Muammoni ertaroq ko’ndalang qo’yish kerak-sokinlikni saqlang va qahr-g’azabingizni boshqaring.

2.Hissiyotlaringizni boshqaring- biror odamga konflikt haqida gapirayotganingizda to’g’ri vaqtni tanlang.Tinchlaning , o’zingizni qo’lga oling va so’rang “Men bu yerda nimaga erishishni xohlayman?” “Menga muammo nima uchun kerak?” “Men nimani ko’rishni xohlayman?”

3.Hamdarligingizni ko’rsating. Qachonki siz biror kishiga konflikt haqida gapirganingizda siz tabiiy holatga ega bo’lishingiz kerak, boshqa tomondan esa ularni oxirigacha eshitishingiz kerak. Boshqalarning o’rniga o’zingizni qo’yib ko’ring va muammo yechimi haqida nima o’ylashiga , eshitishiga , e’tibor qaratishiga diqqat qiling.

4.Faol tinglashga amal qiling. Konfliktning kelib chiqish manbaasini haqiqatdan ham tinglang. Tana tilidan to’g’ri foydalanishga harakat qiling.

5. Kamchilikni aytishni biling. Boshqalarning ba’zi bir fikrlarini eshitish siz uchun qiyin bo’lsa, buni ko’rsatishingiz mumkin. Ammo tanqid qilayotganingizda asosli fikr aytishga e’tibor qarating.

Konflikt vaziyatni u qanday bo’lsa o’shanday o’z emotsiyalaringizdan holi bo’lgan tarzda qabul qiling. Konfliktli vaziyat sizga yoqmasligi sizga qarshi holatni vujudga keltirishi umuman rejalashtirilmagan holda ko’rib chiqqan ham bo’lishi mumkin. Aynan siz uning nima ekanligi ya’ni konflikt haqiqatini to’la va aniq anglagan paytingizdan boshlabgina siz uni boshqara olish qobiliyatiga ega bo’lasiz. Konflikt bilan ilk to’qnashgan vaqtda konflikt sizga tushunarsiz holat bo’lib ko’rinishi mumkin. Konflikt vaziyatda inson mana shu vaziyatning bo’lmasligi mumkinligi yoki ideal holatda uning qanday bo’lishi mumkinligi masalasiga juda katta kuch sarflaydi. Siz ziddiyat orqali eng yaqin odamlaringiz bilan munosabatlarning buzilganligidan hijolat bo’lasiz, ularni yangidan o’rnatmoqchi bo’lasiz. Xayollaringiz turli harakatlarni belgilab beradi. Bu holatda siz ko’proq reallikdan uzoqlashib, xayollaringizda yashaysiz. Ammo konfliktli vaziyatni xayollarga erk berib hal qilib bo’lmaydi. Konfliktni anglash obyektiv faktlarni tan olish demakdir. Bu faktlar sizning manfaatlaringizga qarshi bo’lishi mumkin. Ammo siz konfliktni yechimini haqiqatdan ham topmoqchi bo’lsangiz, barcha faktlarni, ular sizga yordam bersa ham tan olish yo’lidan bormog’ingiz darkor bo’ladi. Konfliktga aynan u kelib chiqqan paytdan boshlab baho bering. Biroq, agar mana shu vaqtda sizning kayfiyatingiz yaxshi bo’lmasa, kayfiyatingiz yomonligini tan oling va bu boshqa vaziyatlarga ta’sir ko’rsatmasligiga harakat qiling. Siz o’z kayfiyatingiz va emotsiyalaringizni tan olishingiz sizni no’to’g’ri hukm chiqarishdan saqlab qoladi.

Siz konfliktli vaziyatlarni boshqarish uchun kommunikator bo'lishingiz kerak. Masalan, ishlayotgan korxona yoki tashkilotingizda ishdagi muammolar haqida ishchilar bilan ko'proq muloqot qilishingiz kerak. Hamkasblaringizni eshitishni o'rganing, ochiq muloqot muhitini yarating. Ishonchingiz komil bo'lsinki, boshqalarni berayotgan javoblariga tushunishganingizni bilishingiz va diqqatingizni muammoning yechimiga e'tibor qaratish lozim. Siz ikki hamkasbingiz bilan aylana stol atrofida o'tirib suhbat qurishingiz mumkin, kimdir deraza yoniga o'tirishni xohlaydi, kimdir umuman gaplashmaslikni xohlashi mumkin. Quyida siz ish vaqtingizda konfliktli vaziyatlarga duch kelganingizda o'sha vaziyatdan chiqib ketishingizga yordam beradigan bir nechta tavsiyalar berib o'tilgan:

1)Shuni bilingki, konflikt va ziddiyatli vaziyatlar doim hayotda uchraydi. Bunday vaziyatlarda do'stona va aniq yechim topishga harakat qiling.

2)Har bir individ o'zining emotsiyalarini boshqarishi kerak.G'azablanganida yoki o'zingizda asabiylik holatlarini sezganingizda bir holatdan boshqasiga o'ting.

3)Muammo nimadaligini aniqlang. Muammoda nima haqida aytilgan? Ish jarayoniga nima yoki qaysi munosabatlar salbiy ta'sir ko'rsatganligini aniqlang.

4)Muammoning tub mohiyati qanday va nimadan kelib chiqqanini aniqlang. Bundan maqsad insonlarni yaxshi yoki yomonga ajratish emas balki, muammoga yechim topish. Eng muhim jihatlariga e'tibor qarating.

Odamlarning o'zaro bir-biri bilan munosabatlari ba'zan mojaroga olib kelishi mumkin, shuning uchun javob berish va hal qilish nizolarni hal qilish strategiyalarini talab qiladi. Mojarolarni hal qilish yoki muzokaralar - bu qarama-qarshi tomonlar o'zlarining kelishmovchiliklariga yechim topishning bir usuli bo'lib, bu barchani oqilona qoniqtiradi. Ba'zan, nizoni hal qiluvchi shaxs neytral tomon yoki vositachi bo'lishi mumkin, boshqa paytlarda ular yechim topish uchun tashqi nuqtai nazardan qaraydigan mojaroga aralashgan odam bo'lishi mumkin. Mojarolarni hal qilish qobiliyati ko'pincha yetakchilik xususiyati sifatida ko'riladi. Mojarolarni aniqlay oladigan, turli fikrlarni tan oladigan va konsensusga erisha oladigan odamlar ko'plab tashkilotlar uchun qadrlidir. Ular ish davom etishi uchun shaxsiy kelishmovchiliklarni chetga surib qo'yish tarafdori bo'ladi. Ishda nizo kelib chiqishining eng keng tarqalgan sabablaridan ba'zilari:

- Turli shaxslar yoki nuqtai nazarlar;
- O'tmishdagi hal qilinmagan muammolar;
- O'zaro raqobat hissi;
- Yomon muloqot qobiliyatlari;
- Rol yoki mas'uliyat borasida noaniqlik;

Turli odamlar o'zlarining shaxsiyatlari va afzalliklariga qarab, nizolarni hal qilish uchun turli usullardan foydalanadilar. Ish joyidagi nizolarni hal qilish uchun ishlatiladigan (Kennet) Tomas-(Ralf) Kilmann modeli sifatida tanilgan beshta eng keng tarqalgan strategiyalar quyidagilarni o'z ichiga oladi.

1. Konfliktli vaziyatdan qochish. Bu usul shunchaki mojaro bo'lishi mumkinligiga e'tibor bermaslikni o'z ichiga oladi. Odamlar mojaroga aralashishni istamasalar, undan qochishga moyildirlar. Qochish ularga muammo borligini

e'tiborsiz qoldirish imkonini beradi. Mojarodan qochish to'g'ri javob bo'lishi mumkin bo'lgan vaziyatlar mavjud, masalan, aniq yechim topilmasa yoki umidsizlikka tushgan tomon qarama-qarshilikdan oldin tinchlanish uchun vaqt kerak bo'lganda. Biroq, qochish muammoga duch kelgandan ko'ra ko'proq harakat talab qilishi mumkin va kelishmovchiliklarga sabab bo'lishi mumkin. Agar mojarodan qochib qutulsa, hech narsa hal etilmaydi.

2. Raqobat. Raqobat - bu har qanday holatda ham bahsda g'alaba qozonishni talab qiladigan odamlar tomonidan qo'llaniladigan hamkorlik qilmaydigan, o'ta qat'iy usul. Bu g'alaba-yo'qotish strategiyasi sifatida tanilgan. Ushbu usul ko'pincha qoniqarli qarorlar keltirishi aniqlanmaydi, chunki u muammolarni birgalikda hal qilishga imkon bermaydi.

3. Moslashuvchi. Bu strategiya, shuningdek, silliqlash deb ham ataladi, bir tomonning roziligini o'z ichiga oladi va muammoni hal qilish uchun qarama-qarshi tomonga aynan nima kerak bo'lishini hal qiladi. Ushbu usul sizga muammoni qisqa muddatda hal qilish imkonini beradi, shu bilan birga uzoq muddatli yechim yo'lida harakat qilasiz. Ba'zi hollarda murosaga kelish mojaroning to'g'ri yechimi bo'lishi mumkin. Misol uchun, agar sizning fikringiz bu borada juda kuchli bo'lmasa, ko'pincha uni o’zgartirish osonroq bo'ladi.

4. Hamkorlik. Murosaga kelish usuli singari, hamkorlik muammoning o'zaro kelishilgan yechimini topish uchun boshqa tomon bilan ishlashni o'z ichiga oladi. Bu g'alaba qozonish strategiyasi sifatida tanilgan. Misol uchun, sotuvchi va mijoz shartnoma shartlarini ikkala tomon ma'qul deb topmaguncha muzokara qilish uchun birgalikda ishlashi mumkin.

5. Murosa qilish. Yarashish deb ham ataladigan ushbu strategiya nizoni hal qilish uchun o'zaro kelishuvga intiladi. Bu yo'qotish strategiyasi sifatida tanilgan, chunki ikkala tomon ham kelishuvga erishish uchun ba'zi ehtiyojlaridan voz kechishadi. Bu mojaroni katta muammoga aylantirmasdan hal qilishning tezkor usuli bo'lishi mumkin. Murosa, shuningdek, tegishli tomonlar yanada doimiy yechimni amalga oshirmaguncha, nizolarni oldini olishning vaqtinchalik usuli sifatida ishlatilishi mumkin. Har ikki tomonni ham oldinga siljish bilan to'liq xursand qilishning iloji bo'lmasa, murosa qilish maqsadga muvofiqdir.

Ish joyida nizolarni hal qilish usullaridan qanday foydalanish kerak?

Kompaniyangiz samaradorligiga salbiy ta'sir ko'rsatishi mumkin bo'lgan nizolarning oldini olish yoki ularni hal qilish uchun maqbul yechim topishga yordam berish uchun quyidagi bosqichlarni bajaring:

1. Qarama-qarshilikni tan oling. Hech kim mojarodan zavqlanmaydi, shuning uchun u mavjud emas yoki o'zini o'zi hal qiladi deb ko'rsatish vasvasasi bo'lishi mumkin. Bu sodir bo'lishi mumkin bo'lsa-da, muammoga e'tibor bermaslik ko'pincha uning yomonlashishiga olib keladi. E'tiborsiz qarama-qarshiliklar vaqt o'tishi bilan o'sib boradi va nomaqbul paytlarda yana paydo bo'ladi. Menejer sifatida, nizolar yuzaga kelganda, ular beqaror vaziyatga aylanishi mumkin bo'lgan muammolarni hal qilish yaxshiroqdir.

2. Muammoni aniqlang. Mojaroning sababini aniqlash muammoning birinchi navbatda qanday o'sib chiqqanini tushunishga yordam beradi. Siz ikkala tomonning

muammo nima ekanligini kelishib olishlari va ikkala tomonda ham qondirilmagan ehtiyojlarni muhokama qilishlari kerak. Har bir tomonning istiqbollari haqida iloji boricha ko'proq ma'lumot oling. Barcha qarama-qarshi tomonlar muammoni tushunishlariga ishonch hosil qilmaguningizcha savollar berishda davom eting. Muhokama paytida shaxsiy his-tuyg'ulardan qochib, tomonlarga muammoga e'tibor qaratishlariga yordam berishingiz kerak. Muayyan shaxs yoki guruhni bog'lamasdan, muammoni professional tarzda muhokama qiling.

3. Neytral yerda uchrashish. Muammoga oydinlik kiritish yoki yechimni muhokama qilish barcha tomonlar uchun xavfsiz va neytral muhitda o'tkazilishi kerak. Bunday joy, shuningdek, barcha ishtirokchilarga halol muloqot qilish imkonini beradi. Ikkala tomonning ofisini yoki yaqin joyni tanlamang, chunki bu bir tomonning boshqasiga nisbatan ko'proq ta'sir yoki kuchga ega ekanligini anglatishi mumkin.

3. Har kim o‘z fikrini bildirsin. Har bir partiyaga masala yuzasidan o‘z nuqtai nazarini va qarashlarini bildirish imkoniyati bo‘lsin. Ularga o'z fikrlarini aytish uchun teng vaqt bering. Uchrashuvda ijobiy yondashuvni qabul qiling va agar kerak bo'lsa, asosiy qoidalarni belgilang. Barcha ishtirokchilarni o'z fikrlarini ochiq baham ko'rishga, mojaro sabablarini tushunishga va yechimlarni aniqlashga undash. Agar ular kompaniya maqsadlariga erishish uchun umumiy maqsadni tushunsalar, o'zaro muloqot qilish osonroq bo'lishi mumkin.

4. Yechim haqida kelishib oling. Ikkala tomonni tinglaganingizdan so'ng, ishni tekshirishga vaqt ajrating. Oldindan hukm qilmang yoki aytilganlarga asoslanib yakuniy hukm chiqarmang. Chuqurroq qazib oling va voqealar, ishtirok etgan tomonlar, muammolar va odamlarning his-tuyg'ulari haqida ko'proq bilib oling. Bundan tashqari, avvaliga aniq yoki sezilmaydigan har qanday asosiy mojaro manbalarini topishga harakat qiling. Har bir mumkin bo'lgan variantga tashrif buyurganingizdan so'ng, qaysi biri barcha ishtirokchilar uchun eng ma'qul bo'lishini aniqlang. Har bir tomon taklif qilingan yechimning eng yaxshisi ekanligini tan olishi kerak.

5. Yechimdagi har bir tomonning rolini aniqlang. Hozircha har ikki tomon muzokaralar olib borishda o‘z fikrini bildirgan. Biroq, samarali bo'lishi uchun har bir tomon yechimning adolatli ekanligini his qilishi kerak. Ideal holda, endi ikkala tomon ham bir-birini tushunadi. Ko'pincha mojaroni faqat osonlashtirilgan, ochiq muloqot orqali hal qilish mumkin. Bu qadam biroz vaqt va kuch talab qiladi, chunki ikkala tomon ham o'z kelishmovchiliklari va afzalliklarini chetga surib, hal qilish yo'lida ishlash uchun umumiy asos topishga harakat qiladi. Keyin, kelishilgan qarorga erishish uchun qadamlar ro'yxatini ishlab chiqish uchun ikkala tomon birga ishlashi kerak.

Mojarolarni hal qilishning afzalliklari. Nizolarni samarali hal qilish ko'plab afzalliklarni beradi, masalan: Kuchli munosabatlar o'rnatishga yordam beradi.

Mojarolarni samarali hal qilish ko'nikmalari mehnat munosabatlariga putur yetkazadigan har qanday norozilikni kamaytirishga, hamkasblar o'rtasidagi hamkorlikni yaxshilashga yordam beradi va natijada xodimlar o'rtasida mustahkam ish munosabatlarini o'rnatishga yordam beradi.

Ma'naviyatlilikni oshirishga ta’sir qiladi. Mojarolarni samarali hal qilish, kelishmovchiliklar bo'lgan xodimlar o'rtasidagi ziddiyatning asl mojaroda ishtirok etmagan boshqa xodimlarga tarqalishining oldini oladi. Tez, do'stona qaror ish joyida tinchlik va ma'naviyatni saqlashga yordam beradi va samaradorlikdagi buzilishlarning oldini oladi.

Maqsadlarga erishishga yordam beradi. Mojarolarni hal qilish qarama-qarshi tomonlarning samaraliroq bo'lishiga va ularning maqsadlari sari harakatlanishiga yordam beradi. Qaror qabul qilingandan so'ng, ular mojaroga emas, balki maqsadlarga e'tibor qaratish orqali yanada samarali va birgalikda ishlashlari mumkin.

Stressni kamaytiradi. Mojarolarni hal qilish qarama-qarshi tomonlar, ularning menejerlari, hamkasblari va ular bilan muloqot qiladigan mijozlarning stress darajasini kamaytirishi mumkin. Stressni kamaytirish jismoniy va ruhiy farovonlik uchun muhimdir. Stress darajasi past bo'lgan odamlar ham diqqatni jamlashni va o'z rollarini bajarishni osonlashtiradi.

Boshqalarni tushunish imkonini beradi. Mojarolarni hal qilish boshqa nuqtai nazarni tushunish imkoniyatini beradi. Ba'zida kimdir sizning nuqtai nazaringizdan farq qilishi sabablarini muhokama qilish sizga yangi tushunchalarni berishi mumkin. Ushbu tushunchalar sizni ko'proq qabul qiluvchi odamga aylantirishi yoki muammolarni yangi usullar bilan hal qilishda yordam berishi mumkin.

Xodimlar ishda nizolarga duch kelsa, boshqa ish qidirishlari ehtimoli ko'proq bo'lishi mumkin. Mojarolarni hal qilish ularni kompaniyada qolishga undashi mumkin, bu esa kompaniyaga tajribali xodimlarining malaka va bilimlarini saqlab qolish imkonini beradi.

Mojarolarni hal qilish strategiyalaridan foydalanish bo'yicha maslahatlar:

Ish joyidagi nizolarni hal qilish bo'yicha samarali muzokaralar olib borishga yordam beradigan ba'zi maslahatlar:

• Asosiy qoidalarni belgilang, masalan, har bir tomon aybdor degan ma'noni anglatuvchi "siz" so'zlari o'rniga "men" so'zini ishlatishi kerak.

• Faol tinglovchi bo'ling va diqqatli va kuzatib borayotganingizni ko'rsatish uchun ijobiy tana tilidan foydalaning.

• Ikkala tomonning hurmatini qozonish va saqlab qolish uchun barcha o'zaro munosabatlarda professional va xolis bo'ling.

• Odamlar bilan alohida uchrashishdan saqlaning. Guruh yig'ilishlari yopiq eshiklar ortida har qanday maxsus muomalaga shubha yo'qligini ta'minlaydi.

• Tuyg'ular kuchayib ketganda yoki asablar tinchlanishga muhtoj bo'lgan paytda tanaffus qilishni biling.

• Agar kerak bo'lsa, vositachi sifatida harakat qilish uchun boshqa birovni jalb qiling, chunki bu sizning halolligingizni namoyish etadi va har ikki tomonning hurmatini qozonadi.

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THE IMPORTANCE OF CHOOSING THE INTERACTION POTENTIAL FOR MD SIMULATIONS IN SOLID CARBON EXTRACTION

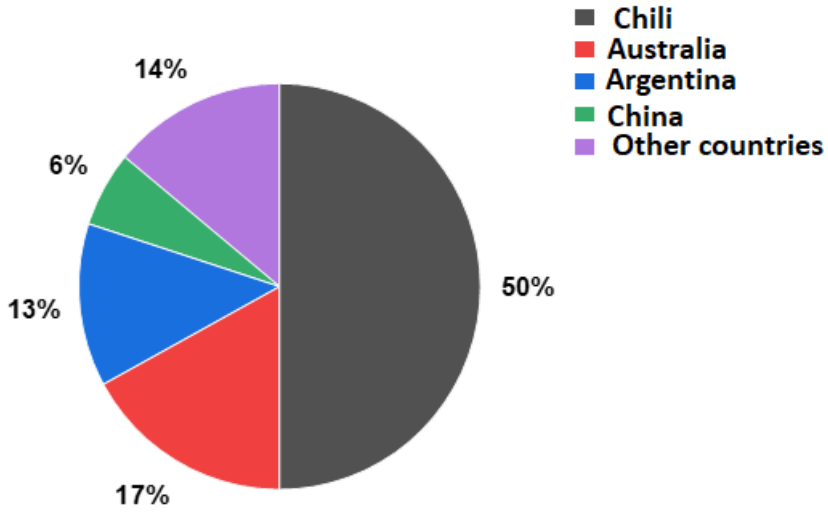
Abstract: *Hard carbons are prime candidates for anodes for next-generation sodium-ion batteries for large-scale energy storage. Hard carbons have a more disordered structure, more defects, higher concentration of heteroatoms, larger spacing between graphite layers, and more closed pore structures than soft carbons, which provide more storage sites and diffusion pathways for Na+ ions. In the formation of hard carbons, it is important to correctly select the interaction potential between C-C atoms by molecular dynamics (MD).*

Keywords: *lithium and sodium-ion batteries, anode, Molecular dynamics (Md), Reaxff, solid carbon, thermostat, Lammps.*

Introduction: Technology is developing rapidly around the world, making many of humanity's tasks easier, including smartphones, video cameras, cars, and similar technologies, and many of them are powered by batteries. The use of batteries in technology has increased the demand for them and the production volume has increased dramatically. Lithium-ion batteries (LIB), which are one of the best in the battery market, are not widely distributed and are expensive to produce, so it is becoming more and more urgent to produce a battery with good characteristics through other alternative materials. Sodium-Ion batteries are widely distributed on earth and can compete with LIBs in many aspects.

Lithium-ion batteries (LIBs) are widely used to power electric vehicles, including modern cars such as the Tesla Model S™. Their speed and acceleration performance are competitive with gasoline cars [1]. In 2018, 70% of LIB production was used in the automotive industry, compared to 43% in 2015 and only 6% in 2010. According to forecasts, by 2025, the demand for electric vehicles could lead to the depletion of more than 25% of lithium deposits [2]. Today, lithium reserves are estimated at 15 to 30 million tons. These reserves are mainly located in Chile, Australia, Argentina, and China. However, the recycling rate of lithium from used batteries is only 1%, which further increases the risk of resource shortages [3]. The rapid growth of demand for LIBs for electric vehicles has led to a decrease in lithium resources and an increase in overall costs, making them economically uneconomical

for large-scale energy storage systems. The current world lithium resources and production volume are presented in Figure 1 [4]. As a result, attention is being paid to alternative energy storage systems with large reserves and lower costs, where energy density is not a major issue. In this context, sodium-ion batteries (NIBs) have attracted the attention of researchers, and although they have difficulties competing with LIBs in terms of energy density, they have a number of advantages. The main advantages of NIBs include the fact that sodium is the fourth most abundant element in the earth's crust and their low cost. Because their cathode and electrolyte are made of economical Na-based compounds. Although LIBs currently have an advantage over many batteries, the limited availability and high cost of lithium require research



into other alternative batteries. Researchers are considering NIBs as the best alternative in this regard.

Figure 1. Lithium reserves worldwide (16,000 thousand metric tons)

Method and result: In this study, the molecular dynamics (MD) method of computer modeling of solid carbon, which is the anode material of sodium-ion batteries, was performed using the LAMMPS programming package. The Reaxff effect potential was used to correctly describe the bonding between C-C atoms. In order to generate the process, a simulation box with sides of 24 Å along the x, y, and z axes was randomly filled with carbon atoms. The process consisted of four stages. In stage I, the simulation was brought to thermodynamic equilibrium at a temperature of 300 K in the NVT ensemble using a Nosé-Hoover thermostat for 10 ps, during which the initial velocities were distributed and the temperature of the system was equilibrated. In stage II, the simulation was increased from 300 K to 4500 K in the NVT ensemble using an Andersen barostat over a time interval of 10 ps. In stage III, the temperature was held at 4500 K in the NVT ensemble for a time interval of 1000 ps. In stage IV, the temperature was lowered from 4500 K to 300 K in the NPT ensemble for 15 ps and the pressure was brought to 0. As a result, the carbon atoms became disordered (Fig. 2, b). The MD modeling time step was 0.5 fs, and the total time duration of the modeling was 1.035 ns.

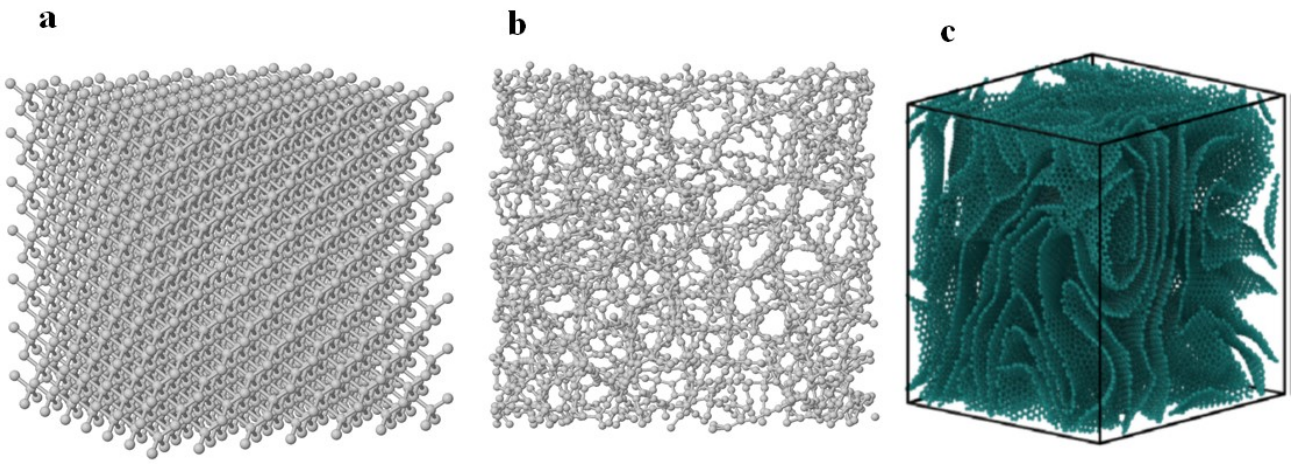


Figure 2. a) Carbon atom arrangement in step I b) End of the process in step VI c) Result copyright from Jiaqi Li[5]

In Figure 2c, Jiaqi Li and his colleagues used the EDIP potential proposed by Marx to obtain the C-C interaction potential for solid carbon. In summary, the difference between Figure 1b and c shows that the results obtained using Reaxff are flawed.

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ISSUES OF INCREASING THE COMPETITIVENESS OF THE REGIONAL ECONOMY

Abstract: *The article presents a study on competitiveness in regional economy. The author provides an overview of the factors influencing regional competitiveness and proposes a model for its measurement. The conclusion of the article offers several recommendations for enhancing competitiveness.*

Keywords: *competitiveness, regional economy, factors, model, measurement, recommendations.*

In the modern world, characterized by intensive development of globalization and growth of economic competition, issues of increasing competitiveness of regional economies are becoming especially relevant. Competitiveness of the regional economy is a key factor in its sustainable development, contributing to the attraction of investments, creation of new jobs and ensuring a high standard of living for the population.

Modern regional development is not always accompanied by improvements in living conditions and social indicators. In practice, the economic interests of business entities, various branches of material production and the social interests of the population of the regions and society as a whole often do not coincide. According to N.V. Khilchenko and V.P. Anufriev, the following problems of regional development are widespread [1]:

— weak scientific and technical level of production;

— limited financial, labor and material resources, low efficiency of their use;

— low level of labor organization, imperfect management and business law standards.

Their consequence is a comprehensive deterioration of the regional economy, manifested in the growth of negative phenomena in the natural environment, a decrease in the socio-economic and production potential of the regions and, as a consequence, a decrease in the population's income and an increase in poverty. Over the same period, an increase in the differentiation of the population's income is observed, which indicates the stratification of society and social tension.

As our research shows, the sharp decline in real incomes of the population and the growth of poverty during the period of reforming the Russian economy were significantly influenced by such a factor as the strengthening of interregional differentiation in the level of economic, industrial and social development due to different starting conditions and specifics of the regions. The reduction of poverty of the population in the regions by 75% is influenced by an increase in labor

productivity and by 60% in capital productivity, and investment activity in the region is also of no small importance.[2]

Leveling interregional and intraregional differentiation is a priority task for regional development. It is known that the existing gap in their development complicates the implementation of a unified policy of socio-economic reforms and the formation of a national market. In addition, the risk of regional crises and interregional conflicts increases. The regional aspect of poverty, in our opinion, is determined by two types of factors characterizing the heterogeneity of the economic space - absolute and relative.

The severity of regional differentiation in the economy of the transition period is also increased as a result of the contradiction between the inertia of the distribution of material elements of national wealth (natural resources, capital, labor) and the increased dynamism of the economic conditions of production. As a result, disproportions arise between regions.

When analyzing the main subjects of the region, it is necessary to add the following: it is impossible to count on a reasonably high competitiveness of the region if the main balances of political, social and economic nature are not adjusted. In this regard, it can be confidently stated that the main level of ensuring competitiveness is macroeconomic, which determines the main conditions for the functioning of the entire economic system in the region.

In our study, the region is presented as a commodity that has its own price. It is important to highlight that after the macroeconomic level, the mesolevel comes in importance, where the development prospects of industries in the region are formed, covering a group of enterprises. At the micro level, competitiveness seems to acquire its final, concluding form in the form of the ratio of price and quality of goods. This ratio depends on the conditions formed at the previous two levels, and the personnel of enterprises, their ability to use both their resources and comparative and industry advantages. Taking into account the above, the following definition is proposed: the competitiveness of a region is an economic category that characterizes its position relative to regions - competitors in the domestic and foreign markets and is expressed through certain indicators.

Theoretical researcher in regional economics A.Z. Seleznev interprets the competitiveness of a region as "...the position of a region and its individual producers in the domestic and foreign markets, determined by economic, social, political and other factors, reflected through indicators that adequately characterize its condition and dynamics" [3]. Competitiveness can be defined as the ability to create conditions for the sustainable development of a region. The two concepts - "regional competitiveness" and "regional sustainability" - are interconnected and interdependent, since the first is the main indicator of the second. The higher the level of competitiveness of a region, the higher the degree of its sustainability.

To assess the factors of development of regional competitiveness and the possibility of influence of the regional administration on its components, it is advisable to use the model of the "national diamond" proposed by M. Porter. According to his model, the role of the region in creation of competitive advantages

can be studied in four interconnected directions (determinants) forming the "regional diamond": parameters of factors (natural resources, qualified personnel, capital, infrastructure); conditions of demand (income level, elasticity of demand, buyers' exactingness to the quality of goods and services); related and supporting industries (providing enterprises with the necessary resources, components, information, banking, insurance and other services); strategies, their structure and rivalry (they create a competitive environment and develop competitive advantages). Based on this model, the author proposes a scheme of the "regional diamond" by four main parameters under the influence of the internal and external environment affecting the development of competitiveness in the region.

Here, each of the parameters is interconnected and interacts in the internal environment of the region, characterized by the degree of their impact on the competitive advantage of the region and its further development. The development of competitiveness can be analyzed by the following four stages based on [4]: production factors; investments; innovations; wealth.

Having considered the parameters of the factors, it is necessary to trace how the competitive advantage of the region is ensured at various stages:

- at the first - due to the factors of production: natural resources, favorable conditions for the production of goods, human resources - skilled labor (ensured by one determinant);
- the second - based on investment (mainly by enterprises in the region) in education, technology, licenses (ensured by three determinants);
- the third - due to the creation of new types of products, production processes, organizational solutions and other innovations through the action of all the components of Porter's "diamond";
- the fourth - due to the already created wealth and relies on all the determinants that are not fully used.

In modern market conditions, it is advisable to take as a basis the level of investments with subsequent transition to innovative development of the region. Today, there is an objective need for innovative "filling" of investments attracted to the region.

Scientific knowledge, education, factors of production development and formation of innovative potential are of no small importance in creating a competitive advantage of the region. The first three stages provide economic growth, the last one causes stagnation and decline in the region. It seems possible to take as a basis the criteria characterizing the level and quality of life of the population when determining the competitiveness of the region: income level, education, health care, environmental situation.

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FORMATION OF A PARADIGM THEORY OF REGIONAL ECONOMY

Abstract: *The article concludes that the formation of a paradigm of modern regional economy should be based on several basic principles, including the consideration of regional economy as a complexly organized developing scientific discipline; territoriality as a dominant feature of any study within the framework of regional economy; the imperative of any study claiming to belong to regional economy is the establishment of not only general patterns of development and organization of economic life in the territory, but also the identification of its regional (local) specificity.*

Keywords: *regional economy, economic geography, region, economic zoning, placement of production forces, spatial development, regional development.*

Regional economics is the most important branch of modern economic science, developing its traditional sections with the area of research into the patterns of formation and development of territorial socio-economic systems of various types and sizes, the location of production, and the distribution of created and accumulated wealth across the country. Interest in regional economics has noticeably increased in the educational processes of economic and other universities in the country.[1]

No matter how great the desire was to begin this article immediately with an analysis of the current state of the theoretical aspects of regional economics, it seems necessary to introduce a brief excursion into the history of its origin and development.

Firstly, the judgments and modes of previous scientific ideas about regional economics, formed in the late Soviet period, are still preserved, and their trace in its modern definitions and interpretations is quite noticeable. And this trace does not always fit into the emerging market reality.

Secondly, Uzbekistan inherited a regional system that had developed during the Soviet period, in what was essentially another state, the inertia of which turned out to be extremely high. On the way to creating modern, effective management of regional development, the country's archaic territorial structure turned out to be a serious barrier.

Thirdly, regional economics currently remains one of the few disciplines in the scientific community that studies theoretical and applied problems of the distribution of productive forces, which were traditionally studied by Soviet science.

A new understanding of the nature of productive forces, theoretical understanding of space, its arrangement in the interests of development inevitably leads to a change in the theory of production placement, which remains the core of the regional economy.

The origins of the emergence of regional economy.

Considering that each scientific discipline, each scientific direction arises in an inextricable connection with the practical needs of society, and the emergence of regional economy at one time was initiated by the need for a practical solution to complex problems of economic development and arrangement of the vast Russian space, increasing the return on the total potential of the state territory, economic zoning of the country, territorial development, rational placement of productive forces, the creation of effective territorial-production complexes, etc.

First of all, it is necessary to highlight the research of scientists on the disclosure of the content and essence of the economic zoning of the country.

Firstly, the region was presented as an integral territory (space, zone, belt, etc.), precisely marked on the map and distinguished by a set of some specific (unique) interconnected features, phenomena, possessing an internal unity of its constituent components and differing from adjacent territories by these same features.

Secondly, zoning, which seeks to divide the territory of the state into separate parts based on the commonality of general geographic, socio-cultural, economic, ethno-demographic and other features and processes at a given historical stage, solved cognitive problems, because it allowed for a deeper understanding of the territory.

Thirdly, zoning had a certain applied significance, since it was aimed at identifying economically integral regions (territories) possessing internal unity, within which any regulatory administrative and economic actions could be carried out.

The main directions of regional studies (then territorial) were connected with the identification of radical shifts in the distribution of productive forces, the substantiation of a new nature of economic zoning, the examination from different angles of the problem of factors of production distribution as a whole and its individual branches, the development of programs for the formation of large territorial-production complexes, focused primarily on the development of natural resources, the creation of methodological foundations for a system of territorial planning and management. [2]

The leading scientific organization for applied regional research since 1930 has been the Council for the Study of Productive Forces (CSPF).

A decisive contribution to the development of the theory of economic zoning, the formation of territorial production complexes, in the study of problems of rational distribution of productive forces, territorial division of labor, and integrated development of regions of our country was made by Soviet economic geographers, among whom were N. N. Baransky, N. N. Kolosovsky, Yu. G. Saushkin, L. L. Nikitin, G. N. Cherdantsev, V. M. Chetyrkin, A. T. Khrushchev, M. D. Sharygin

and others, as well as such famous economists as I. G. Alexandrov, G. M. Krzhizhanovsky, N. N. Nekrasov, P. M. Alampiev, V. F. Vasyutin, Ya. G. Feigin, A. E. Probst, V. F. Pavlenko, L. A. Kozlov, A. G. Granberg, B. M. Shtulberg, V. P. Mozhin, M. K. Bandman, R. I. Shniper and etc. [3]

The study of the problems of production placement, the specifics of the manifestation of economic processes in the territorial aspect was carried out under the determining influence of state structures and the prevailing ideology. Economic zoning, understood as the result of the placement of productive forces, interpreted as the possibility of building gigantic territorial production complexes and huge factories on the territory of certain regions, was presented as the most important advantage of the socialist mode of production [4].

Regional development, which means fixing territorial diversity, securing regional and local self-identifications, original local technologies, and distinctive traditions of regional communities, was alien to the laws of functioning of a command centralized economy.

And the term “region” itself, along with the widely used term “district,” began to enter the scientific circulation of geographers and economists only in the early 1970s.

Social sciences, including economics and economic geography, developed almost independently of the achievements of foreign thought.

The main works of I. Thünen, A. Weber, A. Lesch, W. Izard, P. Huggett, and H. Boss, translated into Russian at different times, did not have a significant impact on the theoretical views of Soviet scientists in the field of production placement and regional development [5].

Popular theories of Western regional science, theories of production placement, methods of economic analysis and economic zoning, the theory of growth poles and polarized development, the theory of long waves and production cycles, and concepts of urban development were harshly criticized from the standpoint of Marxist-Leninist ideology, and the unconditional superiority of Soviet practice in the placement of productive forces was proven [6].

The formation of regional economics abroad as a full-fledged element of economic science can be attributed to the end of the 1950s - beginning of the 1960s. Regional economics included not only regional economics itself, which focuses on the study of the economy of individual regions, on explaining the causes of the emergence and characteristics of regional problems, but also a vast area of the so-called urban economics, and also absorbed theories of interregional trade theory, urban growth theory, and location theory. [7].

Regional economics, being genetically linked to economic theory, was called upon to provide a "projection" of macroeconomic processes and parameters of a specific national economy onto the territorial level, onto the level of regions and cities, taking into account existing inter-regional connections and relations. The extensive complex of problems of the distribution of productive forces, the spatial aspect of various economic phenomena and processes should be the focus of a new

special branch of economic science with its own subject of research, its own target settings, tasks, and research methods.

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BOSHLANG'ICH TA'LIM TABIIY FANLAR TIZIMINING SHAKLLANISHI VA RIVOJLANISH TARIXI

Annotatsiya *Maqolada boshlang'ich ta'lim tabiiy fanlar tizimini shakillanishi va rivojlanish tarixi o'z aksini topgan, taklif etilgan va baholangan.*
Keywords: *astronomiya, matematika, geologiya, mantiq, grammatika, musiqa, metrologiya, topografiya, harbiy fanlar, axloq, siyosat, dehqonchilik, hunarmandchilik, ov san'ati.*

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HISTORY OF THE FORMATION AND DEVELOPMENT OF THE NATURAL SCIENCE SYSTEM OF PRIMARY EDUCATION

Abstract: *В статье отражена, предложена и оценена история становления и развития естественнонаучной системы начального образования*
Keywords: *Астрономия, математика, геология, логика, грамматика, музыка, метрология, топография, военное дело, этика, политика, сельское хозяйство, ремесла, охота*

O'zbekiston Respublikasi Prezidentining "2022—2026-yillarga mo'ljallangan Yangi O'zbekistonning Taraqqiyot strategiyasi to'g'risida"gi PF-60-sonli farmoniga muvofiq "Uzluksiz ta'lim tizimini yanada takomillashtirish, sifatli ta'lim xizmatlari imkoniyatlarini oshirish, mehnat bozorining zamoniy ehtiyojlariga muvofiq yuqori malakali kadrlar tayyorlash siyosatini davom ettirish" bugungi kunning dolzarb vazifalaridan biri hisoblanadi[1].

O'zbekiston Respublikasi Prezidenti SH.M.Mirziyoyev 2020-yil 23-sentabrda "Ta'lim to'g'risida"gi PF-637-sonli Farmoni imzolandi. Bu bilan, O'zbekiston Respublikasining uzluksiz ta'lim tizimi yangi bosqichga ko'tarildi va YUNESKO tomonidan ta'sis etilgan ta'limning xalqaro standart tasnifiga to'la moslashtirildi[2].

Respublikamizda mustaqillik yillarida kadrlar tayyorlashning yangi tizimi yaratilib, mutaxassislarning sifatiga qo‘yiladigan zamonaviy talablarga javob beradigan yuqori malakali, raqobatbardosh, tanlagan ta‘lim yo‘nalishi bo‘yicha mustaqil ishlay oladigan, mamlakatning ilmiy-texnik, ijtimoiy-iqtisodiy va madaniy rivojlanishiga munosib hissa qo‘shishga qodir, jadal ilgarilayotgan ijtimoiy-iqtisodiy taraqqiyot sharoitiga moslasha oladigan, yuksak madaniy va ma‘naviy-ahloqiy sifatlarga ega bo‘lgan mutaxassislar tayyorlash izchil amalga oshirilmoqda.

Biz uchun dolzarbligi va ahamiyatini hech qachon yo‘qotmaydigan yana bir masala, bu - farzandlarimizni axloqi, tarbiyasi, mustaqil fikrli, zamonaviy bilim va kasb-hunarlarni egallagan va mustahkam hayotiy pozitsiyasiga ega, chinakam vatanparvar insonlar sifatida tarbiyalash vazifasidir [6].

“Tabiatshunoslik va uni o‘qitish metodikasi” fanini o‘rganar ekanmiz, avvalo, biz u qanaqa fan, qachon va qanday paydo bo‘lgan, uning tarixi, tarkibi va rivojlanish jarayoni qanday bormoqda, degan savollarga javob berishimiz lozim. Ustiga-ustak bu jarayonda qadimgi zamon fani, o‘rta asrlar fani, hozirgi zamon fani, Sharq va G‘arb olimlarining fandagi xizmatlari, ijtimoiy, falsafiy va tabiiy qarashlari, borliqning va odamning paydo bo‘lishiga oid bir-biriga zid fikrlarga biz duch kelamiz. O‘qituvchi bunday paytda talabalarga bu boradagi ijobiy fikrlarini yetkazishi, ular orasida o‘zaro qizg‘in bahs olib borilishiga turtki berishi, uni asosli fikrlarga tayangan holda o‘zi xulosalashi zarur. “Tabishunoslik va uni o‘qitish metodikasi” kursi institut va universitetlarning boshlang‘ich ta’lim va sport tarbiyaviy ishlar fakultetlarida o‘qitiladi. Fanning vazifasi yashab turgan dunyomizda voqelik to‘g‘risidagi amaliy bilimlarni o‘rganish, ushbu voqelikni kuzatish va bu jarayonda olingan natijalarni ilmiy jihatdan bir tizimga solishdan iborat. “Tabiatshunoslik va uni o‘qitish metodikasi” kursining maqsadi - amaliy fanlarda empirik kuzatishlar orqali inson tafakkuri doirasidagi bilimlarni o‘rganish, aniq xulosalar chiqarish va ilmiy xulosalardan insonlarning ijtimoiy turmush tarzini yaxshilash yo‘lida foydalanish. Tabiatshunoslik va uni o‘qitish metodikasi bo‘lg‘usi boshlang‘ich sinf o‘qituvchilariga tarbiyalovchi ta’lim tizimini tushunib olish, tabiatshunoslikni o‘qitish asoslarini, uning uchun xos bo‘lgan shakl, metod va uslublarini, o‘quvchilarning bilish faoliyatlariga rahbarlik qilishni o‘rganib olishlariga yordam qilish kabi amaliy masalalarini o‘z ichiga oladi. Boshlang‘ich sinflarda tabiiy fan to‘g‘risidagi bilimlar tarkibiga jonsiz tabiat, jismlar va hodisalar, o‘simlik va hayvonlar, odam tanasining tuzilishi va salomatligini muhofaza qilish, yilning har xil fasllarida qishloq xo‘jalik mehnati to‘g‘risida tasavvur va tushunchalar, oddiy geografik tasavvur hamda tushunchalar kiradi. Bolalar maktabga kelishi bilan o‘qituvchi rahbarligida atrof olam bilan maqsadga yo‘nalgan holda tanishib boradilar. Atrof olam bilan dastlabki tanishish ularning sezgi organlarining qabul qilishiga asoslanadi. Olamni bilib olishning birinchi bosqichi bolalarning barcha yangiliklarni qarab chiqishga, iloji bo‘lsa shunga ko‘ra dastlabki tasavvurlar va tushunchalarni shakllantirishda o‘quvchiga o‘rganish ob‘ekti bilan bevosita muloqatda bo‘lish imkoniyatni berishi kerak. Tabiatdagi mavsumiy o‘zgarishlarni kuzatish jarayonida o‘quvchilar o‘simliklar va hayvonlarning ba’zi turlari, o‘simliklar hayoti uchun zarur bo‘lgan sharoitlar

(masalan, o‘simlik o‘sishining tashqi sharoitga, ya’ni issiqlik, yorug‘lik, namlik, tuproq holatiga bog‘liqligi), turli yil fasllarida o‘simlik va hayvonlar hayotidagi o‘zgarishlar bilan tanishadilar. O‘qish jarayonida o‘quvchilar yigirmadan ortiq tur tushunchalarni egallaydilar: mebel, idish-tavoq, taransport, maishiy texnika, ish qurollari, o‘simliklar, hayvonlar, sog‘liqni saqlash, shaxsiy gigiena va boshqalar. O‘quvchilarning tur tushunchalarini o‘rganishda o‘zlarining aniq predmetlar va ularning tasvirini guruhlarga ajratish bo‘yicha shaxsiy amaliy faoliyatlari katta ahamiyatga ega. Ekologik ta’lim va tarbiya maqsadidan kelib chiqib, tabiatshunoslik fani o‘quvchilarni insonning tabiatga ta’sirini va tabiat boyliklarini bolalarga tushuntirish vazifasini o‘z oldiga qo‘yadi. Atrofdagi olam predmeti va ob’ektlari haqida shakllangan tasavvurlarini o‘quvchilar o‘quv mashg‘ulotlari, didaktik va ijodiy o‘yinlar, o‘z-o‘ziga xizmat qilish va ijtimoiy foydali mehnat qilish jarayonida amaliy mustahkamlaydilar. Shu tarzda atrofdagi olam bilan tanishish bo‘yicha materiallarni o‘rganishga o‘quvchilarning bilish faoliyatini faollashtirish va ularning har tomonlama etuk shaxs bo‘lib rivojlanishi maqsadida ta’limiy, tarbiyaviy va rivojlantiruvchi masalalar hal qilinadi. Tabiatshunoslik tushunchalarini samarali o‘zlashtirishni ta’minlovchi metodik sharoitlar.

Tabiat hodisalarining takomillashib, evolutsion tarzda rivojlanib borishdagi tushuncha va ta’limotlar Abu Nasr Farobiy, Abu Rayhon Beruniy, Abu Ali ibn Sino, Mirzo Ulug‘bek, Zahiriddin Muhammad Bobur kabi allomalarimizning asarlarida o‘z ifodasini topgan. Bobokalonlarimiz asarlari astronomiya, matematika, geologiya, mantiq, grammatika, musiqa, metrologiya, topografiya, harbiy fanlar, axloq, siyosat bilan birga dehqonchilik, hunarmandchilik, ov san’ati, tibbiyot va tabiiy kabi fanlarning rivojlanishiga ilmiy asos bo‘lgani hammamizga ma’lum.. Tabiatning evolutsion rivojlanish nazariyasi, hamma narsa soddadan murakkabga o‘sib borgani kabi, tabiatshunoslik evolutsiyasi ham soddadan murakkabga o‘sib borib, o‘zgaruvchanlik, birlamchi va ikkilamchi signal sistemalari, tabiiy va sun’iy tanlash masalalari O‘rta Osiyo olimlari tomonidan o‘rganildi. Yurtimizni azaldan daholar yurti deb, haqli ravishda hamisha faxrlanib kelamiz. Imom Buxoriy, Ibn Sino, Beruniy, Mirzo Ulug‘bek, Alisher Navoiy, Mirzo Bobur kabi buyuk allomalarimiz o‘zlarining yorqin iste’dodlari bilan butun jahonga dong taratganlar, bularni biz kelajak avlod ongiga singdirib borishiz kerak. Dong‘i dunyoni tutgan mutafakkirlarimizning insonni o‘rab turgan tabiat bilan aloqalari haqidagi qarashlari bilan qisqacha tanishib o‘tamiz.[72]

Abu Abdullo Muhammad ibn Muso al Xorazmiy jahon matematika fanining asoschilaridan bo‘lgan O‘rta Osiyo olimidir. Bag‘dod xalifasi Ma’mun al-Xorazmiyga ”Yer va Osmon xaritasi”ni tuzish ishini boshqarishni topshirdi. Xarita ustida olimlar 84 yil davomida tadqiqot ishlarini olib borishdi. Xorazmiy bu tadqiqotlarni umumlashtirib “Yerning tasviri” nomli asarini yozib, geografiya faniga asos soldi. Yerning tasviri asarida butun dunyo, qit’alar, okeanlar, qutblar, ekvator, sahrolar, ko‘llar, o‘rmon-u barcha mamlakatlar, o‘lkalar, u yerdagi hayvonot va o‘simliklar dunyosi, boshqa tabiiy xom-ashyolar, aholi, ularning

[72] M.I.Nuriddinova.Tabiatshunoslik o’qitish metodikasi.Cho’lpon nomidagi nashriyot uyi.Toshkent

tarqalish xususiyatlari, urf-odatlari, hunarlari, zichligi haqidagi ma’lumotlarni o‘z ichiga olgan. Xorazmiy dunyodagi birinchi geografik xaritalar majmuasini tuzishga katta hissa qo‘shgan. Xorazmiy astronomiya sohasida ham anchagina ishlar qilgan. U kuzatishlar asosida hindlarning astronomiya jadvallarini har tomonlama tahlil qilib, yangi astronomik jadvallar tuzgani hammizga ma’lumi mashhur. Uning rahbarligida Yer kurrasining kattaligini aniqlash maqsadida Yer meridianining bir gradusi o‘lchab chiqilgan. Xorazmiyning astronomiyaga oid asari, Yerning o‘lchami haqidagi fikrlari, O‘rta Sharq, Yevropada astronomiya fanining rivojiga ulkan hissa qo‘shgan.

Abu Abdulloh Muhammad ibn Ahmad ibn Nasr Jayhoniy Buxoroda tug‘ilgan. Jayhoniy o‘z davrining yirik davlat arbobi bo‘libgina qolmay, balki o‘ta o‘qimishli va bilimdon olim ham edi. U vazir lavozimidan foydalanib, dunyoning turli mamlakatlariga sayohatchilarni yuborib turgan. Ular to‘plagan ilmiy materiallarni chuqur tahlil qildi va mazkur tadqiqotlari asosida asarlar yozdi. Jayhoniyning “Kitob-al-masolik val mamolik” asari xalqimiz orasida juda mashhur. Beruniy o‘zining “Mineralogiya” asarida Jayhoniy asarlarida ko‘rsatilgan minerallardan, ular haqidagi ma’lumotlardan keng foydalangan. Mahalliy dorivor o‘simliklar va hayvonlardan olinadigan dorivorlarning tabiatdagi o‘rni haqida ma’lumotlar berilgan. Jayhoniy nafaqat davlat arbobi, shu bilar birga mashhur tabib ham bo‘lgan. U xonaki hayvonlar: it mushuk, odam organizmida yashaydigan gijja, chuvalchanglar yuqumli kasallik tashib yuruvchilar deb bilgan va ularga qarshi kurashish choralarini izlab topishga harakat qilgan. Jayhoniy qoldirgan boy ilmiy meros O‘rta Osiyo va qo‘shni mamlakatlarning tabiati, o‘simlik hamda hayvonot dunyosi, tabiiy resurslari, qishloq xo‘jaligi va tibbiyot fanlari tarixini o‘rganishda alohida ahamiyatga ega.

Abu Nasr ibn Uzlug‘ ibn Tarxor Farobiy bobomiz xizmatchi oilasida tug'ildi. Farobiy o‘z zamonasining yirik tibbiyot nazariyotchisi hisoblanar edi. U bu sohada o‘nlab ilmiy asarlar yaratdi. Asarlarining umumiy miqdori 160 dan ortiq bo‘lib, ular astronomiya, falsafa, tarix, mantiq, psixologiya, musiqa, tabiatshunoslik, tibbiyot, kimyo sohalarini qamrab oladi. Farobiyning tabiatshunoslikka doir asarlari alohida ahamiyatga ega bo‘lib, ularda inson va hayvonlar tana a’zolari, ular faoliyatini bir-biriga o‘xshash tomonlari va boshqa qator ilmiy jihatlari keng yoritilganligini ko‘rishimiz mumkin. Inson organizmi, uning faoliyatini Farobiy bir butun va yaxlit tizimdan iboratligini, kasalliklar asosan ovqatlanishning buzilish bilan bog‘liqligini ko‘rsatib o‘tgan. Farobiy o‘z asarlarida sun’iy ya’ni inson yordamida turlarini vujudga kelishi singari tabiiy ravishda ya’ni inson aralashuvisiz o‘simlik va hayvonlar turlarining paydo bo‘lishini ham dunyoda birinchi bo‘lib ta’riflab, bu masalani Ch.Darvindan 1000 yil avval hal qilib bergani barchamizga ma’lum.

Abu Rayhon Muhammad ibn Ahmad al-Beruniy buyuk o‘zbek qomusiy olimi, o‘rta asrlar va undan keyingi davrlarning yetuk mutafakkir bobolarimizdan biri hisoblanadi. Beruniy Xorazmning Kiyot hozirgi Beruniy shahrida tug‘ilgan. Beruniy Qobus ibn Vushmagirga bag'ishlangan “Qadimgi xalqlardan qolgan yodgorliklar” deb nomlangan asarini yozadi. Beruniy asarlariga

tabiatga oid juda ko‘p ma’lumotlar kiritilgan. Masalan, O‘rta Osiyo, Hindiston va Afg‘onistondagi qazilma boylik, dorivor o‘simliklar, hayvonlar, ularning foydali xislatlari haqida ma’lumotlar berilgan. Beruniyning ilmiy qarashlari “Mineralogiya”, ”Qadimgi xalqlardan qolgan yodgorliklar”, ”Geodeziya”, ”Mas’ud qonuni” kabi asarlarida keng yoritilgan.”Qadimgi xalqlardan qolgan yodgorliklar” asarida Beruniy Eron shimolida keng tarqalgan tropik o‘simliklar va hayvonot dunyosini barcha uchun tushunarli qilib ta’riflaydi. Beruniyning “Kitob as-Saydana-fit-tib” ya’ni “Tabiatda dorishunoslik”asari Turkiyaning Bursa shahridagi kutubxonalaming biridan topilgan. Bu kitobda 250 dan ortiq tabib, dorishunos, kimyogar, tabiatshunos, tarixchi, faylasuf, sayyohlar haqida ma’lumotlar keltirilgan edi. Beruniyning “Tabiatda dorishunoslik” asarida dorivor o‘simliklar tasnifi ham berilgan. Beruniy o‘z asarlari bilan tabiat fani tarixiga asos solgan.

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FERTILITY OF FLOWER POLLEN OF *SALVIA OFFICINALIS* L GROWING UNDER THE CONDITIONS OF TERMIZ CITY

Annotation. *In the article, the percentage of flower pollen maturity of Salvia officinalis L acclimatized to the conditions of the Surkhandarya region was determined using a microscopic method. Research was carried out in Termiz city, the southern region of the area, and Shurchi district, the northern region. The fertility of dust grains was determined using the Acetocarmine method by staining dust grains with an acetocarmine solution.*

Keywords. *salvia, dust grain, acetocarmine, microscope, flower, androceum, bloom*

Introduction. Mints - its wealth of medicinal plants distinguishes the *Lamiaceae* family. *Salvia officinalis* L. which is one of the medicinal species of the salvia family, is particularly important [1,2]. Among the plants taken for research, the medicinal plant belonging to the genus Salvia was one of the first to be described by Carl Linnaeus. The name of the category comes from the Latin word salvare, which means "healer". Because it is common in many countries, *Salvia officinalis* L. is known by different names. Specifically; Germans - edler Salbei, English - sage, Italians - Salvia, French - sauge, serve, Arabs - maryamiyah, khornak, Turks - ada cayi, Croatians - kadulja, [5].

The flowers of Salvia officinalis L are bisexual, bluish-purple in color, and zygomorphic. The flowers are located at the tips of the main and side branches in the form of a flower-shaped inflorescence. The inflorescence length is 4.0-4.5 mm and is covered with glandular hairs. Sepals 9.02 mm long, five-toothed and green, covered with glandular hairs. The sepals later turn brown and are stored until the fruit ripens. The petals are double-lipped, and bluish-purple in color, the upper lip consists of two petals, and the lower lip consists of three petals bent down. The seed is single, 13.0–15.0 mm long, the beak is three-parted, and the upper node is four-parted and green. The leaves are two-lobed, 8.0–9.0 mm long, attached to the base of the yellow leaf.

The plant buds are initially tiny (2.0–3.0 mm). In 10-12 days before flowering, the buds grow to 7.09 mm, the upper part of the sepals opens and the sepal teeth appear. At first, the petals are light purple, and when the buds are fully opened, they turn bluish-purple. When the plant buds are fully formed, the length of the sepal is 9.02 mm, and the length of the sepal is 13.9 mm, and at this time the flowers open. In a fully opened flower, the sepal is twice as long as the sepal and is 18.2 mm. The opening of flowers continues acropetally. Plant flowers have an entomophilous method of pollination and are mainly pollinated by insects belonging to the bee family. The fruit is senobi, consisting of a nut formed by the union of four sepals [6].

Purpose of the study. The purpose of the study is to study the anthology of *Salvia officinalis* L., introduced to the soil and climatic conditions of the Surkhandarya region, to determine the seed productivity of the plant while determining the maturity level of its reproductive organs.

Research results and their discussion. Research work was carried out in the area of Shurchi district, which is the northern region of Surkhandarya region, and the city of Termiz, which is the southern region. Four plants were selected from two-year-old plants growing in the territory of Termiz city, and the flowers that opened were plucked and observed on the morning of April 5, 2024, at 06:00. Sampling for the study was carried out in 3 parts of the day. Samples were taken every four hours at 08:00, noon at 12:00, and 16:00 and were marked separately. In the scientific laboratory of Termiz State University, the androecium of the *Salvia officinalis* L. flower was removed and placed in a numbered slide for each plant, the pollen was crushed, the pollen grains were removed from the slide, and the pollen residues were removed, stained with acetocarmine dye, and placed in a petri dish. It was stored in a refrigerator at +2 °C for 24 hours. The prepared samples were studied under a MIC D30 trinocular microscope and the results are shown in (Fig 1).

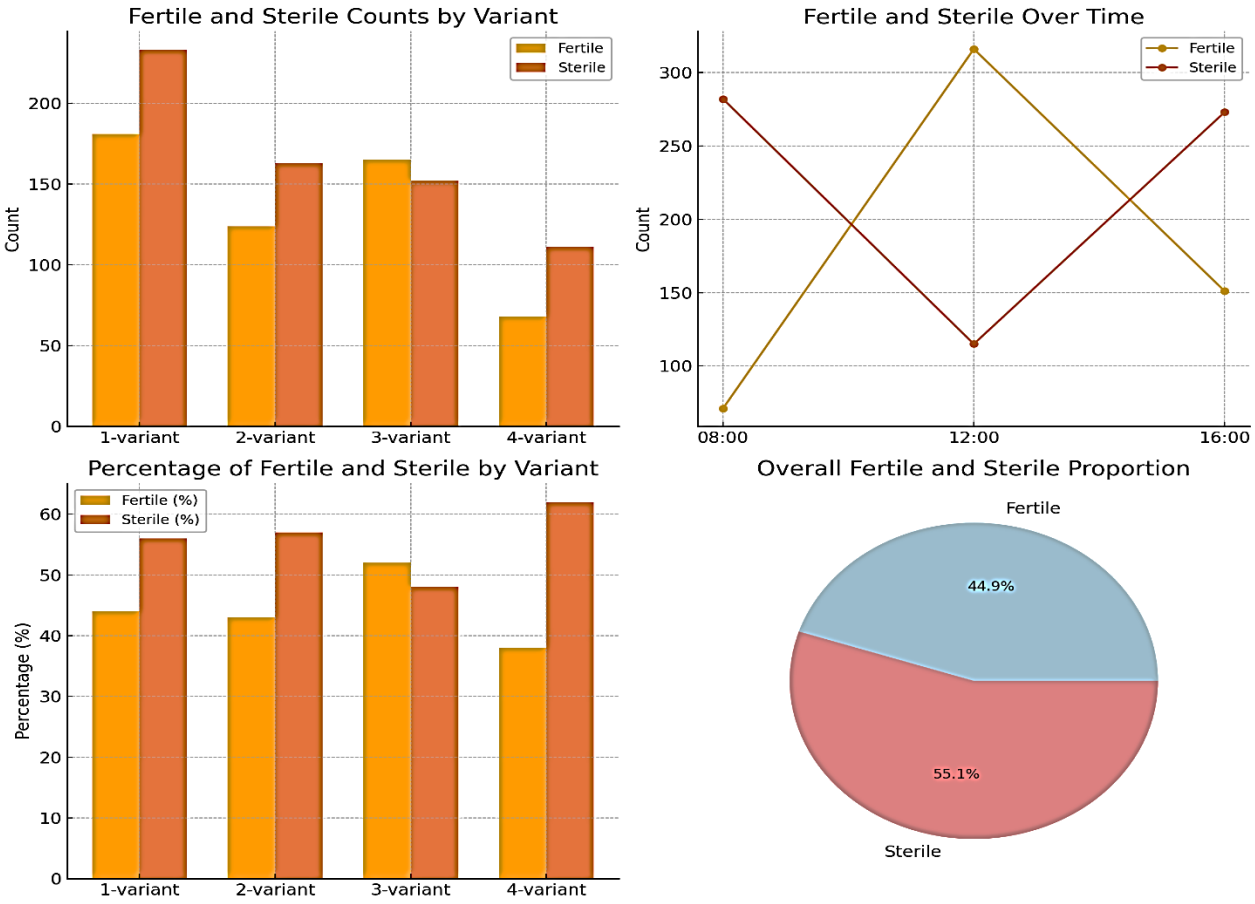

Fig. 1. Fertility of flower pollen of *Salvia officinalis* L growing under the conditions of Termiz city (Termiz 2024.04.05).

Microscopic research methods were used to determine the fertility of a grain of dust. Acetocarmine dye was used to stain the grain of dust. In this case, it was observed that the dust grains in the fertile state were red, and pink in color, and the immature ones remained colorless (Fig. 2).

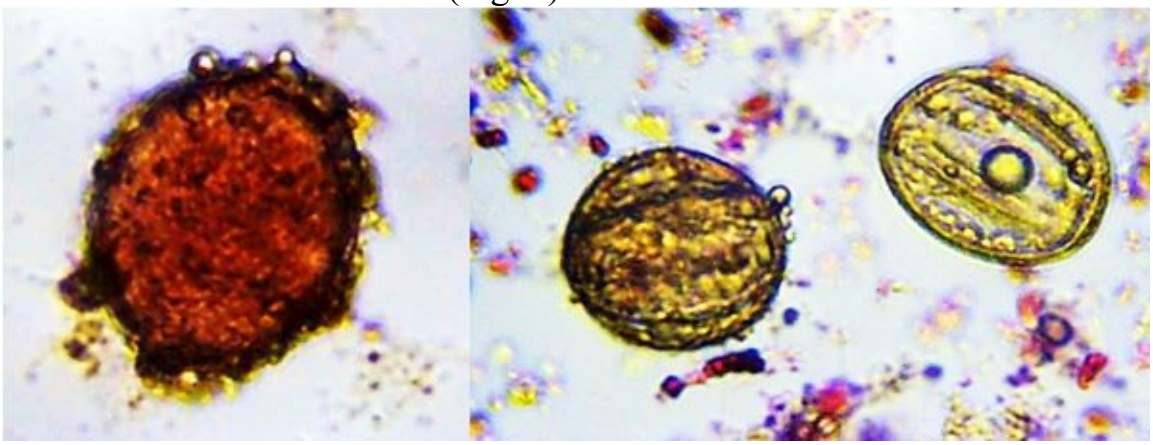

Figure 2. The stained dust grain is ripe, the unpainted one is immature

Samples of Salvia officinalis L flowers, introduced to the territory of the Shurchi district of the province, were taken on April 12 of this year at 08:00, 12:00, and 16:00, and microscopic analysis was carried out (Fig.3).

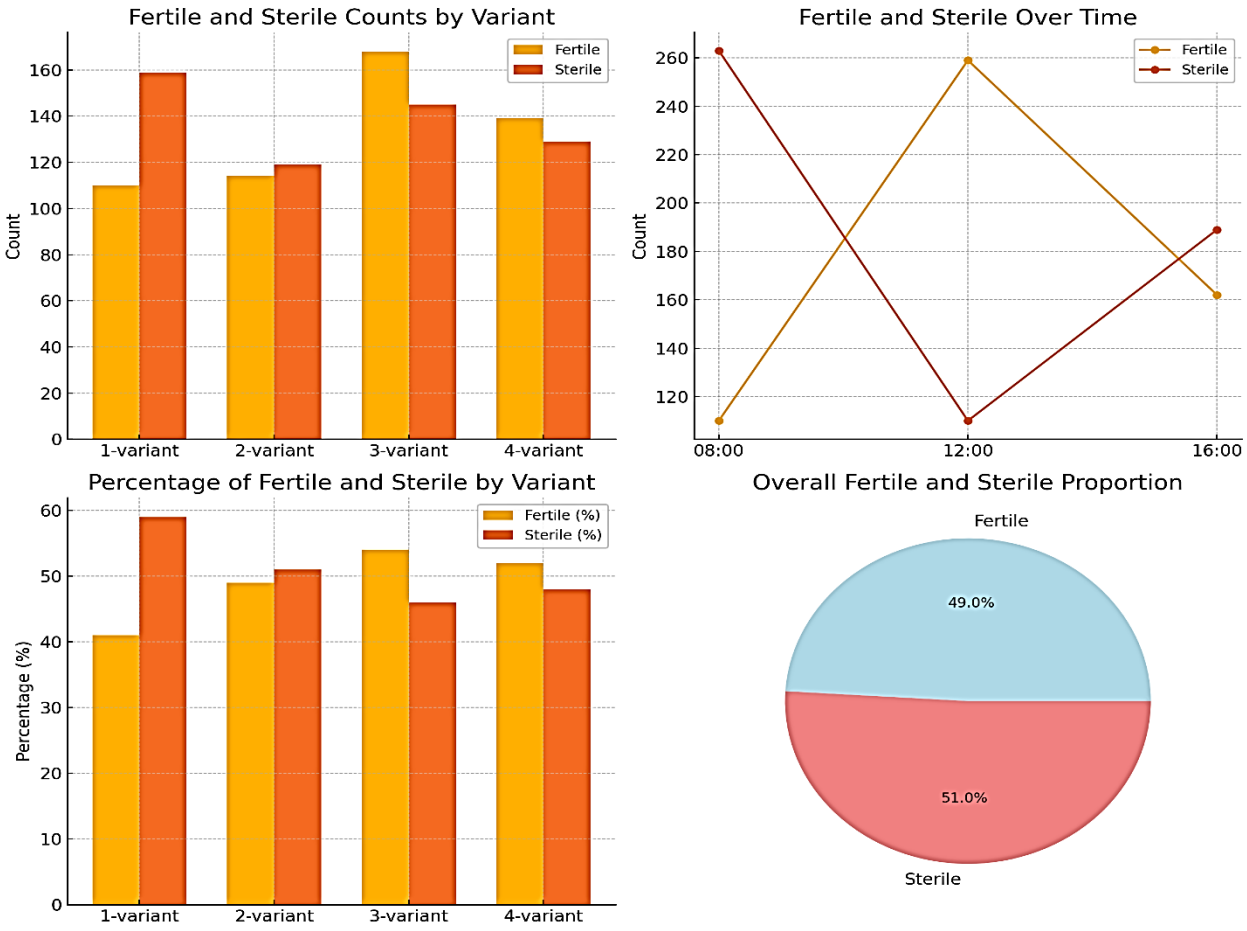

Fig.3. **Fertility of *Salvia officinalis* L flower pollen growing in the conditions of Shurchi district (Shurchi 2024.04.12)**

According to the results of the experiment conducted to determine the fertility of *Salvia officinalis* L flower pollen growing in the conditions of the Shurchi district, the percentage of fertility is low in all four options at 08:00 and 16:00, and the highest in flowers opened before midnight. was observed to have a pointer. It was determined that the percentage of pollen fertility in this area is 49% (Fig. 4).

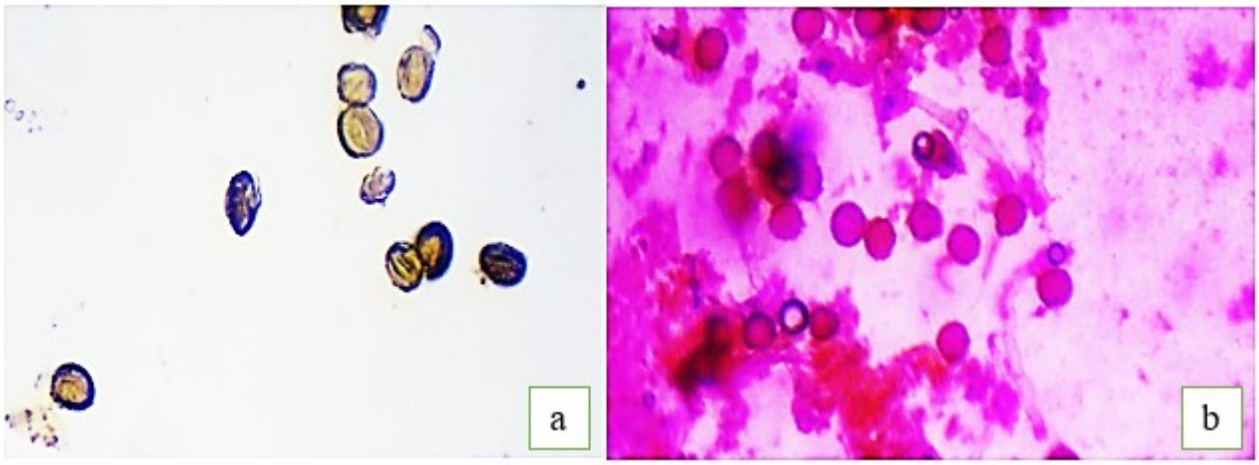

Fig. 4. View of a *Salvia officinalis* L. pollen grain when viewed with a 10x lens. a) sterile b) fertile

Conclusion. In conclusion, it can be said that the fertility of Salvia officinalis L flowers in the conditions of Surkhandarya region is 45% in the first decade of April, 49% in the second decade, and the fertility of flowers opened from 08:00 to 12:00 has the highest indicator was found to be.

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MAPLE PAKETI ORQALI ODDIY VA XUSUSIY HOSILALI DIFFERENSIAL TENGLAMALARINI YECHISH

Annotatsiya: *Ushbu maqolada zamonaviy axborot texnologiyalaridan, xususan, Maple dasturidan foydalanib matematik masalalarni yechish usullari keltirilgan. Maple dasturidan foydalanib, oddiy differensial tenglamalar, xususiy hosilali differensial tenglamalar, matematik-fizika tenglamalari kabi masalalarni oson va aniq yechish mumkin. Maple dasturi boshqa dasturlardan sodda funksiyalari, buyruqlarining oddiyligi hamda tayyor formulalar, amallar va simvollarni o‘z ichiga olishi bilan ajralib turadi.Maple dasturida funksiya grafiklarini istalgan oraliqlarda qurish, bir nechta grafikni bitta koordinatalar sistemasida joylashtirish va solishtirish, hamda grafiklarning rangini belgilash imkoniyatlari mavjud. Bundan tashqari, Maple dasturi yordamida differensial tenglamalar va matematik-fizika tenglamalarining taqribiy yechimlarini topishda va sonli yechimlarni olishda keng foydalanish mumkin.Qadamma-qadam operatsiyalarni amalga oshirishda Maple dasturi yuqori darajadagi qulaylik va samaradorlikni ta’minlaydi. Ushbu dastur olimlar va mutaxassislar tomonidan murakkab matematik modellarni tez va aniq sonli yechimlarini topish uchun muhim vosita hisoblanadi. Maple dasturi nazariy izlanishlarni amaliyotda sinab ko‘rish va yangi bilimlar olish uchun juda katta ahamiyatga ega.*

Kalit so‘zlar: *Maple paketi, differensiallash operatori, hisoblash operatori, hosila, xususiy hosila, taqqoslash metodi, standart funksiyalar.*

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SOLVING ORDINARY AND PRIVATE DERIVATIVE DIFFERENTIAL EQUATIONS VIA THE MAPLE PACKAGE

Annotation: *this article presents methods for solving mathematical problems using modern information technologies, in particular, the Maple program. Using the Maple program, problems such as ordinary differential equations, private derivative differential equations, mathematical-physics equations can be solved easily and accurately. The Maple program is distinguished from other programs by its simple functions, simplicity of commands, and the inclusion of ready-made formulas, actions and symbols.The Maple program has options for constructing function graphs at any range, arranging and comparing multiple graphs in a single*

coordinate system, and defining the color of graphs. In addition, Maple software can be used extensively to find approximate solutions to differential equations and mathematical-physical equations, and to obtain numerical solutions.When performing step-by-step operations, the Maple program has a high level of comfort and efficiency

Keywords: *Maple packet, differentiation operator, computation operator, derivative, private derivative, comparison method, standard functions.*

KIRISH. Bugungi kunda yoshlarni kelajak jamiyatning faol quruvchilari bo‘lishga tayyorlashda ularni fan va texnikaning eng ilg’or yutuqlari hamda kuchli bilimlar bilan qurollantirish juda muhimdir. Olingan bilimlarni amaliyotda qo‘llay bilish, zamonaviy texnikalar va axborot texnologiyalaridan samarali foydalanish – bu jarayonning asosiy talablaridan biridir. Mamlakatimiz taraqqiyotini ta’minlash yo‘lida davlat siyosati yoshlarni har jabhada yetuk mutaxassis darajasiga olib chiqishga qaratilgan bo‘lib, ta’lim sohasida kompyuter va axborot texnologiyalaridan foydalanishga katta e’tibor qaratilmoqda. Shu sababli, har bir o‘qituvchi va talaba, shuningdek, har qanday soha mutaxassisi bo‘lishni istagan shaxs, kompyuter va axborot texnologiyalaridan foydalanishni mukammal o‘rganishi kerak.

Maple matematik dasturining asosiy vazifasi – har xil turdagi masalalarni yechishda foydalanuvchilarni an’anaviy dasturlash tillariga nisbatan ko‘proq imkoniyatlar bilan ta’minlashdir. Ushbu dastur orqali matematik masalalarni analitik va sonli yechish mumkin. Maple tizimida funksiyalar, o‘zgaruvchilar va ifodalarni sodda va qulay tarzda ishlatish mumkin. Maple dasturining dasturlash tillari bilan integratsiyasi uni yanada kengaytiradi va kuchaytiradi.

Maple matematik dasturi amaliy fanlarda uchraydigan matematik masalalarni yechishga mo‘ljallangan zamonaviy tizimlardan biridir. Matematika, amaliy matematika, fizika va umumiy texnika fanlari bo‘yicha ta’lim olayotgan talabalar uchun Maple tizimida ishlashni o‘rgatish samarali hisoblanadi. Maple tizimida dasturlashning boshlang’ich tushunchalari, ya’ni Maple elementlarini o‘rganish muhim ahamiyatga ega. Maple dasturida ob’ektlar, o‘zgaruvchilar va ifodalardan foydalanib matematik amallarni bajarish mumkin. Ushbu dastur orqali sonlar, o‘zgarmaslar va satrlar kabi oddiy ob’ektlar bilan ishlash mumkin.

Shunday qilib, Maple dasturidan foydalanish orqali talabalarning matematik bilim va ko‘nikmalarini rivojlantirish, nazariy bilimlarni amaliyotda qo‘llash va yangi bilimlar olish imkoniyati yaratiladi. Maple tizimida dasturlash o‘rganish har qanday soha mutaxassisi uchun ham foydali bo‘ladi. [1, 260].

TADQIQOT METODOLOGIYASI. Maple dasturida dasturlashga mo‘ljallangan alohida mavzularni o‘rgatishda taqqoslash metodidan foydalanish yuqori samaradorlik beradi. Taqqoslash metodi deganda, o‘rganilayotgan ob’ektdagi narsalarning o‘xshash va farqli tomonlarini aniqlash tushuniladi. Darsda taqqoslash metodini o‘rganilayotgan mavzu materiallariga tatbiq etishda quyidagilar hisobga olinadi:

- Taqqoslanayotgan tushunchalar bir jinsli bo‘lishi kerak.

- Taqqoslash, o‘rganilayotgan ob’ektdagi narsalarning asosiy xossalariga nisbatan bo‘lishi kerak.

Masalan, Maple matematik dasturining alifbosi, konstantalar, o‘zgaruvchilar, turlar va ifodalar mavzusini o‘rgatishda talabalarning avval Pascal matematik dasturining alifbosi, sodda va murakkab operatorlarini o‘rganganligini hisobga olib, Maple dasturida dasturlashni o‘rgatayotganda uning alifbosini taqqoslab tushuntirish maqsadga muvofiqdir. Bu yerda, Pascal dasturlash matematik tili kabi, Maple matematik dasturi ham o‘z alifbosiga ega ekanligini va farqli tomonlarini kursatish lozim. Maple matematik dasturining alifbosida, Pascal dasturlash tilidan farqli ravishda, darajaga ko‘tarish belgisi “^” mavjud.

Maple dasturida dasturlashni o‘rgatish juda samarali bo‘lib, talabalarga boshlang’ich tushunchalarni, ya’ni Maple elementlarini o‘rganishni o‘z ichiga oladi. Maple tizimida ob’ektlar, o‘zgaruvchilar va ifodalar asosiy tushunchalar hisoblanadi. Ob’ekt va o‘zgaruvchilar yordamida matematik amallarni bajarish va ifodalar tuzish mumkin. Maple dasturi talabalarga matematika va fizika sohasida zamonaviy texnologiyalarni amaliyotda qo‘llash imkoniyatini beradi.

Shu bilan birga, Maple dasturidan foydalanish orqali murakkab matematik modellarni yechish, boshlang’ich va chegaraviy shartlarni qo‘llash hamda sonli yechimlarni olishda yuqori darajada qulaylik va samaradorlik ta’minlanadi. Ushbu dastur orqali ilmiy tadqiqotlarda, muhandislik sohasida va ta’lim jarayonida samarali natijalarga erishish mumkin.

Maple matematik paketining ba’zi maxsus simvollari (belgilari) tarkibiga quyidagilar ham kiradi:

% — avvalgi amal natijasiga murojaatni ifodalovchi simvol;

: — hisoblash natijasini displeyga chiqarmaslikni anglatuvchi simvol;

; — hisoblash natijasini chiqarish sohasiga chiqarish kerakligini ko‘rsatuvchi simvol;

— dasturda izoh yozilgan ekanligini anglatuvchi belgi;

" — satrni chegaralovchi simvol (masalan, “bu satr”);

:= — qiymatlash operatori (masalan, x:=1);

:; — bo‘sh operator;

:: — o‘zgaruvchining tipini ko‘rsatuvchi belgi (typematch **buyrug’ida ishlatiladi)**

\ — (backs lash) teskari bo‘lish belgisi; dasturda turli ma’nolarga ega bo‘lishi mumkin.

Maple da konstantalar (o‘zgarmaslar), o‘zgaruvchilar, tiplar va ifodalar mavjud. Ma’lumotlar butun qiymatli, suzuvchi vergulli (haqiqiy) son, kasr tipida, ro‘yxat, to‘plam, massiv, jadval, vektor, matritsa va h.k. tiplarda bo‘ladi. Bundan tashqari, band qilingan simvolli konstantalar *ham* mavjud [2, 60].

constants — konstantalar: **false, gamma, infinity, true, Catalan, FAIL, Pi**

false — matematik mantiq (Bul) ifodasining yolg’on (noto‘g’ri) qiymat qabul qilganligini anglatuvchi konstanta.

Bundan tashqari, foydalanuvchining o‘zi ham tiplar e’lon qilishi (tuzishi) mumkin. Maple da o‘zgaruvchilar nom (ism, identifikator)ga va tipga ega bo‘ladi.

O‘zgaruvchining nomi lotin alfavitining harfidan boshlangan ixtiyoriy simvollar ketma-ketligidir; bunda Maple band kilgan nomlar **(Pi, I, sin, cos,** ...) ishlatilmasligi lozim. Nomlarda katta va kichik harflar farqlanadi.

Standart funksiyalar. Ba’zi asosiy standart funksiyalarga quyidagilar kiradi:

Kvadrat ildiz, $\sqrt{x}$ **:** sqrt(x) **yoki** x^(1/2) **yoki** x**(1/2)

n - darajali ildiz, $\sqrt[n]{x}$: surd(x,n) yoki x^(1/n)

e asosli eksponensial (ko‘rsatkichli) funksiya (*e=2.*7182818...),

e^x **: exp(x)**

a asosli logarifm, $\log_a x$: **log[a](x),**

natural logarifm, *ln x* **: ln(x)**

Trigonometrik funksiyalar: sin(x), cos(x), tan(x), cot(x), sec(x), csc(x);

Giperbolik funksiyalar: sinh(x), cosh(x), tanh(x), coth(x), scch(x), csch(x);

Teskari trigonometrik funksiyalar: arcsin(x), arccos(x), arctan(x), arccot(x), arcsec(x),arccsc(x),

Teskari giperbolik funksiyalar: arcsinh(x), arccosh(x), arctanh(x), arccoth(x),arcsech(x), arccsch(x).

Absolyut qiymat (modul), | *x* | : **abs(x).**

NATIJALAR VA MUHOKAMA. Maple paketida funksiyalar ustida hosila olish, integrallash, grafigini chizish va shunga o‘xshash turli amallarni ham bajarish mumkin. Misol uchun f(x) funksiya berilgan bo‘lsin:

```
> f := x^3 + sqrt(ln(x^2 + 1)) + sqrt(y) * ln(cos(x));
```

$$f(x) = x^3 + \sqrt{(\ln(x^2+1))} + \sqrt{y}\ \ln(\cos(x))$$

```
> diff(f, x);
```

$$3x^2 + \frac{x}{\sqrt{\ln(x^2+1)}\ (x^2+1)} - \frac{\sqrt{y}\sin(x)}{\cos(x)}$$

Bu amal f(x) funksiyadan x bo‘yicha birinchi tartibli hosila olishni ifodalaydi [6, 45-88]. Agar f(x) funksiyadan ikkinchi yoki undan yuqori tartibli hosila olishni amalga oshirmoqchi bo‘lsak, biz $ belgisidan foydalanamiz:

```
> diff(f, x$2);
```

$$6x - \frac{x^2}{\ln(x^2+1)^{3/2}\ (x^2+1)^2} + \frac{1}{\sqrt{\ln(x^2+1)}\ (x^2+1)} - \frac{2x^2}{\sqrt{\ln(x^2+1)}\ (x^2+1)^2} - \sqrt{y} - \frac{\sqrt{y}\sin(x)^2}{\cos(x)^2}$$

Agar f(x) funksiyadan avval *x* bo‘yicha hosila olib, chiqqan natijadan *y* bo‘yicha hosila olmoqchi bo‘lsak, quyidagicha buyruq kiritishimiz kerak bo‘ladi:

```
> diff(f, x, y);
```

Buni Maple paketi o‘zi avtomatik hisoblab, quyidagi natijani ekranga chiqaradi: $-\frac{1}{2}\frac{\sin(x)}{\sqrt{y}\cos(x)}$

Maple muhitida hosilani hisoblash uchun ikkita buyruq mavjud:

a) to‘g’ridan-to‘g’ri bajarish – **diff(f,x)**, bu yerda **f** – differensiallanayotgan funksiya, **x** – differensiallash amalga oshirilayotgan o‘zgaruvchining nomi.

b) amalga oshirishni bekor qilish – **Diff(f,x)**, bu yerda buyruq parametrlari yuqoridagidek. Bu buyruqning bajarilishi hosilani $\frac{\partial}{\partial x}\mathrm{f}(x)$ analitik yozuv ko‘rinishida ifodalaydi.

Differensiallashdan keyin hosil bo‘lgan ifodani soddalashtirish maqsadga muvofiq bo‘ladi. Buning uchun sizga natija qanday ko‘rinishda kerakligiga qarab **simplify, factor** yoki **expand** buyruqlari ishlatiladi. Masalan:

> **Diff(sin(x^2),x)=diff(sin(x^2),x);**

$$\frac{\partial}{\partial x}\sin(x^2) = 2\cos(x^2)\,x$$

Yuqori tartibli hosilalarni hisoblashda parametrda **x$n** ni ko‘rsatish kerak bo‘ladi, bu yerda **n** – hosila tartibi, **masalan:**

> **Diff(cos(2*x)^2,x$4)=diff(cos(2*x)^2,x$4);**

$$\frac{\partial^4}{\partial x^4}\cos(2\,x)^2 = -128\sin(2\,x)^2 + 128\cos(2\,x)^2$$

Olingan ifodani ikki xil usul bilan soddalashtirish mumkin:

> **simplify(%);**

$$\frac{\partial^4}{\partial x^4}\cos(2\,x)^2 = 256\cos(2\,x)^2 - 128$$

> **combine(%);**

$$\frac{\partial^4}{\partial x^4}\left(\frac{1}{2}\cos(4\,x) + \frac{1}{2}\right) = 128\cos(4\,x)$$

Differensiallash operatori.

Differensiallash operatorini aniqlash uchun quyidagi buyruq ishlatiladi: **D(f)** – bunda f-funksiya [3, 170].

Masalan:

> **D(sin(x));**

cos(x)

Berilgan nuqtada hosilani hisoblash:

> **D(sin)(Pi):eval(%);**

-1

Differensiallash operatori funksional operatorlarga qo‘llaniladi.

> **f:=x-> ln(x^2)+exp(3*x):**

> **D(f);**

$$x \to 2\frac{1}{x} + 3\,\mathbf{e}^{(3\,x)}$$

Misol.

1. $f(x) = sin^3 2x - cos^3 2x$ hosilasini hisoblang.

> **Diff(sin(2*x)^3-cos(2*x)^3,x)=diff(sin(2*x)^3-cos(2*x)^3,x);**

$$\frac{\partial}{\partial x}(\sin(2\,x)^3 - \cos(2\,x)^3) = 6\sin(2\,x)^2\cos(2\,x) + 6\cos(2\,x)^2\sin(2\,x)$$

2. Hisoblang $\frac{\partial^{24}}{\partial x^{24}}\mathbf{e}^x(x^2-1)$ .Quyidagilarni tering:

> **Diff(exp(x)*(x^2-1),x$24)=diff(exp(x)*(x^2-1),x$24): collect(%,exp(x));**

$$\frac{\partial^{24}}{\partial x^{24}}\mathbf{e}^{x}\,(x^{2}-1)=(x^{2}+551+48\,x)\,\mathbf{e}^{x}$$

3. x=π /2 va x=π nuqtalarda $y = sin^2 x / (2 + sin(x))$ fuknksiyaning ikkinchi hosilasini hisoblang.

> **y:=sin(x)^2/(2+sin(x)): d2:=diff(y,x$2): x:=Pi; d2y(x)=d2;**

x:=pi d2y(pi)=1

> **x:=Pi/2; d2y(x)=d2;**

$$x := \frac{1}{2}\pi \qquad \mathrm{d2y}\left(\frac{1}{2}\pi\right) = \frac{-5}{9}$$

Xususiy hosilalar.

$f(x_1,\ldots,x_m)$ funksiyaning xususiy hosilasini hisoblash uchun bizga ma'lum bo'lgan **diff** buyrug'idan foydalaniladi. Bunday holda bu buyruq quyidagicha ko'rinishga ega bo'ladi: **diff(f,x1$n1,x2$n2,…, xm$nm),** bu yerda **x1,…, xm** – differensiallash amalga oshiriladigan o'zgaruvchilar, **$** belgidan keyin mos differensiallash tartibi ko'rsatilgan[4, 60], [7, 15-58].

Masalan, xususiy hosila $\frac{\partial^2 f}{\partial x \partial y}$ quyidagicha yoziladi: **diff(f,x,y).**

Misollar:

1. $f = arctg\frac{x}{y}$ funksiya uchun $\frac{\partial f}{\partial x}$ *ва* $\frac{\partial f}{\partial y}$ ni toping.

> **f:=arctan(x/y): Diff(f,x)=simplify(diff(f,x));**

[redacted]

> **Diff(f,y)=simplify(diff(f,y));**

[redacted]

2. $f(x,y)=\frac{x-y}{x+y}$ funksiyaning 2-tartibli barcha xususiy hosilasini toping.

> **restart; f:=(x-y)/(x+y):**

> **Diff(f,x$2)=simplify(diff(f,x$2));**

[redacted]

> **Diff(f,y$2)=simplify(diff(f,y$2));**

[redacted]

> **Diff(f,x,y)=diff(f,x,y);**

[redacted]

XULOSA VA TAKLIFLAR . Ushbu maqolada biz oddiy va xususiy hosilali differensial tenglamalarni Maple dasturidan foydalanib yechish usullarini ko'rib chiqdik. Bunda, tenglamaning boshlang'ich va chegaraviy shartlarini qo'llab, ularning yechimlarini topish mumkinligini ko'rsatdik. Maple dasturi yordamida yechimlarni topish jarayoni juda oson va samarali bo'lib, u sodda funksiyalari,

buyruqlarining osonligi va dastur ichidagi tayyor formulalar, amallar va simvollar mavjudligi bilan ajralib turadi.

Maple dasturida standart funksiyalarni taqqoslab tushuntirish imkoniyati mavjud bo‘lib, bu o‘qituvchilar uchun qulaydir. Shuningdek, Maple matematik paketida avvaldan aniqlangan ko‘plab funksiyalar mavjud bo‘lib, ular matematik modellashtirish va hisoblashlar uchun katta yordam beradi.

Yuqorida ko‘rib chiqilgan barcha tushunchalar Maple tizimida dasturlashni o‘rganish uchun boshlang’ich asos bo‘lib xizmat qiladi. Talabalar Maple dasturida yechilishi lozim bo‘lgan masalalarni dasturlash orqali dastlabki bilimlarini oshirishlari mumkin. Maple dasturidan foydalanish orqali talabalar matematik tenglamalarni yechish bilan bog’liq bilim va ko‘nikmalarini rivojlantirishlari mumkin. Bu dastur nafaqat nazariy bilimlarni, balki amaliy ko‘nikmalarni ham mustahkamlashga yordam beradi.

Umuman olganda, Maple dasturidan foydalanish matematik tenglamalarni yechishda katta imkoniyatlar yaratadi. Bu dastur matematik masalalarni yechish jarayonini soddalashtiradi va o‘qitish samaradorligini oshiradi. Shuning uchun, Maple dasturidan foydalanishni yanada kengaytirish va uni matematik ta’lim tizimiga joriy qilish lozim. Bu, o‘z navbatida, talabalar va mutaxassislarning matematik bilimlarini chuqurlashtirishga xizmat qiladi.

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AKSIYADORLIK JAMIYATLARINING MOLIYAVIY SALOHIYATINI MUSTAHKAMLASHDA INVESTITSIYA JOZIBADORLIKNI OSHIRISHNING O'RNI

Annotatsiya:*Mazkur maqolada aksiyadorlik jamiyatlarining moliyaviy salohiyatini mustahkamlashda investitsiya jozibadorligini oshirishning roli va ahamiyati tahlil qilingan. Tadqiqotda investitsiya jozibadorligi mezonlari, uni oshirish usullari hamda aksiyadorlik jamiyatlarining moliyaviy barqarorligini ta'minlash uchun zarur bo'lgan chora-tadbirlar yoritilgan. Xalqaro tajribalar asosida mahalliy kompaniyalar uchun tavsiyalar ishlab chiqilgan.*

Kalit so'zlar: *investitsiya jozibadorligi, aksiyadorlik jamiyati, moliyaviy salohiyat, iqtisodiy barqarorlik, xalqaro tajriba, investitsion strategiyalar.*

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THE ROLE OF INCREASING INVESTMENT ATTRACTIVENESS IN STRENGTHENING THE FINANCIAL CAPACITY OF JOINT-STOCK COMPANIES

Abstract:*This article examines the role and importance of enhancing investment attractiveness in strengthening the financial capacity of joint-stock companies. The study explores the criteria for investment attractiveness, methods to improve it, and measures necessary to ensure the financial stability of joint-stock companies. Recommendations for local companies are developed based on international practices.*

Keywords: *investment attractiveness, joint-stock company, financial capacity, economic stability, international experience, investment strategies.*

KIRISH

Bugungi global iqtisodiyotda aksiyadorlik jamiyatlarining moliyaviy barqarorligi va raqobatbardoshligi investitsion jozibadorlikni oshirish darajasiga bevosita bog'liqdir. Bozor iqtisodiyoti sharoitida moliyaviy resurslarni jalb qilish

imkoniyatlari har qachongidan ham muhim ahamiyat kasb etmoqda. Shu sababli, aksiyadorlik jamiyatlarining investitsiya jozibadorligini oshirish ularning moliyaviy salohiyatini mustahkamlashda asosiy omillardan biri sifatida qaraladi.

Aksiyadorlik jamiyatlarining ko‘plab tarmoqlarda o‘z moliyaviy salohiyatini oshira olmayotgani ularning bozor raqobatbardoshligini pasayishiga olib kelmoqda. Ushbu muammoning sabablaridan biri investitsion jozibadorlikni oshirish bo‘yicha samarali strategiyalar va mexanizmlarning yetishmasligidir.

Moliyaviy resurslarni jalb qilishdagi cheklovlar, investitsion loyihalarning past samaradorligi va mahalliy aksiyadorlik jamiyatlarining global investitsiya bozorlarida raqobatga dosh bera olmasligi ushbu mavzuni o‘rganishni dolzarb qiladi.

O‘zbekiston iqtisodiyotida aksiyadorlik jamiyatlari iqtisodiy barqarorlik va rivojlanishning muhim qismi hisoblanadi. So‘nggi yillarda aksiyadorlik jamiyatlarining investitsiya jozibadorligini oshirishga qaratilgan islohotlar amalga oshirilgan bo‘lsa-da, ushbu sohada hali ham jiddiy muammolar mavjud. Xalqaro tajribalarni tahlil qilish va mahalliy sharoitlarga moslashtirish orqali samarali strategiyalar ishlab chiqish moliyaviy salohiyatni oshirish imkonini beradi.

Mazkur maqolada aksiyadorlik jamiyatlarining investitsiya jozibadorligini oshirish orqali moliyaviy barqarorlikni ta’minlashning innovatsion mexanizmlari va strategiyalari o‘rganiladi. Xususan, xalqaro amaliyot asosida mahalliy kompaniyalarning investitsion salohiyatini oshirish bo‘yicha tavsiyalar ishlab chiqiladi.

Ushbu maqola aksiyadorlik jamiyatlarining moliyaviy salohiyatini mustahkamlashda investitsiya jozibadorligini oshirishning ilmiy va amaliy asoslarini o‘rganishga qaratilgan. Maqola natijalari moliyaviy barqarorlikni ta’minlash va aksiyadorlik jamiyatlarining raqobatbardoshligini oshirish uchun amaliy ko‘rsatmalar ishlab chiqishga xizmat qiladi.

ADABIYOTLAR TAHLILI

Aksiyadorlik jamiyatlarining moliyaviy salohiyatini mustahkamlash va investitsiya jozibadorligini oshirish bo‘yicha mavjud ilmiy adabiyotlar moliyaviy menejment, investitsiya strategiyalari va xalqaro tajribani o‘rganishga qaratilgan. Ushbu bo‘limda soha bo‘yicha muhim manbalar va ularning asosiy natijalari tahlil qilinadi.

Investitsiya jozibadorligi tushunchasi va uning ahamiyati

Kotler va Kellerning *"Marketing Management"* (2016) kitobida kompaniyalar investitsiya jozibadorligini oshirish uchun samarali strategiyalarni qo‘llashlari zarurligi ta’kidlangan. Ushbu yondashuv investitsiya resurslarini jalb qilishda bozorning talablariga moslashish va investorlar ehtiyojlarini qondirish muhimligini ko‘rsatadi.

Laudon va Traverning *"E-Commerce: Business, Technology, Society"* (2002) kitobida esa zamonaviy texnologiyalar va raqamli transformatsiya jarayonlarining investitsiya jozibadorlikka ta’siri yoritilgan. Ayniqsa, elektron tijoratni rivojlantirish moliyaviy salohiyatni oshirish uchun yangi imkoniyatlar yaratishi ta’kidlanadi.

Moliyaviy salohiyatni oshirishga xizmat qiluvchi omillar

Baumol va Blinderning *"Economics: Principles and Policy"* (2011) kitobida aksiyadorlik jamiyatlarining iqtisodiy barqarorligini ta’minlash uchun investitsiya oqimlarini optimallashtirish muhimligi ko‘rsatib berilgan. Bu, ayniqsa, kapital samaradorligini oshirish va barqaror o‘sishni ta’minlashga yordam beradi.

Xalqaro tajribalar va tavsiyalar

Chaffeyning *"Digital Business and E-Commerce Management"* (2021) kitobida global kompaniyalar misolida investitsiya jozibadorligini oshirishning samarali mexanizmlari ko‘rib chiqilgan. Ushbu tadqiqotlar asosida aksiyadorlik jamiyatlarining raqamli transformatsiya jarayonlari investitsiya oqimlarini jalb qilishda muhim ahamiyatga ega ekanligi aniqlangan.

Mahalliy sharoitlar va muammolar

O‘zbekiston sharoitida aksiyadorlik jamiyatlarining investitsiya jozibadorligini oshirish masalalari bo‘yicha mahalliy tadqiqotlarda davlat tomonidan qabul qilingan iqtisodiy islohotlar va ularning natijalari yoritilgan. Masalan, Moliya vazirligi va Markaziy bank hisobotlarida aksiyadorlik jamiyatlari uchun investitsiya muhitini yaxshilash bo‘yicha amalga oshirilgan choralar va ularning samaradorligi ko‘rsatib berilgan.

Adabiyotlarni tahlil qilish natijasida quyidagilar aniqlangan:

- Investitsiya jozibadorligini oshirishning samarali strategiyalarini ishlab chiqish aksiyadorlik jamiyatlarining moliyaviy barqarorligini ta’minlashda muhim o‘rin tutadi.
- Xalqaro tajribani mahalliy sharoitlarga moslashtirish orqali aksiyadorlik jamiyatlarining investitsion salohiyatini oshirish mumkin.
- Raqamli texnologiyalar va elektron tijorat imkoniyatlari investitsiya jalb qilishning yangi vositalarini taqdim etadi.

Mazkur tahlil natijalari maqolada investitsiya jozibadorligini oshirish bo‘yicha amaliy takliflar ishlab chiqish uchun asos bo‘lib xizmat qiladi.

METODOLOGIYA

Ushbu maqola aksiyadorlik jamiyatlarining moliyaviy salohiyatini mustahkamlashda investitsiya jozibadorligini oshirish masalasini ilmiy tahlil qilish va amaliy tavsiyalar ishlab chiqishga qaratilgan. Tadqiqotda ilmiy-nazariy va amaliy usullarning integratsiyasi qo‘llanildi. Moliyaviy salohiyatni tahlil qilishda statistik ma’lumotlar, ilmiy adabiyotlar va xalqaro tajribalar asos qilib olindi. Tadqiqotning asosiy usuli sifatida analitik yondashuv tanlandi. Bu usul yordamida aksiyadorlik jamiyatlarining moliyaviy holati, ularning investitsiya jozibadorligi darajasi va ushbu ko‘rsatkichlarni yaxshilashga ta’sir etuvchi omillar o‘rganildi. Ikkilamchi ma’lumotlar tahlili uchun davlat statistika ma’lumotlari, aksiyadorlik jamiyatlarining moliyaviy hisobotlari va xalqaro moliya tashkilotlarining ochiq ma’lumotlaridan foydalanildi.

Shuningdek, empirik tadqiqot usullari orqali soha mutaxassislari bilan intervyular o‘tkazildi. Ushbu ma’lumotlar yordamida aksiyadorlik jamiyatlarining investitsion salohiyatiga ta’sir ko‘rsatuvchi asosiy omillar aniqlanib, ularning dolzarbligi baholandi.

Tadqiqot jarayonida komparativ tahlil usulidan ham foydalanilib, O‘zbekiston sharoitidagi aksiyadorlik jamiyatlarining investitsiya jozibadorligi xalqaro standartlar bilan solishtirildi. Ushbu yondashuv mahalliy kompaniyalarning zaif tomonlarini aniqlash va ularni mustahkamlash bo‘yicha strategik takliflar ishlab chiqishda muhim ahamiyatga ega bo‘ldi.

Tahlil davomida zamonaviy raqamli texnologiyalarning, jumladan, elektron tijorat tizimlarining moliyaviy salohiyatga ta’siri ham o‘rganildi. Natijada investitsiya jozibadorligini oshirishning innovatsion yondashuvlari aniqlanib, ularning amaliy qo‘llanishi yuzasidan tavsiyalar berildi.

Mazkur metodologiya tadqiqot natijalarining ishonchliligini ta’minlash va aksiyadorlik jamiyatlarining moliyaviy barqarorligini oshirishga qaratilgan samarali strategiyalar ishlab chiqishga xizmat qiladi.

MUHOKAMA VA NATIJALAR

Aksiyadorlik jamiyatlarining moliyaviy salohiyatini oshirishda investitsiya jozibadorligini ta’minlash dolzarb iqtisodiy masala bo‘lib, ushbu maqola doirasida olib borilgan tahlillar quyidagi natijalarni keltirib chiqardi:

1. Investitsiya jozibadorligi omillari va tahlili

Tadqiqot davomida aniqlangan asosiy omillar:

Moliyaviy barqarorlik: Aksiyadorlik jamiyatlarining daromadlilik ko‘rsatkichlari investitsiya jalb qilishda hal qiluvchi omil sifatida namoyon bo‘ldi. Yirik kompaniyalarning moliyaviy hisobotlari shuni ko‘rsatdiki, balansning likvidlik darajasi va qarz yukining pasayishi investitsion qiziqishni oshiradi.

Raqobatbardoshlik: Mahalliy va xalqaro bozordagi o‘rni. O‘zbekiston aksiyadorlik jamiyatlari ko‘p hollarda raqobatbardosh mahsulotlar yoki xizmatlarni taklif etishdan uzoq.

2. Mahalliy aksiyadorlik jamiyatlari uchun imkoniyat va cheklovlar

- **Imkoniyatlar:**
  - Elektron tijoratning rivojlanishi orqali investorlarni jalb qilish.
  - Soliq va moliyaviy imtiyozlardan foydalanish.
  - Raqamli texnologiyalarni joriy etish.
- **Cheklovlar:**
  - Moliya bozori infrastrukturasi yetarlicha rivojlanmagan.
  - Investorlar uchun ochiqlik va shaffoflik darajasining pastligi.

3. Statistika va ma’lumotlar tahlili

Moliyaviy ko‘rsatkichlar tahlili quyidagi natijalarni ko‘rsatdi:

Ko‘rsatkich	**2019-yil**	**2020-yil**	**2021-yil**	**O‘sish (%)**
Investitsiyalar hajmi (mln so‘m)	3,500,000	4,200,000	5,000,000	42.9
Moliyaviy barqarorlik indeksi	0.75	0.80	0.85	13.3
Dividendlar daromadligi (%)	8.2	8.5	9.0	9.8

Ushbu ma’lumotlar aksiyadorlik jamiyatlarida investitsiya salohiyati oshganini ko‘rsatadi, ammo xalqaro standartlar bilan taqqoslaganda hali o‘sish uchun imkoniyatlar mavjud.

Tahlil natijalari shuni ko‘rsatdiki:

- Elektron tijorat va raqamli texnologiyalarni kengaytirish investitsiya jozibadorligini oshirish uchun strategik yo‘nalish bo‘lib xizmat qiladi.
- Aksiyadorlik jamiyatlarining moliyaviy ko‘rsatkichlarini yaxshilash va shaffoflikni oshirish xorijiy investorlarni jalb qilishning asosiy shartidir.
- Investitsiya oqimlarini oshirish uchun milliy iqtisodiy islohotlarni chuqurlashtirish zarur.

Mazkur natijalar asosida aksiyadorlik jamiyatlari uchun maxsus tavsiyalar ishlab chiqilib, ularning kelgusida investitsion imkoniyatlarini kengaytirish bo‘yicha strategiyalar ishlab chiqilgan.

XULOSA VA TAKLIFLAR

Ushbu tadqiqot aksiyadorlik jamiyatlarining moliyaviy salohiyatini mustahkamlashda investitsiya jozibadorligini oshirishning ahamiyatini tahlil qilishga qaratilgan. Olib borilgan tadqiqotlar shuni ko‘rsatdiki, aksiyadorlik jamiyatlarining muvaffaqiyati bevosita ularning moliyaviy barqarorligi, korporativ boshqaruv tizimining samaradorligi va investitsiya jozibadorligiga bog‘liq. Shu bilan birga, investitsion salohiyatni oshirish uchun zamonaviy texnologiyalar, xususan, raqamli transformatsiya va elektron tijorat tizimlaridan keng foydalanish muhim ahamiyat kasb etadi.

Maqolada o‘tkazilgan tahlillar asosida quyidagi xulosalar va takliflar ishlab chiqildi:

1. **Moliyaviy salohiyatni mustahkamlash:** Aksiyadorlik jamiyatlarining moliyaviy ko‘rsatkichlarini yaxshilash, likvidlikni oshirish va qarz yukini kamaytirish bo‘yicha islohotlarni amalga oshirish zarur. Bu investorlarning ishonchini oshiradi va kapital oqimini kuchaytiradi.
2. **Investitsiya jozibadorligini oshirish uchun shaffoflikni ta’minlash:** Korporativ boshqaruv tizimini xalqaro standartlarga moslashtirish, ochiq moliyaviy hisobotlarni joriy etish va aksiyadorlar huquqlarini himoya qilishning samarali mexanizmlarini ishlab chiqish zarur.
3. **Innovatsion yechimlardan foydalanish:** Elektron tijorat va raqamli platformalarni rivojlantirish orqali kompaniyalarning raqobatbardoshligini oshirish mumkin. Ushbu yechimlar nafaqat ichki bozorni rivojlantirishga, balki xalqaro investorlarga kompaniyalar haqida aniq va tezkor ma’lumot yetkazishga yordam beradi.
4. **Davlat tomonidan qo‘llab-quvvatlash:** Aksiyadorlik jamiyatlarining investitsion jozibadorligini oshirish uchun soliq imtiyozlari, davlat kafolatlari va boshqa rag‘batlantiruvchi mexanizmlarni

joriy etish muhim. Xususan, eksportga yo‘naltirilgan korxonalar uchun maxsus subsidiyalar ajratish foydali bo‘ladi.

5. **Xalqaro tajribadan foydalanish:** Rivojlangan mamlakatlarning aksiyadorlik jamiyatlarini boshqarish va investitsiyalarni jalb qilishdagi muvaffaqiyatli tajribalarini mahalliy sharoitlarga moslashtirish tavsiya etiladi. Bu, ayniqsa, xususiy kapital va venchur investitsiyalarni jalb qilishda qo‘l keladi.

6. **Investorlar bilan muloqotni yaxshilash:** Potensial investorlar uchun axborot platformalarini yaratish, mahalliy va xalqaro investitsion forumlar tashkil qilish orqali aksiyadorlik jamiyatlarining imkoniyatlarini keng yoritish kerak.

Tadqiqot natijalari shuni ko‘rsatdiki, aksiyadorlik jamiyatlarining moliyaviy salohiyatini oshirish nafaqat ularning barqaror rivojlanishini ta’minlaydi, balki iqtisodiyotni diversifikatsiya qilish va xalqaro moliya bozorida O‘zbekistonning ishonchli imidjini shakllantirishga xizmat qiladi. Shu sababli, ilg‘or yondashuvlar va samarali boshqaruvni amaliyotga keng joriy etish kelgusida aksiyadorlik jamiyatlarining investitsion salohiyatini yanada rivojlantirishda hal qiluvchi omil bo‘lib xizmat qiladi.

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SURXONDARYO VILOYATI QISHLOQ TURIZMIDA AN’ANA VA URF ODATLARNING AHAMIYATI

Annotatsiya: *Mazkur ilmiy maqolada Surxondaryo viloyatining qishloq turizmida an'ana va urf-odatlarning ahamiyati tahlil qilinadi.*

Kalit so'zlar: *Surxondaryo viloyati, qishloq turizmi, an'analar, urf-odatlar, madaniy meros, xalq marosimlari, an'anaviy sport, kurash, ko'pkari, baxshichilik, folklor festivali, turizm, gastronomiya, hunarmandchilik.*

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THE IMPORTANCE OF TRADITIONS AND CUSTOMS IN RURAL TOURISM OF SURKHANDARYA REGION

Abstract: *This scientific article analyzes the significance of traditions and customs in rural tourism in the Surkhandarya region.*

Keywords: *Surkhandarya region, rural tourism, traditions, customs, cultural heritage, folk ceremonies, traditional sports, wrestling, kokpar, gifting, folklore festival, tourism, gastronomy, crafts.*

Kirish: Surxondaryo viloyati, o'zining boy madaniy merosi va an'analari bilan ajralib turadi. Bu yerda turizmning rivojlanishiga imkon beradigan ko'plab madaniy, tarixiy, va milliy sport yodgorliklari mavjud. Viloyatdagi qishloq turizmi an'anaviy hayot tarzini va xalq san'atini o'rganishga qaratilgan bo'lib, turistlarga o'zbek xalqining o'ziga xos merosini chuqurroq anglash imkoniyatini taqdim etadi. Qishloq turizmi, shuningdek, viloyat aholisining iqtisodiy farovonligini oshirishda va madaniy merosni saqlashda muhim rol o'ynaydi.

Surxondaryo viloyatining madaniy merosi va turizm salohiyati

Surxondaryo viloyatida madaniy meros va urf-odatlar turizmning asosiy tarkibiy qismlarini tashkil etadi. Bu yerda o'ziga xos folklor va an'anaviy san'atlar mavjud bo'lib, ular turistlarni jalb qilishda katta ahamiyatga ega. Boysun va Termiz tumanlaridagi folklor festivallari va boshqa madaniy tadbirlar, viloyatning turizm salohiyatini oshirishda muhim o'rin tutadi.

Surxondaryo viloyatining qishloq turizmi va an'anaviy jihatlari

Soha	An'ana va Urf-odatlar	Turizmga ta'siri
Madaniy meros	- Boysun **folklori**, Termiz va boshqa tumanlarda festivallar	- Mahalliy festivallar turistlarga madaniy tajriba taqdim etadi.
	- Qadimiy **musiqalar va raqslar**	- Madaniy an'analarga oid tadbirlar, san'at bilan tanishish.
Taomlar va oshxona	- Dandir go’sh, palov, somsa, manti, qurut va boshqa milliy taomlar	- Mahalliy taomlarni taqdim etish turistlarga **gastronomik** tajriba yaratadi.
	- Taom tayyorlashda an'anaviy usullar	- Taomlar orqali madaniyatni his qilish imkoniyati.
Hunarmandchilik	- Gilam to'qish, yog'och o'yish, to'qimachilik	- Mahalliy hunarmandlar mahsulotlarini sotish orqali iqtisodiy o'sish.
	- Mahalliy san'at va qo'lda ishlangan buyumlar	- Turistlarga san'at va hunarmandchilikni namoyish etish imkoniyatini beradi.
Xalq marosimlari	- To‘y, hosil bayramlari	- Mahalliy bayramlar va marosimlar orqali xalqning urf-odatlari bilan tanishish.
	- Oila va jamiyatdagi an'anaviy qiymatlar	- Urf-odatlarga asoslangan festivallar va tadbirlar turistlarni jalb qiladi.
An'anaviy sport o'yinlari	- Ko'pkari, kurash, ot ustida yugurish	- O'yinlarni tomosha qilish turistlarga sport va madaniyatni birlashtirgan tajriba beradi.
	- Milliy sport o'yinlari va musobaqalar	- Mahalliy sport o'yinlari va musobaqalar turistlarga jozibali bo'ladi.
Baxshichilik	- Baxshichilik (musika va qo'shiq)	- Baxshichilik va qo'shiqlar turistlarga milliy musiqani tanishtiradi.

Jadval muallif tomonidan ma’lumotlar asosida tuzildi

An'anaviy sport o'yinlari va ularning turizmga ta'siri

An'anaviy sport o'yinlari, masalan, ko'pkari va kurash, Surxondaryo viloyatining qishloq turizmi uchun muhim ajralmas tarkibiy qismlardan biridir.

1-rasm Surxondaryo viloyatining madaniy merosini saqlash va uni turizmga integratsiyasida xizmat qiluvchi festivallar va tadbirlar

Bu sport turlari turistlarga o'zbek xalqining jismoniy madaniyatini va qadriyatlarini taqdim etadi. "Ko'pkari va kurash kabi an'anaviy sport turlari turistlarga o'zbek xalqining jismoniy madaniyati va qadriyatlari haqida chuqurroq tasavvur hosil qilish imkonini beradi" [4]. Shunday qilib, bu sport turlari turizmni rivojlantirishda va viloyat madaniy merosini targ'ib qilishda muhim rol o'ynaydi.

Baxshichilik san'ati va uning turizmdagi o'rni

Baxshichilik, o'zining boy tarixiy va madaniy merosi bilan, turistlarga o'zbek xalqining musiqasi va adabiyotini o'rganish imkoniyatini yaratadi. "Baxshichilik san'ati, o'zining boy tarixiy va madaniy merosi bilan, Surxondaryo viloyatida turistlarga o'zbek xalqining musiqasi va adabiyotini o'rganish imkoniyatini yaratadi" [6]. Baxshichilik san'ati va boshqa xalq san'ati turlarining turizmga integratsiyasi, viloyatning iqtisodiy o'sishiga hissa qo'shadi va turizmni rivojlantirishga xizmat qiladi.

Xulosa: Surxondaryo viloyatining qishloq turizmi, uning an'analari va urf-odatlari bilan birga, turistlarga noyob madaniy tajribalar taqdim etadi. Viloyatdagi folklor festivallari, an'anaviy sport o'yinlari, baxshichilik san'ati, va mahalliy taomlar, turistlarni jalb qilishda katta ahamiyatga ega. Shu bilan birga, bu omillar madaniy merosni saqlash va rivojlantirishda ham muhim o'rin tutadi. Surxondaryo viloyatining turizm salohiyatini oshirish uchun madaniy boyliklarni saqlash, an'anaviy san'atlarni rivojlantirish va xalq sportini targ'ib qilish zarur.

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O‘ZBEKISTONDA SUV RESURSLARIDAN OQILONA FOYDALANISH VA MUHOFAZA QILISHNING ILMIY-AMALIY YO‘NALISHLARI

Annotatsiya. *Ushbu maqolada bugungi kunda dolzarb muammoga aylangan suv resurslari va ulardan oqilona foydalanish, hamda muhofaza qilishning ilmiy-amaliy yo‘nalishlari yoritilgan. Shuningdek, suv tanqisligining kelib chiqish sabablari va bu jarayon natijasida hayotimizga xavf solayotgan muammolar atroflicha o‘rganilgan. Mazkur holat Markaziy Osiyo mintaqasida joylashgan, o‘ziga xos geografik o‘ringa ega bo‘lgan O‘zbekiston davlati misolida ilmiy-amaliy asosda ko‘rilgan.*

Kalit so‘zlar. *Suv, suv tanqisligi, suv resurslari, ekologik xavf, oqilona foydalanish, muhofaza qilish, qurg‘oqchilik, ekovaziyat, aholi, demografik vaziyat, Markaziy Osiyo.*

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SCIENTIFIC AND PRACTICAL DIRECTIONS OF RATIONAL USE AND PROTECTION OF WATER RESOURCES IN UZBEKISTAN

Abstract. *This article describes the scientific and practical directions of water resources and their rational use, as well as their protection, which has become an urgent problem today. Also, the causes of water shortage and the problems that threaten our lives as a result of this process are carefully studied. This situation was considered on a scientific and practical basis using the example of the country of Uzbekistan, which is located in the Central Asian region and has a unique geographical position.*

Key words: *Water, water deficit, water resources, environmental risk, rational use, protection, drought, environmental situation, population, demographic situation, Central Asia.*

Kirish. Bizga ma’lumki, suv oziq-ovqat xavfsizligini ta’minlash, ijtimoiy-iqtisodiy barqaror rivojlanishning muhim omili. Inson salomatligi, ekologik xavfsizlikni ta’minlash, aholi turmush farovonligi aynan suv ta’minotiga bog‘liq. Bugun yer yuzida kechayotgan global iqlim o‘zgarishi, xususan, havo haroratining keskin ko‘tarilishi doirasida dunyoda yirik, insoniyat tomonidan echimini kutayotgan ekologik muammolar yuzaga kelmoqda. Ya’ni, ba’zi hududlarda suv sathining ko‘tarilishi, toshqinlar, qurg‘oqchilik kabi ofatlar kuzatilyapti. Bu esa o‘z navbatida ekovaziyatning izdan chiqayotganiga bir signaldir. Dunyoga xavf solayotgan bunday muammolar O‘zbekistonni ham chetlab o‘tayotgani yo‘q.

Tabiiy resurslar ichida suv o‘ziga xos shunday resurski, uni o‘rnini bosadigan bironta resurs mavjud emas. Zero, suv hayot manbai ekanligini faqat issiq va o‘ta issiq, quruq iqlim sharoitidagina to‘la tasavvur etish mumkin. Xalq iborasi bilan aytganda, qayerda suv paydo bo‘lsa, o‘sha yerda hayot boshlanadi, suv tugagan yerda esa hayot ham tugaydi. Shuning uchun ham qadim zamonlardan buyon o‘lkamizda suvga hurmat, uni e’zozlash, isrofgarchiligiga va ifloslanishiga yo‘l qo‘ymaslik ruhi hukm surgan. Bugungi kunda xalq orasida uchraydigan quyidagi iboralarga e’tibor qaratish davr talabidir. Suvday serob bo‘l, oldingdan oqqan suvning qadri yo‘q [1].

Ayniqsa, XX-asrning 50-yillarida tabiatni inson izmiga bo‘ysundirish uchun boshlangan kurash o‘ziga xos murakkab hayot maktabi bo‘ldi. Natijada tajovuzkorona ravishda tabiatga munosabat uni tarkibini tubdan o‘zgartirib yubordi. Shunday o‘zgardiki natijada ba’zi resurslar miqdor va sifat tarkibini yo‘qotdi. Jumladan suv resurslari. Suv boyliklarining cheklanganligini, ularga ortiqcha miqdorda iflos suv tashlanmagandagina o‘z sifatini saqlab qolishi mumkinligini, tabiat yo‘l qo'yilgan xatolarni kechirmasligini va har bir xato uchun qasos olishini tushunishdan iborat bo‘ldi.

Asosiy qism. Iqlim o‘zgarishining globallashuvi, sahrolanish jarayonining dunyo miqyosida davom etishi natijasida suv tanqisligi xavfi tobora jiddiy tus olmoqda. Yevroosiyo qit’asining chorrahasida joylashgan Markaziy Osiyo davlatlarida, ayniqsa, O‘zbekiston Respublikasida suv tanqisligi yaqqol namoyon bo‘lmoqda. Shu bois tahdid solayotgan xavfni bartaraf etish choratadbirlarini ko‘rish respublikamiz suv resurslaridan foydalanishni boshqarishning ustuvor yo‘nalishi hisoblanadi. Bugun O‘zbekistonning ekologik xavfsizligi nuqtai nazaridan qaraganda, suv zaxiralarining, shu jumladan yer usti va yer osti suvlarining keskin taqchilligi hamda ifloslanganligi katta tashvish tugdirmoqda. Butun dunyoda, jumladan O‘zbekiston Respublikasining daryolari, kanallari, suv omborlari va hatto yer osti suvlari ham har taraflama inson faoliyati ta‘siriga uchramoqda.

Ma’lum bir ilmiy tadqiqot natijalari shuni ko‘rsatdiki, soni doimiy o‘sib borayotgan yer aholisi uchun suv ta’minoti keskinlashib bormoqda. Yer shari

aholisi soni umumiy tug‘ilish darajasining pasayishiga qaramay, 2050 yilga borib dunyo aholisi soni-hozirgi 7,6 milliard kishidan 9,8 milliardga, 2100 yilda esa 11,2 milliardga ko‘payadi. Bu haqda BMTning Iqtisodiy va ijtimoiy masalalar departamenti hisobotida ma’lum qilingan. Tadqiqot natijalariga ko‘ra, aholi sonining o‘sishi asosan 47 ta eng kam rivojlangan mamlakatlar hisobiga to‘g‘ri keladi, u yerlarda tug‘ilish darajasi bir ayolga 4,3 bolani tashkil qiladi. Bu davlatlarning hozirda 1 milliardni tashkil qiluvchi aholisining umumiy soni 2050 yilga borib 1,9 milliardga etadi. 26 ta Afrika mamlakatining shu davrdagi aholisi ham ikki barobarga ko‘payadi, deyiladi hisobotda.

Umumiy tug‘ilish darajasining pasayishi davom etishiga qaramay, hozirda yiliga 83 million kishiga oshib boruvchi tendensiya saqlanib qolinishi kutilmoqda. Tadqiqotchilar umumiy tug‘ilish darajasining pasayishini Yer aholisining qarishi bilan bog‘lashmoqda. Bashoratlarga ko‘ra, 2100 yilga borib 60 yoshdan katta kishilar soni uch barobarga oshadi va 3,1 milliardni tashkil qiladi. BMT ma’lumotlariga ko‘ra, 2010-2015 yillarda Yer aholisining 46 foizi yashovchi 83 mamlakatda tug‘ilish darajasi keragidan past ko‘rsatkichlarni qayd etgan. Mana shunday bir jarayon, oziq-ovqatga nisbatan ehtiyojni oshiradi. Oziq-ovqat masalasi o‘z navbatida suvga nisbatan ehtiyojni oshiradi. Taxminlarga ko‘ra oziq-ovqat bilan ta’minlash uchun 2050-yilga kelib, 500 mln. ga sug‘oriladigan yerlarda yuqori hosildorlikka erishish uchun dehqonchilik qilish (hozirda bu maydon 285 mln.ga yaqin) kerak bo‘ladi. Ammo mavjud suv boyliklari faqat 450 mln. gektar yerni sug‘orishga yetadi [2,3].

Suv resurslarining asta-sekin cheklanib borishi, qaysidir ma’noda zanjirga aylangan holda juda ko‘p ijtimoiy-iqtisodiy muammolarni keltirib chiqaradi. Bu holat sabab mamlakat suv tanqisligi, tuproq sho‘rlanishi, ekilayotgan ekinlarning hosildorligi kamayib borishi, oxir-oqibat esa oziq-ovqat yetishmovchiligi bilan yuzlashadi. Bunday qaltis vaziyatdan chiqib ketishning yagona yo‘li-toza ichimlik suvidan to‘g‘ri va oqilona foydalanish, qishloq xo‘jaligida suv isrofgarchiligiga yo‘l qo‘ymaslik. Mana shunday bir sharoitda O‘zbekistonda quyidagi rejali ishlar 2023 yil mobaynida amalga oshirildi:

-14 ta suv obyektida, ya’ni Tentaksoy, Andijonsoy, Shahrixonsoy, Zominsuv, Nuraksoy, Xo‘jamushkentsoy, Sherobod, Isfayramsoy, Bosholishsoy, Ugom, Oqsoqota, Dukentsoy, Qizilsoy va Parkentsoy yer usti tabiiy suv ob’ektlarining sanitariya-muhofaza zonalari hamda sohil bo‘yi mintaqalarini belgilash loyihalari ishlab chiqildi va viloyat hokimliklari qarorlari bilan tasdiqlandi. Natijada suvni muhofaza qilish zonalari va sohil bo‘yi mintaqalari belgilandi;

-56 ta suvni tozalash korxonada lokal tozalash inshootlari rekonstruksiya (qayta ta’mirlandi) qilindi va 21 ta korxona qurib bitkazildi;

-917 ta avtomobil yuvish shoxobchalarida ichimlik suvidan foydalanishning o‘ziga mos qonuniyligini aniqlash bo‘yicha o‘rganish o‘tkazildi. O‘rganish natijalari bo‘yicha 110 ta ichimlik suvi tarmog‘iga ulanib olgan shoxobchalar bo‘yicha ularni amaldagi tartibga muvofiqlashtirish ishlari amalga oshirildi;

-joylarda tadbirkorlik sub’ektlari tomonidan foydalanishda bo‘lgan 3886 ta yer osti quduqlari ilmiy-amaliy jihatdan o‘rganildi. Respublika bo‘yicha 2299 ta yer osti

quduqlari tegishli hujjatlarsiz foydalanib kelingani aniqlanib, bartaraf etish choralari ko‘rildi;

-suv sathi 5 metrdan ortiq pasayib ketgan hududlar (Navoiy, Samarqand, Jizzax, Qashqadaryo, Andijon, Namangan, Farg‘ona viloyatlarining ayrim hududlari) da moratoriy e’lon qilindi (Asos: Prezidentning “Yer osti suv resurslarini muhofaza qilish va ulardan oqilona foydalanishni tartibga solish bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida” 2022 yil 7 dekabrdagi PQ-439-son qarori). Bunda yer osti suvlariga quduqlarni burg‘ilash hamda mavjud quduqlardan yerlarni suv tejovchi texnologiyalarsiz sug‘orish taqiqlandi;

-Yangi o‘zlashtirilgan hududlar hisoblanmish Jizzax va Sirdaryo viloyatlaridagi kollektorlardan ko‘llar tizimiga suvlarning kelib quyilishi va suvlarning sifatini nazorat qilish, suv xo‘jaligi tizimidagi kanallardan qo‘shimcha suv tashlash loyihalarining bajarilishi, baliq tutishni cheklash, moratoriy joriy qilish va brakon’erlikka qarshi kurashish, Jizzax va Navoiy viloyatlari hokimliklari tomonidan cho‘llanishga moyil hududlarda butalar ekish va ko‘kalamzorlashtirish borasida ishlar bajarildi. Bu asosda suv tejovchi texnologiyalarni o‘rganish natijasida Isroil tajribasi o‘rganildi.

So‘nggi yillarda suvsiz mamlakatlar o‘zlarining qishloq xo‘jaligi infratuzilmasini rivojlantirmoqda, suvdan oqilona foydalanish yo‘llarini qidirishmoqda. Masalan, Isroil bu borada eng yaxshi namunalardan biri va Yaqin Sharq mamlakatlarining eng qurg‘oqchil davlatidir. Isroilda suvni boshqarish bo‘yicha xususiy kompaniya mavjud. Xususan, yuqori texnologiyalarga asoslangan Mekorot kompaniyasi Isroilning 90 foiz ichimlik suvini yetkazib beradi va taxminan 80 foiz suv ta'minotini boshqaradi. Uning shu'ba korxonasi EMS Mekorot Projecs suv ishlarini rejalashtirish, o‘rnatish, sinovdan o‘tkazish, oqova suvlarni tozalash, sho‘rsizlantirish, yomg‘irni yaxshilash va boshqa masalalarda yechimlarni taqdim etadi. Mekorot’ning ikkinchi shu'ba korxonasi Mekorot Development and Enterprise loyihalash, texnik-iqtisodiy asoslar, loyihalarni boshqarish va tozalash inshootlarini qurish, ulardan foydalanish va ularga xizmat ko‘rsatish ishlarini tashkil etadi [4].

Daryolar, ko‘llar va botqoq yerlar kabi suv bilan bog‘liq tizimlar-ekologik muvozanatni saqlash, bioxilma-xillikni saqlashda muhim rol o‘ynaydi. Suvni isrof qilmay to‘g‘ri, maqsadli sarflash-suv ekotizimlariga salbiy ta’sirni yumshatib, yashash uchun qulay maydonlarning qisqarishini kamaytirishga xizmat qiladi.

Bizga ma’lumki, suv resurslarini tejash-suv iste’moli va ifloslanishi bilan bog‘liq muammolarni kamaytirishga yordam beradi. Bunga suvdan foydalanish unumdorligini oshirish va suv yo‘qotilishini kamaytirish, samarali texnologiyalarni qo‘llash orqali erishiladi. Suv sarfini kamaytirish, irrigatsiya tizimlarini isloh qilish, texnologik innovatsiyalarni joriy etish, oqilona rejalashtirish va boshqarishga qaratilgan chora-tadbirlar-iqtisodiy samaralarga erishish va tarmoqlarning raqobatbardoshligini oshirishga olib keladi. O‘zbekistonda suvga nisbatan munosabatni o‘zgarib borayotganligi, albatda O‘zbekiston respublikasi oliy majlisi senati kengashining qarorida “Suv resurslarini muhofaza qilish, ulardan oqilona va samarali foydalanish, suvni boshqarish mexanizmlarini takomillashtirish, sohaning

qonunchilik bazasini mustahkamlashga oid masalalar haqida” batafsil ifodalangan (Toshkent shahri, 2023-yil 1-avgust, KQ-547-IV-son).

Markaziy Osiyo mintaqasi suv ta’minotida asosiy manbalar Sirdaryo va Amudaryo hisoblanadi. Bu mintaqada suvning 80 foizidan ortig‘i qishloq xo‘jaligi mahsulotlarini yetishtirish uchun ishlatiladi. Toza suv bilan bog‘liq murakkab holat mintaqada oziq-ovqat tanqisligiga olib kelishi mumkin. Markaziy Osiyo suv xavfsizligi energiya, oziq-ovqat va atrof-muhit bilan uzviy bog‘liq bo‘lgan dunyodagi kam sonli mintaqalardan biridir. Daryolarning ulkan tarmog‘i butun mintaqani kesib o‘tuvchi ikkita asosiy suv havzalari-Amudaryo va Sirdaryoga quyiladi. Sobiq Ittifoq davrida yuqori suv oqimiga boy mamlakatlar bahor va yoz oylarida quyi oqimdagi mamlakatlarni sug‘orish uchun suv bilan ta'minlagan. Buning evaziga ularga qish oylarida isitish va elektr energiyasi uchun ko‘mir, neft va gaz yetkazib berilgan. 1960-yillarning boshlarida butun mintaqada qishloq xo‘jaligini mexanizatsiyalash ishlari olib boriladi, bu esa intensiv sug‘orish tizimlariga olib keldi. Sug‘oriladigan dehqonchilik suvga juda talabchan paxtaning ehtiyojlarini qoplash uchun ustuvor ahamiyat kasb etgan.

Markaziy Osiyoda suv xavfsizligi tushunchasi mintaqani yuqori oqim (Qirg‘iziston, Tojikiston) va quyi oqim (O‘zbekiston, Qozog‘iston, Turkmaniston) o‘rtasida taqsimlaydigan transchegaraviy daryolarning keng tarmog‘ini boshqarishga intilib rivojlanib keldi. Ob-havo o‘zgarishi bilan Markaziy Osiyoda suv resurslarini boshqarish va xavfsizligini ta'minlash masalalari muhim ahamiyat kasb etib kelmoqda.

BMTning Butunjahon suv resurslari kuni munosabati bilan e'lon qilgan hisobotiga ko‘ra, bugungi kunda yer sayyorasidagi 2 milliard aholi toza ichimlik suvidan bevosita foydalanish imkoniga ega emas. Mutaxassislarning ilmiy tahlillariga ko‘ra, dunyoda 2000 yildan 2050 yilgacha bo‘lgan davrda suvga bo‘lgan global talab 55 foizga ortadi. Shuningdek, hisobotda 2017 yilda Markaziy Osiyodagi preventiv diplomatiya bo‘yicha BMT mintaqaviy markazi va Adelfi universiteti tomonidan o‘tkazilgan ilmiy tadqiqot haqida ham so‘z yuritilgan. Uning asosiy maqsadi mavjud suv resurslarini boshqarish sohasidagi keng ko‘lamli hamkorlikning iqtisodiy foydasini baholashga qaratilgan edi. Ma'lum bo‘lishicha, agar Markaziy Osiyo mintaqa davlatlari hamkorlik yo‘lini tanlasa, ular yiliga kamida 4,5 milliard dollar tejashi mumkin.

Suv resurslarini muhofaza qilish masalalari ShHTga a'zo davlatlar uchun juda dolzarb va muhimdir. Tashkilotning ulkan hududida qariyb 6 million daryo va ko‘l mavjud, «suv minoralari» hisoblangan tog‘ tizmalari maydoni taxminan 12,5 million kvadrat kilometrni tashkil etadi, suv resurslarining umumiy hajmi deyarli 10 million kub kilometrga teng. Tabiiy jarayonlarda muhim rol o‘ynaydigan, chuchuk suv manbayi bo‘lib xizmat qiladigan ko‘plab muzliklar mavjud.

Mutaxassislar ta'kidlashicha, XXI asrning oxiriga kelib, insoniyat Himolay muzliklarining uchdan ikki qismidan ko‘prog‘ini yo‘qotishi mumkin. Xuddi shunday vaziyat Pomir muzliklarida ham yuzaga kelmoqda-Fedchenko nomi bilan yuritiladigan uzunligi 75 kilometrdan oshadigan dunyodagi eng yirik kontinental muzlikning erish jarayoni kuzatilmoqda va bu bugungi kunning eng katta

xavflaridan biriga aylangan. Global isish oqibatida Tyanshandagi muzliklarning erishi tezlashmoqda.

Mana shunday bir sharoitda O‘zbekiston uchun vaziyatni ikki holat og‘irlashtiradi. Birinchidan, O‘zbekistonning qo‘shni mamlakatlardan keladigan suv ta'minotiga bog‘liqligi yuqori darajada (iste'mol qilinadigan suvning 80 foizi tashqaridan keladi). Shuning uchun ham suv tanqisligi muammosini ushbu davlatlar bilan kelishmasdan hal etib bo‘lmaydi. Ikkinchidan, O‘zbekistonda ichimlik suvi juda samarasiz sarf qilinadi, ayniqsa, mamlakatdagi suv resurslarining 90 foizini iste'mol qiluvchi qishloq xo‘jaligida. Suv iste'molchilarga yetkazish vaqtida (o‘ta eskirgan va chirigan infratuzilma sababli sug‘orish tizimlaridagi yo‘qotishlar 35-40 foizni tashkil qiladi) va iste'mol jarayonida ham (sug‘oriladigan yerlarning faqat 3 foizida suv tejovchi texnologiyalar tatbiq etilgan) yo‘qotiladi [5].

Xulosa. Iqtisodiy taraqqiyot markazi direktori Yuliy Yusupovning fikriga ko‘ra, O‘zbekistonda ham iqlim o‘zgarishi mintaqadagi asosiy daryolarga suv yetkazib beruvchi tog‘dagi muzliklar erishiga olib kelmoqda. So‘nggi 50-60 yilda muzliklarning maydonlari taxminan 30 foizga qisqargan. Taxminlarga ko‘ra, o‘rtacha yillik harorat 2 darajaga ko‘tarilgan taqdirda muzliklar o‘z hajmining 50 foizini yo‘qotishi mumkin, harorat 4 darajaga ko‘tarilgan taqdirda esa-bu hajm 78 foizgacha yetadi. Natijada mavjud suv resurslari hajmi ham qisqarmoqda. Masalan, O‘zbekiston davlati tomonidan foydalaniladigan suvning yillik hajmi so‘nggi yillarda o‘rtacha yillik 51-53 kub metrni tashkil qiladi, bu esa XX-asrning 80-yillariga qiyoslaganda 20 foizga kamdir. Shu bilan birga, mamlakat aholisi ushbu muddat ichida 1,5-2 baravarga ko‘paygan.

Ta’kidlash o‘rinliki, respublikamizda suv resurslari iqtisodiy va ijtimoiy nuqtai nazardan nomutanosib taqsimlangan, ya’ni aholining yashash joyi, qishloq xo‘jaligi ishlab chiqarishining joylashuvi va boshqa me’yorlarga mos emas. Masalan, suv havzalari yaqin joylashgan hududlarda suv ta’minoti yuqori va ulardan uzoqlashgan sayin suvga bo‘lgan ehtiyoj oshib boradi. Ushbu ehtiyoj yildan-yilga oshib boraveradi, chunki suv hajmi ko‘paymaydi, aholi soni hamda maishiy xizmat, sanoat, qurilish va boshqa sohalar ko‘payib bormoqda. Shuning uchun, nazarimizda, yaqin istiqbolda ushbu muammoni hal etish uchun quyidagi yo‘nalishlarda tadbirlar majmuini amalga oshirish **zarur:**

-suv isrofgarchiligini kamaytirish yo‘li bilan suvni tejash (aylanma suv ta’minotiga o‘tish);

-sug‘orishning yangi, istiqbolli usullarini qo‘llash va sug‘orish tizimining samaradorligini oshirish;

-yer osti va yer usti suvlarini to‘g‘ri (vaqt va makonda) taqsimlash;

-sifati buzilgan suvlarni tozalash texnologiyasini joriy etish;

-muzlik va tog‘li havzalardagi suv resurslari zaxiralaridan foydalanish imkoniyatlarini topish;

-suvga nisbatan avloddan-avlodga o‘tib kelayotgan ananlarimizni yosh avlod ongiga singdirish yo‘llarini takomillashtirish va hokazolar.

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GLOBAL IQLIM O'ZGARISHI VA UNING FARG'ONA VODIYSIGA TA'SIRI

Anatatsiya: *Maqolada global iqlim o'zgarishining farg'ona vodiysiga ta'siri, iqlimiy anamaliyalar va ularning oqibatlari masalalari yoritilgan.*
Kalit so'zlar: *Global muammolar, iqlimiy anamaliyalar, maksimal va minimal harorat, yog'ishlar rejimi, regional qonuniyatlar, metiorologik omillar.*

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GLOBAL CLIMATE CHANGE AND ITS IMPACT ON FERGANA VALLEY.

Abstract: *The article discusses the impact of global climate change on the Fergana Valley, climatic anomalies and their consequences.*
Keywords: *Global problems, climatic anomalies, maximum and minimum movements, precipitation regime, regional patterns, meteorological factors.*

Kirish. Dunyo miqiyosida XIX asr oxiri XX asr boshlaridan havo haroratining ortishi bilan bog'liq bo'lgan iqlim o'zgarishlariga asosiy sabab inson xo'jalik faoliyatining ta'siri deb e'tirof etilmoqda.

1750-1800 yillardan boshlab shu kungacha qadar yer shari iqlimi o'rtacha 0,8-1,2^{o}C ko'tarilgan. Tadqiqotchilarning fikriga ko'ra XXI asr davomida haroratning ko'tarilishi 0,3-1,7^{o}C ni tashkil etgan.

Meteorologlarning kuzatishlariga ko'ra 2023 yilning yozi 1850 yildan buyon eng issiq oy bo'lgan. Yillik o'rtacha harorat sanoatlashuvgacha bo'lgan davrga nisbatan 1,48^{o} C ga ortgan[1].

Global iqlimiy o'zgarishning salbiy oqibatlari dunyo okeani sathining ko'tarilishi yog'inlar miqdoridagi regional o'zgarishlar, ekstremal haroratlarning ro'y berishi, anamal issiqliklar va sovuqliklarning sodir bo'lib turishi, yil fasllari o'rtasidagi kalendari chegarasining keskin o'zgarishida, ekosistemalarning biologik mahsuldorligini o'zgarishida nomoyon bo'lmoqda.

Global iqlim isishiga sabab bo'lgan muhim omillar sifatida atmosferadagi suv bug'lari miqdorining ortishi (36-70%) issiqxona samarasini beradi. Karbonat angidrid gazi (9-26%) ni, metan (4-9%) ni, ozon (3-7%) ni tashkil etadi. Yuqoridagi issiqxona samarasini beruvchi gazlarning ajratuvchi qismi esa inson xo'jalik faoliyati bilan bog'liqdir.

Respublikamiz, xususan farg‘ona vodiysida ham iqlim o‘zgarishi regional ko‘lamda sodir bo‘lib, bunga hududiy omillar bilan birgalikda xo‘jalik omillarining ta’siri katta bo‘lib landshaftlarga jiddiy o‘zgarishlarni keltirib chiqmoqda. Global iqlim o‘zgarishi va uni landshaftlarga ta’siri masalalari bilan M.N.Budiko, A.A.Velichko, A.A.Grigoriev, N.N.Ivanov, I.I.Mamay kabi ko‘plab olimlar shug‘ullanganlar. Ilmiy Tadqiqot obyektimiz bo‘lgan Farg‘ona vodiysiga ham keying yillarga global iqlim o‘zgarishining salbiy ta’siri tobora ortib bormoqda. Bu esa vodiyning hududiy joylashuvi, orografiyasi, aholining zichligi, sanoat korxonalarining ko‘pligi bilan bog‘liqdir.

Farg‘ona vodiysining iqlimiga doir ma’lumotlar tahlil qilinganda global iqlim o‘zgarishi davrida havoning harorati, yog‘inlar miqdori va uning yillik, shuningdek ko‘p yillik rejimida jiddiy o‘zgarishlar ko‘zga tashlanmoqda. O‘rganilgan ma’lumotlar Farg‘ona vodiysida iqlimning butun vodiy hududida isishi yoki sovushi tendensiyasi haqidagi ma’lum to‘xtamga kelish uchun asos bo‘la olmaydi va bizningcha XX asrning birinchi choragida ro‘y berayotgan iqlimiy anamaliyalarning davriy holatini ko‘rsatib beradi.

Farg‘ona va shohimardon meteostansiyalarida 1970-2011 yillarda olib borilgan kuzatishlarga ko‘ra atmosfera yog‘iqlari yiliga 0,47% va 0,74% o‘sishni tashkil etgan. Jumladan, qishki yog‘inlar Farg‘ona metrostansiyasida yiliga 0,15% ni Shohimardonda 0,39% ni tashkil etgan va bu holatda yozgi yog‘inlarning o‘sish miqdori qishki yog‘inlarga nisbatan ko‘proq bo‘lgan. Qo‘qon shahari va unga yaqin bo‘lgan hududlarda so‘ngi o‘n yillikda havo haroratining ortishi mazkur hududlar atmosfera havosiga chang miqdorining me’yorga nisbatan 1,86% ga oshganligi bilan bog‘liq. [2.50-53].

Global iqlim o‘zgarishi va uni tadqiq etish bo‘yicha xalqaro tadqiqot markazlarining modellariga ko‘ra ham respublikamiz hududi va jumladan Farg‘ona vodiysida ham iqlim isishining elementlari ko‘zga tashlanadi. Kanada (CCCM), CFDL AQSH (GLSS), va Britaniya (UKMO) iqlim markazlari ma’lumotlariga ko‘ra global isish davrida iqlimning ko‘p yillik isishi 5,2% ga yetadi. AQSH geografik-gidrodinamik labaratoriyasi va Goddart kosmik tadqiqot institute (CFDL,GLSS) modellari bo‘yicha respublikamizda yillik havo harorati o‘rtacha 2,9% va 1’2o Cni tashkil etadi. Bu ko‘rsatgich esa 1951-1980 yillardagi ko‘rsatgichga tog‘ri keladi. Bundar holatda respubliklamiz huduida sovuqsiz kunlar miqdori 15 kungacha ko‘payishi, beqaror vegetatsion hududida yuzaga kelishi mumkin. 1961-1990 yillarda Respublikamizning deyarli barcha hududlarida shuningdek Farg‘ona vodiysidagi tekislik tog‘ va tog‘oldi hududlarida ham yog‘in miqdorining ortishi qayd etilgan.

O‘rganilgan ma’lumotlarga ko‘ra 1971-2000 yillarda Pop meteostansiyasidan tashqari boshqa barcha meteostansiyalarda havoning yillik o‘rtacha harorati biroz ko‘tarilgan. Qo‘qon meteorologik stansiyasida noyabr, fevral oylaridan tashqari barcha oylarga 1971-2000 yillarda pasayish kuzatilgan.Shuningdek maksimal oylik havo harorati Qo‘qon va Andijonda 0,1—1C atrofida pasayish kuzatilgan.[2.50-53].

O‘rtacha yillik minimal haroratlar ko‘rsatgichlari har bir meteorologik stansiyalarda ko‘tarilgan.

Farg‘ona vodiysining hududiy joylashuvi relefining kontrastlilik holatidan kelib chiqib, global iqlim isishining yog‘inlar miqdoriga ta’siri ham bir xil emasligini ko‘rishimiz mumkin. Masalan. 1891-1990 yillarga nisbatan 1971-2000 yillarda yillik yog‘in miqdoridagi farq Farg‘ona vodiysida -0,6mm ga pasaygan.

Xulosa. Yuqoridagi ma’lumotlar shuni ko‘rsatadiki, Farg‘ona vodiysi hududida global iqlim isishi regional qonuniyatlarga emas balki, mahalliy omillarga qarab o‘zgarib bormoqda. Iqlimiy anamaliyalar sharoitida yil fasllari o‘rtasidagi chegarani faqat calendar orqali shartli aniqlashimiz mumkin.

Iqlimiylik anamaliyalar o‘z navbatida Farg‘ona vodiysining turli landshaftlariga sezilarli ta’sirini o‘tkazmoqda. Ayniqsa madaniy landshaftlarga biologik mahsuldorlik bahorgi yog‘inlar va haroratning pasayishi sharoitida salbiy holatlarni ya’ni uning kamayib ketishiga ham olib kelmoqda.

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QASHQADARYO VILOYATIDA AHOLINING YUQUMLI KASALLIKLAR BILAN KASALLANISH GEOGRAFIYASI

Annotatsiya. *Maqolada Qashqadaryo viloyatida yuqumli kasalliklar bilan kasallanishning geografik xususiyatlari va nozogeografik vaziyatni yaxshilash yo‘llari, viloyat hududida keng tarqalgan yuqumli kasalliklar turlari (virusli gepatit), ularning tarqalish omillari va mintaqaviy tafovutlari bayon qilingan. Shuningdek, ekologik, ijtimoiy-iqtisodiy va gigiyenik omillarning kasallanish dinamikasiga ta’siri o‘rganilgan. Maqolada Qashqadaryo viloyatida sog‘liqni saqlash tizimini rivojlantirish, kasalliklarning oldini olish va sog‘lom hayot tarzini shakllantirishga qaratilgan tavsiyalar ishlab chiqilgan. Jumladan, sanitariya-gigiyena sharoitlarini yaxshilash, aholining tibbiy madaniyatini oshirish va yuqumli kasalliklarning profilaktikasini kuchaytirishning ahamiyati ta’kidlangan. Tadqiqot natijalari epidemiologik vaziyatni barqarorlashtirishga qaratilgan strategik chora-tadbirlarni belgilashda muhim ahamiyat kasb etadi.*

Kalit so‘zlar: *yuqumli kasalliklar, virusli gepatit, nozogeografiya, epidemiologik vaziyat, profilaktika, sog‘liqni saqlash.*

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GEOGRAPHY OF INFECTIOUS DISEASES INCIDENCE IN KASHKADARYA REGION

Abstract. *The article describes the geographical characteristics of infectious diseases in Kashkadarya region and ways to improve the nosogeographic situation, types of infectious diseases common in the region (viral hepatitis), factors of their spread and regional differences. The influence of environmental, socio-economic and hygienic factors on the dynamics of the disease is also studied. The article develops recommendations aimed at developing the healthcare system, disease prevention and the formation of a healthy lifestyle in Kashkadarya region. In particular, the importance of improving sanitary and hygienic conditions, increasing the medical culture of the population and strengthening the prevention of infectious diseases was emphasized. The results of the study are important in determining strategic measures aimed at stabilizing the epidemiological situation.*

Key words: *infectious diseases, viral hepatitis, nosogeography, epidemiological situation, prevention, health care.*

Virusli gepatit dunyo aholisining salomatligi uchun jiddiy xavf tug‘diradigan global muammo hisoblanadi. Ushbu kasallikning iqtisodiy-geografik xususiyatlarini o‘rganish ilmiy va amaliy jihatdan juda dolzarbdir, chunki uning tarqalishiga ko‘plab ekologik, ijtimoiy va iqtisodiy omillar ta’sir ko‘rsatadi. Virusli gepatit (ayniqsa, A, B, C turlari) har yili millionlab odamlarning hayotini xavf ostiga qo‘yadi. Kasallik jigar sirrozi va jigar saratoni kabi og‘ir asoratlarga olib keladi. Jahon sog‘liqni saqlash tashkiloti (JSST) ma’lumotlariga ko‘ra, dunyoda gepatit bilan kasallanganlarning ko‘pchiligi kasallik haqida xabardor emas, bu esa uning yashirin tarzda keng tarqalishiga sabab bo‘ladi. Virusli gepatitning tarqalishi turli hududlarda bir xil emas. Kasallik ko‘rsatkichlari rivojlanayotgan davlatlarda, ayniqsa, past sanitariya-gigiyena sharoitlariga ega mintaqalarda yuqori darajada. Sub-Saxara Afrikasi, Janubiy Osiyo, Janubi-Sharqiy Osiyo va Markaziy Osiyoda kasallikning keng tarqalganligi yuqori ko‘rsatkichlarga ega.

Virusli gepatitning keng tarqalishi sog‘liqni saqlash tizimiga katta iqtisodiy yuk soladi. Rivojlangan davlatlarda davolash xarajatlari qimmatligi sababli kasallikning boshqaruvi murakkab bo‘lsa, rivojlanayotgan davlatlarda profilaktika va diagnostika imkoniyatlari cheklangan. Ushbu masalalarni iqtisodiy-geografik nuqtai nazardan o‘rganish davlatlar resurslarini optimal taqsimlashga yordam beradi. Ta’lim, gigiyena, aholi daromadi va urbanizatsiya kabi omillar virusli gepatitning tarqalishida muhim rol o‘ynaydi. Qishloq hududlarida gigiyenik sharoitlarning pastligi kasallikning yuqori ko‘rsatkichlariga olib keladi. Shuningdek, ko‘chish, migratsiya va globalizatsiya virusning boshqa hududlarga tarqalishini tezlashtiradi. Virusli gepatitni iqtisodiy-geografik jihatdan tahlil qilish orqali global va mintaqaviy darajada samarali boshqaruv strategiyalari ishlab chiqilishi mumkin. Jumladan, xavf guruhlarini aniqlash, vaksinalar bilan qamrovni oshirish va sanitariya-gigiyena sharoitlarini yaxshilash bo‘yicha choralar tadqiqot natijalariga asoslanadi.

Kasallikning tarqalish xaritasi va mintaqaviy xususiyatlarini o‘rganish butun dunyo aholisining salomatligini yaxshilash uchun dolzarb ahamiyatga ega. Ushbu tadqiqotlar virusli gepatitning iqtisodiy va ijtimoiy ta’sirini kamaytirish uchun maqsadli chora-tadbirlarni ishlab chiqishda katta yordam beradi. Shu sababli, virusli gepatitning geografiyasi va iqtisodiy-geografik xususiyatlarini chuqur o‘rganish, global sog‘liqni saqlash masalalarini hal qilishda asosiy yo‘nalishlardan biri sifatida qaralishi kerak.

Jahon sog‘liqni saqlash tashkilotining (JSST) 2024 yilgi global gepatit hisobotiga ko‘ra ushbu kasallik qurbonlari soni doimiy ravishda o‘sib bormoqda. Gepatit yuqumli kasalliklar qotillari bo‘yicha dunyoda ikkinchi o‘rinda turadi va yiliga 1,3 million o‘limga olib keladi, bu yuqumli kasalliklarning qotillari bo‘lgan sil kasalligi bilan bir xil. Butunjahon gepatit sammitida taqdim etilgan ushbu hisobot diagnostika va davolashning yaxshilanishiga va arzonroq tibbiy mahsulotlarga qaramay, test va davolash qamrovi to‘xtab qolganligini ta’kidlaydi. Ammo, agar hozir chora ko‘rilsa, JSSTning 2030 yilgacha gepatitni yo‘q qilish maqsadiga erishish mumkin bo‘ladi. 187 mamlakatdan olingan yangi ma’lumotlar shuni ko‘rsatadiki, virusli gepatitdan o‘lganlarning taxminiy soni 2019 yildagi 1,1

milliondan 2022 yilda 1,3 millionga ko‘paygan, ularning 83 foizi gepatit B va 17 foizi gepatit C sabab bo‘lgan. Dunyo bo‘ylab har kuni gepatit B va C infeksiyasidan 3500 kishi vafot etadi [1]. Gepatit - bu viruslar va boshqa infektsiyalar, spirtli ichimliklar va ba’zi dorilar tufayli kelib chiqqan jigarning yallig‘lanishi. Bu bir qator sog‘liq muammolariga olib keladi, ularning ba’zilari o‘limga olib kelishi mumkin. Dunyo miqyosida virusli gepatit bilan yashovchi odamlarning 90 foizi bu kasallikdan bexabar va har kuni 3000 kishi kasallikdan vafot etadi. JSSTga a’zo davlatlar tomonidan tasdiqlangan JSST Global gepatit strategiyasi 2016 yildan 2030 yilgacha yangi gepatit infektsiyalarini 90 foizga va o‘limni 65 foizga kamaytirishga qaratilgan [2].

O‘zbekistonda gepatit (jigar yallig‘lanishi) kasalligi turli shakllarda, xususan gepatit A, B, C, D va E turlarida keng tarqalgan. Gepatit kasalligi O‘zbekistonda salomatlikka jiddiy tahdid soladigan muammo bo‘lib, uning tarqalishiga bir nechta omillar ta’sir ko‘rsatadi [3, 4]. Gepatit kasalligining tarqalish geografiyasi tahlil qilinganda quyidagi xulosalarni chiqarish mumkin:

- Virusli gepatit kasalliklarining tarqalishi sanitariya, tibbiy xizmatlar sifati, ichimlik suvi ta’minoti va tibbiy amaliyotlardagi ehtiyotsizlikka bevosita bog‘liqdir. Bu omillar, ayniqsa qishloq hududlarida, kasalliklarning yuqishi uchun qulay sharoit yaratadi. Yirik shaharlarda tibbiy xizmatlar yaxshi rivojlangan bo‘lsa ham, qishloq joylarida sanitariya-gigiyena sharoitlari past bo‘lishi va tibbiy yordamning malakali bo‘lmasligi virusli gepatit kasalliklarining keng tarqalishiga olib keladi. Bu kasalliklar bilan kasallanganlar soni bo‘yicha (2022-yil) Qashqadaryo, Surxondaryo, Samarqand va Sirdaryo viloyatlari yetakchi hisoblanadi (jadval).

- Gepatit A virusining asosiy tarqalish yo‘li – suv va oziq-ovqat orqali. Bu kasallik eng ko‘p suv ta’minoti yoki sanitariya sharoitlari yomon bo‘lgan hududlarda uchraydi. O‘zbekistonda gepatit A ko‘proq qishloq joylarda, ichimlik suvi sifatsiz yoki sanitariya sharoitlari yomon bo‘lgan hududlarda uchraydi. Ayniqsa, Qashqadaryo, Surxondaryo, Sirdaryo viloyatlari va Toshkent shahri kabi mintaqalarda kasallik tarqalishi yuqori (jadvalga qarang).

- Gepatit B virusining tarqalishi asosan qon orqali amalga oshadi, shu jumladan ko‘p marotaba to‘liq sterilizatsiya qilinmagan asboblar orqali, jinsiy yo‘l bilan, shuningdek, yangi tug‘ilgan chaqaloqlarga onadan o‘tish mumkin. O‘zbekistonda gepatit B tarqalishining yuqori darajasi barcha hududlarda kuzatiladi, Qashqadaryo, Buxoro va Sirdaryo viloyatlarida bu kasallik bilan og‘riganlar soni ko‘pchilikni tashkil etadi. Ba’zi shahar markazlarida (Toshkent, Samarqand) tibbiy xizmatlar rivojlangan bo‘lsa-da, qishloq joylarda bu kasallik tarqalishi yuqori hisoblanadi.

Jadval.

Hududlar bo‘yicha aholining virusli gepatit kasalliklariga chalinishi (2022 yil, har 100 ming kishiga nisbatan)

Hududlar	virusli gepatit	virusli gepatit “A”	virusli gepatit “B”
O‘zbekiston Respublikasi	**82,6**	**81,9**	**0,4**
Qoraqalpog‘iston Respublikasi	13,1	12,3	0,3
Andijon	17,5	17,4	0,1
Buxoro	7,4	6,2	0,6
Jizzax	32,5	31,9	0,5
Qashqadaryo	251,2	248,4	1,3
Navoiy	23,5	23,2	0,2
Namangan	37,3	36,9	0,1
Samarqand	202,3	201,8	0,4
Surxondaryo	212,9	212,6	0,2
Sirdaryo	42,7	42,1	0,5
Toshkent	37,3	36,9	0,3
Farg‘ona	28,4	28,2	0,1
Xorazm	4,4	4,1	0,2
Toshkent shahri	39,7	38,6	0,3

Jadval O‘zbekiston Respublikasi Prezidenti huzuridagi Statistika agentligi materiallari asosida tuzilgan.

O‘zbekistonda gepatit kasalliklari turli mintaqalarda turli darajada tarqalgan. Umuman olganda, gepatitning tarqalishi asosan sanitariya-epidemiologik sharoitlarga, tibbiy xizmatlar sifati va odamlarning sog‘liqni saqlash haqida ma’lumot darajasiga bog‘liq [3]. Kasallikning oldini olish uchun immunizatsiya, sanitariya-gigiyena sharoitlarini yaxshilash, shuningdek, tibbiy ko‘riklar va tashxislar samarali amalga oshirilishi zarur. O‘zbekistonda gepatitning tarqalishi ko‘plab omillarga bog‘liq. Sanitariya-epidemiologik sharoitlar, jumladan, ichimlik suvi ta’minoti, kanalizatsiya tizimlari va umumiy gigiena qoidalariga rioya qilish gepatit viruslarining tarqalishiga ta’sir qiladi. Shuningdek, tibbiy xizmatlarning sifati ham muhim ahamiyatga ega. Tibbiyot muassasalarida sanitariya normalariga rioya qilinmasligi yoki tibbiy asbob-uskunalarning noto‘g‘ri ishlatilishi gepatit viruslarining yuqish xavfini oshirishi mumkin [6, 7]. Aholining sog‘liqni saqlash haqida ma’lumot darajasi ham muhim rol o‘ynaydi. Aholi o‘z sog‘lom turmush tarzini yuritish va gepatitning oldini olish bo‘yicha ma’lumotga ega bo‘lishi zarur. Shuning uchun profilaktika tadbirlari, sog‘lom turmush tarzini targ‘ib qilish va jamoatchilikni xabardor qilish ishlari juda muhimdir. Gepatitning oldini olish uchun emlash dasturlari ham o‘rinli hisoblanadi. O‘zbekistonda gepatitga qarshi emlash dasturlari amalga oshirilmoqda, bu esa tarqalishni kamaytirishga yordam beradi.

Qashqadaryo viloyatida virusli gepatitning tarqalish areali hududning tabiiy-geografik, ijtimoiy-iqtisodiy va gigiyenik sharoitlariga bog‘liq bo‘lib, kasallikning turli turlari (A, B, C) har xil omillar ta’sirida turli darajada uchraydi.

Qashqadaryo viloyatining Chiroqchi, Yakkabog‘ va G‘uzor tumanlarida 2023-yil holatiga ko‘ra virusli gepatit bilan kasallanishning yuqori ko‘rsatkichga ega bo‘ldi. Chiroqchi tumanida нак 100 ming aholidan 440,1 kishi virusli gepatit bilan kasallangan bo‘lsa, Yakkabog‘ tumanida bu ko‘rsatkich 402,6 kishiga, G‘uzor tumanida 339,2 kishiga teng bo‘ldi (rasm). Bunday yuqori ko‘rsatkich qayd etilishi bir qancha omillar bilan bog‘liq. Ushbu omillarni quyidagicha izohlash mumkin:

1. Sanitariya-gigiyena sharoitlarining pastligi.

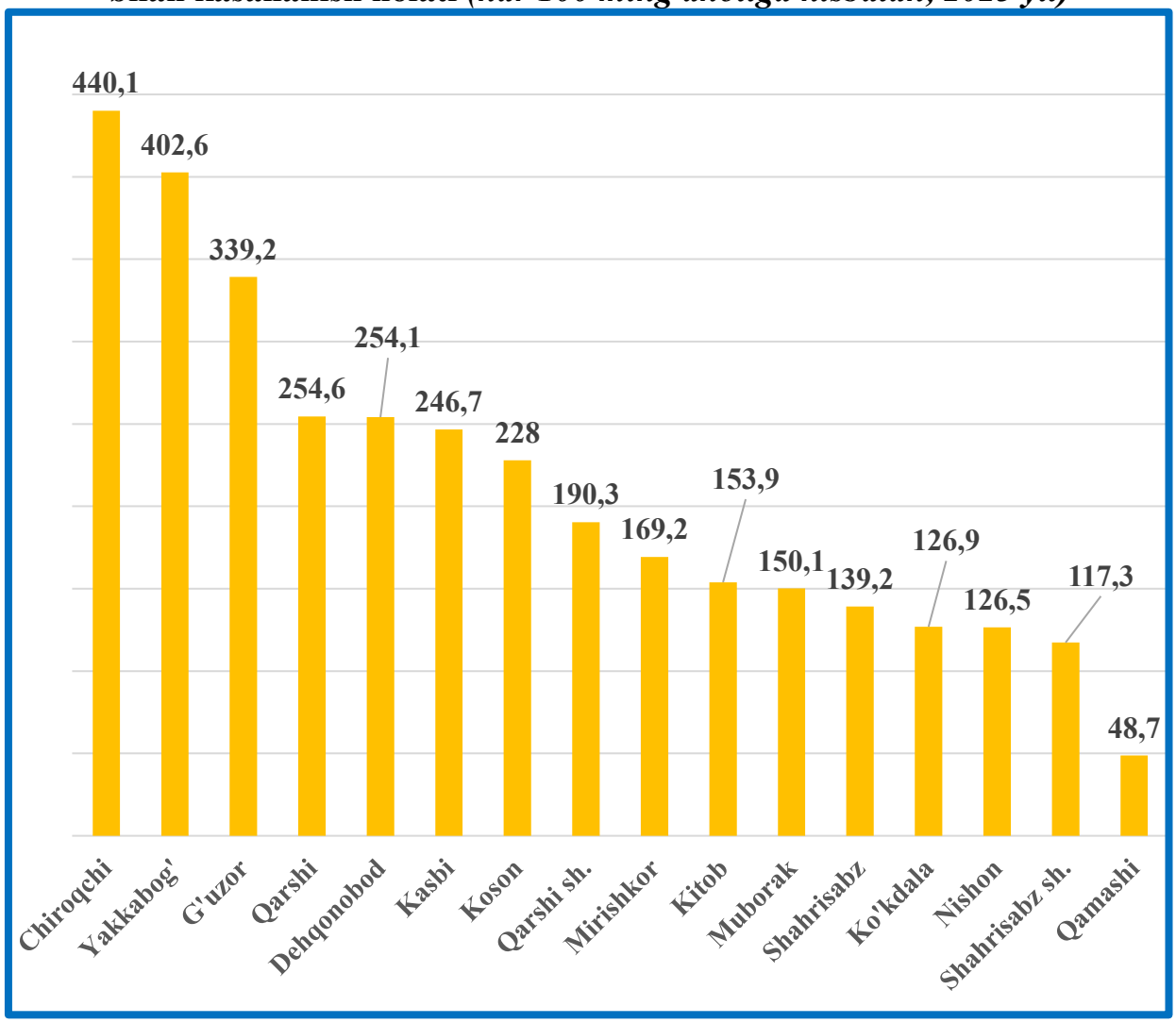
Ichimlik suvining sifati va ta’minoti: Tumanlarda ichimlik suvining markazlashtirilgan tizimlarga yetarli darajada ulanmaganligi va suv resurslarining past sifati gepatit A ning keng tarqalishiga olib kelgan. Ochiq suv manbalaridan foydalanish infeksiyaning oshishiga sabab bo‘lgan. *Gigiyena qoidalariga rioya qilinmasligi:* Aholining sanitariya madaniyati pastligi, maktablar va jamoat joylarida gigiyenik sharoitlarning talabga javob bermasligi gepatit A ning yuqori darajada tarqalishiga zamin yaratgan.

2. Tibbiy xizmatlar sifati va infratuzilmasining zaifligi.

Profilaktika va emlash qamrovining pastligi: Tibbiy xizmatlar orqali gepatit B ga qarshi emlash qamrovining yetarli emasligi kasallik tarqalishini kuchaytirgan. Ayniqsa, qishloq joylarda aholining emlash dasturlariga jalb etilishi past bo‘lgan. *Sterilizatsiya qoidalariga rioya qilinmasligi:* Davolash-profilaktika muassasalarida invaziv muolajalar va jarrohlik amaliyotlari paytida sterilizatsiya qoidalarining buzilishi gepatit B va C infektsiyalarining tarqalishiga sabab bo‘ldi.

Rasm.

Qashqadaryo viloyati ma’muriy birliklar kesimida o‘tkir virusli gepatitlar bilan kasallanish holati *(har 100 ming aholiga nisbatan, 2023 yil)*



Rasm Qashqadaryo viloyati Sanitariya-epidemiologik osoyishtalik va jamoat salomatligi xizmati boshqarmasi ma’lumotlari asosida muallif tomonidan tayyorlandi.

3. Tabiiy-geografik sharoitlar va ijtimoiy muhit.

Aholi zichligi: Chiroqchi, Yakkabog‘ va G‘uzor tumanlarida aholining zich joylashgan hududlarida infeksiyaning yuqish ehtimolini oshiradi. Uyma-uy yashash tartibi, bolalar va yoshlarning ko‘p qismi gigiyenik madaniyatga ega bo‘lmagan oilalarda yashashi muhim omil bo‘ldi. *Migratsiya va transport aloqalari:* Ishchi migratsiyasi, xususan, Rossiya yoki boshqa davlatlarga ketuvchi aholi o‘rtasida gepatit B va C viruslarini olib kelish va tarqatish holatlari uchragan.

4. Aholining tibbiy xabardorligining pastligi.

Ma’lumot yetishmovchiligi: Gepatit kasalligining oldini olish bo‘yicha axborot va tushuntirish ishlarining yetarli darajada olib borilmagani, aholining kasallik xavfi haqida ma’lumotga ega emasligi infektsiyaning keng tarqalishiga olib kelgan. *Davolanish imkoniyatlari:* Aholining aksariyati kasallikning dastlabki bosqichida davolanish uchun murojaat qilmasligi, shu jumladan surunkali gepatit holatlarining ortishi bilan bog‘liq.

5. Ekologik va iqtisodiy omillar.

Ekologik muammolar: Chiroqchi, Yakkabog‘ va G‘uzor tumanlarida atrof-muhitning ifloslanishi, suv resurslarining iflosligi va qishloq xo‘jaligi faoliyatida ishlatiladigan kimyoviy moddalarning ko‘pligi gepatit A ga sabab bo‘luvchi holatlarni kuchaytirgan. *Ijtimoiy-iqtisodiy qiyinchiliklar:* Aholining kambag‘allik darajasi yuqori bo‘lib, tibbiy xizmatlarga kirish imkoniyati cheklangan. Bu esa kasallikning erta aniqlanishi va profilaktikasini qiyinlashtirgan.

Qashqadaryo viloyatida virusli gepatit kasalliklari turli hududlarda turli darajada tarqalgan. Gepatitning tarqalishi asosan sanitariya-epidemiologik sharoitlarga, tibbiy xizmatlar sifati va odamlarning sog‘liqni saqlash haqida ma’lumot darajasiga bog‘liq. Kasallikning oldini olish uchun immunizatsiya, sanitariya-gigiyena sharoitlarini yaxshilash, shuningdek, tibbiy ko‘riklar va tashxislar samarali amalga oshirilishi zarur. Sanitariya-epidemiologik sharoitlar, jumladan, ichimlik suvi ta’minoti, kanalizatsiya tizimlari va umumiy gigiena qoidalariga rioya qilish gepatit viruslarining tarqalishiga ta’sir qiladi. Shuningdek, tibbiy xizmatlarning sifati ham muhim ahamiyatga ega bo‘lib, tibbiyot muassasalarida sanitariya normalariga rioya qilinmasligi yoki tibbiy asbob-uskunalarning noto‘g‘ri ishlatilishi gepatit viruslarining yuqish xavfini oshirishi mumkin. Aholining sog‘liqni saqlash haqida ma’lumot darajasi ham muhim rol o‘ynaydi. Aholi o‘z sog‘lom turmush tarzini yuritish va gepatitning oldini olish bo‘yicha ma’lumotga ega bo‘lishi zarur. Shuning uchun profilaktika tadbirlari, sog‘lom turmush tarzini targ‘ib qilish va jamoatchilikni xabardor qilish ishlari juda muhimdir. Gepatitning oldini olish uchun emlash dasturlari ham o‘rinli hisoblanadi. O‘zbekistonda gepatitga qarshi emlash dasturlari amalga oshirilmoqda, bu esa tarqalishni kamaytirishga yordam beradi.

Umuman olganda, Qashqadaryo viloyatida nozogeografik muhitni yaxshilash uchun tibbiyot muassasalarini yangilash, malakali kadrlarni tayyorlash va sog‘liqni saqlash xizmatlarini kengaytirish; aholini virusli kasalliklar haqida xabardor qilish, ularni oldini olish usullari bo‘yicha ta’lim berish hamda ommaviy axborot vositalaridan foydalanib, aholi orasida sog‘lom turmush tarzini targ‘ib qilish; shaxsiy gigiyena qoidalarini o‘rganish va ularga rioya qilganlarni (ayniqsa oziq-ovqat xavfsizligi bo‘yicha) rag‘batlantirish; viruslarni aniqlash va kuzatishda zamonaviy texnologiyalarni (boshqaruv tizimlari, mobil ilovalar) qo‘llash; tabiatga zarar yetkazmaslik uchun ekologik barqarorlikka e’tibor berish, tuproq, suv va havoni ifloslanishdan himoya qilish; virusli kasalliklarga qarshi kurashda xalqaro tashkilotlar bilan hamkorlik qilish, vaksinalar ishlab chiqarishni qo‘llab-quvvatlash va ulardan foydalanishni oshirish maqsadga muvofiq. Ushbu yo‘llar orqali virusli kasalliklarning tarqalishini kamaytirish mumkin bo‘ladi hamda aholi salomatligini yaxshilashga erishiladi.

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QISHLOQ XO‘JALIGIDA INTENSIV ISHLAB CHIQARISHNING ASOSIY YO‘NALISHLARI

Annotatsiya. *Ushbu maqolada qishloq xo‘jaligida intensiv ishlab chiqarishning dolzarb yo‘nalishlari ko‘rib chiqiladi. Amaliy xorijiy tajribalar tahlil qilinib, O‘zbekiston sharoitida joriy etish imkoniyatlari baholanadi.*

Kalit so’zlar: *qishloq xo‘jaligi, intensiv ishlab chiqarish, innovatsion texnologiyalar, tomchilatib sug‘orish, hosildorlik, resurslarni boshqarish, ekologik yondashuv, vertikal dehqonchilik, gidroponika, sug‘orish tizimlari, xorijiy tajriba, O‘zbekiston agrar sektori, aqlli qishloq xo‘jaligi, innovatsion issiqxonalar*

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MAIN DIRECTIONS OF INTENSIVE PRODUCTION IN AGRICULTURE

Annotation. *This article considers the current directions of intensive production in agriculture. Practical foreign experiences are analyzed and the possibilities of their implementation in the conditions of Uzbekistan are assessed.*

Keywords: *agriculture, intensive production, innovative technologies, drip irrigation, productivity, resource management, ecological approach, vertical farming, hydroponics, irrigation systems, foreign experience, agrarian sector of Uzbekistan, smart agriculture, innovative greenhouses*

Qishloq xo‘jaligi bugungi kunda milliy iqtisodiyotning muhim tarmoqlaridan biri hisoblanadi. Dunyo miqyosida agrar sektorni intensiv rivojlantirish iqlim o‘zgarishi, oziq-ovqat xavfsizligi, yer resurslarining qisqarishi kabi muammolarni yengishda strategik yo‘nalish bo‘lib qolmoqda. Ushbu maqolaning maqsadi qishloq xo‘jaligidagi intensiv ishlab chiqarishning asosiy yo‘nalishlarini xorijiy tajribalar va O‘zbekiston sharoitida tatbiq qilish imkoniyatlari bilan bog‘liq holda o‘rganishdir.

Tadqiqot davomida statistik ma’lumotlar, nashr etilgan ilmiy maqolalar, xorijiy mamlakatlarning amaliy tajribalari va mahalliy holat tahlil qilindi. Ma’lumotlarni tahlil qilishda qiyosiy uslub, iqtisodiy ko‘rsatkichlar hisoboti va

empirik yondashuvlar qo‘llanildi. Tadqiqotda Germaniya, Niderlandiya, va Yaponiyaning agrar sektordagi ilg‘or tajribalaridan foydalanildi.

Qishloq xo‘jaligida intensiv ishlab chiqarishning dolzarb yo‘nalishlari sifatida joriy davrda rivojlangan xorijiy mamlakatlarda keng qo’llanilib kelinayotgan quyidagi 3 ta yo’nalishga to’xtalib o’tmoqchimiz:

1-yo’nalish: innovatsion texnologiyalarni qo’llash. Germaniyada qishloq xo‘jaligida zamonaviy texnologiyalar keng joriy etilgan. Jumladan, dronlardan foydalanish orqali dalalarning monitoringi amalga oshirilmoqda. Ushbu texnologiya hosildorlikni taxmin qilish va zararkunandalarga qarshi kurashishda tezkorlikni ta’minlaydi. Bundan tashqari, Germaniyada biometrik sensorlar bilan jihozlangan traktorlar resurslarni 20% ga tejamli ishlatishga yordam bermoqda.

2-yo’nalish: ekologik yondashuvlar. Niderlandiya ekologik intensiv ishlab chiqarishga katta e’tibor berilmoqda. “Circular Agriculture” (aylana dehqonchilik) modeli orqali qishloq xo‘jaligi chiqindilari qayta ishlanib, tuproqni mineral o‘g‘itlar bilan boyitishda ishlatiladi. Niderlandiyada bu yondashuv bir gektarda hosildorlikni o‘rtacha 35% ga oshirgan.

3-yo’nalish: yuqori samaradorlikka erishish. Yaponiyada intensiv ishlab chiqarish texnologiyalari urbanizatsiyalashgan hududlarda muvaffaqiyat bilan amalga oshirilmoqda. Bunda vertikal dehqonchilikning o‘ziga xos tomoni – kam maydonda katta hajmdagi hosil yetishtiriladi. Masalan, Kyotodagi bir gidroponika fermasi yiliga 10 tonna sabzavot yetishtirishga qodir. Bunday tizimlar suv sarfini 95% gacha qisqartirish imkonini berib kelmoqda.

Yuqorida keltirilgan yo’nalishlarni qo’llash O‘zbekiston sharoitidagi imkoniyatlarni kengaytirishi va iqtisodiy samaradorlik oshirishi mumkin. Zero, keyingi yillarda O‘zbekiston qishloq xo‘jaligini modernizatsiya qilish yo‘lida bir qancha islohotlarni amalga oshirmoqda. Ayniqsa, 2022-yilda tomchilatib sug‘orish tizimining davlat tomonidan qo‘llab-quvvatlanishi mahsuldorlikni sezilarli darajada oshirganligi sir emas. Intensiv ishlab chiqarishning iqtisodiy samarasini g‘alla yetishtirish misolida ko’rishimiz mumkin. Mamlakatimizning tomchilatib sug‘orish texnologiyasi joriy qilingan hududlarida g‘alla hosildorligi 1 gektar maydonda 15-20% oshgani kuzatilgan. Masalan, Samarqand viloyatida tajriba tariqasida joriy etilgan loyiha natijasida hosildorlik har bir gektar uchun 5,5 tonnadan 6,3 tonnaga oshdi.

Bog‘dorchilikda ham innovatsion issiqxonalarda yetishtirilgan mahsulotlar eksport hajmini oshirishga yordam bermoqda. 2023-yilning o‘zida issiqxonalar orqali olingan mahsulot eksportidan mamlakat 150 mln dollar daromad oldi.

Mamlakatimiz miqyosida suv resurslardan samarali foydalanish, xususan qishloq xo‘jaligida suv resurslarini tejash dolzarb ahamiyatga ega. Tomchilatib sug‘orish tizimini kengaytirish orqali o‘rtacha 1 gektarda 2000 kub metr suv tejash imkoniyati mavjud.

O‘zbekiston qishloq xo‘jaligida intensiv ishlab chiqarishning rivojlanishi uchun quyidagi chora-tadbirlarni amalga oshirish tavsiya etiladi:

- Innovatsion texnologiyalarni joriy etish: zamonaviy dron va robotlashtirilgan tizimlarni import qilish uchun davlat subsidiyalarini kengaytirish.

- Mahalliy mutaxassislarni tayyorlash: intellektual (yoki smart-aqlli) dehqonchilikni rivojlantirish maqsadida o‘quv markazlarini tashkil etish va xalqaro dasturlarda ishtirokni kengaytirish.
- Qishloq xo‘jalik mahsulotlarini qayta ishlash: qayta ishlash korxonalarini rivojlantirish orqali qo‘shimcha qiymat yaratish.
- Xalqaro hamkorlikni kengaytirish: Germaniya va Niderlandiya bilan qishloq xo‘jaligidagi texnologiyalarni transfer qilish bo‘yicha qo‘shma loyihalar tashkil etish.
- Kooperatsiyalarni rivojlantirish: fermerlar va dehqon xo’jaliklarini qo‘llab-quvvatlash orqali umumiy texnologiyalar va resurslardan foydalanishni rag‘batlantirish.

Qishloq xo‘jaligida intensiv ishlab chiqarishni rivojlantirish O‘zbekiston uchun strategik ahamiyat kasb etadi. Germaniya, Niderlandiya va Yaponiyaning ilg‘or tajribalaridan foydalangan holda innovatsion texnologiyalarni joriy etish, resurslarni tejamli ishlatish va hosildorlikni oshirish mumkin. Ushbu yo‘nalishlar amalga oshirilganda milliy agrar sektorning samaradorligi ortadi.

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QISHLOQ XO‘JALIGIDA YUQORI HOSILDOR NAVLARNI EKISHNING IQTISODIY SAMARADORLIGI: XORIJIY TAJRIBA VA MAHALLIY SHAROITLAR TAHLILI

Annotatsiya: *Ushbu maqola qishloq xo‘jaligida yuqori hosildor navlarni ekishning iqtisodiy samaradorligini xorijiy tajribalar va mahalliy sharoitlar misolida tahlil qilishga bag‘ishlangan.*

Kalit so‘zlar: *yuqori hosildor navlar, iqtisodiy samaradorlik, qishloq xo‘jaligi, xorijiy tajriba, mahalliy sharoitlar, Samarqand viloyati, oziq-ovqat xavfsizligi, fermer xo‘jaliklari, hosildorlik, resurslardan samarali foydalanish.*

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ECONOMIC EFFICIENCY OF PLANTING HIGH-YIELD VARIETIES IN AGRICULTURE: ANALYSIS OF FOREIGN EXPERIENCE AND LOCAL CONDITIONS

Abstract: *This article is devoted to the analysis of the economic efficiency of planting high-yielding varieties in agriculture using foreign experience and local conditions.*

Keywords: *high-yielding varieties, economic efficiency, agriculture, foreign experience, local conditions, Samarkand region, food security, farms, productivity, efficient use of resources.*

Dunyoda oziq-ovqat xavfsizligi bugungi kunda dolzarb muammolardan biri hisoblanadi. Aholining o‘sib borayotgan ehtiyojlarini qondirish uchun qishloq xo‘jaligi samaradorligini oshirish zarur. Xususan, yuqori hosildor navlarni ekish oziq-ovqat ishlab chiqarishni ko‘paytirish va fermer xo‘jaliklarining iqtisodiy barqarorligini ta’minlashda muhim o‘rin tutadi. Xorijiy tajriba ko‘rsatib turibdiki, yuqori hosildor navlardan foydalanish orqali tuproq unumdorligidan samarali foydalanish, suv resurslarini tejash va mahsulot hajmini sezilarli oshirishga erishish mumkin. Ushbu maqolada yuqori hosildor navlarni ekishning iqtisodiy samaradorligini xorijiy tajribalar va mahalliy sharoitlar misolida o‘rganishning ayrim jihatlariga e’tibor qaratilgan.

Tadqiqotimiz davomida AQSh, Hindiston va Niderlandiya kabi xorijiy mamlakatlardagi ilg‘or amaliyotlar o’rganilib, tahlil qilindi. Bu mamlakatlarda

yuqori hosildor navlardan foydalanish, ayniqsa bug‘doy, makkajo‘xori va kartoshka mahsulotlarini yetishtirish bo‘yicha samarali natijalar qayd etilgan. Shuningdek, Birlashgan millatlar tashkilotining oziq-ovqat va qishloq xo‘jaligi tashkiloti (FAO) va AQSh Qishloq xo‘jaligi vazirligi (USDA) ma’lumotlari asosida hosildorlik va iqtisodiy foyda ko‘rsatkichlari solishtirildi.

O‘zbekistonning xususan, Samarqand viloyatidagi fermer xo‘jaliklarida yuqori hosildor bug‘doy navlarining sinovdan o‘tkazilish natijalarida foydalanildi.

AQShdagi tajribalar. AQSh qishloq xo‘jaligida yuqori hosildor navlardan foydalanishning samaradorligini oshirish bo‘yicha keng ko‘lamli tadqiqotlar amalga oshirilgan. Masalan, **"Dekalb" bug‘doy navi.** Bu navi o‘zining yuqori hosildorligi bilan mashhur. Tadqiqotlar shuni ko‘rsatadiki, ushbu nav AQShning Illinois shtatida an’anaviy bug‘doy navlariga nisbatan hosildorlikni 25% ga oshirgan. Hosildorlik oshishi bilan birga xarajatlarning qisqarishi fermerlar foydasini yiliga $5,000 ga ko‘tarishga imkon bergan (Koul, 2019, 122-bet).

AQShda makkajo‘xori va soyaning genetik modifikatsiyalangan navlaridan foydalanish orqali suv va o‘g‘it iste’moli 15% ga kamaygan, bu esa fermerlarga resurslarni tejash imkoniyatini bergan.

Hindistondagi tajribalar. Hindistonda quruq iqlim sharoitida moslashtirilgan bug‘doy va guruch navlari bo‘yicha tajribalar o‘tkazilgan. Masalan, Uttar-Pradesh shtatida o‘tkazilgan tadqiqotlarda yuqori hosildor navlar hosildorlikni 18-22% ga oshirgan (Braun, 2021, 52-bet). Bundan tashqari, fermerlarning xarajatlari o‘rtacha 12% ga qisqargan. Suvni tejaydigan texnologiyalar bilan birgalikda yuqori hosildor navlarni qo‘llash natijasida suv resurslari iste’moli 30% ga kamaygani alohida e’tiborga molik.

Niderlandiya tajribasi. Niderlandiyada issiqxona texnologiyalari bilan birga yuqori hosildor pomidor va bodring navlarini yetishtirish bo‘yicha olib borilgan tajribalar mahsuldorlikni ikki barobarga oshirgan. Bir gektar yerda o‘rtacha 80 tonna hosil olinib, bu Yevropa mamlakatlari orasida eng yuqori ko‘rsatkichlardan biri sifatida qayd etilgan (FAO hisoboti, 2023y).

Texnologiyalar va mexanizatsiya vositalaridan bilan yuqori hosildor navlardan oqilona foydalanish fermerlarga yiliga 25-30% ko‘proq foyda keltirgan.

Mahalliy tajribalar. O‘zbekiston sharoitida yuqori hosildor navlarning iqtisodiy samaradorligini baholash uchun Samarqand viloyatida ayrim fermer xo‘jaliklarida tajribalar o‘tkazilgan. Ya’ni, bug‘doyning yuqori hosildor va qurg‘oqchilikka chidamli navlari, jumladan, "Qorako‘l 22" va "Samarqand 80" tanlangan. Bu navlar mahalliy tuproq va iqlim sharoitlariga mos kelishi uchun tavsiya etilgan. Tajriba uchun 10 gektar yer ajratilgan. Bunda yerning 5 gektariga an’anaviy bug‘doy, qolgan 5 gektariga esa yuqori hosildor navlar ekilgan. Tajribaning har bosqichi (ekish, sug‘orish, parvarish, hosil yig‘ish) kuzatilib, hosildorlik va iqtisodiy samaradorlik ko‘rsatkichlari qayd etilib borilgan.

Natijalar natural va qiymat samaradorligi bilan hisob-kitob qilinganda, yuqori hosildor navlardan o‘rtacha 18% ko‘proq hosil olindi (an’anaviy bug‘doy navlari bilan taqqoslaganda, bu gektaridan 0,8 tonna qo‘shimcha hosil olishni anglatadi).

Shuningdek, yuqori hosildor navlardan foydalanish natijasida fermerlarning sof daromadi yiliga 12 million so‘mga oshdi. Bu yerga sarflangan investitsiyaning qaytish davrini atigi bir mavsumga qisqartirdi.

Agar resurslardan samarali foydalanish nuqtai-nazaridan qaralsa, qishloq xo‘jaligida ishlatilgan suv miqdori 10% ga, o‘g‘itlar iste’moli esa 12% ga qisqargan. Bu nafaqat iqtisodiy foyda, balki ekologik barqarorlikni ham ta’minlash imkonini beradi.

Tajribada ishtirok etgan fermerlarning aksariyati yuqori hosildor navlardan foydalanishni davom ettirish niyatida ekanligini bildirdi. Buning sababi, ushbu navlarning xarajatlarni qisqartirishi va bozorga ko‘proq mahsulot yetkazib berish imkoniyatini taqdim etishidir.

Xorojiy va mahalliy tajribalarning umumiy xulosasi shuni ko‘rsatadiki, yuqori hosildor navlardan foydalanish iqtisodiy samaradorlikni oshirishning samarali vositasidir. Shu bilan birga, fermerlarga texnik va moliyaviy ko‘mak berish, yangi navlarning mahalliy sharoitlarga moslashtirilgan variantlarini kengaytirish zarur.

Xorijiy tajribalarni O‘zbekiston sharoitida qo‘llash uchun iqlim va tuproq holatini hisobga olish zarur. Samarqandda olib borilgan tajribalar hosildorlikning sezilarli darajada oshishini ko‘rsatgan bo‘lsa-da, ayrim cheklovlar mavjud:

- birinchidan, xarajatlarning yuqoriligi. Yuqori hosildor navlarning urug‘lik qiymati mahalliy urug‘larga qaraganda qimmat bo‘lib, fermerlar uchun moliyaviy yuk bo‘lishi mumkin.
- ikkinchidan, texnologiya va bilimlarning yetishmasligi. Ko‘p fermerlar zamonaviy texnologiyalardan foydalanish ko‘nikmasiga ega emaslar.

Yuqoridagi kamchiliklarga qaramay, yuqori hosildor navlarni qo‘llash mamlakatning oziq-ovqat xavfsizligini mustahkamlash va qishloq xo‘jaligi eksport salohiyatini oshirishda eng muhim yo’nalish ekanligini e’tirof etish mumkin.

Yuqori hosildor navlardan foydalanishning iqtisodiy samaradorligi xorijiy tajribalar va mahalliy tadqiqotlar orqali tasdiqlandi. Bu navlar hosildorlikni oshirishini, fermerlarning daromadini ko‘paytirishini va resurslardan samarali foydalanishda muhim omil bo‘lib xizmat qilishini hayotiy haqiqat ekan, kelgusida davlat va xususiy sektor tomonidan subsidiya va texnologiyalarni keng joriy etish orqali bu sohani rivojlantirish tavsiya etiladi.

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AMALIY FANLARNI O‘QITISHDA MUAMMOLI O‘QITISH TEXNOLOGIYALARIDAN FOYDALANISH

ANNOTATSIYA:*Amaliy fanlardan muammoli o‘qitish, bilimlarni ongli va mustahkam o‘zlashtirishda, atrof – muhitda o‘zining faol munosabatini belgilab olishda va o‘quvchilarning bilish faoliyatini jonlantirishda katta imkoniyatga ega.*

Kalit so‘zlar: *Amaliy fanlar, muammoli o‘qitish, didaktik tamoyil, muammoli vaziyat, evristik metod, axborot.*

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THE USE OF PROBLEM-BASED TEACHING TECHNOLOGIES IN TEACHING APPLIED SCIENCES

ANNOTATION:*The problem-based teaching of applied subjects has great potential in ensuring conscious and solid assimilation of knowledge, determining one's active attitude towards the environment, and stimulating students' cognitive activity.*

Keywords: *Applied sciences, problem-based teaching, didactic principle, problematic situation, heuristic method, information.*

Bugungi kunda yurtimizda zamonaviy ta’lim tizimi yangilanib, yangi pedagogik va innovatsion texnologiyalar jadal rivojlanib bormoqda. Hozirgi kunda samarador o‘qitish texnologiyasi – bu muammoli o‘qitishdir. Uning vazifasi faol bilish jarayoniga undash va tafakkurda ilmiy – tadqiqot uslubini shakllantirishdir. Muammoli o‘qitish ijodiy, faol shaxs tarbiyasi maqsadlariga mos keladi.

Muammoli o‘qitish jarayonida o‘quvchining mustaqilligi o‘qitishning reproduktiv shakllariga nisbatan tobora o‘sib boradi.

Hozirgi pedagogikaga oid adabiyotlarda muammoli o‘qitishning turli ta’rif va tavsiflari bor. Bizningcha, nisbatan to‘liq va aniq ta’rif M.I.Maxmutov tomonidan berilgan bo‘lib, unda muammoli o‘qitish mantiqiy fikrlar tadbirlari (tahlil, umumlashtirish) hisobga olingan, o‘rgatish va dars berish usullarini qo‘llash qoidalari va o‘quvchilarning tadqiqot faoliyatlari qonuniyatlarining (muammoli vaziyat, bilishga bo‘lgan qiziqish va talab) tizimi sifatida izohlanadi.

Muammoli o‘qitishning mohiyati o‘qituvchi tomonidan o‘quvchilarning o‘quv ishlarida muammoli vaziyatni vujudga keltirish va o‘quv vazifalarini, muammolarini va savollarini hal qilish orqali yangi bilimlarni o‘zlashtirish bo‘yicha

ularning bilish faoliyatini boshqarishni tashkil etadi. Bu esa bilimlarni o‘zlashtirishning ilmiy – tadqiqot usulini yuzaga keltiradi. Ma’lumki, o‘qitishning har qanday asosida o‘quvchi faoliyatining muayyan qonuniyatlari, shaxs rivoji va ular negizida shakllangan pedagogik fanning tamoyillari va qoidalari yotadi. O‘quvchining bilish faoliyati jarayoni mantiqiy bilish ziddiyatlarini hal qilishda obyektiv qonuniyatlari didaktik tamoyil – muammolikka tayanadi.

O‘qitishning hozirgi jarayoni tahlili psixolog va pedagoglarning fikrlash muammoli vaziyat, kutilmagan hayrat va mahliyo bo‘lishdan boshlanadi, degan xulosalari haqiqatga yaqin ekanligini ko‘rsatadi. O‘qitish sharoitida o‘quvchining o‘sha psixik, emotsional va hissiy holati unga fikrlash va aqliy izlanish uchun o‘ziga xos turtki vazifasini bajaradi.

Muammoli vaziyat muayyan pedagogik vositalarda maqsadga muvofiq tashkil etiladigan o‘ziga xos o‘qitish sharoitida yuzaga keladi. Shuningdek, o‘rganilgan mavzular xususiyatlaridan kelib chiqib, bunday vaziyatlarni yaratishning maxsus usullarini ishlab chiqish zarur. Shunday qilib, amaliy fanlarni o‘qitishdan muammoli vaziyat shunchaki “fikr yo‘lidagi kutilmagan to‘siq” bilan bog‘langan aqliy mashaqqat holati emas. U bilish maqsadlari maxsus taqozo qilgan aqliy taranglik holatidir. Bunday vaziyat negizida avval o‘zlashtirilgan bilim izlari va yangi yuzaga kelgan vazifani hal qilish uchun aqliy va amaliy harakat usullari yotadi. Bunda har qanday mashaqqat muammoli vaziyat bilan bog‘liq bo‘lavermasligini ta’kidlash o‘rinli bo‘ladi. Yangi bilimlar avvalgi bilimlar bilan bog‘lanmasa, aqliy mashaqqat muammoli bo‘lmaydi. Bunday mashaqqat aqliy izlanishni kafolatlamaydi.

Shunday qilib, muammoli vaziyatning mohiyati shuki, u o‘quvchi tanish bo‘lgan ma’lumotlar va yangi faktlar, hodisalar (qaysiki, ularni tushunish va tushuntirish uchun avvalgi bilimlar kamlik qiladi) o‘rtasidagi ziddiyatdir. Bu ziddiyat bilimlarni ijodiy o‘zlashtirish uchun harakatlantiruvchi kuchdir.

Muammoli vaziyatning belgilar quyidagilar:

• O‘quvchiga notanish faktning mavjud bo‘lishi;

• Vazifalarni boshqarish uchun o‘quvchiga beriladigan ko‘rsatmalar, yuzaga kelgan bilish mashaqqatini hal qilishda ularning shaxsiy manfaatdorligi.

Muammoli vaziyatdan chiqa olish hamma vaqt muammoni, ya’ni nima noma’lum ekanligini, uning nutqiy ifodasi va yechimini anglash bilan bog‘langan.

Amaliy fanlarni o‘qitishda muammoli o‘qitish mashg‘ulotlarini tashkil etish va o‘tkazishning muhim tomoni shundaki, bunda o‘qituvchi uning ham ta’limiy, ham tarbiyaviy funksiyasini yaxshi anglab olgan bo‘lishi talab qilinadi. O‘qituvchi hech qachon o‘quvchilarga tayyor haqiqatni (yechimni) berishi kerak emas, balki ularga, bilimlarni olishga turtki berishi, mashg‘ulotlarda va hayot faoliyatlarida zarur bo‘lgan axborot, voqea, vaqt va hodisalarni ongida qayta ishlashlariga yordam berishi lozim bo‘ladi.

Muammoli o‘qitish bilimlarni ongli va mustahkam o‘zlashtirishda, atrof – muhitda o‘zining faol munosabatini belgilab olishda, o‘quvchilarning bilish faoliyatini jonlantirishda katta imkoniyatga ega.

Muammoli o‘qitishning tashkil etishning birinchi sharti o‘quv axborotlarining takomillashib borish tizimidir.

Muammoli o‘qitishning ikkinchi shartida muammoli o‘qitish amalga oshiriladi va unda axborotning o‘quv vazifasiga o‘tkazilishi vaqtida uni yechish usulini tanlash imkoniyati ko‘zda tutiladi.

Muammoli o‘qitishning uchinchi sharti ta’lim oluvchining subyektiv mavqei, ularning bilish maqsadlarini anglab yetishi va qaror qabul qilishi, masalani hal qilish va natijani qo‘lga kiritish uchun o‘zlarining ixtiyorida bo‘lgan vositalarni baholay bilishidir.

Muammoli o‘qitishga asoslangan amaliy mashg‘ulotlarni o‘tkazish metodikasi unda qo‘llanadigan uslublarni asoslab berishni talab qiladi. Bunda: ijodiy, qisman - ijodiy yoki evristik, axborotlarni muammoli bayon qilish, axborotni muammoli boshlash orqali bayon qilish asosiy uslublar hisoblanadi.

Xulosa qilib shuni aytish mumkinki, materialni muammoli bayon qilishda tashabbus o‘qituvchi tomonidan amalga oshiriladi va tobora faollashtirib boriladi. O‘qituvchi yangi materialni bayon qilishda uning yechilishini o‘zi ta’minlaydi. Bunda o‘qituvchi ziddiyatlarni ta’kidlaydi, uni barchaga eshittirib muhokama qiladi, mulohazalarini bildiradi, haqiqatni faktlar, mantiqiy isbotlar tizimi yordamida asoslaydi, o‘qituvchi bu tadbirlarni muvaffaqiyatli amalga oshira olsa, o‘quvchilar uning fikrlari borishiga diqqat bilan qo‘shilib boradi. Muammolarning yechilish oqimiga qo‘shilib ketadi, birga fikr yuritadi, birga hayajonlanadi, shu tariqa mashg‘ulotning qatnashuvchisiga aylanadi. Bunda o‘qituvchi o‘quvchining bilish jarayonini savollar berish, savolga savol berish yo‘li bilan boshqaradi va shu orqali sinfdagi o‘rganilayotgan materiallar bo‘yicha ziddiyatlarga diqqatni jalb qiladi va o‘quvchilarni o‘ylab fikr yuritishga majbur qiladi. O‘qituvchi tushunilmagan savolni hal qilishdan oldin o‘quvchilar o‘zlaricha o‘z javoblarini tayyorlab qo‘yadilar va uni ma’lum muddat o‘tgach o‘qituvchining fikri va xulosasi bilan taqqoslaydilar.

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BUXORO VILOYATIDAGI GEOEKOLOGIK HOLATNING KOMPONENTLAR BO’YICHA INDIKATORLAR TAHLILI

Annotatsiya*: Yurtimizda boshqa sohalar qatori ekologik barqarorlikni ta’minlash, aholining qulay tabiiy muhitga ega bo‘lishi uchun zarur shart-sharoitlar yaratish, tabiiy resurslardan oqilona va samarali foydalanish, yuzaga kelayotgan ekologik muammolarning oldini olish va ularning salbiy oqibatlarini bartaraf etish masalalariga ham jiddiy e’tibor qaratib kelinmoqda. Geoekologik muammolarni bartaraf etish hamda hudud tabiiy muvozanatini saqlab qolish, Buxoro viloyati va uning geoekologik holatini kompleks o’rganish, vujudga kelayotgan ekologik muammolarni hal etish mazkur ishning dolzarbligida o’z aksini topadi.*

Kalit so’zlar: *geoekologiya, komponent, indicator, ruxsat etilgan me’yor, geotizim, cho’llanish, tabiiy va antropogen omillar, geoekologik barqarorlik, landshaft, minerallashuv, geoekologik vaziyat.*

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ANALYSIS OF INDICATORS OF THE GEOECOLOGICAL SITUATION IN BUKHARA REGION BY COMPONENTS

Abstract: *In our country, among other areas, serious attention is also paid to the issues of ensuring environmental stability, creating the necessary conditions for the population to have a comfortable natural environment, rational and effective use of natural resources, preventing emerging environmental problems and eliminating their negative consequences. is being addressed. Eliminating geo-ecological problems and preserving the natural balance of the area, comprehensive study of Bukhara region and its geo-ecological situation, solving emerging environmental problems is reflected in the urgency of this work.*

Key words: *geoecology, component, indicator, permissible standard, geosystem, desertification, natural and anthropogenic factors, geoecological stability, landscape, mineralization, geoecological situation.*

Butun dunyoda jamiyatning rivojlanib borishi bilan insonlarning atrof-muhitga bo'lgan ta'siri o'zgarib boradi. Rivojlanish barcha jabhalarda tezlashib borar ekan, biosferadagi ekologik muammolar ham ko'payib, yiriklashib, tirik tabiatga havf sola boshlaydi.

Ilmiy-texnika taraqqiyoti, texnogen rivojlanishlar, kimyo sanoati, atom stansiyalari -bular insonlarning yashashi va turmush tarzi uchun juda kata qulayliklar tug'diradi, ammo tabiat va undagi tirik organizmlarning rivoji uchun ekologik xavf olib keladi.

Insonlar ko'pincha unutib qo'yishadi, o'zlari ham shu tabiatning bir bo'lagi ekanliklarini, va shu holatda tabiatga sezilarli tasir o'tkazib undagi muvozanatni buzadilar. Respublikamizning turli hududlarida geoekologiya va atrof-muhitni muhofaza qilish muammolarining jiddiy keskinlashuvi kun sayin ortib bormoqda. Jumladan Buxoro viloyatida ham geoekologik barqarorlik izidan chiqib vaziyat keskin tus olmoqda.

L.N.Babushkin va N.A.Kogayning 1964-yil O'zbekiston hududida ajratgan tabiiy geografik tekislik zonalarining barchasi o'ziga xos nafaqat tabiiy, balki ijtimoiy-iqtisodiyko'rsatgichlarga ega. Ulardan Buxoro viloyati hududi barqaror rivojlanish indikatorlarining mustaqil lokal taksanomik birliklar darajasida tadqiqot obyekti bo'la oladi. Chunki u Orol inqirozi, iqlim o'zgarishi, tuproq sho'rlanishi va cho'llanish jarayonlarini o'zida keskin namoyon etayotgan, yagona geotizimdagi barqaror rivojlanish indikatorlarini tabiat va jamiyat uyg'unligida olib borishni talab etadigan ekologik inqirozli hududdir.

Hozirda Buxoro viloyatida hududda mavjud geoekologik muammolar - tabiiy va antropogen omillar ta'sirida yuzaga kelgan quyidagi ko'rsatgichlarda namoyon bo'lgan:

- Suv resurslarining minerallanish va ifloslanish darajasi respublikada ruxsat etilgan meyorlar (REM) dan 2-3 barobar ortiqligi,
- Yer osti suvlarining sho'rlanishi 10000-15000 mg/l gacha yetib borishi
- Aholining sifatli ichimlik suvi bilan taminlanganlik darajasining pastligi (qishloqlarda markazlashgan suv taminoti 79,1 % dan oshmasligi)
- Sug'oriladigan tuproqlarning 90% dan ortig'i turli darajada sho'rlanganligi
- Bir yoshgacha bo'lgan bolalar o'limi har 100 000 kishiga 32,4 ‰ tengligi
- Saraton kasalligi respublika ko'rsatgichlaridan 2, o'tkir ichak, siydik yo'li, nafas yo'llari bilan kasallanganlar sonini esa 2 barobarga ortiqligi
- Cho'llanish jarayoni Buxoro-Qorako'l va Qorovulbozor voha geotizimlarining 199,6 ming ga sug'oriladigan maydoniga xavf solayotgani va boshqa qator holatlarda ko'rishimiz mumkin.
- Yuqoridgi tahlil natijalaridan okrugda inson va tabiat o'rtasidagi munosabatlar o'ta keskinlashib borayotganligini ko'rsatadi.

Atmosfera havosiga doir ma'lumotlar Buxoro viloyatining voha geotizimlarini aks ettiruvchi Buxoro shaharlarida joylashgan

meteostansiyalar orqali tahlil qilindi. Buxoro shahrida atmosfera havosining chang zarrachalari bilan ifloslanish darajasi 0,17 mg/m^3 ni tashkil etib, u REMdan 2,2 marta ortiq bo'lgan. Shaharda eng yuqori ifloslanish ko'rsatgichi 2010-2012, 2015 yillarda kuzatilgan va REMdan 2,5 martaga ortiqligi qayd etilgan.

Oltingugurt ikkioksidi bilan 2010-2020 yillardagi ifloslanish ko'rsatgichlari Buxoro shahrida o'rtacha 0,017 mg/m^3 tashkil etib, u REMdan 62%ga , minimal miqdor 2006 yilda esa 72% ga kam bo'lgan. Uglerod oksidi bilan ifloslanish esa kuzatuv yillarida o'rtacha 2,3 mg/m^3 u REMdan 20% ga kam bo'lgan. Eng yuori ko'rsatgich 2005, 2009, 2013 yillarda 3mg/m^3, eng kam ko'rsatgich 2007 yilda 1mg/m^3 tashkil etgan. Azot ikkioksidi bo'yicha o'rtacha ifloslnish -0,18 mg/m^3 ni tashkil qilib, bu REMdan 55% ga kam, maksimal 2007-2010,2012 yillarda -50%, minimal 2005-2006 yillarda 0,01mg/m^3 ni tashkil qilgan. Mazkur ko'rsatgichlarning REM talablaridan yuqoriligi o'z navbatida hududdagi shahar aholisining ko'payganlig, unga mos ravishda ishlab chiqarish korxonalari hamda ko'chmas ifloslantiruvchi manbalar sonining ko'payganligi bilan izohlanadi.[6]

Tahlillar natijasida viloyatda atmosfera havosining chang va qattiq zarrachalar hamda uglerod oksidi bilan ifloshlanish barcha hududlarda yuqori ko'rsatgich qayd etib, umumiy ahamiyat kasb etsa, ammiak bilan ifloslanish viloyatda sanoat korxonalari ko'p joylashgan shimoli-sharqiy qismida yuqoriligi aniqlandi.

Buxoro viloyatining asosiy suv manbalari Amu-Buxoro va Amu-Qorako'l kanallari, Zarafshon daryosi hamda yer osti suvlari hisoblanadi. Transchegaraviy suv havzalari hisoblangan Amu-Buxoro va Amu-Qorako'l kanallari Amudaryodan yagona gidroinshoot orqali suv bilan taminlanadi, ularning suv sarfi 100-120 m$^{3/sek.ni}$ tashkil etadi. Viloyat hududida Quyimozor, To'dako'l va Sho'rko'l suvomborlari joylashgan bo'lib, ular asosan Buxoro hamda Qorako'l vohalaridagi yerlarni suv bilan taminlaydi. Amudaryo suvlari bilan nafaqat Buxoro, Qorako'l vohalari balki viloyatning shimoli-sharqiy qismi ham sug'oriladi.

Respublikamizda biologik xilma – xillikning barqaror saqlanishini taminlovchi muhofaza etiladigan tabiiy hududlarning umumiy maydoni 2,34 mln gektarga teng bo'lib, respublika umumiy maydonining 5%dan ortig'ini tashkil etadi. Vaholanki, Konvensiyaga muvofiq uning azolaridagi mamlakat maydonining 10% dan kam bo'lmagan qismini alohida muhofaza etiladigan hududlar egallashi lozim.

Buxoro viloyati hududida 1 ta Jayron ekomarkazi va 3 ta (Dengizko'l, Qumsulton, Xadicha) davlat buyurtmaxonasi hamda 3 ta (Vardonze, Poykent, Varaxsha) tabiat yodgorliklari mavjud.

Shakllanib borayotgan muhofaza etiladigan tabiiy hududlar tizimining muhim omillaridan biri xususiy buyurtmaxonalar va parvarishxonalarni tashkil etish. Shunga asosan 2008 yilning aprelida

Qizilqum cho'liga tutash g'arbiy Malikcho'l massivida 300 gektar maydonni tashkil etuvchi Birlashgan Arab Amirliklarining Yo'rg'a tuvaloqni asrash markazi (ESEN) tashkil etilgan. Loyihaning asosiy vazifasi Osiyo yo'rg'a tuvalog'ini ko'paytirish va ularni yovvoyi tabiatga qo'yib yuborish orqali O'zbekistonda yashab ketishiga qobil bo'lgan populyatsiyasini qo'llab quvvatlashdir.

Osiyo yo'rg'a tuvalog'i yo'qolib ketish xavfi ostidagi qush turi hisoblanib, tabiatni muhofaza qilish xalqaro Ittifoqi tomonidan "zaif" tur sifatida tasniflangan. Ushbu markaz tomonidan parvarishlangan qushlarning tabiatga qo'yib yuborilishi muntazam amalga oshirilmoqda. Jumladan, 2012 yilda bor yo'g'I 23 ta, 2014 yili 700 ta, 2018-yilda esa 2382 ta yo'rg'a tuvaloq tabiatga qo'yvorilgan. Shu bilan birga mazkur turning yovvoyi tabiatdagi populyatsiyasini mustahkamlashga hissa qo'shilgan. [7]

Biologik xilma-xillikni taminlashda nafaqat milliy bog'lar hamda qo'riqxonalar balki ekomarkazlarning ham o'ziga xos o'rni bor. O'zbekiston respublikasi prezidentining 2019-yil 20- martdagi qaroriga muvofiq ekomarkaz " Buxoro ixtisoslashtirilgan Jayron pitomnigi" maqomini olgan. Ekomarkaz faoliyati 1977 yilda Buxoro jayronlarini muhofaza qilish maqsadida tashkil etilgan bo'lib, bugungi kunga qadar o'zining sermahsul 42 yillik tarixiga ega. Ushbu ekomarkaz okrugning janubi-sharqida joylashgan bo'lib, uning umumiy maydoni 16522 ga ni tashkil etib, shartli ikki hududga ajratilgan. Shundan, birinchi hududning yer maydoni 5145 ga dan iborat bo'lib, uning atrofi balandligi ikki metrli sim to'r bilan o'rab olingan. Ushbu hududda ko'paytirilayotgan noyob tur hayvonlarning asosiy qismi saqlanib, ko'payish soni malum miqdorda yetganidan so'ng ularning bir qismi Ekomarkazning atrofidagi himoyalanmagan 11377 ga ni tashkil qiladigan 2- hududga qo'yib yuboriladi.

Jayron ekomarkazida nafaqat kamyob hisoblangan jayronlar, balki O'zbekiston Respublikasi va Xalqaro Qizil kitobga kiritilgan hayvonlar jumladan: buxoro bug'usi (xongul), prejaval otlari, qulon, burama shoxli echki(morxo'r), buxoro tog' qo'ylari hamda O'zbekiston qizil kitobiga kiritilgan bir qancha qushlar va boshqa noyob turlarni alohida muhofaza ostiga olinib, ko'paytirish choralari ko'rilmoqda.[6]

Buxoro viloyatida muhofaza etiladigan tabiiy hududlarning umumiy maydoni 100 ming ga dan ortiq bo'lib, ushbu ko'rsatgich okrug jami maydoning 2,5% ni tashkil qiladi. Mazkur ko'rsatgich "Bioxilma-xillikni taminlash bo'yicha xalqaro konvensiya" talablaridan 4 barobarga kamdir.

Buxoro viloyati hududida malum turlarni ko'patrirish maqsadida Dengizko'l, Qumsulton, Xadicha davlat buyurtmaxonalari tashkil etilgan. Ularda oq amur, oq do'ngpeshona kabi baliqlar ko'paytirilmoqda. Bundan tashqari, "Qizil kitob"ga kiritilgan Turkiston mo'ylovdor balig'ini uchratish mumkin.

Viloyatda tashkil etilgan muhofaza etiladigan tabiiy hududlarning yana bir shakli - Vardanza, Poykent, Varaxsha kabi tabiat yodgorliklaridir.

Mazkur hududlar noyob, o'rnini to'ldirib bo'lmaydigan, tarixiy, ekologik, ilmiy, madaniy, va estetik jihatdan qimmatli tabiiy obyektlar hisoblanib, alohida muhofaza etiladigan tabiiy hududlar sifatida etirof etilgan.

O'zbekistonda geoekologik vaziyat o'rtacha barqaror holatda deb qaralsa ham Xorazm, Qoraqalpog'iston, Buxoro vohalarida tang geoekologik vaziyat hukmron. Ayniqsa bugungi kunda Buxoro viloyati hududidagi achinarli geoekologik holat mamlakatimiz reytingida Orol dengizi qurushi muammosidan keyingi 2- yirik muammoli hudud hisoblanadi.

Buxoro vohasida avvalo aholini ichimlik suvi bilan ta'minlash masalasi murakkab, shu asosda kasalliklar tarqalishi bo'yicha yuqori ko'rsatkichlar hukmron, aholi orasida o'lim ko'rsatkichlari baland. Tuproqlarning sho'rlanishi, vohalarda grunt suvlari sathining ko'tarilib ketganligi, jiddiy ahamiyatga ega.

Buxoro viloyatida bunday geoekologik holat yuzaga kelishida asosiy sabablardan biri bu vohaning Zarafshon daryosi quyi oqimida joylashganligidandir. Daryoning quyi qismiga tomon, chetdan havo va suv orqali keladigan ifloslovchi moddalar miqdorining oshishi hisobiga, antropogen yuk ko'rsatgichlari keskin ko'tarilishi , natijasida ekologik vaziyat " keskin " darajadan " tang " darajaga qadar yetgan.[10]

Nazariy jihatdan qaraydigan bo'lsak, daryo havzasida joylashgan landshaftlar ekologik holatiga ko'ra turli sharoitga ega. Daryoning yuqori qismidagi landshaftlar atmosfera yog'inlari tufayli yuviladi va "o'z-o'zini" tozalaydi, o'rta qismidagilar esa qisman yuviladi, qisman yuqoridan kelgan yotqiziqlarni to'playdi. Nihoyat, quyi qismidagi (deltada) landshaftlar esa, yuqori qismlardan kirib kelgan erigan va qattiq oqiziqlarni qabul qiladi, to'playdi. Natijada kimyoviy, baktereologik ashyolar bilan o'z-o'zini ifloslaydi.

Shu o'rinda professor Isroil Nazarov achchiq tuyulsa ham "Daryoning boshidagi asal ichadi, oxiridagi esa zahar " degan hikmatomuz qoraqalpoq maqolini keltirar edilar.

Buxoro vohasida o'tgan asrning 70- yillarida sho'rlanmagan yoki juda kuchsiz sho'rlangan yerlar umumiy sug'oriladigan yerlarning 70%ini tashkil qilgan. 2001-yilga kelib, sho'rlanmagan yerlar 10% gina qoldi.

Buxoro va Qorako'l vohalarida nisbatan toza chuchuk suv 60-150 m chuqurliklarda to'plangan. S.V. Myagkov (2003) fikricha, 60 m chuqurlikkacha inson ta'sirida suv sho'rligi ortib ketgan bo'lsa 150 m dan pastda esa chuqur qatlamlardagi relikt tuzlarning ta'siri katta.

3-jadval

Buxoro viloyatidagi geoekologik vaziyat

T/R	Vohalar	O'rtacha keskin %	Kuchli keskin %	Tang %	Jiddiy %
1	**Buxoro**	30	40	25	5-7
2	**Qorako'l**	10	35	55	-

Agarda geoekologik vaziyatni yaxshilash bo'yicha tezkor tadbirlar ishlab chiqilmasa, yaqin 15-20 yil ichida vohalarning 50% dan ortiq hududlarida geoekologik vaziyat tang, ba'zi hududlarda xavfli darajaga yetadi, sifatsiz dehqonchilik mahsulotlariga va yomon ekologik vaziyatga bog'liq turli kasalliklar ko'payadi.

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KANALLARDAGI SUV ISROFINI KAMAYTIRISH USULLARI (AMU-QORAKO'L KANALI MISOLIDA)

Annotatsiya: *Maqolada sug'orish kanallarida sodir bo'ladigan bug'lanish va kanal o'zanidagi filtratsiyalar natijasidagi suv isrofi o'rganilgan. Dala kuzatuv natijalari asosida kanal foydali ish koeffitsienti hisoblangan.*

Kalit so'zlar: *Sug'orish kanali, bug'lanish, filtratsiya, kanal eni, foydali ish koyeffitsiyenti, kanal qoplamalari.*

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METHODS TO REDUCE WATER WASTE IN CANALS (On the example of the Amu-Karakul Canal)

Abstract: *The article studies water loss due to evaporation and filtration in the canal bed in irrigation canals. Based on the results of field observations, the canal efficiency coefficient was calculated.*

Keywords: *Irrigation canal, evaporation, filtration, canal width, efficiency coefficient, canal linings.*

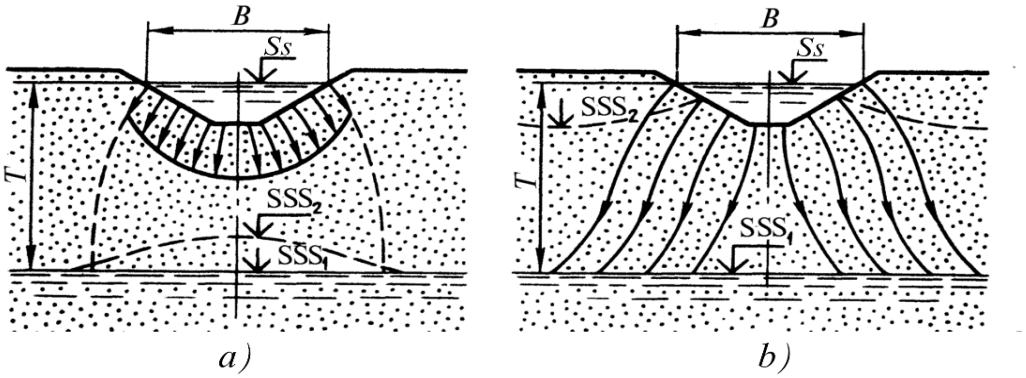
Kirish. Ma'lumki, Respublikamiz bo'yicha jami sug'orish kanallari 28 458 km ni tashkil qilib, shundan tuproq o'zanli kanallar 18 718 km, beton qoplamali kanallar 9 203 km, lotok tarmoqli kanallar 536 km dan iborat. Sug'orish kanallardagi jami gidrotexnik inshootlar soni 54 432 tani tashkil qiladi. Bundan ko'rinib turibdiki, mavjud sug'orish kanallarining 65 % dan ortig'i tuproq o'zanli kanallar hissasiga to'g'ri kelmoqda bu esa o'z navbatida o'zanda yuz beradigan filtratsiya miqdori va bug'lanish natijasida kanallarda suv isrofi vujudga keladi.

Kanaldagi suv isrofi-bug'lanish va o'zanida yuz beradigan filtratsiya miqdorining yig'indisidan iborat bo'ladi. Bug'lanish miqdori kanal qurilgan

joyning iqlim sharoitiga, kanalning ko‘ndalang kesimining geometrik o‘lchamlariga bog‘liq.

Amu-Qorako‘l kanalida olib borilgan tajribalar bug‘lanish natijasida bo‘ladigan suv yo‘qolishi kanalning 1,0 m^2 yuzasiga o‘rtacha yiliga 0,4…0,9 m ni tashkil etishini ko‘rsatgan. Kanal tarmog‘ida bo‘ladigan asosiy suv isrofi filtratsiya hisobiga bo‘ladi. Dala sharoitida o‘tkazilgan tajribalar natijasi suv manbasidan to dalagacha bo‘lgan kanallar tizimining foydali ish koeffitsenti 0,60...0,65 ga teng ekanligini ko‘rsatgan. Kanaldan is’temolchilarga suv taqsimlashda filtratsiya hisobiga bo‘ladigan yo‘qolishlarni hisobga olish zarur. Bundan tashqari, katta miqdordagi filtratsiya kanaldan foydalanish ishonchliligini kamaytiradi, yerlarni sho‘rlanishiga va botqoqlanishga olib keladi, kanal qirg‘oqlarini o‘pirilishini keltirib chiqaradi. [1,2]

Kanallardagi filtratsiya erkin va erkin bo‘lmagan turlarga bo‘linadi (1-rasm).



1-rasm. Kanallardagi filtratsiya suvlari sxemasi.
a-erkin; b - erkin bo‘lmagan

Suvning filtratsiya hisobiga yo‘qolishi (so‘g‘orish kanalining 1 km uzunligi uchun) A.A. Kostyakov [2] ifodasi yordamida aniqlanadi:

tez suv o‘tkazuvchan gruntlar uchun (qumloq, yengil sog‘ grunt)

(1)

o‘rtacha suv o‘tkazuvchan gruntlar uchun (yengil sog‘ tuproq, sog‘ grunt)

(2)

kam suv o‘tkazuvchan gruntlar uchun

(3)

bunda – kanaldan oqib o‘tadigan netto suv sarfi

Kanal uzunligi bo‘yicha filtratsiyaga absolyut yo‘qolishi:

(4)

Bunda l – kanal trassasi uzunligi

Amu-Qorako‘l kanali o‘zanidagi grunt turi qumloq bo‘lganligini inobatga olgan holda kanalning 100 m uzunligi uchun sarf 250 /s bo‘lgandagi filtratsiyaga absolyut yo‘qolishini (1) va (4) formulalar orqali aniqlanganida kanalning filtratsiya natijasida suv isrofi 100 m uzunligiga o‘rtacha 600 m ni tashkil etishini ko‘rsatdi.

Kanal o‘zanini mustahkamlash: Kanalda yuz beradigan filtratsiyani kamaytirish uchun kanal o‘zaniga qoplamalar o‘rnatiladi. O‘rnatiladigan

qoplamaning suv o‘tkazuvchanlik xususiyati kanal o‘zanidagi gruntning xususiyatidan past bo‘lishi shart.

Tabiiy loyqa cho‘ktirishda bu zarrachalar kanalga suv bilan birga keladi. Sun’iy loyqa cho‘ktirish suvga loy zarralarni qo‘shib, ularni mexanik usulda aralashtiriladi yoki kanalga loyqa yuboriladi. Loyqa yuborish bir jinsli bo‘lmagan qum va qumoq gruntlar uchun qo‘llaniladi. [3]

Filtratsiyaga qarshi qoplamalar kanallardan filtratsiya tufayli suv yo‘qolishlarini kamaytiradi. Ular loyli, gruntli, polimerli, asfaltbetonli bitumli, beton va temir betonli turlarga bo‘linadi. har bir holat uchun qoplama turi variantlarni texnik–iqtisodiy taqqoslash asosida tanlanadi. [3,4]

а) б)

2-rasm. Kanal o‘zanini betonlashga tayyorlash.

a) kanal o‘zanini profilini xosil qilish; b) kanal o‘zaniga poleietelin plyonka yotqizish; 1–kanalning gruntli o‘zani; 2–kanal qazgich; 3–kanalning plyonka bilan qoplangan o‘zani.

Xulosa: Kanallardagi filtratsion jarayonlar nobarqaror bo‘lganligi sababli ularni tadqiqlish murakkab hisob ishlarini talab qiladi. Kanaldagi suv isrofini kamaytirish uchun kanal o‘zanida yuqorida keltirilgan usullar orqali qoplamalar hosil qilish, kanalning foydali ish hajmini oshiradi va loyihaviy hisobiy suv sarfiga ega bo‘lishimiz uchun zamin yaratadi.

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BUXORO VILOYATIDAGI "BESHARIQ" GIDROUZELIDAN ISHONCHLI VA XAVFSIZ FOYDALANISH BUYICHA CHORA-TADBIRLAR

Annotatsiya*: Maqolada Besharik gidrouzelida olib borilgan dala tadqiqotlari asosida uning texnik holatiga tasir qiluvchi omillar sifatida: "Shoxrud" kanalni loyqa bosgan va qiyaliklari yiqilgan. Mazkur kanalning "Kobdun" suv olish inshootiga ulangan beton qismi yorilib, o'tgan yilga nisbatan yanada cho'kgan.*

Kalit so'zlar: *Gidrouzel, qirg'oq dambasi, loyqa bosishi, suv yuvishi.*

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MEASURES FOR RELIABLE AND SAFE USE OF THE "BESHARIQ" HYDRO NODE IN BUKHARA REGION

Abstract: *The article, based on field research conducted at the Besharik hydro-junction, identifies the following factors affecting its technical condition: the Shokhrud channel was silted up and its slopes collapsed. The concrete part of this channel connected to the Kobdun water intake has cracked and has sunk even further compared to last year.*

Keywords: *Hydro-junction, embankment dam, silting up, water washing.*

Kirish. "Beshariq" gidrouzelga qisqa tavsif: "Beshariq" gidrouzeli "Shoxrud" kanalining oxirgi gidrouzeli bo'lib, PK226+00 joylashgan, 1937 yilda ishga tushirilgan. Gidrouzelning vazifasi "Shoxrud" kanalidan keladigan suvni;

“Kobdun” kanali rostlagichi;
“Qarajeri” kanali suv chiqargichi;
“Jo‘yzar” kanali suv chiqargichi;
“Xushbegi” kanal suv chiqargichi;
“Jayxun” suv tashlamasiga

taqsimlab berishdan iborat. “Xachkab” gidrouzelidan boshlangan “Shoxrud” kanalining bosh qismida balandligi taxminan h=2.5 m va kanalning o‘rta qismida joylashgan “G‘oziobod” gidrouzelda ham balandligi taxminan h=1.5m bo‘lgan ostona (perepad) mavjud bo‘lib, ushbu kanal o‘zini o‘zi yuvuvchi hisoblanadi. Kanalning “Xachkab” gidrouzelidan “Beshariq” gidrouzeligacha bo‘lgan qismi qazilma-quyilma (vыemka-nasыp) bo‘lib o‘tgan.

“Shoxrud” kanalining suv o‘tkazish qobiliyati Q=66,0 m^3/s. Xizmat ko‘rsatadigan maydoni 39215 ga.

“Besharik” gidrouzeli Buxoro viloyati Buxoro tumani sug‘orma dehqonchiligi asosiy yerlarida joylashgan bo‘lib, u Buxoro viloyatining Buxoro va Kogon tumanlari qismiga to‘g‘ri keladi. Buxoro va Kogon tumanlari yer yuzasi asosan tekisliklardan iborat. Besharik gidrouzeli Qf=66,0 m^3/s suvni o‘tkazishga loyihalangan bo‘lib, bugunga kelib 84 yildan buyon ekspluatatsiya qilib kelinmoqda. Ya’ni “Uzsuvloyixa” loyihasi asosida 1937 yilda Buxoro tumani “Shoxrud” kanaliga quriladi.

Besharik gidrouzeli tarkibida quyidagi inshootlar loyihalangan.

1. Besharik gidrouzeli inshootlari qirqimi “Jayxun” tashlama kanali.
2. Besharik gidrouzeli inshootlari qirqimi “Xushberg” kanali suv chiqargichi.
3. Besharik gidrouzeli inshootlari qirqimi “Juyzar” kanali suv chiqargichi.
4. Besharik gidrouzeli inshootlari qirqimi “Karajeri” kanali suv chiqargichi.
5. Besharik gidrouzeli inshootlari qirqimi “Kobdun” kanali rostlagichi.

Suv olib keluvchi “Shoxrud” kanali suv o‘tkazish qobiliyati - 66,0 m^3/sek, tubining kengligi - 9,0 m, qiyaligi m=1,5, o‘rtacha chuqurligi 3,0 m. “Kobdun” kanali rostlagichi bir oraliqli to‘g‘ri burchakli, kengligi – 8,0 m, uzunligi – 5,0 m, balandligi – 2,82 m. Oraliq temir betonli xizmat ko‘prikchasi bilan yopilgan, kengligi – 1,1 m, suv o‘tkazish qobiliyati- 34,0 m^3/sek. Suv berishni boshqarish o‘lchami 6,0x2,5 metrli segmentli zatvorlar orqali amalga oshiriladi. “Jo‘yzar” kanali suv chiqargichi suv chiqargichning suv o‘tkazish qobiliyati - 16,0 m^3/sek, kengligi - 3,5 m, uzunligi - 10,2 va 6,22m, resbermaning uzunligi - 15,0 m, suv berishni boshqarish o‘lchami 3,5 x 2,5. metrli segmentli zatvorlar orqali amalga oshiriladi. “Qorajeri” kanali suv chiqargichining suv o‘tkazish qobiliyati 0,5 m3/sek, yassi suriluvchi zatvor bilan jihozlangan o‘lchami – 1x1 m. Qo‘l bilan ko‘tarilib tushiriladi. Devori monolit temir betondan yasalgan va risberma bor. “Xushberg” kanali suv chiqargichining suv o‘tkazish qobiliyati - 0,5 m^3/sek, suv o‘tkazish quvurdan iborat, kesimi – 1,25x1,25 m, uzunligi – 7,0 m, resbermaning uzunligi – 8,0 m. “Jayxun” tashlama suv chiqargichining suv chiqargich 23,0 m3/sek suvni o‘tkazishga mo‘l-jallangan bo‘lib, segmentli zatvor bilan jihozlangan, o‘lchami 5,4x2,5 m, kengligi 5,5 m.

Texnik xolatni yaxshilash va ishonchliligini oshirish bo‘yicha tavsiyalar;

- “Shoxrud” kanalni loyqa bosgan va qiyaliklari yiqilgan. Mazkur kanalning “Kobdun” suv olish inshootiga ulangan qismini betonlashtirish, va “Xushberg” arig‘ining dambasini mustaxkamlash.
- Gidrouzeldagi barcha zatvor va ularning mahkamlagichlarini ta’mirlash, zatvorlarni ushlab turuvchi konstruksiyalarni kuchaytirish va ularga korroziyaga qarshi doimiy ishlov berish zarur.
- Rostlagichlardagi avariya pazlari ta’mirlab, ularga mos o‘lchamda shandor tayyorlash kerak.
- Gidrouzeldagi energiyani so‘ndirish inshootlarni ta’mirlab, kanallarning ikki yon dambalarini mustaxkamlash.
- “Juyzar” kanali o‘zanini loyixaviy o‘lchamlarga keltirish kerak.
- Gidrouzelda favqulodda holatda harakat qilish rejasini ishlab chiqib, amalda sinab ko‘rish.
- Xavfsizlik dekloratsiyasini ishlab chiqish va uni tasdiklash.

Xulosa. “Besharik” gidrouzelining texnik xolatini o‘rganish bo‘yicha amaliyot davrida olib borilgan nazorat ishlari taxlilidan shuni xulosa kilish kerakki, gidrouzelda joylashgan barcha inshootlarda yilga bir marotaba mal’lum grafik asosida inshootlarda joriy ta’mirlash ishlarini olib borish lozim ekanligini ko‘rsatdi. Joriy ta’mirlash orqali zatvorlarning oldida cho‘kkan loyqalar tozalanishi, yilda ikki marotaba inshootlarni metal qismlari karroziya va eroziyaga karshi maxsus bo‘yoqlar bilan bo‘yalishi, ko‘tarish moslamalarining vintlari moylanishi, beton qismlarida yuz bergan yoriqlar yoki o‘zgarishlar yamalishi shart. Shuningdek, inshootlar tarkibiga kiruvchi gidropostlar doimo ishchi holatda saqlanishi lozim.

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OLIY TA'LIM MUASSASALARI MAGISTRATURA TALABALARINING TADQIQOT KO'NIKMALARINI SHAKLLANTIRISHGA QO'YILADIGAN TALABLAR

ANNOTATSIYA:*Ushbu maqolada magistratura talabalarining ilmiy tadqiqot ko'nikmalarini shakllantirishga qo'yiladigan talablar tahlil qilingan bo'lib, tadqiqot ko'nikmalarini rivojlantirishning asosiy qismi sifatida ilmiy metodologiyalarni to'g'ri tanlash va ulardan foydalanishning muhimligi ta'kidlanadi. Maqolada talqin usullarining xilma-xilligi, jumladan, ijodiy, ilmiy, kompilativ, dogmatik, ratsional va irratsional, erkin talqin usullari haqida batafsil ma'lumot berilgan. Shuningdek, zamonaviy tadqiqot usullari, jumladan, virtual laboratoriyalar, sun'iy intellekt vositalari orqali ma'lumotlarni tahlil qilishning ahamiyati haqida zamonaviy yondashuvlarga tayangan holda fikr-mulohaza yuritilgan. Maqolada, shuningdek, magistratura tadqiqotlari davomida to'plash, tahlil qilish, va natijalarni taqdim etish ko'nikmalarini shakllantirishning muhim jihatlari ko'rsatilgan.*

Kalit so'zlar: *Tadqiqot metodologiyasi, ilmiy talqin, eksperiment metodologiyasi, gipoteza shakllantirish, ilmiy ko'nikmalar, virtual laboratoriyalar, kompilativ talqin ratsional talqin, erkin talqin.*

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REQUIREMENTS TO DEVELOPING RESEARCH SKILLS IN MASTER'S STUDENTS

ABSTRACT:*This article analyzes the requirements for developing research skills in master's students, highlighting the importance of choosing the right scientific methodologies and using them as a key part of developing research skills. The article provides detailed information on the diversity of interpretation methods, including creative, scientific, compilation, dogmatic, rational and irrational, free interpretation methods. The importance of modern research methods, including virtual laboratories, data analysis using artificial intelligence tools based on modern approaches, was also discussed. The article also emphasizes the importance of developing skills in collecting, analyzing and presenting results during postgraduate studies.*

Key words: *research methodology, scientific interpretation, experimental methodology, hypothesis formation, scientific skills, virtual laboratories, compilation interpretation, rational interpretation, free interpretation.*

Magistratura bosqichi talabalarining ilmiy tadqiqot bilan shug‘illanishi, ularning chuqur bilim va tajriba ortirishida tadqiqot ko‘nikmalariga ega bo‘lishi muhim ahamiyatga ega, chunki tadqiqotchi talaba ilmiy ishni olib borar ekan ilm sohasini ayni vaqtda sharafli ish, mashaqqatli mehnat ekanini his qilagan holda harakat qilishi, bundan tashqari ilmiy rahbar tomonida to‘g‘ri yo‘naltirilishi ilmiy ishni o‘z vaqtida, samarali tashkil etishda o‘rni beqiyos, zero magistrlik dissertatsiyasi kelajakdagi professional ilmiy faoliyat uchun ham zarur. Shunda kelib chiqqan holda magistratura talabalariga tadqiqot ko‘nikmalarini shakillantirishda quyidagi ko‘nikmalarga ega bo‘lish talaba etiladi:

Tadqiqot metodologiyasini to‘g‘ri tanlash. Bunda talabalar ilmiy tadqiqot metodologiyasini mukammal o‘rganishi zarur, chunki tadqiqot maqsadlarini belgilash, gipotezalarni shakllantirish, metodologik yondashuvlarni tanlash va statistik analizlarni o‘z ichiga oladi. Ayniqsa, gipoteza (faraz)ni aniq haqiqatga aylantirishda ilmiy talqin birinchi o‘rinda turadi. Hozirgi kunda amaliyotda quyidagi talqin turlaridan keng foydalaniladi:

“– ijodiy talqin;

– ilmiy talqin;

– kompilativ talqin;

– dogmatik talqin;

– ratsional va irratsional talqin;

– badiiy talqin;

– erkin talqin va boshqalar” [2.13]. Ilmiy ishda talqin usullaridan to‘g‘ri foydalanish ilmiy ishni to‘g‘ri tashkil qilish bilan birga taqiqotchining ilmiy tadqiqot ko‘nikmalarnini rivojlantirishda muhim ahamiyatga ega. Misol uchun ijodiy talqin usulida odatiy ilmiy metodlardan farqli ravishda masalaga yangicha, noan’anaviy yondashishni talab qiladi. Ushbu yondashuv orqali tadqiqotchi mavjud ilmiy konsepsiyalar yoki nazariyalarni ijodiy ravishda tushunadi, o‘rganadi va ularga yangicha ma’no beradi. Bu usuldan tadqiqotchi biron bir mavzuni ko‘proq badiiy va abstrakt jihatdan ko‘rib chiqadi. Mavzuni dalillar bilan ochib berishda savollar qo‘yishi yoki tushunchalarni qayta ko‘rib chiqishi mumkin bo‘ladi. Bu talqin usulidan biologik jarayonlar matematik modellar bilan taqqoslanish, ijtimoiy hodisalar, falsafa, adabiyot sohalarida ilmiy izlanish olib boruvchi tadiqotchilar foydalanishi mumkin. Ilmiy talqin usulida esa ilmiy faktlar, dalillar va kuzatuvlar asosida xulosalar chiqarish va ularni ma’lum bir nazariy yoki metodologik asosda izohlash jarayonidir. Bu usul, ko‘pincha, o‘rganilayotgan hodisani chuqur tushunish va izohlash uchun ishlatiladi. Ilmiy talqin aniq, izchil va mantiqiy bo‘lishi bu usulning muhim shartlaridan biridir. E’tiborli jihati shundan iboratki, tadqiqotchi bu usuldan foydalanish jarayonida shaxsiy fikr va taxminlarga emas, balki aniq ilmiy ma’lumotlarga tayangan holda xulosalar chiqaradi. Bu usulda ma’lumotlar qanchalik ko‘p va turli manbalardan bo‘lsa, talqin shuncha ishonchli bo‘ladi. Eng asosiysi kuzatilgan ma’lumotlar bir-biriga mos kelishi va biron bir noaniqlik yoki qarama-qarshilikka olib kelmasligi lozim va tajriba-sinovlarning aniq natijalarga asoslangan bo‘lishi kerak. Bugungi kunda dunyoning ilm-fan sohasida yetakchi

bo‘lgan mamlakatlarida tadiqotning amaliy tajribalarini quyidagi zamonaviy usullar orqali xulosalar olinmoqda:

- Virtual laboratoriyalar: Talabalar an’anaviy usullarga qo‘shimcha ravishda virtual laboratoriyalarda turli tadqiqot metodologiyalarini o‘rganishlari mumkin. Bu texnologiyalar talabalarni eksperimentlar va ma’lumotlarni tahlil qilish jarayonlariga yaqinlashtiradi.
- Ma’lumotlar bilan ishlash uchun AI vositalari: Tadqiqotchining sun’iy intellekt va mashina o‘rganish texnologiyalaridan foydalanib, ma’lumotlarni to‘plash va tahlil qilish ko‘nikmalarini rivojlantirishga undash. Shundan kelib chiqqan holda Bu usul tabiiy fanlar, iqtisodiyot va EHM sohalarida olib borilayotgan ishlarda samarali hisoblanadi [3.76].

Komplativ talqin usuli: Kompilativ talqin usuli ilmiy ishda mavjud bilimlar, tadqiqotlar yoki manbalarni to‘plab, ularni birlashtirish va tizimli tahlil qilish orqali yangi xulosalar chiqarish metodidir. Bu usulda tadqiqotchi biror mavzu bo‘yicha allaqachon mavjud ilmiy manbalarni to‘plab, tahlil qiladi va ular o‘rtasidagi bog‘liqliklarni aniqlaydi. Kompilativ talqin usuli yangi ma’lumot yaratishdan ko‘ra, mavjud bilimlarni yaxlit tushunishga yordam beradi. Ushbu usulda tadqiqotchi birinchi navbatda tadqiqot mavzusi bo‘yicha mavjud ilmiy adabiyotlarni to‘playdi. Bu kitoblar, ilmiy maqolalar, hisobotlar yoki boshqa tadqiqotlarning umumlashgan ko‘rinishidir. Bu usuldan amalda ko‘proq bakalavr darajasini olish uchun yoziladigan bitiruv-malakaviy ishlarida, ijtimoiy fanlardan magistrlik darajasini olish uchun yoziladigan dissertatsiyalarda foydalaniladi. Bugungi kun nuqtai nazaridan olib qaraydigan bo‘lsak bu usul mavzuga oid bilimlarni mustahkamlash, tizimlashtirish va yaxlit qarashni ta’minlash maqsadida foydalaniladi.

Dogmatik talqin usuli: Dogmatik talqin usuli ilmiy ishda muayyan fikr, nazariya yoki qoidani hech qanday shubha yoki tanqidsiz qabul qilishga asoslangan yondashuvdir. Bu usulga ko‘ra, mavjud qoidalar yoki ilmiy nazariyalar o‘zgarmas, mutlaq haqiqat sifatida qabul qilinadi va ular haqida bahs yuritilmaydi, ko‘pincha qattiq, an’anaviy yoki konservativ ilmiy maktablarda uchraydi. Bu talqin usulidan bugungi zamnaviy ta’lim tizmida qo‘llanilmaydi, ayrim mamlakatlarda ko‘proq diniy tadqiqotlarda qo‘llaniladi

Ratsinal va irrotsional usul: Bu usul mantiq yoki dalillarga asoslanmaydi, balki subyektiv omillar bilan izohlanadi. Bu usul orqali natijalar yoki dalillar an’anaviy ilmiy yondashuvlardan farqli ravishda talqin qilinadi. Xulosalar har bir shaxsning o‘ziga xos tushunchasi yoki tajribasiga ko‘proq bog‘liq bo‘lishi mumkin, bu esa natijalar murakkab va ko‘p qirrali bo‘lishini ta’minlaydi. Shuning uchun ham bu usuldan ko‘proq **falsafa, estetika, psixologiya va shunga yaqin fanlarda foydalanish maqasadga muvofiq bo‘ladi.**

Erkin talqin usuli: Bu usulda tadqiqotchi tomonidan tanlangan mavzu yoki masalaga oid turli fikrlar va nuqtai nazarlarni keng miqyosda o‘rganish, ularni shaxsiy mulohaza va tahlillar bilan boyitish usulidir. Ushbu yondashuvda tadqiqotchi mavzuni qattiq me’yorlar yoki dogmatik qoidalarga asoslanmasdan, balki keng va erkin tarzda tahlil qiladi. Shuning uchun ham bu usulning afzalligi tadqiqotchi o‘z nuqtai nazarini erkin ifodalashi va mavzuga yangicha

yondashuvlarni qo‘llashi, tadqiqotchi birgina yondashuv yoki fikr bilan cheklanmasdan, mavzuga oid turli ilmiy va falsafiy nuqtai nazarlarni o‘rganishi, Bundan tashqari bu talqin usuli tadqiqotchiga o‘z ijodiy qobiliyatlarini namoyish etish, mavzuni yangicha ko‘rib chiqish imkoniyatini beradi. Shuning uchun ham erkin yondashuvlarga asoslangan bu usuldan hamma fan sohalarida foydalanish ilmiy ishni amalga oshirishda muhim vosita hisoblanadi.

Yuqorida sanab o‘tgan talqin usullaridan foydalanishdan tashqari magistratura ta’limida bo‘lajak ilmiy xodimning tadqiqot ko‘nikmalarini rivojlantrishda quyidagi maxsus kurslarni tashkil etish hamda ma’lum muddatlarda talabalardan ilmiy ishning tadqiqot natijalari bo’yicha olingan xulosalarni tekshirish imkoniyati yaratiladi. Misol uchun kurslar va seminarlar bo’yicha maxsus kurslarni faoliyatini tashkil etish orqali magistratura ilmiy tadqiqoti doirasida tadqiqot metodologiyasini o‘rgatish, statistik tahlil yuritish, ilmiy uslubni shakllantirish hamda tadqiqotda yakuniy xulosani baholash imkonini beradi. Bu kurslarda amaliy mashg‘ulotlar bilan bir qatorda tadqiqot loyihalari bilan tanishtirish, ma’lum vaqt oralig’ida vazifalarni bajarish ko‘nikmalarini hosil bo’ladi.

Tadqiqotning sifatli bo‘lishi uchun talabalar ma’lumotlar to‘plash, ularni tizimlashtirish va tahlil qilish ko‘nikmalarini rivojlantirishlari kerak. Shuning uchun bu jarayonda ilmiy manbalarni to‘g‘ri tanlash, eksperimentlar o‘tkazish va natijalarni aniq qayd qilish muhim ahamiyatga ega. Misol uchun magistr talabalarini xorijiy universitetlar bilan hamkorlikda tadqiqotlar olib borish va chet ellik talabalar bilan ishlash orqali global tadqiqot ko‘nikmalarini shakllantirish muhim ahamiyatga ega. Ayni vaqda “O‘zbekiston Respublikasi oliy ta’lim tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to‘g‘risida” qarorida talabalar o‘rtasida ilmiy tadqiqotni rivojlantirish bo‘yicha ta’lim rivojlangan mamlakatlar bilan hamkorlikni yo‘lga qo‘yish, talabalar almashuvi hamda almashlab o‘qitish bo‘yicha muhim chora tadbirlar belgilab berilgan [4.17]. Bu narsaning o‘zi ham yosh ilmiy tadqiqotchining global ilmiy yangiliklardan xabardor bo‘lishi, tajribalar o‘tkazish imkoniyatini beradi, bu esa talablarning ilmiy ko‘nikmasini rivojlantrish bilan birga fikrlash doirasining kengayishiga xizmat qiladi.

Bundan tashqari ilmiy ishda nazariy ma’lumotlarni eksperimental tadqiqotlar orqali samarali o‘tkazish uchun eksperiment metodologiyasi ishlab chiqish tadiqotchi oldidagi muhim vazifalardan biridir. Bu metodologiya quyidagi asosiy bosqichlarni o‘z ichiga oladi:

“– eksperimentning reja-dasturini ishlab chiqish;

– o‘lchamlarni baholash va eksperiment o‘tkazish vositalarini tanlash;

– eksperimentni o‘tkazish;

– eksperiment natijasida olingan ma’lumotlarni ishlab chiqish va tahlil qilish. [2.82].

Tadqiqot natijalarini yuqoridagi usullar orqali aniq, isbotlangan xulosalar olish bilan birga tadqiqot natijalarini e’lon qiluvchi manbalar: ilmiy maqola yoki hisobotlarni tayyorlash uchun zamin hozir bo’ladi. Bundan tashqari yozma va og‘zaki taqdimotlar yaratish, ilmiy maqolalarni yozishning ilmiy etikasi va format

talablarini bilish ilmiy ish himoyasi uchun ma’lum ko’nikmalarni hosil qilishga yordam beradi.

Bundan tashqari ilmiy ishlarni tashkil etish metodologiyasi sohasida katta muvofaqqiyatlarga erishgan olim J.Bernal o‘z tadqiqotlarida ilmiy ishni tashkil etishda yuqoridagilardan tashqari ilmiy ishni tajriba-sinov masalasiga ham diqqat qaratish zarurligi haqida o‘z qarashqalarini quyidagicha bayon etadi: “…tadqiqot 1) institut; 2) metod; 3) ilmiy an’analarning shakillanishi; 4) ishlab chiqarishning rivojlanish omili; 5) e’tiqodlar va insonning dunyoga munosabatini shakillantiruvchi eng kuchli omil sifatida namayon bo‘ladi” [1.10]. Bu talabalarga tajribali o‘qituvchilar va mutaxassislar tomonidan mentorlik qilish tadqiqot ko‘nikmalarini rivojlantirishda yordam beradi. Mentorlar talabalar bilan individual ravishda ishlashlari, ularning tadqiqotlarini nazorat qilishlari va ilmiy maslahatlar berishlari muhim.

Oliy ta’lim muassasalarida magistratura talabalarining tadqiqot ko‘nikmalarini shakllantirishga qo‘yiladigan talablar aniq va tizimli bo‘lishi kerak. Tadqiqot metodologiyasi, ma’lumotlar tahlili, va ilmiy natijalarni taqdim etish kabi asosiy ko‘nikmalarni rivojlantirish, shuningdek, kurslar, mentorlik, va tadqiqot loyihalari orqali qo‘llab-quvvatlash talabalar uchun muhimdir. Bu talablar, magistratura dasturlarining muvaffaqiyatli va sifatli bo‘lishini ta’minlashga yordam beradi.

Xulosa o’rnida shuni aytishimiz mumkinki, oliy ta’lim muassasalarida magistratura bosqichida tahsil olayotgan talabalar uchun ilmiy tadqiqot ko‘nikmalarini shakllantirishga qo‘yiladigan talablar, ko‘nikmalarini rivojlantirishda ilmiy metodologiyaning to‘g‘ri tanlanishi muhimdir. Shuningdek, zamonaviy texnologiyalar, xususan, virtual laboratoriyalar va sun’iy intellekt vositalaridan foydalanish, ilmiy tadqiqot jarayonining samaradorligini oshirishda muhim rol o‘ynaydi. Maqola ilmiy ishni tashkil qilishda to‘g‘ri metodologiya va tahlil usullarini tanlashning ahamiyatini hamda magistratura talabalarini ilmiy tadqiqotlarga chuquroq yondashishga imkon beradi. Ilmiy tadqiqot metodologiyasini tushunish, gipotezalar yaratish, ma’lumotlarni to‘plash, tahlil qilish, va ilmiy natijalarni taqdim etish ko‘nikmalari magistratura talabalarining ilmiy faoliyatida muhim bosqichlardan biridir.

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SPIRAL O'XSHASHLIK MARKAZI

Annotatsiya: *Ushbu maqolada maktab darsliklarida uchramaydigan spiral o'xshashlik markazi haqida bir nechta ma'lumotlar va masalalar kelrilgan keltirilgan. O'quvchilarga ushbu ma'lumotlar ham qo'shimcha o'rgatilib ketilsa, ularning tasavvurini yanada oshiradi.*

Kalit so'zlar: *Spiral o'xshashlik markazi, gomotetiya, o'xshashlik, nuqta, kesma.*

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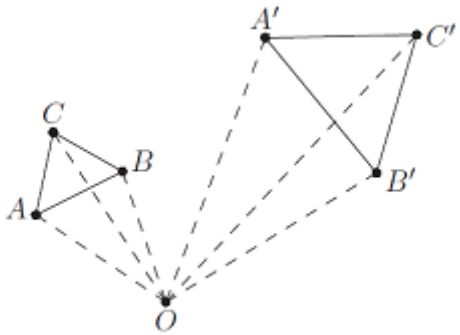
SPIRAL SIMILARITY CENTER

Annotation: *This article presents several information and issues about the spiral similarity center that are not found in school textbooks. If students are additionally taught this information, it will further increase their imagination.*

Keywords: *Spiral similarity center, homothety, similarity, point, intersection.*

1. Spiral o'xshshlik geometriyaning bir qismi bo'lib, spiral o'xshashlik markazi birinchi shaklni ikkinchi shu shaklga o'xshash shaklga spiral ravishda ko'chira oluvchi nuqtadir.



1-chizma

Ushbu rasmda ΔABC ni $\Delta A'B'C'$ga o'xshash va u O nuqtaga nisbatan spiral ko'chirilgan. Yani bu yerda ΔABC ni O nuqtaga nisbatan bursak A, B, C nuqtalar mos ravishda OA', OB' , OC' nurlarda yotadi va hosil bo'lgan shaklda ΔABC va $\Delta A'B'C'$ lar O nuqtaga nisbatan gomotetik bo'ladi.

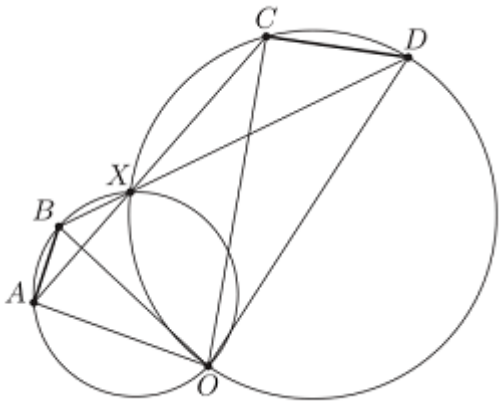
2. Eng avval ikkita kesmaning spiral o'xshashlik markazini topib olamiz.
AB va CD kesmalar uchun qaraymiz. (ixtiyoriy 2 ta kesma o'xshash bo'ladi)

AC va BD kesmalarni o'tkazamiz. Ular X nuqtada kesishsin Δ va ΔCDX larlarga tashqi chizilgan aylanalar 2- marotaba O nuqtada kesishsin.

$$\angle AOB = \angle AXB = \angle CXD = \angle COD \implies \angle AOB = \angle COD$$

$$\angle OCD = \angle OXD = \angle BAO \implies \Delta AOB \sim \Delta COD$$

bundan xulosa shuki: AB kesma CD kesmaga O nuqtaga nisbatan spiral ko'chirilmoqda.



2-chizma

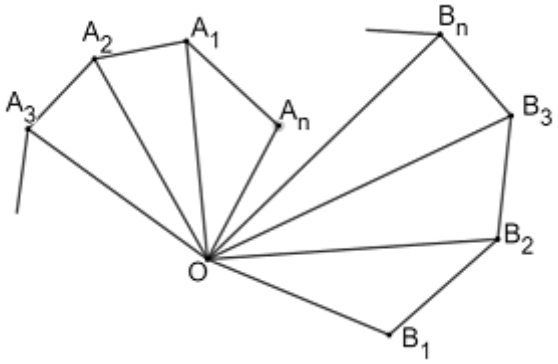
3. Lemma: Etibor berib qaralsa AC va BD larning ham spiral o'xshashlik markazi O nuqta bo'ladi. Chunki $\Delta AOC \sim \Delta BOD$.

4. Teorema: Ixtiyoriy 2 ta kesmada yagona spiral o'xshashlik markazi mavjud.

Isboti: Kompleks sonlar tekisligiga AB va CD kesmalarni joylashtiraylik. Aytaylik yagona bo'lmasin ya'ni kamida 2 ta bo'lsin . O va O' nuqtalar spiral o'xshashlik markazlari bo'lsin.

$\Delta AOB \sim \Delta COD$ $\Delta AO'B \sim \Delta CO'D$ lar o'rinli.

$$O = \frac{ad-bc}{a+d-b-c} = o' \implies O = O'.$$



3-chizma

5. Endi ixtiyoriy 2ta o'xshash n.burchak uchun ko'ramiz.

$A_1A_2\ldots A_n \sim B_1B_2\ldots B_n$ bo'lsin. A_1A_2 va B_1B_2 larning spiral o'xshashlik markazi O nuqta bo'lsin.

$$\Delta A_1OA_2 \sim \Delta B_1OB_2 \implies \angle A_1A_2O = \angle B_1B_2O, \angle A_1A_2A_3 = \angle B_1B_2B_3 \implies$$

$$\angle A_3A_2O = \angle B_3B_2O$$

$$\frac{A_1A_2}{A_2O}=\frac{B_1B_2}{B_2O} \qquad \frac{A_2A_3}{A_1A_2}=\frac{B_2B_3}{B_1B_2}$$

shu ikkita tenglikni ko'paytirsak:

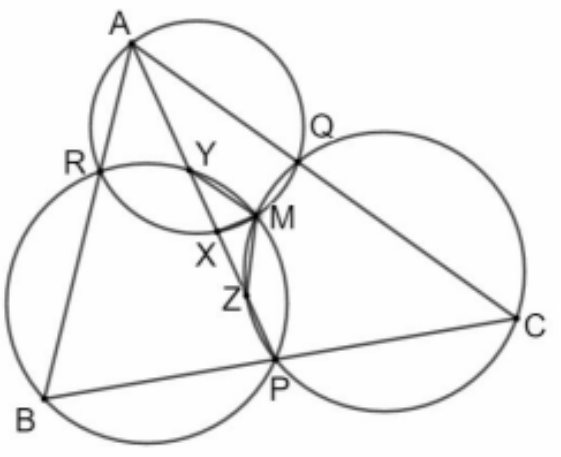
$$\frac{A_2A_3}{A_2O}=\frac{B_2B_3}{B_2O}$$

tenglik hosil bo'ladi va $\angle A_3A_2O = \angle B_3B_2O$ ligidan $\Delta A_3A_2O \sim \Delta B_3B_2O$ demak, A_2A_3 va B_2B_3 kesmalar O nuqtaga nisbatan sipiral ravishda o'xshash, shu ketma ketlikda davom ettirsak bu ikki ko'pburchakning spiral o'xshashlik markazi O nuqta ekanligi ma'lum bo'ladi.

6. Masala(Aqsh matematika olimpiadasi 2013)

ΔABC ning BC, AC, AB tomonlarida mos ravishda P, Q, R nuqtalar olingan. ω_a,ω_b, ω_c aylanalar mos ravishda ΔAQR, ΔBRP, ΔCPQ larga tashqi chizilgan aylanalar. AP kesma ω_a,ω_b, ω_c larni mos ravishda X, Y, Z nuqtalarda kesadi. Isbotlang:

$$\frac{XY}{XZ}=\frac{BP}{PC}$$



4-chizma

Isbot: ΔAQR, ΔBRP, ΔCPQ larning tashqi chizilgan aylanalari (1 nuqtada) nuqtada kesishadi. YZ va BC kesmalar P nuqtada kesishadi. ΔPCZ va ΔPYB larning tashqi chizilgan aylanalari M nuqtada kesishadi. CZ va BY larning spiral o'xshashlik markazi M. ΔMBC va ΔMYZ lar o'xshash. $\angle MBP = \angle MYX$ va bundan tashqari $\angle MXA = \angle MRA = \angle MPB$ demak ΔMBP va ΔMYX lar ham o'xshash. Demak M shakl va $MBPC$ shakllar o'xshash.

$$\frac{XY}{XZ}=\frac{BP}{PC}$$

. Isbotlandi.

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GENERALIZATION OF SPECIAL CONTENT IN MAPS DESIGNED FOR AGRICULTURE

Abstract: *The article describes the factors of generalization of the special content of the card in agricultural maps and the manifestation of generalization in various cartographic representation methods.*

Key words: *Agricultural maps, generalization, generalization factors, manifestation of generalization in cartographic representation methods.*

Entry. Generalization of specific content elements is one of the most important sections of agricultural map construction. Generalization helps to isolate and generalize important aspects of agricultural production on maps, to show leading crops and sectors on a larger scale, and to better understand the patterns of agricultural production placement.

To date, there are not many large-scale agricultural maps. Most small and medium-scale agricultural maps are compiled on the basis of statistical materials, and then large-scale agricultural maps are created on their basis, and then, when moving from these maps to smaller-scale maps, the specific content is generalized.

The main content of agricultural maps, which is agricultural production, is spread over vast territories. Accordingly, in generalization, the selection and generalization of areas, contours, quantitative and qualitative indicators for agricultural maps are of paramount importance [1].

As is known, the general factors of generalization are the scale, purpose and content of these maps. These factors are also preserved when generalizing specific content on agricultural maps.

Generalization of specific content on agricultural maps is carried out in the following directions:

1) generalization of the contours (areas) of agricultural sectors and crops shown on agricultural maps (simplification of contours, merging small contours with large ones, enlarging the dimensions of small contours, etc.);

2) generalization of quantitative characteristics, for example, reducing the scale steps in cartograms when moving from large to small scales, enlarging or decreasing the weight of points on maps constructed using the point method, etc.;

3) generalization of qualitative characteristics (replacing small precise classifications with larger ones, replacing individual characteristics with general

characteristics, for example, moving from individual enterprises for the primary processing of agricultural raw materials to industrial centers, etc.);

4) selection of objects, enterprises, etc. by determining the boundaries (contours of branches and crops);

5) replacement of separate (individual) concepts with more general, aggregate concepts; transition from the indicated type of individual indicators to groups, for example, instead of indicating the location of individual crops (wheat, rye, corn, barley, etc.), aggregate indicators of grain crops are given, etc.; transition from indicating individual enterprises to areas or industrial centers, etc.

In order to competently (correctly) generalize a specific content on agricultural maps, it is necessary to know the specifics of agricultural production and its location, the classification of agricultural crops and branches, and the most important groups, the connections and compatibility between them. Without this, it is impossible to accurately determine the dimensions of the areas for agricultural maps of different scales, sectors and crop selection criteria for different regions [1].

The most important factor in generalization on agricultural maps is the selection and generalization of contours. When selecting and generalizing contours on agricultural maps, as well as on other specialized maps - soil, vegetation, climate, etc., the following should be achieved:

a) the correct ratio of areas occupied by a particular crop or sector in different regions;

b) maintaining the relative fragmentation and accuracy of contours, corresponding to the characteristics of agricultural production of the territory and the nature of the location of crops and sectors;

c) preserving the characteristic features of the forms of territories and areas arising from the specific characteristics of agricultural production of the territory being mapped;

d) determining and recording the relationships of individual contours (areas) with each other and with the geographical environment;

Different thresholds should be set for each group, lower for crops with a strictly localized distribution, higher for widely distributed crops.

When setting thresholds, it is necessary to ensure the contours, as well as the readability of the nature and shape of the conditional symbols. Let us turn to the experience of depicting soil and vegetation cover on general geographic maps. The instructions for compiling small and medium-scale general geographic maps indicate the following minimum areas of one or another type of agricultural land: forest 1-10 mm2, swamps and salt marshes 25 mm2, barrens 25 mm2, sand dunes 1-2 cm2, shrubs 1 cm2, reed beds 1 cm2, sparse forests 3-4 cm2, saxaul forests 3-4 cm2, and rocks 3-4 cm2. The following minimum dimensions are given in the works on cartography: 0.8-1.0 mm2 for forests, 3 mm2 for marshes and marshes, 5 mm2 for barrens, 5 mm2 for sand dunes, 15 mm2 for shrublands, 2 mm2 for reed beds, sparse woodlands and saxes, 3 mm2 for rocky areas [2].

However, these limits cannot be mechanically transferred to agricultural maps. In nature, there are no sharp boundaries between individual agricultural areas:

agricultural sectors and crops gradually merge into each other. All this requires a significant increase in the minimum area of areas on agricultural maps compared to general geographical maps.

For agricultural maps with scales from 1:500 000 to 1:20 000 000, it is recommended to set the minimum area of areas of agricultural crops and sectors from 0.2 mm2 to 1 cm2. All contours with areas smaller than the established limits are not included in the map. These areas are not always excluded, but if they are located separately and need to be shown on the map, they are combined or enlarged.

Generalization in the cartographic method consists primarily in reducing the scale steps and moving from small administrative units to larger ones - from village councils to administrative districts, from administrative districts to regions. The smaller the scale, the fewer the scale steps should be, and the larger the administrative unit. At the same time, it is necessary to take into account the method of equipping cartograms. The brighter the colors or the stronger the hatching, the more accurate (detailed) the scale of the steps should be, and vice versa. Finally, it is necessary to take into account the compactness, expressiveness and size of the areas. The larger the areas of individual groups and the more compact and expressive these groups are, the more scale steps can be.

Scales: For cartograms from 1:1 000 000 to 1:20 000 000, a scale of 3 to 10 steps can be recommended.

In the cards made by the method of points, the generalization is shown as follows:

a) increasing the weight of points;

b) reducing the number of colors of points to one;

c) moving from points to areas or contours.

The smaller the scale of the map, the greater the weight of the points should be. The color of the points is also of great importance. Black points are better readable and can be much smaller. Colored points are worse readable and should be much larger than black points. The larger the point, the greater its weight should be at the same scale [3].

On maps with a scale of 1:100,000 to 1:20,000,000, the weight of points varies from 50 to 200,000 hectares.

Generalization in the area method is manifested in:

a) sorting areas by area or by determining criteria;

b) combining a number of densely located areas into one;

c) correcting the image of areas;

d) when combining two or three types of areas (with quantitative descriptions) into one in the legend.

Generalization in the contour method is carried out as follows:

a) increasing the conditional interval, reducing the number of intervals and contours;

b) simplifying the configuration of contours;

c) eliminating secondary details.

The generalization of the method of moving lines by reducing the number of qualitative differences is completely rejected (for example, instead of showing the composition of the cargo, the transportation of cargo in general is shown, and by selecting the most important cargo flows, a larger schematization of the cargo flow line, etc. Of all the methods, generalization is most fully manifested in the qualitative background method. This is explained by the fact that it is possible to move from all methods to the qualitative background, but not from the background to other methods.

Generalization in this method is manifested as follows:

a) reducing the number of types and backgrounds;

b) moving to a more coarse division (classification) and combining two or three types or combining agricultural regions into one, eliminating transitional forms (shapes);

c) correcting the boundaries between types and agricultural regions; d) reducing small areas to a single, comprehensive area by eliminating them.

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MA’NAVIY TARAQQIYOTDA MILLIY MANFAATNING O‘RNI VA AHAMIYATI

Annotatsiya:*Mazkur maqolada ma'naviy taraqqiyot jarayonida milliy manfaatning tutgan o‘rni va ahamiyati o‘rganiladi. Milliy manfaatning shakllanishi, uning ijtimoiy va ma'naviy hayotga ta'siri, shuningdek, jamiyat taraqqiyotidagi o‘rni tahlil qilinadi. Shuningdek, milliy manfaatni himoya qilish va uni ma'naviy yuksalishga moslashtirishning muhimligi yoritib beriladi. Tadqiqot natijalari milliy manfaatni ma'naviy taraqqiyot bilan uzviy bog‘lash zarurligini asoslashga qaratilgan.*
Kalit so’zlar: *milliy taraqqiyot, milliy manfaat, jamiyat taraqqiyoti, ma’naviy hayot, ma’naviy yuksalish.*

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PLACE AND SIGNIFICANCE OF NATIONAL WELFARE IN SPIRITUAL DEVELOPMENT

Abstract: *The article examines the role and significance of national interest in the process of spiritual development. It analyzes the formation of national interest, its impact on social and spiritual life, as well as its role in the development of society. It also emphasizes the importance of protecting national interests and aligning them with spiritual development. The results of the study are aimed at substantiating the need for an inextricable link between national interests and spiritual development.*
Keywords: *national development, national interest, social development, spiritual life, spiritual uplift.*

Bugungi kunda globallashuv jarayonlari jamiyat hayotining barcha sohalariga chuqur ta’sir ko‘rsatmoqda. Milliy manfaat va ma'naviyat kabi tushunchalar bu jarayonda yanada dolzarb ahamiyat kasb etadi. Milliy manfaat, avvalo, davlat va jamiyatning ichki barqarorligi, tashqi muhitdagi raqobatbardoshligi, madaniy va ma'naviy qadriyatlarining asrashiga qaratilgan strategik maqsadlarni ifodalaydi. Shu bilan birga, ma'naviy taraqqiyot millatning o‘z madaniy o‘ziga xosligini saqlab qolish va uni rivojlantirishdagi asosiy omil sifatida namoyon bo‘ladi. Ushbu ikki tushuncha o‘zaro uzviy bog‘liq bo‘lib, bir-birini to‘ldiradi va jamiyat rivojlanishining asosiy tayanchi hisoblanadi.

Milliy manfaatni to‘g‘ri anglash va uni himoya qilish ma'naviy rivojlanishning yo‘nalishini belgilaydi. Har bir jamiyat o‘z milliy manfaatlarini aniqlab, uni amalda ta’minlash orqali o‘z kelajagini barqarorlashtiradi. Shu nuqtai nazardan qaraganda, milliy manfaat va ma'naviy taraqqiyot birgalikda davlatning siyosiy, iqtisodiy va ijtimoiy sohalarida muvaffaqiyatli rivojlanishiga zamin yaratadi. Bu jarayonda ta’lim tizimi, madaniyat va san’at, ommaviy axborot vositalari kabi sohalarning roli nihoyatda muhimdir.

Globallashuv tufayli turli madaniyatlarning bir-biriga yaqinlashishi va ba’zi hollarda o‘z milliy xususiyatlaridan chekinishi kuzatilmoqda. Ayrim milliy qadriyatlarning yo‘qolib ketish xavfi jamiyatlarning o‘z-o‘zini anglashiga putur yetkazishi mumkin. Shu sababli, milliy manfaat va ma'naviy qadriyatlarni globallashuv sharoitida asrab qolish masalasi dolzarbdir. Milliy manfaatni himoya qilishning asosiy yo‘llaridan biri – yosh avlodning ongida milliy g‘urur va qadriyatlarni shakllantirishdir. Bu esa millatning madaniy va ma’naviy merosini kelajak avlodga yetkazishning muhim sharti hisoblanadi.

O‘zbekiston misolida milliy manfaat va ma’naviyatning rivojlanishi alohida o‘rganishga arziydi. Mustaqillik yillarida davlatning ichki va tashqi siyosatida milliy manfaatlar ustuvor bo‘lib kelmoqda. Ayniqsa, milliy o‘zlikni anglash, tarixiy merosni tiklash va uni yosh avlod ongiga singdirish orqali ma'naviy taraqqiyotga erishish jarayoni muvaffaqiyatli amalga oshirilib kelmoqda.

Mazkur maqola milliy manfaat tushunchasining nazariy asoslari, uning jamiyat ma'naviyatiga ta’siri va ahamiyati, shuningdek, globallashuv sharoitida milliy manfaatni saqlash va rivojlantirish masalalarini ko‘rib chiqishga qaratilgan. Ushbu masalalar nafaqat nazariy, balki amaliy jihatdan ham o‘z dolzarbligini saqlab qolgan. Shuning uchun milliy manfaatni ma'naviy taraqqiyot bilan uzviy bog‘lash va uni rivojlantirish istiqbollari ilmiy tahlilni talab qiladi.

Milliy manfaat – bu davlat va jamiyatning barqarorligini ta’minlashga, millatning madaniy, iqtisodiy va siyosiy manfaatlarini ilgari surishga qaratilgan strategik maqsad va tamoyillar majmui. Bu tushuncha millatning o‘zligini saqlab qolish, rivojlantirish va xalqaro maydonda o‘z o‘rnini mustahkamlashga xizmat qiladi. Milliy manfaat nafaqat davlat darajasidagi siyosiy qarorlar, balki jamiyatning har bir a’zosining kundalik hayoti va faoliyatida ham namoyon bo‘ladi.

Milliy manfaatni to‘g‘ri anglash davlatning asosiy siyosiy tamoyillarini belgilab beradi. O‘zbekiston misolida bu tushuncha mustaqillik yillarida davlat siyosatining asosi bo‘lib kelmoqda. Mamlakatning rivojlanish strategiyasi xalqning milliy manfaatlarini himoya qilish va rivojlantirishga qaratilgan. Shu nuqtai nazardan, milliy manfaatning shakllanishi va rivojlanishi, avvalo, milliy g‘urur, tarixiy meros, an’analar va ma’naviy qadriyatlar bilan chambarchas bog‘liqdir.

Ma’naviy taraqqiyot – bu jamiyatning madaniy, axloqiy, ma’rifiy va intellektual rivojlanishini ifodalaydi. Milliy manfaat esa ushbu rivojlanish jarayonining yo‘nalishini belgilovchi asosiy tamoyildir. Milliy manfaat va ma’naviy taraqqiyot o‘rtasidagi uzviy bog‘liqlik quyidagi jihatlarda namoyon bo‘ladi:

1. Milliy qadriyatlarni tiklash va rivojlantirish. Har bir millatning o‘ziga xos madaniyati va an’analari milliy manfaatning ajralmas qismidir. Ma’naviy taraqqiyot

bu qadriyatlarni nafaqat saqlash, balki kelajak avlod uchun boyitib yetkazishni ham nazarda tutadi.

2. Yosh avlodni tarbiyalash. Ma'naviy taraqqiyot jarayonida milliy manfaatlarni yoshlarga singdirish jamiyatning barqaror kelajagini ta'minlaydi. Milliy g'urur va vatanparvarlik hissi yoshlarda milliy manfaatni himoya qilishga intilishni kuchaytiradi.

3. Jamiyatning birligi va barqarorligi. Milliy manfaat va ma'naviy qadriyatlar jamiyatning birligini mustahkamlovchi asosiy omildir. Bu jihat globallashuv sharoitida millatning o'ziga xosligini saqlash uchun ayniqsa muhimdir.

Globallashuv jarayonlari milliy manfaatni yangi tahdidlar va imkoniyatlar qarshisida qoldirdi. Bir tomondan, turli millat va madaniyatlar o'rtasida yaqinlashuv sodir bo'layotgan bo'lsa, boshqa tomondan, ayrim madaniy qadriyatlarning yo'qolish xavfi paydo bo'lmoqda. Milliy manfaatni himoya qilish uchun quyidagi omillar muhim ahamiyat kasb etadi:

1. Madaniy mustaqillikni saqlash. Globallashuv jarayonlarida milliy madaniyatlar ko'pincha standartlashtirilgan xalqaro tendensiyalar ta'sirida bo'ladi. Bu jarayonda milliy manfaatlar doirasida madaniy mustaqillikni himoya qilish jamiyatning barqarorligini ta'minlash uchun zarurdir.

2. Milliy o'zlikni anglash. Milliy manfaatni anglash, avvalo, millatning o'z o'zligini anglashiga asoslanadi. Tarixiy xotira, milliy g'urur va madaniy meros bu jarayonning asosiy tarkibiy qismlaridir.

3. Ta'lim tizimining roli. Globallashuv sharoitida milliy manfaatlarni himoya qilish uchun ta'lim tizimi hal qiluvchi ahamiyatga ega. Ta'lim orqali yosh avlodga milliy qadriyatlar singdiriladi va ularning globallashuv tahdidlariga bardosh berish salohiyati oshiriladi.

Milliy manfaatni himoya qilish davlat siyosatining asosiy tamoyillaridan biri bo'lib qolishi kerak. Davlat tomonidan milliy madaniyat va an'analarni targ'ib qilish ma'naviy taraqqiyotga hissa qo'shadi. Bu jarayonda ommaviy axborot vositalari va madaniy tashkilotlarning ahamiyati va ta'siri katta. Ijtimoiy adolat va barqarorlik milliy manfaatning muhim jihatlaridan biridir. Bu omillar milliy manfaat va ma'naviy taraqqiyot o'rtasidagi uyg'unlikni ta'minlashga xizmat qiladi. Yosh avlodni milliy manfaat va ma'naviy qadriyatlar ruhida tarbiyalash davlat siyosatining ustuvor yo'nalishlaridan biri bo'lishi kerak.

Kelajakda milliy manfaat va ma'naviy qadriyatlarni rivojlantirishda quyidagi ustuvor yo'nalishlarga e'tibor qaratish lozim:

- *Innovatsiyalarni milliy qadriyatlar bilan uyg'unlashtirish.* Globallashuv sharoitida milliy manfaatni saqlab qolish uchun texnologik va ilmiy innovatsiyalarni milliy qadriyatlar bilan uyg'unlashtirish zarur.
- *Madaniyatlararo muloqot.* Milliy manfaatni himoya qilish bilan birga, boshqa millatlar bilan madaniy hamkorlik qilish va o'zaro hurmat tamoyillarini rivojlantirish ma'naviy taraqqiyotga ijobiy ta'sir ko'rsatadi.
- *Milliy manfaatni xalqaro darajada targ'ib qilish.* Milliy manfaatlarni xalqaro hamjamiyatda tanishtirish va targ'ib qilish orqali millatning o'z o'rnini mustahkamlash mumkin.

Milliy manfaat va ma’naviy taraqqiyot birgalikda jamiyatning barqaror rivojlanishi va madaniy farovonligini ta’minlaydi. Shu sababli, ushbu tushunchalarning o‘zaro bog‘liqligini to‘g‘ri anglash va rivojlantirish dolzarb masala bo‘lib qolmoqda.

Milliy manfaat va ma’naviy taraqqiyot o‘zaro chambarchas bog‘liq bo‘lib, ular birgalikda jamiyatning barqaror rivojlanishi, ijtimoiy birlik va davlatning xalqaro maydondagi mavqeini belgilovchi asosiy omillardan hisoblanadi. Milliy manfaat millatning o‘zligini saqlab qolish, iqtisodiy, siyosiy va madaniy barqarorlikni ta’minlashga xizmat qilsa, ma’naviy taraqqiyot jamiyatning axloqiy va intellektual yuksalishini ta’minlaydi. Ushbu ikki omilni uyg‘unlashtirish orqali jamiyatning barqaror kelajagi asoslanadi.

Bugungi globallashuv sharoitida milliy manfaatni himoya qilishning ahamiyati yanada ortib bormoqda. Turli madaniyatlar va tendensiyalar ta’siri ostida milliy o‘zlikning yo‘qolish xavfi paydo bo‘lgan bir paytda, milliy manfaatning mazmuni va uni rivojlantirish strategiyalarini to‘g‘ri belgilash zarurdir. Shu ma’noda, milliy manfaat nafaqat davlat darajasida siyosiy tamoyil, balki har bir fuqaroning hayotiy maqsadlari va ma’naviy qadriyatlari bilan uzviy bog‘liq bo‘lishi kerak.

Mustaqillik yillarida milliy qadriyatlarni tiklash, yosh avlodni milliy ruhda tarbiyalash, madaniy va tarixiy merosni asrab-avaylashga qaratilgan ishlar bu yo‘nalishda katta yutuqlarga erishilayotganidan dalolat beradi. Xususan, ta’lim va madaniyat sohalaridagi islohotlar, yoshlarni ma’naviy barkamol qilib tarbiyalashga qaratilgan dasturlar milliy manfaat va ma’naviy taraqqiyot o‘rtasidagi bog‘liqlikni mustahkamlamoqda.

Shuningdek, milliy manfaatni xalqaro miqyosda targ‘ib qilish ham muhim ahamiyat kasb etadi. Millatning o‘ziga xosligini namoyon etish, xalqaro hamjamiyatda milliy manfaatlarni himoya qilish orqali millatning obro‘sini oshirishga erishish mumkin. Bu esa jamiyatning ichki birligini mustahkamlash va barqaror rivojlanishni ta’minlashga xizmat qiladi.

Xulosa qilib aytganda, milliy manfaat va ma’naviy taraqqiyot o‘zaro bir butunlikda qaralishi kerak. Ularni uyg‘unlashtirish orqali nafaqat jamiyatning ichki barqarorligi, balki millatning xalqaro maydondagi muvaffaqiyatli rivojlanishini ta’minlash mumkin. Shu bois, milliy manfaatni ma’naviy qadriyatlar bilan uyg‘unlashtirgan holda, jamiyatning barcha qatlamlarida bu tamoyillarni chuqur targ‘ib qilish davlat va jamiyatning asosiy vazifalaridan biri bo‘lib qoladi.

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HIMOYALANGAN MUHIT TUPROG'I, ULARNING TURLARI VA XOSSA-HUSUSIYATLARI

Annotatsiya: *Ekinlarning o'sishiga ta'sir qiluvchi ekologik omillar orasida tuproq xususiyatlari asosiy rol o'ynaydi.Tuproqqa mineral o'g'itlar kiritayotganda xususan tuproqning xossa-xususyatlariga tipiga mexanik tarkibiga,muhit reaksiyasiga,oziq moddalar bilan qay darajada ta'minlanganligiga, suv rejimiga va madaniylashganligiga e'tibor berish kerak.Tuproqqa doimiy ravishda mineral o'g'itlarni ishlatish sababli tuproq eritmasini tarkibini, singdirilgan asoslor xajmini,va to'yinish darajasini, fosfor va kaliyning harakatchon miqdorini tezda o'zgarishiga sabab bo'ladi.*

Kalit so'zlar: *pomidor, azot, fosfor, kaliy, tuproq muhiti, hosildorlik, o'g'it me'yori,meva sifati, mineral o'g'itlar,issiqxona ,xarorat.*

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PROTECTED ENVIRONMENTAL SOILS, THEIR TYPES AND PROPERTIES

Abstract: *Among the environmental factors affecting crop growth, soil properties play a key role. When introducing mineral fertilizers into the soil, it is necessary to pay attention to the properties of the soil, in particular, its type, mechanical composition, environmental reaction, the degree of nutrient supply, water regime and cultivation. The constant use of mineral fertilizers in the soil causes rapid changes in the composition of the soil solution, the volume of absorbed bases, and the degree of saturation, as well as the mobile amount of phosphorus and potassium.*

Keywords: *tomato, nitrogen, phosphorus, potassium, soil environment, yield, fertilizer rate, fruit quality, mineral fertilizers, greenhouse, temperature.*

Himoyalangan muhit tuproqlari yaxshi strukturali kesakchalarining optimal kattaligi 1-5 mm bo'lishi lozim, o'g'it solish hamda o'z vaqtida ishlov berib turish (haydash, kultivatsiyalash frezalash, sun'iy strukturani hosil qiluvchi turli moddalar qo'llash) orqali strukturali tuproqni hosil bo'lishiga imkon yaratadi.

Tuproqning tarkibiy qismi turli xil minerallarning elementlaridan tashkil topgan ularning ichida diametri 0,0001 mmli elementlar ham uchraydi. 1mm dan yirigi toshsimon zarralar hisoblansa 1mm dan kichigi mayda tuproqlar ularning orasida 0,01 mmli gil va 0,01 dan katta qum uchraydi. Himoyalangan muhit uchun 35%gil, 65% qumdan tashkil topgan o‘rtacha soz tuproqli tuproq yaxshiroq hisoblanadi. [2;14,180-b]

Tuproqning mexanik tarkibi, aeratsiya qobilyati,uning suv singdirish qobilyati kabi xususyatlari tuproq tarkubidagi gummus moddalarga bog’liqlikda bo’ladi. Biroq bu gumusning ham ma’lim me’yori ekinlarga ijobiy ta’sir etadi bu organik moddalarning ma’lum me’yordan oshib ketishi tuproqning sifatini pasaytirib yuboradi. Me’yoridan juda yuqori yutish xususiyati o‘g‘itlarni ortiqcha sarflanishiga, oziq moddalarni ortiqcha to‘planishiga va azot tartibotini turg‘unsizlikka olib keladi. Shuni hisobga olgan holda pomidor uchun tuproq tarkibidagi organik moddalarni 10-20%, bo‘lishi maqbul me’yor hisoblanadi. Organik moddalar tuproq tarkibida 10% gacha bo‘lsa – past (kam),10-20% bo‘lsa – o‘rtacha, 20-30% – me’yorida, 30-40% – ortiqcha, 40-60%–yuqori, 60% dan ortig‘i–juda yuqori hisoblanadi.

Zich tuproqlarda havo yetishmasligi va ildiz tizimining kuchsiz rivojlanishi kuzatiladi. Zichlik g‘ovaklik va suv xususiyatlari bilan bog‘liq bo‘lib, bunda nafaqat g‘ovaklar soni, balki ularning katta-kichikligi (o‘lchami) kam ahamiyatli,chunki yiriklarini havo,maydalarini esa suv egallaydi.

Adabiyotlarda keltirilishicha himoylangan muhit tuprog‘i tarkibida organik moddalar miqdori 20-30% bo‘lishi me’yor hisoblanadi.Ularda 10-15% dan oshiq miqdorda gumin moddasi bo‘ladi.Chirindi tarkibida ekinlarning hayot-faoliyati uchun lozim bo‘lgan azot,fosfor hamda kaliy va boshqa oziqa elementlar uchraydi. Tuproqni yumshatuvchi vosita sifatida go‘ngdan hamda organik o‘g‘itlar sifatida ham go‘ngdan foydalaniladi. Buning uchun qoramol, ot go‘ngi, va qo‘y go‘ngi, parranda qiyidan foydalaniladi. [2;16,18-b]

S.Yunusov, Z.Abdiyev (2020) ushbu mualliflarning ma’lumotiga ko‘ra issiqxona tuprog‘i tarkibi bo‘yicha 3 gauruhga: orgnikli, orgonomineralli va mineralliga bo‘linadi. Organik tuproqlar tarkibida yuqori miqdorda (60-80%) organik moddalari bo‘lgan, o‘ta g‘ovakli, yuqori nam sig‘imli, yutish xususiyatli hamda buferlik xususiyatiga ega bo‘lgan bir yoki bir necha organik kompostlari bo‘lishi bilan tavsiflanadi. Organomineralli tuproqlar organik materiallar va minerallarni teng nisbatdagi aralashmasidan iborat bo‘ladi.Mineralli tuproqlar esa tabiiy tuproqning gumusli yengil qatlamiga oz miqdorda (15% gacha) organik material qo‘shib hosil qilinadi. [2;49, 124-125-b]

Tuproqning mikrobial faolligi tuproq unumdorligi va ekologik funktsiyalar bilan boshqariladi. Tuproq eritmasi tuproq ozuqa moddalarining asosiy tashuvchisi vazifasini bajaradi va uning suvda eriydigan tuzi o'simliklarning ozuqa moddalarini singishi, tarqalishi va ishlashini tartibga solishga sezilarli ta'sir ko‘rsatadi. Tuproq azoti uchta umumiy shaklda mavjud: organik azot birikmalari, ammoniy (NH_4^+) kation va nitrat (NO_3^-) ionlari.O‘simliklar tomonidan ishlatilishi mumkin bo‘lgan

tuproqdagi azot ikki manbaga ega: azotni o‘z ichiga olgan minerallar va atmosferadagi azotning katta ombori.

Tuproq tarkibi va yer unumdorligidan kelib chiqqan xolda pomidorga gektariga 250-300 kg fosfor (R) 150-200 kg kaliy (K) 250-300 kg azotli (N) o‘g‘itlar solish tavsiya etiladi. Fosforli o‘g‘itni 60-70 % kaliyli o‘g‘itni 50% ni yer ga solib xaydash, azotli o‘g‘itlarni va kaliyli o‘g‘itni qolganini ekin ekishda to hosil yig‘ilguniga qadar berish tavsiya etiladi.[2;9.20-21-b]

Ma’lumki, azotni nitratli shakllari suvda juda yaxshi eriydi, lekin tuproq namligi yetishmasa ularni o‘simliklar o‘zlashtira olmaydi. Yog‘in-sochin va sug‘orish ta’sirida nitratli azot tuproqni pastki qatlamlariga yuvilishi va oqava suvlari bilan tuproq eroziyasi natijasida boshqa havzalarga ham tushishi mumkin, ular tuproqni hattoki 2,0 m li pastki qatlamlariga siljishi, haroratni ko‘tarilishi natijasida esa ma’lum miqdorda yana yuqori qatlamlarga ko‘tarilishi aniqlangan[2.1;21-b]

Surxondaryo iqlim sharoitida pomidor ekini bo‘z,taqir,o‘tloqi va taqir o‘tloqi tuproqlarda yaxshi unib o‘sadi. Sizot suvlari sathi yer yuziga yuza joylashgan, kislotali (nordon) va sho‘rlangan tuproqlarda pomidor ekini uchun unchalik qulay sharoit bo‘lmaydi. Bo‘z,o‘tloqi-botqoq, tuproqlar xam pomidor o‘stirish uchun yetarlicha oziqa muhitiga ega emas. Shu sabab sabzavot yetishtirishda yer tayorlashga alohida e’tibor qaratiladi va keraklicha nisbatda organik va mineral o‘g‘itlar qo‘shiladi.[2;20, 71-b]

M. U. Karimov ma’lumotlarida qayd etilishicha nitratlarning yuvilishi bahor va kuz oylarida e’tiborli darajada oshadi.Tabiat harorati quruq bo‘lgan muhitda nitratlar sug‘orishdan keyin suvning kapillyar ko‘tarilishi vaqtlarida tuproqning yuza qatlamlariga qarab harakatlanadi. Shu boisdan ham azotli mineral o‘g‘itlarni ishlatish muddatlari va ammiak shaklidagi azotning nitrifikatsiyalanish tezligini bilish katta amaliy ahamiyatga ega hisoblanadi.

Axmedov M. J, o‘tkazgan tadqiqot natijalariga ko‘ra tuproq tarkibida juda ko‘plab os‘imlik va xayvon qoldiqlari shuningdek parchalangan o‘simlik qoldiqlari bo‘ladi bularda ma’lum manoda azot uchraydi. Gumusning tarkibida gumus bir oz ko‘proq bo‘ladi. Tuproqdagi azotli anorganik birikmalar tarkibidagi azotni o‘simliklar bemalol o‘zlashtira oladi.Ammo oqsil molekulalari tarkibidagi azotni bevosita o‘zlashtira olmaydi. Shu boisdan ham o‘simliklarning oqsil tarkibidagi azotni o‘zlashtirishlari uchun oqsil parchalanib minerallashishi zarur. O‘zida azot saqlovchi oqsilli birkmalar tuproqda yashovchi chirituvchi baktyeriyalar va boshqa mikroorganizmlar ta’sirida kuchli o‘zgarishlarga uchrab mineral lashadi.[2;4, 17-b] Tuproqni qayta ishlashning asosiy vazifasi tuproqning fizik xususiyatini yaxshilash, urugl‘arning unib chiqishga, parvarish qilinayotgan ekinlarga sharoit yaratish uchun uning unumdorligini saqlash va oshirish, yovvoyi o‘tlarni yo‘qotish, kasallik qo‘zg‘atuvchilar va zararkunaidalarga qarshi kurashish, solingan o‘g‘itlarning ustiga tuproq tortish, namlik yetishmaydigan tuproqlarni nam bilan ta’minlash, uni saqlash choralarini ko‘rish, namlik haddan tashqari ziyod yerlarda esa uni kamaytirishdir. Tuproqni qayta ishlash rejalashtiriladi va parvarish qilinayotgan ekinning biologik va iqlim sharoiti, tuproqning holati hisobga olingan holda

qo‘llanadi. Bu esa o‘z ichiga asosiy, ekish oldi va qator oralari ishlovlarni qamrab oladi.

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SOIL REQUIREMENTS OF TOMATOES IN PROTECTED LAND

Abstract: *Tomato is one of the most important crops in the world in terms of nutrition and economy, and therefore sustainable production, fertilization, irrigation must be constantly monitored. The fertilizer requirement of the tomato plant is related to its growth stage. It is important that the plant is constantly supplied with nutrients, but the recommended amount of nutrients changes at each stage of growth.*

Keywords: *tomato, nitrogen, phosphorus, potassium, soil environment, yield, fertilizer rate, fruit quality, mineral fertilizers, greenhouse, temperature.*

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HIMOYALANGAN YERDA POMIDORNING TUPROQQA BO‘LGAN TALABI

Annotatsiya:*Pomidor ozuqaviy va iqtisodiy jihatdan dunyo bo‘yicha eng muhim mahsulotlardan biri sanaladi,va shu bois barqaror ishlab chiqarish, o‘g‘itlash, sug‘orish doimiy nazoratda olib borilishi lozim.Pomidor o‘simligining o‘g‘itga bo‘lgan talabi uning o‘sish bosqichi bilan bog‘liq.O‘simlik doimiy ravishda ozuqa bilan ta’minlanishi muhim, biroq oziq moddalarning tavsiya etilgan miqdori o‘sishning har-bir bosqichida o‘zgarib boradi.*

Kalit so’zlar: *pomidor, azot, fosfor, kaliy, tuproq muhiti, hosildorlik, o’g’it me’yori,meva sifati, mineral o‘g‘itlar,issiqxona ,xarorat.*

O‘simliklar faoliyatidagi azotning ahamiyatini birinchilardan bo‘lib D. N. Pryashnikov, D.A.Sabinin, M.A.Machiginlar o‘rgangan. D.S.Normurodov, B. X.Xalmirzaev, S.T.Sanaev, A.R.Raximov, K. Sh. Bozorov, Sh. I. Asatov ma’lumotlarida yoritilishicha qish faslida yorug‘lik kamayganda pomidor kaliyni,yorug‘ kunlar uzayib vegetativ massasi jadal suratda o‘sayotgan, mevalar tugayotgan vaqtga kelib azotni oz‘lastirishi nisbatan oshib boradi.Shu boisdan xam N:K nisbati o‘zgartiriladi va qishda 1:3, yozda esa 1:1 me’yorda beriladi. [2;20,46-b]

M.U.Umarov suvga chidamli mikroagregatlar miqdori haydalma qatlamlarda 12-21 % o‘rtasida o‘zgarib turadi.Ko‘pincha suvga chidamli mikroagregatlar miqdori haydalma osti, ba’zan yana chuqurroq qatlamlarga to‘g‘ri keladi. Bu tabiiy hol, chunki haydalma qatlam, birinchidan katta hajmida sug‘orish suvni qabul qiladi. Ikkinchidan butun vegetatsiya davomida ko‘p sonli agrotadbirlar har-xil ishlov jarayonlari amalga oshiriladi. Shuning uchun bo‘lsa kerak, albatta bunday jarayonlar natijasida tuproq agregatlari buziladi.[2,43;282-b].

Organik o‘g‘itlar, fosforli o‘g‘itlarning yillik me’yoridan 75% va 50% kaliyli o‘g‘itlar kuzgi shudgor oldidan solinadi. Fosforli o‘g‘itlarning qolgan 25% hamda azotning yillik me’yoridan 25% birinchi oziqlantirishda, 50% kaliyli o’g’itlar ikkinchi oziqlantirishda, mevalash davri boshlanganida beriladi. Azotli o‘g‘itlarning qolgan qismi teng bo‘linib, 2 va 3 chi oziqlantirishlarda beriladi.[2;29,9-b[

Tuproqqa muntazzam ravishda bir xilda o‘g‘it bilan ishlov berilganda ,tuproq eritmasi tarkibining muvozanatini buzilishiga olib keladi.Bu kabi holat yuzaga kelganda yani tuproq tarkibida tuzlar miqdori oshib ketganda suvda erimaydigan, biroq ekinlar o‘zlashtiraoladigan murakkab o‘g‘itlarni qo‘llagan ma'qul. Issiqxona ekinlarini mineral oziqlantirish yani azot bilan oziqlantirishda asosan mochevina ishlatiladi[2;10,37-b]

Tolkinbayev.J, Umarov.X, Umarov.Z lar tomonidan Qoraqolpog‘iston sharoitida azotli o‘g‘itlarni qo‘llashning pomidor hosildorligiga ta’siri o‘rganilgan. Tajribalar cho‘l-o‘tloqi tuproqlarida ‘’Maykopskiy urojayniy 2090’’navida olib borilgan.Tajribada azotli o‘g‘itlar 60-180 kg me’yorida ikkiga bo‘lib qo‘llanilgan. Birinchisi pomidor o‘simligi gullashni boshlaganida ikkinchisi esa hosil tugish boshlanganda qo‘llanilgan.Yuqori va sifatli hosildorlikka gektariga 120 kg azotli o‘g‘itlar qo‘llanilgan variantda erishilgan (gektariga 58,0 t/ga yoki nazoratga nisbatan 144 % ko‘p).O‘simlik mevasi tarkibida qand va vitamin miqdori gektariga 90-120 kg azotli o‘g‘itlarni qo‘llagan variantlarda ko‘p bo‘lgan. Azotli o‘g‘itlar me’yorini 180 kg ga oshirishda hosildorlik 51,1 t/ga tashkil etgan, lekin hosil sifati yomonlashganlini ta’kidlab o‘tgan.[2;40,19-20 b].

Akademik D.N. Pryanishnikov “mineral va mahalliy o‘g‘itlarni birgalikda qo‘llash hisobiga eng yuqori hosil yetishtirish imkoniyati vujudga keladi chunki, mineral o‘g‘it o‘simliklarni boshlang‘ich rivojlanish davrlarida, mahalliy o‘g‘itlar esa keyingi rivojlanish fazalarida oziq modda bilan ta’minlaydi” deb yozgan edi.

I.N.Xoshimov, X.Miraxmedov o‘zlarining 2021-2022 yillar davomida Farg‘ona viloyatining O‘zbekiston tumanidagi tashkil etilgan issiqxonada o‘tloqi-allyuvial tuproqlari sharoitida o‘z tajribalarini o‘tkazdilar. Bu tajribalarda Sulton va

Isroil navlari urug‘ining unuvchanligini aniqlash maqsadida 5 gr dan jami 30 gr gacha urug‘ olgan va olti soat mobaynida urug‘larni suvda ivitgan.Tayyor bo‘lgan urug‘larni 5-fevralda ekilgan. Pomidor Sulton o‘rta-ertapishar navi 8 kunda unuvchanligi 44.5 % ga 15 kunda 85 % 1000 ta urug‘dan standart ko‘chat chiqimi 80 % ni tashkil etib,ko‘chatlarning bo‘yi 14 sm 4-5 dona tashkil qildi.[2;46,110- b]

Agar issiqxona tuprog’i unumdor bo‘lib, ko‘chat ekishdan oldin yerga organik va oson eruvchan mineral o‘gitlar solinsa, o‘simliklar hosilga kirguncha oziqlantirilmaydi. Kam unumdor yer bo‘lsa, ko‘chat ekilgandan bir haftadan keyin oziqlantirila boshlaydi. Hosil tugish davrida 7-10 kunda bir marta oziqlantiriladi. [2;28,86-b]

Azotning asosiy qismi tuproqda organik birikmalar shaklida, ya’ni qishloq xoj‘aligi os‘imliklari uchun yaroqsiz shaklda uchraydi. Tuproqdan o‘simliklar tomonidan ozuqa moddalarini olib chiqib ketishi hosildorlikni ortib borishi bilan ko‘payib boradi. Albatta o‘simlikning bunday talabini tuproqning tabiiy unumdorligi hisobiga qondirish mumkin emas. Buning uchun ancha miqdorda mineral va organik o‘git‘lar solish kerak.[2.4,19-b]

Azotli o‘g‘itlarning asosiy dozalarini asosiy o‘g‘itlashda berish lozim.Ammo tuproq tarkibidagi azotni 60-70 mg/m^2 dan oshirib yubormaslik kerak.[2;55,259-260 b]

O.F.Maxmudov, M.X.Xolmirzaev, J.I.Isaqulov tavsiyasi bo‘yicha pomidorni o‘g‘itlash uchun ko‘chatlar ildiz otganidan keyin 15 g ammiak selitra, 50 g superfosfat, 20 g kaliy xlorid, ikki-uchta shoxchada tugunchalar paydo bo‘lish davrida 30 g ammiak selitra, 20 g superfosfat, 30 g kaliy xlorid, meva tugish davrida 40 g ammiak selitra, 40 g superfosfat, 30 g kaliy xlorid beriladi har kv m maydonga 10 l suyuq, ozuqa eritma sarflanadi. Organik o‘g‘itlardan turli xil go‘nglar suvga aralashtirilib 1:8 nisbatda ishlatiladi.[2;17,12-13-b]

O‘simliklar juda ko‘p miqdorda azot talab qilganligi sababli, cheksiz o'zlashtirilishini ta'minlash uchun keng ildiz tizimi zarur. Ildizlari siqilish bilan cheklangan o'simliklar tuproqda yetarli azot mavjud bo'lganda ham azot yetishmasligi belgilarini ko'rsatishi mumkin.

Pomidor hosil bilan birga katta miqdorda (meva vaznining 1% ga yaqin) mineral elementlarni olib chiqadi. Shu boisdan u mineral ozuqaga, ayniqsa, tuproqda yaxshi o‘zlashtiriladigan fosforga juda talabchan. Azot yetishmasligi poya va barglarning o‘sishini susaytiradi, hosil kamayishga olib keladi, ortib ketishi esa mevalar yetilishini sekinlashtiradi, kasallik va past haroratga chidamliligini pasaytiradi. Fosfor mevalarning tez pishishi, ildizning o‘sishi va erta gulga kirishini ta’minlaydi, shu bois bu fazalarda fosforli o‘g‘itlarni berish lozim.

Pomidor uchun issiqxona havosidagi karbonat angidrid (SO^2) gazining miqdori ham muhim, uning maqbul me’yori 0,10-0,15% bo‘lishi kerak.[2;41,16-b]

Dinesh Adhikari, Yuya Kobashi, Takamitsu Kay, Kenzo Kubota, Kiwako S. Araki, Motoki Kubolar Organik dehqonchilik tizimida pomidor yetishtirish uchun mos tuproq sharoitlari nomli maqolasida organik dehqonchilik tizimida pomidorning hosildorligi va sifatini yaxshilash uchun mos tuproq sharoiti organik va kimyoviy o'g'itlangan tuproqlarda umumiy uglerod 30 000 - 36 000 mg/kg,

umumiy azot 1600 - 1900 mg/kg va turli xil uglerod-azot nisbati 18 deb taklif qilishgan

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ЎРТА ЗАРАФШОН ДАРЁСИ ҲАВЗАСИ СУВ РЕСУРСЛАРИНИНГ АНТРОПОГЕН ОМИЛЛАР ТАЪСИРИДА ИОН ТАРКИБИ МЕТАМОРФИЗАЦИЯСИ

Аннотация: *Мақолада ўрта Зарафшон дарёси ҳавзаси сув ресурслари мавсумий (март, июль, сентябр, январ) ион таркибининг дарё сув сифатига таъсири жиҳатидан тадқиқ этилган. Зарафшон дарёси ҳавзаси сув ресурслари ион таркиби мавсумий ҳамда антропоген омиллар таъсири натижасида метаморфизация жараёни содир бўлади. Ионлар нисбати Зарафшон кириш пунктида март, июль, сентябр ойларида гидрокарбонат-кальцийли $Ca(HCO_3)_2$ тип бўлса, январ ойида сулфат магнийли $MgSO_4$ типга ўзгаради.*

Дарёнинг оқим узунлиги бўйлаб (Зарафшон кириш пунктида) гидрокарбонат-кальцийли $Ca(HCO_3)_2$ типдан (Қорадарё охири пунктида) сулфат натрийли Na_2SO_4 типга ўзгаради. Бундан ташқари дарёга ташланаётган ташлама сувлар сулфат магнийли $MgSO_4$, хлорид магнийли $MgCl_2$, сулфат натрийли Na_2SO_4 ва сулфат калцийли $CaSO_4$ эканлиги аниқланди.

Калит сўзлар*: ўрта Зарафшон дарёси ҳавзаси, асосий анионлар ва катионлар, кузатув пунктлари, ташламалар, метаморфизация.*

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METAMORPHOSIS OF THE IONIC COMPOSITION OF THE WATER RESOURCES OF THE MIDDLE ZERAVSHAN BASIN UNDER THE INFLUENCE OF ANTHROPOGENIC FACTORS

Abstract: *The article studies the water resources of the Middle Zeravshan River basin from the point of view of the influence of seasonal (March, July, September, January) ion content on the quality of river water. The ion composition of the water resources of the Zeravshan River basin changes seasonally, and metamorphism occurs as a result of anthropogenic factors. In March, July, September, the ratio of ions at the mouth of the Zeravshan $Ca(HCO_3)_2$ with hydrocarbonate-calcium, and in January it changes to sulfate-magnesium $MgSO_4$.*

Along the length of the river (at the mouth of the Zeravshan), it changes from hydrocarbonate-calcium type $Ca\ (HCO_3)_2$ (at the end of the Karadarya) to sodium

sulfate type Na_2SO_4. In addition, it was found that the wastewater discharged into the river is $MgSO_4$ with magnesium sulfate, $MgCl_2$ with magnesium chloride, Na_2SO_4 with sodium sulfate and $CaSO_4$ with calcium sulfate.

Key words: *Middle Zeravshan River basin, anions and cations, monitoring points, discharges, metamorphism.*

Кириш. Метаморфизация - бу физик-географик шароитлар таъсирида сувнинг кимёвий таркибининг ўзгариш жараёни бўлиб, сувнинг кимёвий таркиби гидрокарбонатлар синфидан сулфатга, сўнг хлоридларга ўзгаради ва аксинча бўлиши мумкин [6]. Табиий сувларнинг метаморфизацияси учун зарур шартлардан бири-бу уларнинг минерализациясининг ошиши, муҳит кислоталилигининг ўзгариши, ионлар фаоллиги ва бошқа муҳим омиллар ҳисобланади [1].

Сув таркибининг кимёвий метаморфизация жараёни ушбу синфлардан бирининг таркиби доимий ўзгаришига ва бошқа синфга ўтишига олиб келади. Бу жараёнда сувнинг кимёвий таркиби гидрокарбонат синфдан сулфатга, сўнг хлоридларга ўзгарадиган бўлса, аввал карбонат ва гидрокарбонатлар, кейин эса сулфатлар йўқолади. Сувнинг кимёвий таркибидаги бундай метаморфизация йўналиши тўғри ёки нормал деб аталади. Бундай жараён қуруқ иқлим шароитида ва ер ости сувлари юқоридан пастга қараб ҳаракатланганда кузатилади [6].

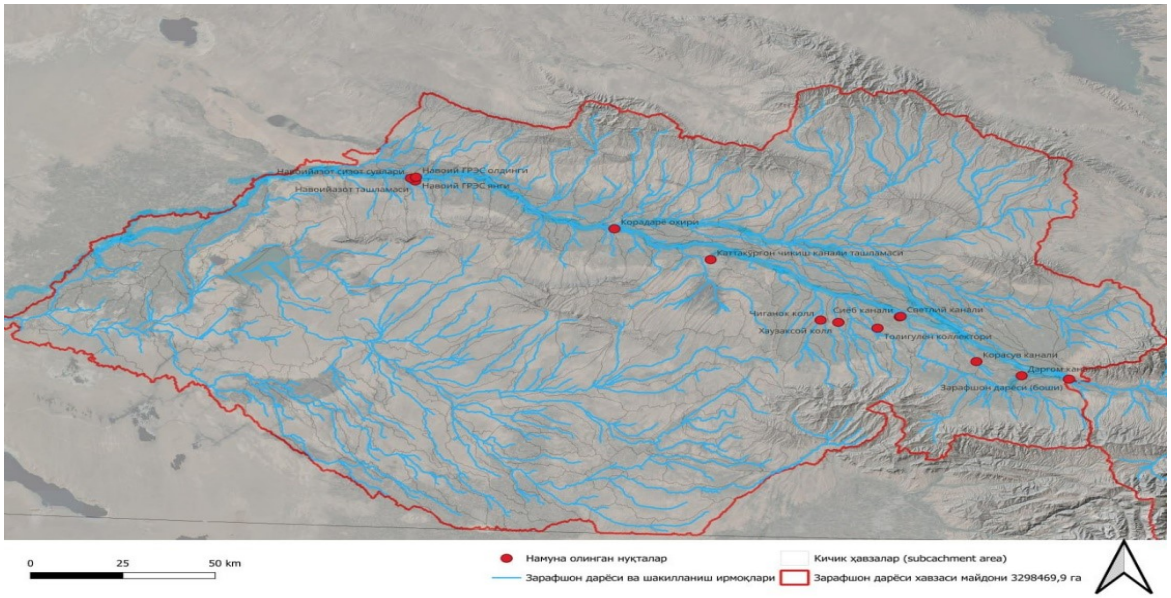
О.А. Алёкин тадқиқотларига кўра [1], дунё бўйича дарёларининг аксарияти паст ва ўртача минерализацияга эга ва камдан-кам ҳолларда дарёларда юқори минераллашган сув мавжуд. Дарё сувлари минерализация миқдори жуда паст (100 мг/дм^3 гача), ионлар миқдори ҳам жуда кам бўлиб, кўпинча бундай сувлар тоғ дарёлари учун хос.

Зарафшон дарёсининг Ўзбекистон ҳудудида дарёда минерализация ҳамда ион миқдори ортишининг асосий сабаби коммунал-маиший, саноат ва қишлоқ хўжалик ташламаларининг дарёга ташланиши ҳисобланади [3].

Ишнинг мақсади ва вазифалари. Юқорида келтирилган маълумотлардан келиб чиқиб, тадқиқотнинг асосий мақсади Ўрта Зарафшон дарёси ҳавзаси сув ресурслари ион таркиби ўзгаришлари ҳамда Зарафшон дарёси сувига ташланаётган ташламаларнинг ион таркиби дарё сувига таъсири жиҳатидан тадқиқ этиш ҳисобланади.

Шундан келиб чиқиб, Зарафшон дарёси ва унга ташланадиган ташламалар йиллик ва мавсумий ион ҳамда минерализация миқдорлари аниқланиб, улар орасидаги %-экв миқдорлари ҳисоблашлар орқали метаморфизация жараёни содир бўлиши аниқланди ва ушбу ҳисоблашлар таҳлиллари асосида сув сифати ҳолати тадқиқотнинг вазифаси қилиб белгиланди.

Асосий қисм. Ўрта Зарафшон дарёси ҳавзаси сув ресурсларининг ион таркиби 2023 йил мавсумий (март, июль, сентябр, январ) Ўзгидрометнинг “Атроф-муҳит ифлосланиш мониторинги” бўлими “Ер усти сувлари сифати” лабораториясида тадқиқ қилинди.



Кузатув пункти сифатида сув намуналари 14 та сув объектларидан олинди. Унга кўра, дарёнинг Ўзбекистонга кириш қисмида ҳамда дарё ҳавзасининг охири Қорадарёдан сув намуналар олинди. Қолган сув намуналари дарёдан сув оладиган Қорасув ва Дарғом канали бўлса, бошқалари дарёга ташланадиган ташламалар ҳисобланади. Тадқиқот ишида кузатув пунктилари танланиб, кузатув пунктлари жойлашув харитаси тузилди (1-расм).

Ўрта Зарафшон дарёси ҳавзаси сув ресурсларининг мавсумий метаморфизацияси март ойида Зарафшон (кириш), Дарғом канали пунктларида гидрокарбонат калцийли $Ca(HCO_3)_2$, Қорасув боши, Сиёб канали, Толигулён коллектори, Хаузаксой коллектори пунктларида гидрокарбонат магнийли $Mg(HCO_3)_2$, Светлий канали, Чиғаноқ коллектори, Каттақўрғон чиқиш канали, Қорадарё охири, Навоийазот ташламаси, Навоийазот сизот сувлари, Навоий ИЭС янги, Навоий ИЭС эски пунктларида сулфат магнийли $MgSO_4$ типга эга (1-жадвал).

1-жадвал

Ўрта Зарафшон дарёси ҳавзаси сув ресурсларининг мавсумий метаморфизацияси

Дарё ва ташламалар	Метаморфизация			
	март	июнь	сентябр	январ
Зарафшон (кириш)	$Ca(HCO_3)_2$	$Ca(HCO3)_2$	$Ca(HCO_3)_2$	$MgSO_4$
Қорасув боши	$Mg(HCO_3)_2$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Дарғом канали	$Ca(HCO_3)_2$	$Mg(HCO_3)_2$	$Ca(HCO_3)_2$	$CaSO_4$
Сиёб канали	$Mg(HCO_3)_2$	$MgCl_2$	$MgCl_2$	$MgSO_4$
Светлий канали	$MgSO_4$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Толигулён коллектори	$Mg(HCO_3)_2$	$Ca(HCO_3)_2$	$CaSO_4$	$MgSO_4$
Хаузаксой коллектори	$Mg(HCO3)_2$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Чиғаноқ коллектори	$MgSO_4$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Каттақўрғон чиқиш канали	$MgSO_4$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Қорадарё охири	$MgSO_4$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Навоийазот ташламаси	$MgSO_4$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Навоийазот сизот сувлари	$MgSO_4$	$CaSO_4$	$MgSO_4$	$MgSO_4$
Навоий ИЭС янги	$MgSO_4$	$MgSO_4$	$MgSO_4$	$MgSO_4$
Навоий ИЭС эски	$MgSO_4$	Na_2SO_4	$MgSO_4$	$MgSO_4$

$Ca(HCO_3)_2$ - гидрокарбонат калцийли; $MgSO_4$ - сулфат магнийли; $Mg(HCO_3)_2$ – гидрокарбонат магнийли; $CaSO_4$ – сулфат калцийли; Na_2SO_4 – сулфат натрийли; $MgCl_2$ – хлорид магнийли.

Ҳавзанинг июнь ойига келиб эса Зарафшон (кириш), Светлий канали, Толигулён коллектори, Хаузаксой коллектори, Навоийазот сизот сувлари, Навоий ИЭС эски пунктларидан бошқа пунктларда март ойига нисбатан метаморфизация жараёни бироз ўзгаради. Сентябр ойида Зарафшон (кириш), Дарғом канали, Сиёб канали, Толигулён коллектори пунктларидан бошқа барча пунктларда сулфат магнийли $MgSO_4$ типга мансуб. Ҳавзанинг январ ойида Дарғом канали сулфат калцийли $CaSO_4$ бўлса, қолган барча пунктларда сулфат магнийли $MgSO_4$ типга ўзгаради (1-жадвал).

Табиий сувларнинг метаморфизацияси учун зарур шартлардан бири - бу уларнинг минерализациясининг ошиши, муҳит кислоталилигининг ўзгариши, ион фаоллиги ва бошқа сабаблардир [1].

Ер усти сувлари учун О.А.Алёкиннинг иккита - устун ионлар ва ионлар орасидаги ўзаро муносабатга асосланган классификацияси мавжуд бўлиб, устун ионлар деб модданинг эквивалент миқдорида фоизларда ҳисобланганда энг катта нисбий таркибли ионлар ҳисобланади [1,2,5]. Шунга кўра, ўрта Зарафшон дарёси ҳавзаси ионлар таркиби учун О.А.Алёкин таснифи бўйича ионларнинг устунлик даражаси ва улар орасидаги муносабатни аниқловчи ҳисоблашлар бажарилди (2-жадвал).

2-жадвал

Ўрта Зарафшон дарёси ҳавзаси сув ресурсларининг ион таркиби ўзгариши натижасида метаморфизацияси (2023 й.)

Ионлар, %-экв, дарё ва ташламалар	HCO_3^-	SO_4^{2-}	Cl^-	Ca^{2+}	Mg^{2+}	Na^+	K^+	∑	Метаморфизация
Зарафшон (кириш)	224,3	120,7	26,5	42,6	20,8	9,9	1,8	274,7	$Ca(HCO_3)_2$
Қорасув боши	272,0	232,8	63,8	63,1	39,5	18,8	3,2	480,5	$Ca(HCO_3)_2$
Дарғом канали	231,3	134,1	24,6	44,6	21,9	10,2	1,8	276,0	$Ca(HCO_3)_2$
Сиёб канали	336,3	281,5	237,7	69,6	59,3	67,1	6,5	720,8	$Ca(HCO_3)_2$
Светлий канали	276,8	422,6	162,3	62,1	61,2	51,9	4,6	736,2	$CaSO_4$
Толигулён коллектори	166,0	148,5	28,5	40,6	21,2	15,9	1,2	303,0	$Ca(HCO_3)_2$
Хаузаксой коллектори	269,8	385,9	62,9	45,6	63,7	49,8	2,5	653,2	$MgSO_4$
Чиғаноқ коллектори	235,5	399,9	65,6	45,4	61,7	67,2	2,5	649,7	Na_2SO_4
Каттақўрғон чиқиш канали	165,0	388,1	90,8	54,1	48,8	55,3	2,9	641,6	Na_2SO_4
Қорадарё охири	185,0	409,6	84,9	51,4	52,6	87,5	3,0	754,3	Na_2SO_4
Навоийазот ташламаси	209,3	1302,6	170,4	281,0	159,7	221,4	5,9	3081,3	$CaSO_4$
Навоийазот сизот сувлари	223,8	1346,7	441,2	293,7	163,1	285,2	5,9	3918,5	$CaSO_4$
Навоий ИЭС янги	272,3	1356,7	149,7	158,6	150,1	203,4	8,3	2558,7	Na_2SO_4
Навоий ИЭС эски	204,8	735,3	109,7	64,8	106,1	135,3	5,8	1424,2	Na_2SO_4

$Ca(HCO_3)_2$- гидрокарбонат калцийли; $MgSO_4$- сулфат магнийли; $CaSO_4$ – сулфат калцийли; Na_2SO_4 – сулфат натрийли.

Ўрта Зарафшон дарёси ҳавзасида дарё сувига ташланадиган ташламаларнинг минерализация миқдори 303-3918,5 %-экв орасида бўлиб, дарёнинг Зарафшон (кириш) пунктида минерализация миқдори 274,7 %-экв ни ташкил қилса, дарёнинг Қорадарё охири пунктида 754, 3 %-экв га етади. Дарёга ташланадиган ташламалардан минерализациянинг энг юқори миқдори Навоийазот сизот сувлари пунктида (3918,5 %-экв) кузатилади (2-жадвал).

Қор сувларидан тўйинадиган дарёлар одатда паст минерализацияли бўлиб, бошқа ионларга нисбатан гидрокарбонат ва калций ионларининг сувда кўпроқ учраши кузатилади. Бунинг асосий сабаби қор қоплами остидаги тупроқ кўпинча музлаб қолади, шунинг учун эриган сувлар тупроққа кириб фақат юзага яқин жойлардан ажралиб чиққан ўзгармайдиган тузларни олиб кетади [1].

Ўрта Зарафшон дарёси ҳавзасининг ўртача йиллик Зарафшон (кириш), Қорасув боши, Дарғом ва Сиёб каналлари ҳамда Толигулён коллектори пунктларида анионлардан энг юқори гидрокарбонат ионлари, катионлардан энг юқори калций ионлари устунлик қилса, Светлий канали, Навоийазот

ташламаси, Навоийазот сизот сувлари пунктида анионлардан энг юқори сулфат ионлари, катионлардан энг юқори калций ионлари, Хаузаксой коллектори пунктида анионлардан энг юқори сулфат ионлари, катионлардан энг юқори магний ионлари, Чиғаноқ коллектори, Каттақўрғон чиқиш канали, Қорадарё охири, Навоий ИЭС янги, Навоий ИЭС эски пунктларида анионлардан энг юқори сулфат ионлари, катионлардан энг юқори натрий ионлари устунлик қилади (2-жадвал).

Тадқиқот натижаларига кўра, дарёнинг оқими бўйлаб сувдаги барча ионларнинг миқдори ташлама сувлар ташланиши ҳисобидан ортади. Зарафшон (кириш) пунктига нисбатан, унга ташланаётган ташлама сувлар таркибидаги анионлардан гидрокарбонат миқдори 1,4 мартага (Сиёб каналида), сулфат миқдори 11 мартага (Навоий ИЭС янги), хлоридлар миқдори эса 16 мартага (Навоийазот сизот сувлари) юқори бўлса, катионлардан калций миқдори 6,8 марта (Навоийазот сизот сувлари), магний миқдори 7,8 мартага (Навоийазот сизот сувлари), натрий миқдори 28,8 мартага (Навоийазот сизот сувлари), калий миқдори 4,6 мартага (Навоий ИЭС янги) юқори.

Хулоса. Ўртача йиллик тадқиқотларга кўра, ҳавзанинг Зарафшон кириш пунктида гидрокарбонат калцийли $Ca(HCO_3)_2$ бўлиб, унга ташламалар ташланиши ҳисобидан Қорадарё охири пунктида сулфат натрийли Na_2SO_4 типга ўзгаради.

Ўрта Зарафшон дарёси ҳавзаси сув ресурсларининг асосий ионлар миқдори устунлик жиҳатдан мавсумий кескин ўзгариш хусусиятига эга, бир типдан иккинчи типга ўзгариши оқибатида метаморфизация жараёни содир бўлиши кузатилади. Дарёга ташланаётган ташлама сувлар сулфат магнийли $MgSO_4$, хлорид магнийли $MgCl_2$, сулфат натрийли Na_2SO_4, сулфат калцийли $CaSO_4$, сулфат натрийли Na_2SO_4 ва гидрокарбонат магнийли $Mg(HCO_3)_2$ тип ташламалар ҳисобланади.

Ўрта Зарафшон дарёси ҳавзаси сув ресурсларининг мавсумий метаморфизация жараёни содир бўлишида дарё сув сарфи миқдорининг ўзгариши, ер ости сувлари ва антропоген омилларнинг таъсири катта аҳамиятга эга.

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ПРОФЕССИОНАЛЬНЫЕ КОМПЕТЕНЦИИ ВОВЛЕЧЁННОСТИ СТУДЕНТОВ В УЧЕБНОЙ ДЕЯТЕЛЬНОСТИ

***Аннотация**: В современном динамично развивающемся мире требования к качеству образования постоянно растут. От педагога ожидается не только передача знаний, но и развитие у студентов ключевых компетенций, необходимых для успешной жизни в обществе. В связи с этим, исследование роли компетенций педагога в развитии студентов является актуальной и значимой задачей.*

***Ключевые слова:** образование, обучение, система, компетенции, педагога, студент, развитие.*

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PROFESSIONAL COMPETENCES OF STUDENT ENGAGEMENT IN EDUCATIONAL ACTIVITIES

***Abstract**: In today's dynamically developing world, the demands on the quality of education are constantly growing. The teacher is expected not only to transfer knowledge, but also to develop in students the key competencies necessary for a successful life in society. In this regard, the study of the role of teacher competencies in the development of students is a relevant and significant task.*

***Keywords:** education, training, system, competencies, teacher, student, development.*

Проблема информативности студентов в учебную деятельность является одной из центральных в современном образовании. Исследования показывают, что активная включенность студентов в учебный процесс соответствует академическим достижениям, формированию профессиональных и личностных качеств, а также обеспечению профессиональной самоидентификации студентов. При изучении теоретических основ роли компетенций педагога в развитии студентов, определить ключевые компетенции педагога, влияющие на процесс обучения и воспитания, а также проанализировать существующие модели развития компетенций педагогов.

Компетенции – это совокупность знаний, умений, навыков, личностных качеств, необходимых для эффективного выполнения определенной деятельности. В контексте педагогической деятельности, компетенция – это совокупность профессиональных качеств, обеспечивающих успешность его работы. Ситуация выступает не только источником знаний, но и создаёт условия для возникновения и поддержания у студентов познавательной активности; планирует, организует и контролирует учебную деятельность; оказывает индивидуальную помощь студентам в освоении учебного материала; формирует у студентов ценностные ориентации, мировоззрение, жизненные навыки.

Предметные компетенции, глубокое знание предмета, умение его преподавать.

Педагогические компетенции, умение планировать учебный процесс, выбирать эффективные методы обучения, оценивать результаты обучения.

Коммуникативные компетенции, умение эффективно взаимодействовать со студентами, коллегами, родителями.

Социально-психологические компетенции, умение создавать благоприятный психологический климат.

Информационно-коммуникативные компетенции, умение использовать современные информационные технологии в образовательном процессе.

Мотивация — центральный компонент компьютерности студентов в учебную деятельность. Мотивационная компетенция преподавателя включает в себя формирование навыков и поддержание учебной мотивации, умение ставить цели, вести студентов к активной деятельности и создавать условия для поддержания их интереса к предмету. Это вынесено на счет постановки значимых и интересных задач, использования положительного укрепления, стимулирования высоких достижений и прогресса.

Управление учебной сферой требует от преподавателей владения навыками планирования и организации образовательного процесса, управления средствами и создания международных целей. Для обеспечения информативности студенты преподаватели должны уметь структурировать технологические задачи, чтобы они были посильны и интересны для студентов. Кроме того, важно, чтобы студенты обучались процессу управления в собственной учебной среде, которая формирует ответственность и самооценку.

Таблица: Оценка роли компетенций педагога и факторов эффективности педагогической деятельности

Компетенции педагога	Роль в развитии студентов	Факторы, влияющие на эффективность
Коммуникативные (умение слушать, задавать вопросы, давать обратную связь, вести дискуссии)	Способствуют созданию доверительной атмосферы, активному участию студентов в учебном процессе, развитию критического мышления.	Ясность речи, эмоциональная выразительность, умение адаптировать стиль общения к аудитории.
Дидактические (умение планировать учебный процесс, выбирать методы и формы обучения, использовать различные учебные материалы)	Определяют эффективность передачи знаний, формирование навыков и умений студентов.	Глубина предметных знаний, владение современными педагогическими технологиями, способность адаптировать учебный материал к потребностям студентов.
Психологические (понимание возрастных и индивидуальных особенностей студентов, умение мотивировать, создавать благоприятный психологический климат)	Способствуют повышению мотивации студентов, развитию их личностного потенциала.	Эмпатия, умение устанавливать доверительные отношения со студентами, знание психологии развития.
Организационные (умение планировать и организовывать учебный процесс, управлять группой, решать конфликтные ситуации)	Обеспечивают эффективное использование учебного времени, создание оптимальных условий для обучения.	Опыт работы, умение делегировать полномочия, способность принимать решения в нестандартных ситуациях.
Инновационные (способность внедрять новые педагогические технологии, использовать информационные ресурсы)	Способствуют повышению эффективности обучения, развитию творческих способностей студентов.	Открытость к новому, желание совершенствоваться, умение адаптироваться к изменениям.

Вывод: Использование разнообразных методов обучения, характерных для педагогов с развитыми дидактическими компетенциями, способствует формированию у студентов более глубоких и прочных знаний. Педагоги с развитыми психологическими компетенциями способствуют созданию в учебной группе атмосферы взаимоуважения и сотрудничества, что положительно влияет на мотивацию студентов.

Формирование и поддержание прозрачности студентов в учебном процессе является сложной, многогранной частью, требующей от преподавателей ведения рядом профессиональных компетенций. Психолого-педагогическая, коммуникативная, методическая, мотивационная, управленческая и

информационная компетенции являются ключевыми для обеспечения содействия студентов в учебной деятельности. Эти преимущества включают в себя оптимальные условия для включения студентов в учебный процесс, что определенно зависит от их академических достижений и профессионалов.

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ОПТИМИЗАЦИИ ПРОГНОЗИРОВАНИЯ ИСХОДОВ ИНТЕНСИВНОЙ ТЕРАПИИ ПОЛИОРГАННОЙ НЕДОСТАТОЧНОСТИ У НОВОРОЖДЕННЫХ

Резюме: *Несмотря на достижения в современной неонатологии, летальность в отделениях реанимации среди новорожденных детей остается высокой, причем основной причиной неблагоприятных исходов является порлиорганная недостаточность (ПОН). Для повышения выживаемости была разработана целевая индивидуализирующая терапия (ЦИТ). Критерием ПОН у новорожденных детей является индекс доставки кислорода (IDO_2) ≤ 583 мл/м2 в минуту, смысл ЦИТ заключался в поддержании IDO_2 выше порогового критерия ПОН. В проспективное, контролируемое, рандомизированное исследование включено 78 новорожденных детей с ПОН. Результаты исследования показали, что выживаемость пациентов группы ЦИТ в течение года после рождения составила 0,92, тогда как в группе ТИТ – 0,74, что позволяет считать метод эффективным.*

Ключевые слова: *новорожденные, полиорганная недостаточность, выживаемость, оптимизация доставки кислорода, целевые параметры сатурации.*

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PERSONIFICATION OF INTENSIVE THERAPY OF MULTIPLE ORGAN FAILURE IN NEWBORNS

Abstract: *In spite of achievements in modern neonatology, lethality of newborns at resuscitation departments remains high. The main cause of unfavourable outcomes is multiple organ failure (MOF). A targeted individualized therapy (TIT) was developed to increase the survival. In newborns, the TIT criterion is represented by the index of oxygen delivery (IDO_2) ≤ 583 ml/m2 per minute, whereas the TIT was aimed at the support of IDO_2 at the level above the MOF. The prospective, controlled, randomized study included 78 newborns with MOF. According to the results of the study, survival of the patients accounted to 0.92 in*

the TIT group within one year after the birth and 0.74 in the other group. Thus, the method was claimed effective.

Key words: *newborns, multiple organ failure, survival, oxygen delivery optimization, targeted parameters of saturation.*

Введение: Несмотря на достижения в современной неонатологии, летальность в отделениях реанимации среди новорожденных детей остается высокой, растет инвалидизация среди выживших пациентов, а основной причиной неблагоприятных исходов является полиорганная недостаточность (ПОН). Дизоксия и связанные с ней процессы липопероксидации играют важную роль в развитии ПОН [1]. Это указывает на целесообразность использования терапевтических стратегий, обладающих одновременно антиоксидантным и антигипоксическим действием в комплексном лечении ПОН, к числу таких стратегий относят «целевые параметры сатурации» в неонатологии, способные снижать интенсивность оксидативного стресса [2]. Однако побочными эффектами стратегии целевых параметров сатурации являются бронхолегочная дисплазия (БЛД), ретинопатия, экситотоксичность головного мозга новорожденных в случае поддержания сатурации гемоглобина артериальной крови кислородом (SpO_2) на верхних границах и с повышенным риском летальных исходов при поддержании данного показателя на нижних границах целевых параметров [2]. Очевидно, что для увеличения эффективности данной стратегии следует проводить оптимизацию доставки кислорода на основе объединения оптимизации индекс доставки кисло- рода (IDO_2) [3]

Цель исследования. Разработка целевой индивидуализирующей терапии (ЦИТ) на основе объединения оптимизации индекс доставки кислорода (IDO_2) со стратегией целевых параметров по SpO_2.

Материалы и методы: проведено проспективное, контролируемое, рандомизированное исследование влияния ЦИТ на динамику показателей центральной гемодинамики, содержания продуктов липопероксидации в трахеобронхиальном лаваже и тяжести клинического состояния новорожденных детей с ПОН и их выживаемость в течение года после рождения. Критерии включения основывались на интегральных характеристиках тяжести клинического состояния и вероятности летального исхода по шкале SNAP-PE (Scorefor Neonatal Acute Physiology-Perinatal Extension) (≥20 баллов и вероятности летального исхода ≥ 3,8% соответственно), а также интенсивности терапевтического вмешательства по шкале NTISS (Neonatal Therapeutic Intervention Scoring System) (≥ 24 балла) [4,5]. В качестве критериев «золотого стандарта» диагностики ПОН использовались критерии Пшениснова К.В. [6]. Несоответствие какого либо критерия включения считалось критерием исключения. Из исследования исключали детей с врожденными пороками развития, генетическими и хромосомными аномалиями. Включение новорожденных в исследование осуществлялось только на основании информированного согласия родителей.

Для исследования было отобрано 78 новорожденных детей с ПОН, госпитализированных в отделение реанимации и интенсивной терапии Андижанском областном детском многопрофильном медицинском центре. В большинстве случаев развитие ПОН было обусловлено синдромом дыхательных расстройств новорожденного и тяжелой асфиксией в родах. В более редких случаях ПОН развивалась как осложнение синдрома массивной аспирации околоплодных вод, загрязненных меконием, врожденной пневмонии и неонатального сепсиса раннего начала. Новорожденные обеих групп получали комплексное базисное лечение в соответствии с действующим федеральным стандартом оказания помощи новорожденным [7]. Все дети были разделены на 2 группы (по 39 пациентов в каждой: группа ЦИТ и традиционной интенсивной терапии (ТИТ). Для рандомизации пользовались методом «последовательных номеров. Группы сравнения были сопоставимы по возрастным, гендерным, параметрическим характеристикам, оценке по Апгар, нозологической структуре, распространенности осложнений и по объему терапевтического вмешательства, о чем говорит показатель шкалы NTISS. В предварительных наших исследованиях [8] с помощью ROC-анализа мы установили, что критическим значением IDO_2 для развития ПОН является значение менее 583 мл/м2 в минуту. В основной группе (ЦИТ) использовались целевые параметры SpO_2 на уровне 85-95% (монитор Philips, Нидерланды), одновременно проводилась оптимизация доставки кислорода выше порогового критерия 583 мл/м2 в минуту, остальные физиологические параметры оптимизировались индивидуально, чтобы IDO_2 не был ниже указанного порога. Для осуществления ЦИТ использовали кардиотоники с целью поддержания гемодинамического компонента IDO_2, с предварительной коррекцией волемического статуса, КОС и газоэлектролитного комплекса [9], трансфузии переносчиков кислорода (эритроцитарная масса или эритроцитарная взвесь) в дозе, достаточной для поддержания гемического компонента для превышения критического порога ПОН по IDO_2. В контрольной группе проводилась ТИТ. Проводился мониторинг IDO_2, но применение кардиотоников и трансфузий переносчиков кислорода осуществлялось без учета IDO_2 при тех же целевых параметрах SpO_2, что и в основной группе. С целью минимизации ошибок и потерь времени была использована программа расчета доставки кислорода в организме человека (свидетельство об отраслевой разработке № 9616, 15.01.2008). Индекс IDO_2 вычислялся программой на основе формулы Старлинга, площадь поверхности тела определялась по формуле Дюбуа [10], неактивные формы гемоглобина исключались на основании данных биохимического анализатора (ABL 800 FLEX). Ударный (УИ) и сердечный (СИ) индексы определялись с помощью эхокардиографии (MyLab 20, Esaote, Италия). Определение IDO_2, УИ и СИ производилось каждый день нахождения пациентов в ОРИТ. С помощью указанной выше программы определяли желаемые индивидуализированные целевые параметры ЧСС, концентрации гемоглобина для достижения заданных целевых параметров, его сатурации и IDO_2. Если ЧСС достигала 170

уд/мин и/или АД верхней границы 95% интервала достоверности для данного гестационного возраста и дня жизни, то оптимизация проводилась за счет трансфузии эритроцитарных переносчиков. Если гематокрит приближался или достигал 0,6, то оптимизацию проводили за счет респираторного компонента: сначала увеличивали среднее давление в дыхательных путях (MAP), а при достижении опасного порога повышали нижнюю границу целевых параметров SpO_2. При респираторной терапии значение FiO_2 старались поддерживать не выше 30%. Основной целью при ЦИТ было выдерживание целевых параметров сатурации на фоне максимально «мягких» параметров ИВЛ при сохранении целевого IDO_2. Также проводилась интегральная клиническая оценка состояния ЦНС и определение уровня продуктов липопероксидации в трахеобронхиальном лаваже. Состояние ЦНС оценивали по 5 балльной шкале Prechtl [11], предназначенной для квантификации данных неврологического обследования новорожденных. Максимальная оценка (5 баллов) по этой шкале соответствует наилучшему состоянию церебральных функций, минимальный показатель отражает наихудшее состояние ЦНС. Уровень продуктов ПОЛ в лаважном содержимом определяли спектрофотометрически с регистрацией липопероксидов в гептановой и изопрапольной фазах липидного экстракта. Результаты выражали в единицах индексов окисления (ед.и.о.). На заключительном этапе исследования оценивали выживаемость в сформированных группах методом множительных оценок Каплана Мейера в течение первого года жизни изучаемых групп новорожденных детей. Обращали внимание на частоту реинтубаций [12].

Статистический анализ: выполнен с использованием пакета прикладных компьютерных программ Statistica 6.0. Размеры групп сравнения определены методом анализа мощности, значение мощности 0,8, при альфа ошибке 0,05. Проверка на нормальность распределения проводилась методом Шапиро – Уилкса. Количественные (интервальные) и порядковые (ординальные) данные обработаны дескриптивными методами и представлены в виде медианы и верхнего и нижнего квартилей (Me (LQ-UQ)). Для оценки исходной сопоставимости сформированных групп по интервальным и ординальным параметрам и межгрупповых различий на заключительном этапе исследования применяли U-критерий Манна-Уитни. Анализ динамики соответствующих показателей в отдельных группах проводили с помощью парного критерия Вилкоксона. Для исключения статистических ошибок I рода результаты терапии считали значимыми только при параллельном выявлении достоверных различий с исходным уровнем и с конечными показателями в группе ТИТ. Межгрупповые сопоставления по качественным (номинальным) параметрам осуществляли с помощью точного критерия Фишера. Проверка статистических гипотез проводилась при критическом уровне значимости P=0,05. Для изучения выживаемости использовался метод множительных оценок Каплана-Мейера. Для сравнения

значимости различий при изучении выживаемости использовался непараметрический метод Кох-Мантеля.

Результаты и обсуждение: В результате проведенного исследования было установлено, что исходный уровень продуктов липопероксидации в лаважном содержимом трахеобронхиального дерева достоверно отражал тяжесть клинического состояния пациентов. Это проявилось прямыми корреляциями показателей SNAP-PE, NTISS и вероятности летального исхода с содержанием гептан растворимых диенконьюгатов (ДК) в лаважной жидкости (rs=0,36–0,47; P = 0,005–0,0004). После начала комплексного лечения и в предэкстубационный период в группе ТИТ было отмечено улучшение показателей центральной гемодинамики и состояния ЦНС. Это проявилось статистически значимым увеличением УИ, СИ и оценки по шкале Prechtl по сравнению с исходным уровнем. Вместе с тем стандартная терапия в этой группе не вызвала никаких изменений IDO2 и даже сопровождалась достоверным нарастанием уровня гептан растворимых ДК, и кетодиенов и сопряженных триенов (КДиСТ) в лаважном содержимом по сравнению с исходными значениями. Вполне возможно, что повреждение бронхолегочной системы в процессе ИВЛ [13] способствует эскалации оксидативного стресса и за счет этого ограничивает коррекцию нарушений доставки кислорода к тканям. По-видимому, данные обстоятельства снижали эффективность ТИТ у новорожденных с ПОН, что привело к снижению выживаемости среди пациентов этой группы. Выживаемость в течение года после рожденияв группе ЦИТ достигла 0,92, тогда как в группе ТИТ – 0,74. Различия статистически значимые, $p \leq 0,05$ (метод Кох-Мантеля). Высокая клиническая эффективность применения ЦИТ была связана с повышением IDO_2 выше порогового уровня развития ПОН при ограничении FiO_2 на фоне целевых параметров сатурации и профилактики гипероксии при одновременном сохранении «мягких» параметров ИВЛ. Это проявилось достоверным снижением содержания всех продуктов липопероксидации в содержимом трахеобронхиального лаважа, как по сравнению с исходным уровнем в группе ЦИТ, так и с конечными показателями группы ТИТ. Одновременно наблюдалось значимое улучшение IDO_2 по сравнению с исходным уровнем и по сравнению с группой ТИТ на заключительном этапе исследования. Важно подчеркнуть, что применение ЦИТ способствовало также более выраженной коррекции показателей центральной гемодинамики в сравнении с традиционной интенсивной терапией ПОН. Как видно ЦИТ вызывала статистически значимое увеличение СИ как по сравнению с исходными показателями в соответствующей группе, так и с промежуточными значениями группы ТИТ, хотя конечные показатели не имели статистически значимых межгрупповых различий. Антиоксидантный эффект ЦИТ проявлялся клинически значимым улучшением состояния ЦНС: достоверное увеличение числа пациентов с оценкой по Prechtl выше 3 баллов по сравнению с числом таких пациентов группы ТИТ. Данный факт хорошо согласуется с представлениями о критической роли удовлетворения кислородного запроса

головного мозга в обеспечении его функций. Благоприятное влияние ЦИТ на доставку кислорода к тканям иллюстрируется также значимым уменьшением частоты реинтубаци. Наиболее значимым свидетельством клинической эффективности применения ЦИТ в комплекс- ном лечении ПОН у новорожденных детей является значительное повышение выживаемости по сравнению с группой ТИТ.

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ИСПОЛЬЗОВАНИЕ ТЕХНОЛОГИЙ ГИС ПРИ ИЗУЧЕНИИ РЕЛЬЕФА ВОДОХРАНИЛИЩ СУРХАНДАРЬИНСКОЙ ОБЛАСТИ

Аннотация: *Приоритетное значение придается исследованиям по эффективному использованию водных ресурсов, состоянию водных ресурсов водохранилищ и рельефу их территорий. В данной статье рассматривается состояние рельефа территории водохранилища в Сурхандарьинской области и проведенные исследования по использованию ГИС-технологий при его изучении.*

Ключевые слова: *рельеф, технологии GAT, Google Earth, топографическая карта, программа Surfer, программа TSX Converter, 3D модель рельефа*

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USE OF GAT TECHNOLOGIES IN STUDYING THE RELIEF OF RESERVOIRS IN THE SURKHANDARYA REGION

Abstract: *Priority is given to research on the efficient use of water resources, the state of water resources of reservoirs and the relief of their territories. This article examines the state of the relief of the reservoir territory in the Surkhandarya region and the studies conducted on the use of GIS technologies in its study.*

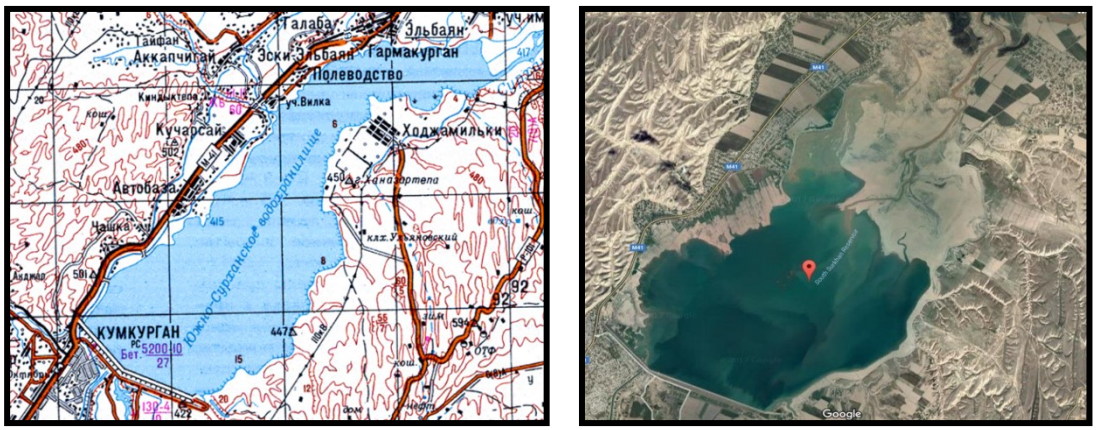
Keywords: *relief, GAT technologies, Google Earth, topographic map, Surfer program, TSX Converter program, 3D relief model*

Использование современных методов и геоинформационных систем при создании пространственных моделей рельефа региона занимает лидирующие позиции в мире. На 50-й сессии Комитета ООН по использованию космического пространства в мирных целях было специально заявлено, что

«...необходимы исследования по моделированию геопространственных данных территорий с использованием географических информационных систем» [5]. В связи с этим актуально внедрение в практику усовершенствованного метода создания пространственной модели местности с использованием геоинформационных систем и технологий. В этой связи большое значение приобретает создание трехмерной модели местности на основе исходных данных регионов и внедрение автоматизированных методов проведения геодезических и топографических съемок на ней.

В нашей республике реализуется комплекс мероприятий по рациональному использованию природных условий и ресурсов, и в этом направлении достигаются значительные положительные результаты. В Стратегии развития нового Узбекистана на 2022-2026 годы определены важные задачи по «...интеграции данных электронной базы данных государственного мониторинга окружающей среды в Единую геоинформационную базу данных» [1]. В этой связи проводятся научные исследования, направленные на системный анализ и оценку водохранилищ регионов, в том числе Сурхандарьинской области, имеющей уникальные природные и рельефные особенности, на основе цифровых карт и моделей, а также изучение ее рельефа на основе 3-мерных моделей с использованием современных географические информационные системы и технологии имеют большое значение. зарабатывает на жизнь.

Южно-Сурханское водохранилище, названное в честь Мирзаахмада Карабоева, является одним из крупнейших водохранилищ Узбекистана. Сурхандарьинская область образована в 1958-1967 годах на территории Кумкурганского района, в среднем течении реки Сурхандарьи, на месте лесных массивов Заркамар и Ходжамулки. В самом узком месте бассейна реки была построена плотина. Он регулирует уровень воды в реке по сезонам. Длина озера составляет 20 км, максимальная ширина — 6,2 км, средняя ширина — 2,96 км, максимальная глубина — 27 м, средняя глубина — 12 м. Общая емкость воды составляет 800 миллионов. м3, полезная вместимость воды 610 млн. м3. Площадь водной поверхности составляет 65 км2. В 1969 году Южно-Сурханскому водохранилищу было присвоено имя Мирзаахмада Карабоева (1931–1969), который руководил строительством водохранилища [4].



а) **б)**

Рисунок 1. Топографическая карта Южно-Сурханского водохранилища (а) и изображение из Google Earth (б)

С течением лет уровень воды в водохранилище, а следовательно, объем и площадь водохранилища в нем постоянно меняются. На рисунке 1 показано изображение Южно-Сурханского водохранилища, взятое с топографической карты 1989 года, а также изображение с веб-сайта Google Earth.com 2022 года. По его словам, видно, что объем воды в водохранилище за эти годы несколько уменьшился.

Используя эти данные, можно создать цифровую карту Южно-Сурханского водохранилища и на ее основе трехмерную модель рельефа. Для этого можно воспользоваться программой Surfer, которая относится к семейству геоинформационных систем.

В начале 1990-х годов была разработана программа Surfer для инженерных расчетов и создания 2-х и 3-х мерных моделей поверхности Земли. Программа Surfer была разработана в 1983 году небольшой американской компанией Golden Software и названа в честь города Голден, штат Колорадо. Компания специализируется на производстве небольших пакетов программного обеспечения для научной графики [2,3].

Программа Surfer использует данные с интернет-сайта Google Earth.com для создания 3D-модели. Для этого запускается программа. Затем через раздел «Добавить путь» выбирается нужная область. Выбранная область сохраняется в файле с расширением *.kml. Этот файл преобразуется в файл *.gpx с помощью раздела «Поиск высоты» на сайте www.gpsvizualizer.com. Основная цель — получить значения высоты координат X и Y. После этого файл с расширением *.gpx импортируется в программу TCX Converter, а затем экспортируется в офисную программу Microsoft Excel. Затем лишние данные удаляются, остаются только значения X, Y и H. Подготовленный файл с расширением *.xls импортируется в программу Surfer через раздел «Данные сетки». Импортированный файл сохраняется с расширением *.grd.

После выполнения вышеописанной последовательности действий можно будет создать трехмерный рельеф местности. Для этого воспользуйтесь

разделом «3D Поверхность» в программе Surfer. После выполнения ряда дополнительных необходимых шагов создается трехмерная модель рельефа территории Южно-Сурханского водохранилища (рисунок 2).

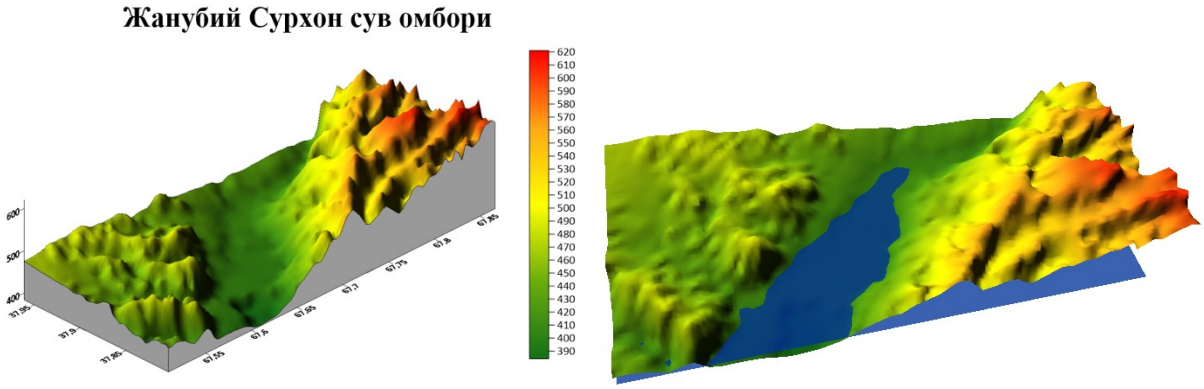


Рисунок 2. Рельеф Южно-Сурханского водохранилища

3D модель и анализ уровня воды в Южно-Сурханском водохранилище

Используя созданную модель, можно также получить математическую модель этого региона. На основе этой трехмерной модели можно реализовать множество исследовательских проектов. Одним из них является анализ динамики изменения уровня воды в акватории водохранилища (рисунок 3).

В заключение можно сказать, что сегодня с использованием цифровых моделей рельефа, данных дистанционного зондирования Земли, цифровых картографических данных, оперативной информации о режиме водных бассейнов разрабатываются компьютерные технологии оценки зон затопления, позволяющие решать задачи, связанные с оценкой негативное воздействие воды при наводнениях. Целесообразно провести анализ возможностей геоинформационных систем, разработать методику моделирования и компьютерную технологию оценки зон затопления при наводнениях на основе ГИС-технологий.

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ВЛИЯНИЕ СПОСОБА КАПЕЛЬНОГО ПОЛИВА НА РОСТ ХЛОПКА И ТЕХНОЛОГИЧЕСКИЕ ПОКАЗАТЕЛИ ХЛОПКОВОГО ВОЛОКНА

Аннотация. *В статье дана оценка водосберегающего метода капельного орошения при уходе за хлопчатником сорта Андижан-36, рост хлопчатника и технологические показатели хлопкового волокна. Полевые и лабораторные опыты проводились в 2018-2020 годах в условиях светло-серых, среднетяжелых супесчаных почв Андижанской области.*

Ключевые слова: *оптимальная влажность, борозда, способ полива, качество почвы, оросительная норма, коэффициент использования воды, водораспределение.*

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INFLUENCE OF DRIP IRRIGATION METHOD ON COTTON GROWTH AND TECHNOLOGICAL INDICATORS OF COTTON FIBER

Abstract. *The article gives an assessment of the water-saving method of drip irrigation when caring for cotton of the Andijan-36 variety, the growth of cotton and the technological indicators of cotton fiber. Field and laboratory experiments were carried out in 2018-2020 under the conditions of light gray, medium sandy loamy soils of the Andijan region.*

Key words: *optimal humidity, furrow, irrigation method, soil quality, irrigation rate, water use ratio, water distribution.*

Введение. Получение обильного и качественного урожая сельскохозяйственных культур, особенно хлопка, зависит от своевременного и достаточного обеспечения водой. В последние годы в мире вследствие глобального потепления и нарушения экологического баланса возникает нехватка воды. В этих условиях требуется максимально эффективно

использовать каждую каплю воды. Это требование особенно актуально для сельского хозяйства, потребляющего наибольшее количество воды.

В течение последних 3 лет решения, принятые нашим Президентом, создают возможности для разработки и широкого внедрения перспективных методов капельного орошения с целью сохранения и повышения плодородия почв и получения высоких урожаев сельскохозяйственных культур при рациональном использовании водных и земельных ресурсов сельского хозяйства нашей страны.

В реализации данных указов и решений фермерские хозяйства должны рационально использовать водные и земельные ресурсы, сохранять и повышать плодородие почв, улучшать агрокультуру для разработки, совершенствования и широкого внедрения водосберегающих методов капельного орошения. С этой целью мы проводим установление оптимальных схем орошения для сорта хлопка Андижан-36 в условиях светло-серых суглинков с средним содержанием песка, уровень грунтовых вод которых находится на глубине 3,5-5,0 метра в Андижанской области. Наша работа включает определение передовой водосберегающей технологии капельного орошения, поддерживающей уважительные схемы орошения, и изучение влияния этой технологии на рост, развитие и урожайность сортов хлопка для предоставления научно-практических рекомендаций фермерам и организациям водного хозяйства.

Методика эксперимента. Полевой эксперимент проводился в течение 2018-2020 годов на полях фермерского хозяйства "Фахриддин замин инвест", расположенного в деревне Лугумбек Избосканского района Андижанской области. Почва испытательного поля — светло-серые суглинки средней механической структуры, с уровнем грунтовых вод на глубине 3,5-5,0 метра.

Экспериментальные варианты были расположены на двух уровнях в четыре репетиции. Площадь варианта имеет длину гряды 100 м, ширину 4,8 м. 100 х 4,8 м = 480 м2 Площадь участка 480 м2 х 5 = 2400 м2 Общая площадь экспериментального поля. 2400 м2 х 4 = 9600 м2 или 0,96 га. Каждый участок состоит из 8 рядов, из которых 4 считаются учетными рядами, а ряды по обеим сторонам - защитными рядами.

Таблица 1

Система эксперимента

№	Суғориш усули	Чекланган дала нам сиғими(ЧДНС), %	Тупроққа чуқур ишлов бериш
1	Эгатлаб суғориш (назорат)	70-70-60	
2	Томчилатиб суғориш	CROPWAT дастури бўйича кунлик намликни буғланиши хисобида (мм) тўлдириш	70-70-60
3	Томчилатиб суғориш		Хайдовдан олдин 80 см чуқурликда юмшатиш
4	Томчилатиб суғориш		70-75-60
5	Томчилатиб суғориш		Хайдовдан олдин 80 см чуқурликда юмшатиш

Результаты эксперимента. Воздействие метода экономного капельного полива на рост и развитие сорта хлопка. С начала прорастания хлопка была учтена высота растения, симподиальных ветвей, стеблей и количество капсул в июле, августе, сентябре. Метод экономного капельного полива положительно сказался на воздушном и водном режимах почвы, на тепловом и питательном режимах, способствуя росту и развитию хлопка.

Длительность развития в начальные фазы роста хлопка не менялась в течение года экспериментов независимо от агроклиматических условий. Несмотря на изменения климатических условий в годы эксперимента, метод капельного полива позитивно влиял на период вегетации хлопка. Высота хлопка в начале сезона была одинаковой во всех вариантах (таблица 2).

Данные показывают, что в варианте 5 с методом капельного полива, предполагающем глубокую рыхлость перед культивацией, в сравнении с контрольным вариантом полива из борозды, количество бутонов увеличилось на 0,5 на растение, количество стеблей на 0,8, количество плодоносящих веток на 0,8 и количество капсул на 4,5–5.

Таблица 2

Воздействие метода экономного капельного полива на рост и развитие сортов хлопка. (2019 год)

№	Ўсимлик бўйи, см			Чин барглар сони, дона	Шоналар сони, дона	Ҳосил шоҳлар сони, дона		Кўсаклар сони, дона		Шундан очилганлари, Дона
	1.06	1.07	1.08	1.06	1.07	1.07	1.08	1.08	1.09	1.09
1	12,3	56,3	82,0	3,6	7,0	5,6	13,8	6.5	9,4	5,4
2	11,8	57,5	84,4	3,7	7,8	6,8	14,2	9,1	13,8	6,9
3	12,5	57,8	89,1	3,6	7,6	6,6	14,8	9,0	13,7	6,9
4	13,2	57,9	86,9	3,6	8,4	6,4	14,9	8,9	13,4	6,7
5	13,1	57,6	83,7	3,5	7,8	6,7	14,6	9,5	14,4	7,1

Фенологические наблюдения за ростом и развитием хлопкового растения проводились каждое первое число месяца. Фенологические работы были выполнены на 50 растениях в каждом варианте.

Таблица 3

Влияние технологии экономного капельного орошения на качественные показатели хлопкового волокна

Вариантлар	Ғўза нави	Суғориш технологиялари	Тола чиқиши, %	Тола узунлиги, мм	1000 дона чигит вазни (грамм)	Микро-нейр	Нисбий узилиши, (гс/текс)
1	Андижон-36	Эгатлаб суғориш (назорат)	35,4	33,5	120	4,5	28,1
2		Томчилатиб суғориш	36,7	33,5	134	4,5	29,3
3		Томчилатиб суғориш	36,7	33,5	134	4,4	29,3
4		Томчилатиб суғориш	36,7	33,5	133	4,5	28,2
5		Томчилатиб суғориш	36,8	33,6	135	4,4	29,4

Качественные показатели хлопкового волокна в технологии экономного капельного орошения. Основная задача хлопководства - выращивание хлопкового волокна в необходимом объеме и по типу и промышленным сортам для текстильной промышленности. Первичная обработка сырья хлопка в сентябре-октябре, то есть в течение одного-двух месяцев после сбора (в июне-июле следующего года), сокращает выход волокна первого сорта на 30-31%, а второго сорта - до 9% по сравнению с третьим и четвертым сортами.

Исходя из вышеизложенного, можно сделать следующие выводы:

- в варианте с капельным орошением, то есть при глубоком рыхлении перед заором, по сравнению с контрольным вариантом орошения из борозды,

наблюдалось увеличение количества бутонов в среднем на 0,5 шт. на растение, количества стеблей на 0,8 шт., количества плодоносящих веток на 0,8 шт. и количества капсул на 4,5-5,0 шт.

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СОВРЕМЕННЫЕ ПОДХОДЫ К РАЦИОНАЛЬНОМУ ИСПОЛЬЗОВАНИЮ ВОДНЫХ РЕСУРСОВ: ОПЫТ И ПЕРСПЕКТИВЫ РАЗВИТИЯ ЛИЧНЫХ ХОЗЯЙСТВ В УЗБЕКИСТАНЕ

Аннотация: *В статье в целях обеспечения экономической стабильности страны и достойной жизни населения особое место занимает вопрос создания комфортной среды для фермеров, крестьянских хозяйств и землевладельцев, эффективного и рационального использования их земель. По этой причине за прошедший период был реализован ряд реформ, направленных на всестороннюю поддержку деятельности фермерского движения, фермерских хозяйств и землевладельцев, повышение производительности труда за счет поддержки научно обоснованных методов сельскохозяйственного производства. В результате основными субъектами сельскохозяйственного производства стали фермеры, крестьянские хозяйства и приусадебные землевладельцы.*

Ключевые слова: *водопотребление, водоем, грядка, капельница, невегетация, вегетация, уровень минерализации воды, водно-физические свойства.*

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MODERN APPROACHES TO RATIONAL WATER RESOURCE MANAGEMENT: EXPERIENCE AND DEVELOPMENT PROSPECTS FOR HOUSEHOLD FARMING IN UZBEKISTAN

Annotation: *In the article, in order to ensure the economic stability of the country and a decent life for the population, a special place is occupied by the issue of creating a comfortable environment for farmers, peasant farms and landowners, and the effective and rational use of their lands. For this reason, over the past period, a number of reforms have been implemented aimed at comprehensively supporting the activities of the farmer movement, farms and landowners, increasing labor productivity by supporting scientifically based methods of agricultural production. As a result, farmers, peasant farms and homestead landowners became the main subjects of agricultural production.*

Keywords: *water consumption, reservoir, bed, drip, non-vegetation, vegetation, level of water mineralization, water-physical properties.*

В целях смягчения негативных последствий наблюдающейся нехватки воды при выращивании сельскохозяйственных культур в нашей стране в Указе Президента Республики Узбекистан от 10 июля 2020 года № ПФ–6024 «Концепция развития водного хозяйства Республики Узбекистан на 2020–2030 годы» подчёркивается необходимость бережного расходования воды, рационального использования водных ресурсов и сокращения потерь воды за счёт её просачивания в почву и сброса, а также повышения эффективности использования поливной воды в условиях нынешнего дефицита водных ресурсов. В этом плане важными задачами считаются совершенствование технологий экономного пользования водой при поливе, внедрение и разработка нетрадиционных методов орошения – таких как капельное и другие водосберегающие технологии – а также достижение высоких урожаев сельскохозяйственных культур за счёт эффективного использования водных ресурсов.

Использование дождевых и вневегетационных вод для полива посевов на приусадебных участках населения в периоды дефицита воды в настоящее время приобретает особую значимость. Поскольку при поливе 0,01 га приусадебного участка в течение сезона в среднем расходуется 50 м³ воды, а сегодня на приусадебных участках технологии экономии воды практически не применяются, то в период вегетации воды в оросительных сетях резко сокращается, и полив с приусадебных участков становится проблематичным. В итоге снижается эффективность использования приусадебного участка. Поэтому, чтобы предотвратить негативные последствия нехватки воды, мы ставим целью эффективно использовать дождевые и вневегетационные воды в период вегетации растений. Для этого, учитывая, что в период вне вегетации потребность в воде минимальна, можно организовывать накопление воды в резервуарах — подземных либо наземных, расположенных на удобных участках приусадебной земли, – и затем использовать этот запас для нужд приусадебного хозяйства.

Например, мы рекомендуем использовать один из водосберегающих способов полива – капельное орошение. Применение этого метода будет ещё эффективнее при использовании грядок с приподнятыми бортиками. При таком способе количество рассады на приусадебном участке на 30% больше по сравнению с традиционным методом. Так, если при традиционной схеме 60×30 на 0,01 га высаживается 555 растений, то при рекомендуемом нами методе можно разместить 610 сеянцев. Содержание гумуса (перегноя) в почве достигает 30–40%, при этом он длительное время сохраняется, а плотность почвы снижается, что создаёт благоприятные условия для развития корневой системы растений. Благодаря высокому содержанию перегноя в почве влага удерживается продолжительное время. В результате уменьшается как количество поливов, так и норма расхода воды, что позволяет экономить

водные ресурсы. При применении этого метода на площади 0,01 га и поливе многолетних плодовых деревьев и овощных культур можно достичь экономии воды на 40–50% по сравнению с традиционным орошением.

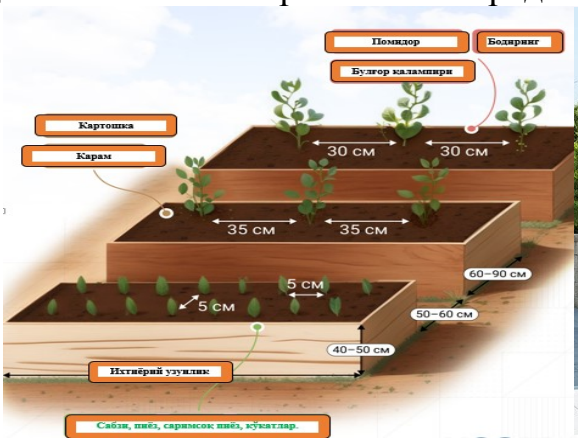

Рис. 1. Схематическое изображение приподнятых грядок

Рис. 2. Система сбора дождевой воды

Для создания грядок с приподнятыми бортиками владелец приусадебного участка может использовать любые подручные материалы, например доски, шифер, бывшие в употреблении автомобильные шины и аналогичные материалы (см. рис. 1). Для 1,0 сотки (0,01 га) понадобится приблизительно 120 метров поливочного шланга. При расстоянии между капельницами 25–40 см (в зависимости от вида культур) общее количество капельниц на таком шланге составит 300–450 штук, что подходит для овощей. Для плодовых деревьев количество капельниц определяется исходя из числа деревьев и их потребности в воде, а расход воды на каждую капельницу берётся в соответствии с рекомендуемым руководством.

Самый простой и самый традиционный вариант – это приподнятая грядка высотой 20–30 см. При обычных бороздах (егатах) обработка почвы занимает много времени, поэтому важно популяризировать использование приподнятых грядок (грядок) на приусадебных участках населения.

Для выполнения этих работ необходимы следующие принадлежности: поливочный шланг, капельницы для плодовых деревьев, резервуар объёмом не менее 10 м³ и один насос. При установке резервуара следует особенно учесть возможность сбора дождевой воды, чтобы она могла стекать и накапливаться в нём.

В практике капельного орошения, в зависимости от вида выращиваемой культуры (здесь речь в основном о культивации однолетних растений), применяются следующие расстояния между капельницами:

- **10–20 см** – для полива культур, которые сеются густо и близко друг к другу. Такой шаг капельниц наиболее удобен при выращивании этих культур на лёгких по механическому составу (песчаных) почвах. Примером могут служить различные виды зелени, которые высеваются плотными рядами.

- **30 см** – для полива культур, у которых расстояние между саженцами (рассадой) составляет 30 см, в условиях почв среднего механического состава. К таким культурам можно отнести хлопок (техническая культура), а также различные овощные культуры (помидоры, баклажаны, болгарский перец и т. д.).
- **40–50 см** – для полива культур, саженцы которых размещаются друг от друга на более далёком расстоянии и высаживаются реже. Примером здесь могут быть бахчевые культуры, которые сажают на относительно больших промежутках.

Если система капельного орошения используется при уходе за многолетними деревьями, расстояние между капельницами определяется исходя из принятой схемы посадки деревьев.

При осуществлении указанных мероприятий очень хорошие результаты даёт накопление воды во вневегетационный период (нельзя допускать, чтобы стоковая вода пропадала зря). Если же в период дефицита воды уровень стоковых вод во внутренних оросительных сетях резко падает, то возникает необходимость систематически использовать для полива грунтовые воды. Однако частое применение грунтовых вод может привести к увеличению тяжёлых солей в почве, так как вода, добываемая с глубины 10 метров и более, обычно обладает достаточно высокой минерализацией. Это негативно сказывается как на водно-физических свойствах, так и на плодородии почвы, и уже через три года может привести к снижению урожайности.

Таким образом, эффективное использование приусадебных (личных) участков населения, при сохранении плодородия почвы и повышении урожайности, непременно предполагает и рациональное, экономное расходование водных ресурсов. Также важно обеспечивать потребности в овощах и бахчевых культурах за счёт собственного приусадебного хозяйства.

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РОЛЬ ЧЕЛОВЕКООБРАЗНЫХ РОБОТОВ В ОБУЧЕНИЕ ЯЗЫКАМ

Аннотация: *Человекообразные роботы представляют собой инновационный инструмент в обучении языкам, предоставляя учащимся возможность интерактивного взаимодействия и практики разговорной речи. Они сочетают в себе искусственный интеллект, распознавание речи и синтез устных ответов, что делает процесс изучения более увлекательным и персонализированным. В статье рассматриваются преимущества использования роботов в обучении языкам, включая индивидуальный подход, создание безопасной языковой среды и возможность моделирования реальных ситуаций. Также анализируются вызовы, такие как высокая стоимость, технические ограничения и этические аспекты. Делается вывод, что человекообразные роботы имеют огромный потенциал для улучшения языкового обучения, особенно в сочетании с традиционными методами.*

Ключевые слова: *Человекообразные роботы, обучение языкам, искусственный интеллект, интерактивное обучение, технологии в образовании, языковая практика.*

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THE ROLE OF HUMAN-FORMED ROBOTS IN TEACHING LANGUAGES

Abstract: *Humanoid robots are an innovative tool in language teaching, providing learners with the opportunity for interactive interaction and speaking practice. They combine artificial intelligence, speech recognition and oral response synthesis, which makes the learning process more engaging and personalized. The article discusses the advantages of using robots in language teaching, including an individual approach, creating a safe language environment and the ability to simulate real-life situations. Challenges such as high cost, technical limitations and ethical aspects are also analyzed. It is concluded that humanoid robots have great potential to improve language learning, especially when combined with traditional methods.*

Keywords: *Humanoid robots, language teaching, artificial intelligence, interactive learning, technologies in education, language practice.*

Современные технологии кардинально меняют подходы к обучению, и использование человекообразных роботов в процессе изучения языков

становится одной из наиболее перспективных инноваций. Эти устройства, сочетающие искусственный интеллект, интерактивность и элементы человеческого взаимодействия, открывают новые горизонты в образовательной сфере, делая обучение более увлекательным, индивидуальным и эффективным. Человекообразные роботы, или гуманоиды, созданы для имитации человеческого общения. Они оснащены камерами, микрофонами, сенсорами и сложными алгоритмами машинного обучения, которые позволяют им понимать речь, анализировать контекст и формировать осмысленные ответы. Системы распознавания и синтеза речи дают роботам возможность взаимодействовать на разных языках, а дополнение вербальной коммуникации мимикой и жестами усиливает ощущение реальности общения. Эти особенности делают гуманоидов особенно полезными в обучении языкам, так как они могут не только передавать теоретические знания, но и предоставлять возможность практиковать разговорную речь в режиме реального времени.

Одним из ключевых преимуществ использования роботов является возможность индивидуального подхода к каждому ученику. Такие устройства способны анализировать уровень знаний, учитывать сильные и слабые стороны учащегося, подстраиваясь под его темп и стиль обучения. Например, если студент испытывает трудности с произношением, робот может повторять слова и фразы до тех пор, пока ученик не освоит правильную артикуляцию. Это особенно важно, поскольку традиционные методы обучения часто не дают возможности уделять достаточно внимания индивидуальным потребностям каждого ученика.

Практика разговорной речи — ещё одна сильная сторона человекообразных роботов. Для многих студентов главной проблемой становится не изучение грамматики или словарного запаса, а именно способность свободно разговаривать на изучаемом языке. Роботы предоставляют уникальную возможность тренироваться без страха быть осуждённым или раскритикованным. Это снимает психологические барьеры, позволяя ученикам расслабиться и сосредоточиться на улучшении навыков. Кроме того, роботы могут моделировать различные жизненные ситуации, такие как разговоры в кафе, бронирование номера в отеле или прохождение собеседования, что делает обучение максимально приближенным к реальным условиям.

Эффективность обучения с роботами также обусловлена увлекательностью процесса. Интерактивные занятия, включающие игры, викторины и ролевые сценарии, мотивируют учеников и делают обучение не только полезным, но и приятным. Это особенно важно для детей, которые часто теряют интерес к традиционным методам изучения языков. Роботы способны удерживать внимание и вовлекать учеников в процесс, что значительно повышает их результаты. Ещё одним важным аспектом является возможность обучения редким языкам. Во многих регионах найти квалифицированного преподавателя носителя языка бывает сложно, но

человекообразные роботы, оснащённые нужными программами, могут эффективно восполнить этот пробел. Это делает обучение доступным даже для малораспространённых языков или диалектов, что особенно актуально в условиях глобализации и увеличения интереса к культурному разнообразию.

Практическое применение человекообразных роботов уже сейчас находит место в образовательной сфере. Например, робот NAO используется в школах для обучения английскому языку, помогая детям развивать навыки говорения и понимания. Робот Pepper, известный своими выразительными жестами и мимикой, активно применяется в ролевых играх, создавая эмоционально насыщенную среду для изучения языка. В Японии роботы помогают преодолевать нехватку квалифицированных преподавателей иностранного языка, что значительно улучшает результаты обучения.

Несмотря на очевидные преимущества, использование человекообразных роботов в обучении языкам связано с определёнными вызовами. Одной из главных проблем остаётся высокая стоимость таких устройств, что делает их недоступными для большинства образовательных учреждений. Кроме того, технические ограничения пока не позволяют роботам полностью понимать сложные языковые конструкции, диалекты и культурные особенности речи. Зависимость от программного обеспечения и возможные ошибки в алгоритмах также могут стать препятствием на пути к их повсеместному внедрению. Ещё одним важным вопросом является этический аспект. Многие опасаются, что использование роботов может вытеснить преподавателей, нарушая эмоциональную связь между учеником и наставником. Однако, несмотря на эти опасения, роботы скорее выступают в роли помощников, дополняя традиционные методы обучения, чем заменяя их.

Будущее человекообразных роботов в языковом обучении выглядит многообещающе. Ожидается, что технологии продолжат развиваться, обеспечивая ещё более точное распознавание речи, адаптацию к акцентам и диалектам, а также снижение стоимости устройств. Интеграция виртуальной реальности может создать полностью погружающую языковую среду, позволяя ученикам буквально «жить» на изучаемом языке. В ближайшие годы такие роботы смогут стать неотъемлемой частью образовательного процесса, помогая миллионам людей по всему миру освоить новые языки.

Таким образом, человекообразные роботы открывают новые возможности в обучении языкам. Они предоставляют уникальные инструменты, которые делают процесс изучения увлекательным, доступным и эффективным. Несмотря на существующие вызовы, их роль в образовательной сфере продолжает расти, и в будущем они могут стать важным элементом системы обучения, способствуя развитию языковых навыков у людей всех возрастов и уровней подготовки.

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ПРИМЕНЕНИЕ МЕТОДА ЭЛЕКТРОГИДРАВЛИЧЕСКОГО ЭФФЕКТА ДЛЯ ОБЕЗЗАРАЖИВАНИЕ СТОЧНЫХ ВОД

Аннотация. *В статье описана возможность использования электрогидравлического эффекта для обеззараживание сточных вод. Представлена конструкция опытной установки, а также сменных приспособлений, применяемых для обеззараживание сточных вод.*

Наряду с традиционными методами обеззараживания значительное внимание современных исследователей сосредоточено на разработке инновационных технологий этого процесса.

Дается описание макетной установки для обеззараживания жидкости, созданной на основе использования электрогидравлического эффекта. Представлены методика и результаты экспериментальных исследований по выявлению зависимости степени обеззараживания сточных вод от вложенной в нее электрической энергии.

Ключевые слова: *биологические загрязнения, электрогидравлический эффект, напряжение разряда нейтрализации воды, емкость конденсатора, время обработки, сточных вод, режимы обработки, эффективность обеззараживания.*

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APPLICATION OF THE ELECTROHYDRAULIC EFFECT METHOD FOR WASTEWATER DISINFECTION

Abstract*. The article describes the possibility of using the electrohydraulic effect for wastewater disinfection. The design of the pilot plant is presented, as well*

as replaceable devices used for wastewater disinfection. Along with traditional disinfection methods, significant attention of modern researchers is focused on the development of innovative technologies for this process. A description is given of a prototype liquid disinfection plant created using the electrohydraulic effect. The methodology and results of experimental studies to identify the dependence of the degree of wastewater disinfection on the electrical energy invested in it are presented.

Key words: *biological contaminants, electrohydraulic effect, water neutralization discharge voltage, capacitor capacity, processing time, wastewater, processing modes, disinfection efficiency.*

Введение. Общий объем водопотребления из природных водных объектов в Республике Узбекистан составляет около 51 км^3. После использования в интересах обеспечения ключевых областей хозяйственной деятельности до 34 км^3 этой воды сбрасывается в водоемы в виде сточных вод, из которых не менее 41 % подлежат очистке. Такая ситуация предполагает активную деятельности контроль государства в сфере очистки и обеззараживания сточных вод [1].

При использовании в быту и промышленности вода загрязняется веществами минерального и органического происхождения. Такую воду принято называть сточной водой.

Бурное развитие промышленности вызывает необходимость в предотвращении отрицательного воздействия производственных сточных вод на водоемы. Многие современные технологические процессы связаны со сбросом сточных вод в водные объекты. В связи с чрезвычайным разнообразием состава, свойств и расходов сточных вод промышленных предприятий необходимо применение специфических методов, а также сооружений по их локальной, предварительной и полной очистке. [2, 3].

Сточные воды — это воды, бывшие в бытовом, производственном или сельскохозяйственном употреблении, а также прошедшие через какую-либо загрязненную территорию.

Сточные воды разнообразны по составу и, следовательно, по свойствам. По своей природе загрязнения сточных вод подразделяются:

– органические;

– минеральные;

– биологические.

Органические загрязнения — это примеси растительного и животного происхождения.

Минеральные загрязнения — это кварцевый песок, глина, щелочи, минеральные кислоты и их соли, минеральные масла и т. д.

Биологические и бактериальные загрязнения — это различные микроорганизмы: дрожжевые и плесневые грибки, мелкие водоросли и бактерии, в том числе болезнетворные — возбудители брюшного тифа, паратифа, дизентерии и др.

Сброс в водоемы недостаточно очищенных и обеззараженных сточных вод, в состав которых входят различные промышленные и инфекционные загрязнения, способствуют возникновению различных заболеваний, как среди людей, так и животного мира.

Существующие технологии водоочистки на водопроводных станциях не справляются со всевозрастающим антропогенным загрязнением источников водоснабжения и, как следствие, наблюдается ухудшение качества питьевой воды, в том числе и по бактериологическим показателям. К тому же, методы обеззараживания воды, применяемые на водоочистных сооружениях, малоэффективны в отношении таких опасных возбудителей, как энтеровирусы.

Методы обеззараживания, нашедшие применение в практике водоснабжения и водоотведения, условно можно разделить на три группы:

- химические;
- физические;
- физико-химические, а также в естественных и искусственных условиях.

Обеззараживание сточных вод электрогидравлическим эффектом является физически методом для обеззараживания [4, 5].

Электрогидравлический эффект (ЭГЭ). Установка для получения электрогидравлического эффекта (эффекта Юткина) состоит из двух контуров: зарядного и разрядного. Зарядный контур представляет высоковольтный трансформатор с выпрямителем.

Разрядный контур состоит из конденсатора, формирующего промежутка и рабочего промежутка, погруженного в жидкость.

Схема работает следующим образом. Трансформатор преобразует напряжение сети в высокое напряжение (несколько десятков киловольт). После того как напряжение на конденсаторе С достигает предела, на который отрегулирован формирующий промежуток (ФП) происходит пробой ФП и напряжение импульсно подается на рабочий промежуток (РП), вызывая пробой жидкости, в которой находится РП (рис. 1).

При этом возникает электрогидравлический удар, производящий работу. Цикл повторяется вновь с частотой, определяемой мощностью трансформатора, от которой зависит скорость зарядки конденсатора.

В рабочем промежутке вода до пробоя ведёт себя как проводник и обеспечивает равный потенциал на правой части схемы (за ФП). В момент пробоя формирующего промежутка ионы жидкости не успевают переместиться от электрода к электроду, и жидкость мгновенно становится диэлектриком. При этом от одного электрода рабочего промежутка к другому (находящихся в жидкости) растет стример определенной полярности. Вся энергия, накопленная в схеме, собирается на рабочем промежутке.

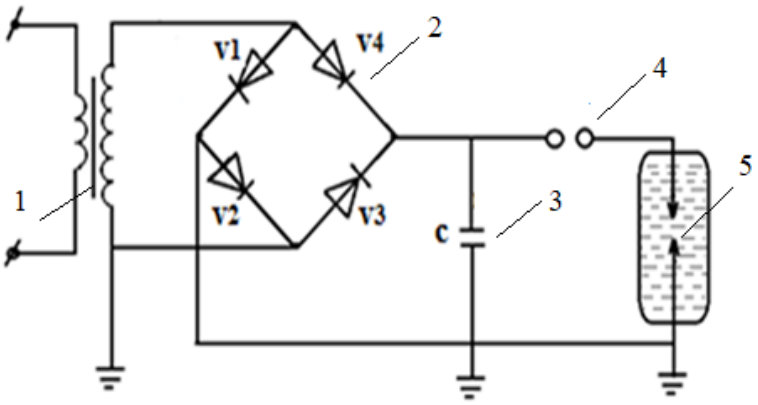
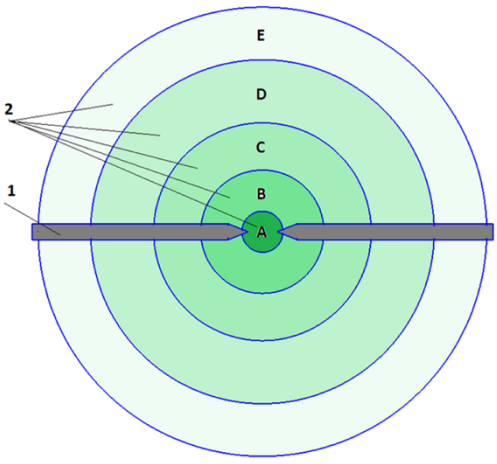


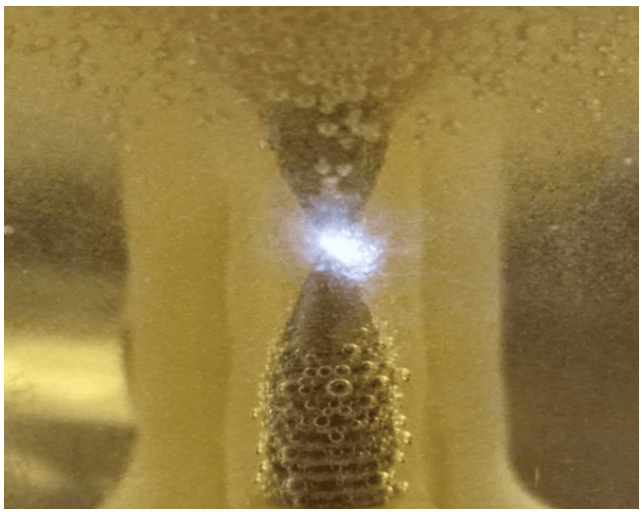
Рис. 1. Установка для получения электрогидравлического эффекта:
1 — трансформатор; 2 — выпрямитель; 3 — конденсатор;
4 — формирующий промежуток; 5 — рабочий промежуток

Затем происходит расширение канала искры возникновение полости, которое сопровождается основным ударом. После прекращения разряда происходит смыкание полости, при этом скорость смыкания достигает скорости звука. Смыкание полости сопровождается кавитационным ударом. Величина получаемых давлений прямо пропорциональна мощности и обратно пропорциональна длительности импульса [6, 7].

Вокруг искрового разряда находится зона высокого давления, состоящая из нескольких участков (Рис. 2 а).



а) Внешний вид давления вокруг разряда
1-электроды; 2-зоны искрового разряда.



б) Процесс разряда в жидкости

На рис. 2-а указаны следующие зоны:

А — зона искрового разряда;

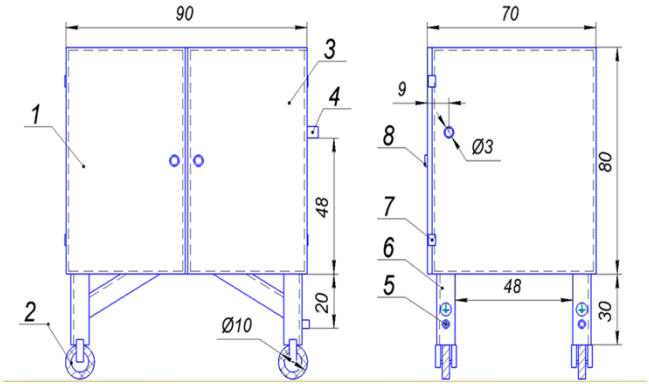
В — зона разрушения; почти все материалы разрушаются на дисперсные частицы, а жидкость в ней, по-видимому, приобретает свойства твердого хрупкого тела.

C — зона наклёпа; многие материалы разрушаются, металлы наклёпываются, жидкость, по-видимому, находится в состоянии твердого упругого тела.

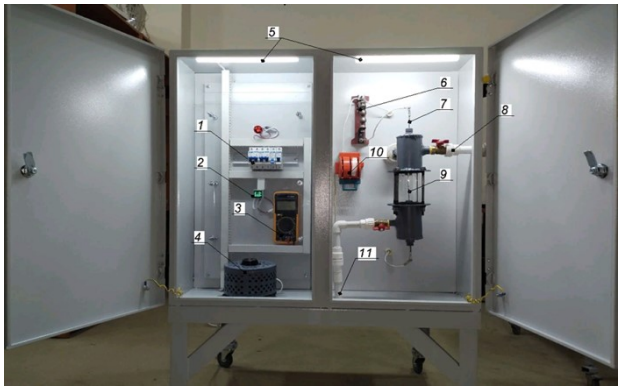
D — зона упругого воздействия; происходит выброс частиц, возникает мощное выталкивающее действие, жидкость, по-видимому, находится в состоянии жидкого очень упругого тела.

E — зона сжатия; давление очень быстро убывает с увеличением расстояния от источника возникновения. Наблюдаются перемещения больших объёмов жидкости [8].

Описание установки. На основе приведенной выше лабораторной схемы и теории разработан опытно-промышленный образец устройства обеззараживание сточных вод с использованием электрогидравлического эффекта (Рис. 3).



а) 1. Камера электроуправления, запускающая оборудование 2. Колеса 3. Рабочая камера 4. Подвод воды к оборудованию 5. Заземляющее устройство 6. Опораы 7. Фурнитура 8. Замок для работы и камеры контроля (размеры указаны в см*).



б) 1. Автоматы, запускающие и останавливающие оборудование 2. Вольтметр и амперметр 3. Мультиметр 4. Лабораторный автрансформатор 5. Лампы освещения 6. Контакты, образующие вспомогательный воздушный зазор 7. Контакты, образующие рабочий зазор 8. Путь попадание воды в оборудования 9. Рабочая камера 10. Заземлитель 11. Выход воды из оборудования.

Результаты. Результаты экспериментов обеззараживания сточных вод по показателю E.coil представлены на рисунках 4, 5 и 6.

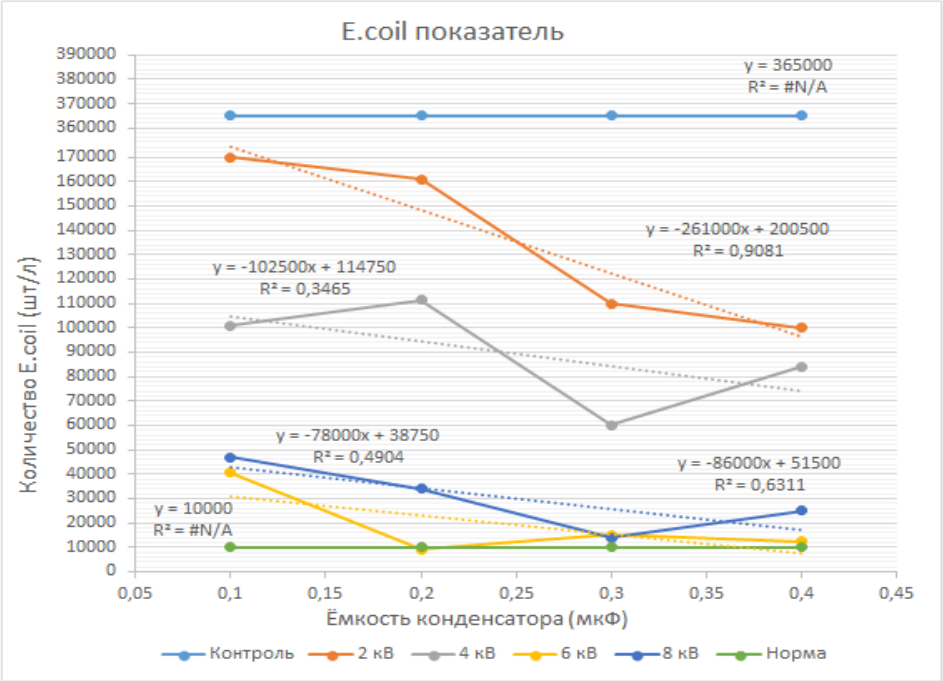


Рис. 4. Зависимость вымирании бактерий от напряжения и емкости конденсаторных батарей

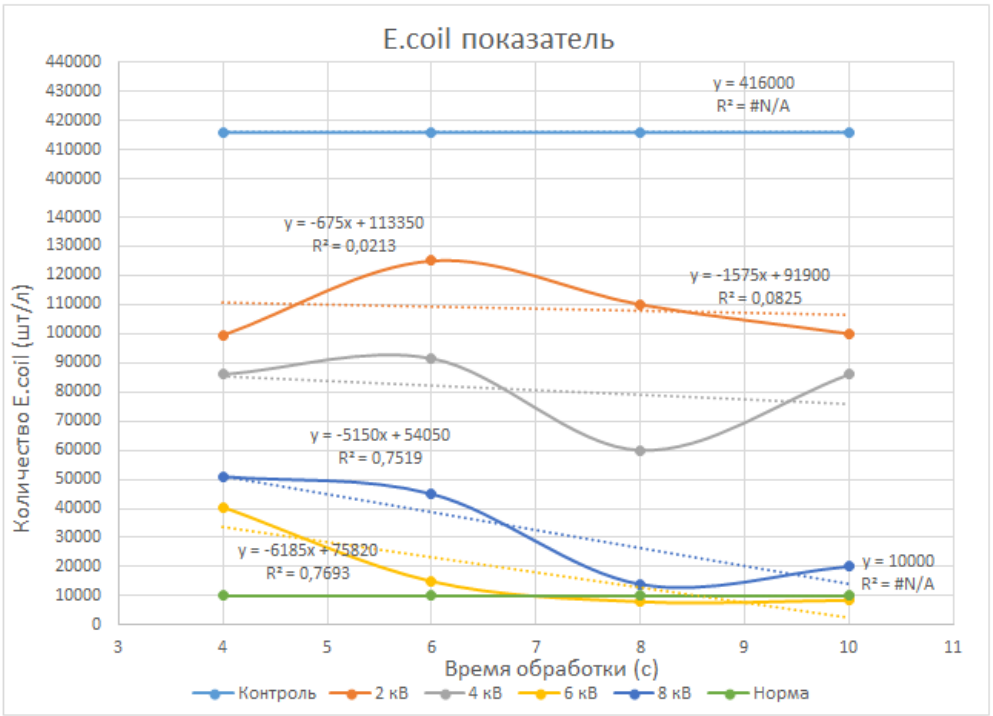


Рис. 5. Зависимость вымирании бактерий от напряжения и времени обработки

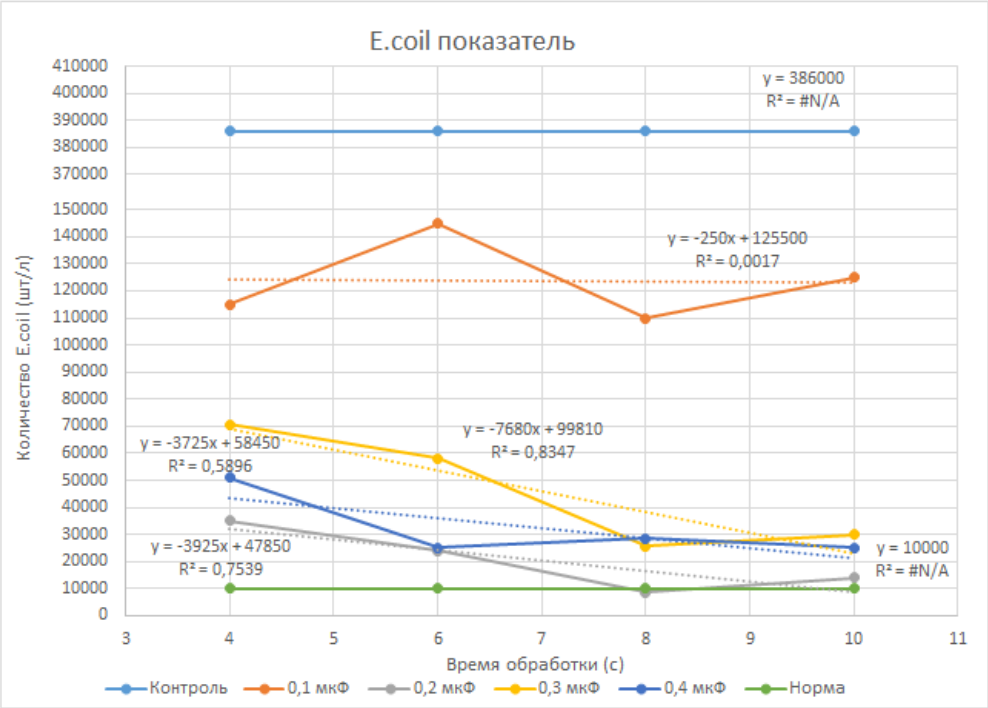


Рис. 6. Зависимость вымирании бактерий от емкости конденсаторных батареи времени обработки

Эксперименты проводились на сточных водах коже производственных заводах. При проведении опытов опробовались различные варианты воздействия ударными волнами на сточных вод.

Разряды производились непосредственно на обеззараживающим камере (рабочая камера) (рис. 7).

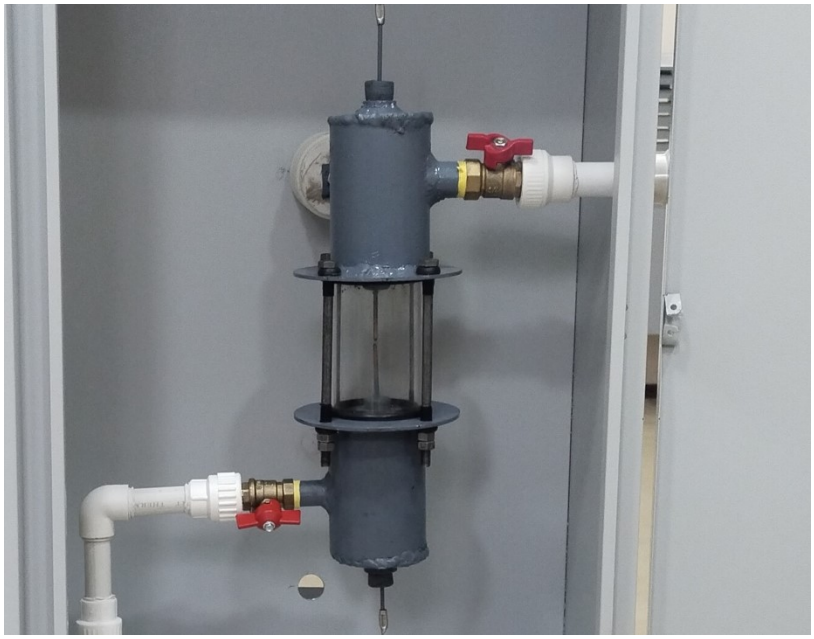


Рис. 7. рабочая камера

Обработка проводилась при режимах:

Рабочий промежуток — 4-6 мм.

Формирующий промежуток — 7-8 мм.
Напряжение — 6 кВ.
Ёмкость конденсатора — 0,2 мкФ.
Время обработки — 1,6 с/л

Заключение

Проведенные исследования уточнили, что при электрогидравлической обработке жидкости снижение в ней количества живых микроорганизмов в зависимости от количества вложенной энергии происходит не по линейному, а по экспоненциальному закону.

Максимальный эффект обеззараживания сточных вод на мягком режиме обработки минимальными силами разряда с параметрами $U = 6$ кВ и $C = 0{,}2$ мкФ. Данный режим можно считать близким к оптимальному для достижения наибольшего эффекта электрогидравлического обеззараживания сточных вод.

В данном режиме обеспечивается максимальное сохранение полезных бактерий в сточных водах, что соответствует режиму оптимальной эффективности их обеззараживания.

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АДАПТАЦИЯ И ОСОБЕННОСТИ РОСТА ТРАВА КОЛУМБА (SORGHUM AJMUM PARODI) В УСЛОВИЯХ ЮЖНОГО ПРИАРАЛЬЯ

Аннотация: *Статья посвящена адаптации и особенности роста травы Колумба (Sorghum ajmut Parodi) в условиях Южного Приаралья. В работе рассмотрены основные факторы, влияющие на развитие растения, включая температурный режим, влажность почвы и уровень засоления. Установлено, что Sorghum ajmut Parodi демонстрирует высокую устойчивость к экстремальным условиям, что делает его перспективным для использования в сельском хозяйстве Южного Приаралья.*

Ключевые слова: *влага, температура, засоления, режим, культура, дефицит.*

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ADAPTATION AND GROWTH CHARACTERISTICS OF COLUMBA GRASS (*SORGHUM AJMUM PARODI*) IN THE CONDITIONS OF THE SOUTHERN ARAL SEA REGION

Abstract:*The article is devoted to the adaptation and growth characteristics of Columba grass (Sorghum ajmum Parodi) in the conditions of the Southern Aral Sea region. The work considers the main factors influencing the development of the plant, including temperature, soil moisture and salinity level. It was found that Sorghum ajmum Parodi demonstrates high resistance to extreme conditions, which makes it promising for use in agriculture of the Southern Aral Sea region.*

Key words*: moisture, temperature, salinity, regime, culture, deficiency.*

Южное Приаралье — это регион, находящийся в центральной части Азии, где климат характеризуется экстремальной жарой и засушливостью, а почвы имеют высокую солёность. В таких условиях сельское хозяйство сталкивается с рядом проблем, связанных с недостаточной влагообеспеченностью и низким качеством почвы. Однако в последние годы

ученые и агрономы начинают обращать внимание на потенциальные возможности для улучшения ситуации через использование засухоустойчивых растений. Одним из таких перспективных видов является трава Колумба (*Sorghum ajmum Parodi*), которая обладает рядом уникальных адаптивных свойств.

В условиях Южного Приаралья, характеризующихся резко континентальным климатом и засушливостью, культура Sorghum Ajmum Parodi демонстрирует уникальную адаптацию к экстремальным условиям. Почвы региона, преимущественно сероземы и солончаки, требуют особого подхода к агротехнике, что делает выращивание данной культуры сложным, но перспективным.

Sorghum ajmum Parodi, или трава Колумба, представляет собой малоизвестный, но высокопродуктивный вид сорго, который в последние годы привлек внимание агрономов благодаря своей способности эффективно расти в засушливых и засоленных условиях. Это растение семейства злаков является адаптированным к экстримальным климатическим условиям, таким как высокие температуры, дефицит воды и солёность почвы.

Трава Колумба отличается высокой устойчивостью к засухе, а также способностью выживать и развиваться на солёных и щелочных почвах. Ее корневая система способна проникать на значительную глубину, извлекая влагу из нижних слоев почвы. Это делает культуру незаменимой для восстановления деградированных земель и борьбы с опустыниванием.

Трава Колумба может стать важным элементом устойчивого сельского хозяйства в Южном Приаралье. Это растение обладает уникальными биологическими и агрономическими характеристиками, которые позволяют использовать его для повышения продуктивности земли, улучшения кормовой базы для животных. Кроме того, исследования показывают, что эта культура может быть использована для создания устойчивых агроценозов, которые будут способствовать восстановлению экологического баланса, улучшению качества почвы и повышению устойчивости сельского хозяйства в условиях глобальных изменений климата.

Трава Колумба демонстрирует замечательные адаптивные способности к условиям Южного Приаралья. Исследования показывают, что растение обладает следующими особенностями, которые делают его перспективным для выращивания в этом регионе:

- ***Засухоустойчивость***: Трава Колумба способна сохранять высокую продуктивность даже при недостатке влаги. Она имеет глубокую корневую систему, что позволяет добывать воду из нижних слоёв почвы.
- ***Солерезистентность***: Одним из главных преимуществ травы Колумба является её способность расти на почвах с повышенной солёностью. Это свойство делает её идеальным кандидатом для восстановления засолённых земель, что особенно важно для регионов с проблемами, вызванными ирригационными процессами и засолением.

- ***Теплолюбивость***: Поскольку Южное Приаралье характеризуется высокими температурами в летний период, траве Колумба удается расти при температурах, превышающих 40°C, что позволяет ей конкурировать с другими культурами, требующими умеренного климата.
- ***Высокая урожайность***: Даже при относительно низком уровне осадков трава Колумба может давать высокий урожай, что важно для сельского хозяйства региона. В благоприятных условиях эта культура может быть использована как кормовая база для животноводства.

Трава Колумба обладает большим потенциалом для улучшения аграрной ситуации в Южном Приаралье. В первую очередь, её можно использовать для восстановления деградированных почв и повышения продуктивности сельскохозяйственных угодий. Кроме того, *Sorghum Ajmum Parodi* обладает ценными кормовыми свойствами, что способствует развитию животноводства в регионе. Ее использование в качестве сидерата улучшает структуру почвы, повышая ее плодородие.

Таким образом, внедрение данной культуры в агросистемы Южного Приаралья открывает новые возможности для устойчивого развития сельского хозяйства в условиях меняющегося климата. Её высокая адаптивность к засушливым и засолённым почвам, а также возможность использования в качестве корма для животных, делает её ценным инструментом для восстановления экосистем и улучшения аграрной ситуации в регионе

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ОЦЕНКА ПРЕДПРИНИМАТЕЛЬСКИХ РИСКОВ С ИСПОЛЬЗОВАНИЕМ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ

Аннотация: *в статье рассматривается актуальная проблема оценки предпринимательских рисков в современной динамичной бизнес-среде. Целью данной статьи является анализ возможностей использования ИТ для оценки предпринимательских рисков, а также демонстрация конкретных инструментов и методик, которые могут быть применены на практике.*

Представлены современные ИТ-инструменты и методики, применяемые для их оценки и минимизации. В результате написания данной статьи были разработаны рекомендации по эффективному внедрению ИТ в систему риск-менеджмента.

Ключевые слова: *предпринимательские риски, риск-менеджмент, информационные технологии, ИТ-инструменты, анализ рисков, прогнозирование, бизнес-аналитика, цифровая трансформация.*

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ASSESSMENT OF BUSINESS RISKS USING INFORMATION TECHNOLOGY

Abstract: *the article deals with the actual problem of assessing entrepreneurial risks in a modern dynamic business environment. The purpose of this article is to analyze the possibilities of using IT to assess business risks, as well as to demonstrate specific tools and techniques that can be applied in practice. Modern IT tools and techniques used to evaluate and minimize them are presented. As a result of writing this article, recommendations have been developed for the effective implementation of IT in the risk management system.*

Keywords: *entrepreneurial risks, risk management, information technology, IT tools, risk analysis, forecasting, business analytics, digital transformation.*

Введение.

Предприниматели ежедневно сталкиваются с большим количеством рисков, которые могут повлиять на их финансовую устойчивость, репутацию и дальнейшее развитие. Эффективное управление рисками становится неотъемлемой частью успешного ведения бизнеса. Для осуществления такого управления использование информационных технологий (ИТ) играет ключевую роль, предоставляя инструменты и методы для более точной и своевременной оценки рисков.

Традиционные методы оценки рисков часто являются трудоемкими, требуют значительного времени и могут быть субъективными. Информационные технологии, в свою очередь, позволяют автоматизировать многие процессы, обрабатывать большие объемы данных, использовать продвинутые аналитические модели, что в конечном итоге повышает качество принимаемых решений в области риск-менеджмента.

1. ИТ-инструменты для оценки предпринимательских рисков. ИТ предоставляют широкий набор инструментов и технологий для оценки предпринимательских рисков. Самые распространенные из них:

Системы управления рисками (GRC). Интегрированные программные решения, предназначенные для автоматизации процессов управления рисками, включая идентификацию, оценку, мониторинг и отчетность.

Системы бизнес-аналитики (BI). Это инструменты, позволяющие анализировать большие объемы информации для выявления закономерностей, тенденций, трендов и потенциальных рисков. BI-системы помогают визуализировать данные и предоставляют логически понятные отчеты.

Системы управления базами данных (СУБД). Эти системы позволяют хранить, систематизировать и обрабатывать структурированные данные, которые необходимы для оценки рисков.

Инструменты моделирования и прогнозирования. Здесь используют программное обеспечение для построения финансовых и статистических моделей, позволяющих оценить вероятность рисков и их возможные последствия.

Облачные технологии. Предоставляют доступ к ИТ-инфраструктуре и программному обеспечению через Интернет, что в свою очередь позволяет снижать затраты на внедрение и обслуживание систем оценки рисков.

Технологии искусственного интеллекта (ИИ). Они могут быть использованы для автоматизации и ускорения процессов анализа рисков, выявления аномалий и прогнозирования потенциальных проблем.

Системы мониторинга и оповещения. Дают возможность оперативно отслеживать изменения ситуаций на рынке, также финансовые показатели и другие факторы, которые могут свидетельствовать о возрастании риска.

Инструменты кибербезопасности. Эти инструменты необходимы для защиты от кибер атак и утечек данных, что минимизирует технологические риски.

2. Методики оценки рисков с применением ИТ. Использование ИТ неразрывно связано с методологией оценки рисков. Среди наиболее распространенных методик:

Анализ чувствительности. Применяется для оценки влияния изменения ключевых факторов на финансовые результаты фирмы. С помощью ИТ можно быстро представить в виде модели различные сценарии и анализировать их последствия.

Метод Монте-Карло. Используется для моделирования случайных событий и их влияния на результативные показатели предприятия. ИТ позволяют проводить моделирование с большим числом итераций, что минимизирует неточности результатов.

SWOT-анализ. Помогает выявить сильные и слабые стороны предприятия, а также внешние возможности и угрозы. ИТ могут использоваться для автоматизации сбора и анализа данных, необходимых для осуществления SWOT-анализа.

VAR (Value at Risk). Метод, который позволяет оценить максимально возможныее убытки, которые может понести компания за определенный период времени с определеннлой вероятностью. ИТ позволяют проводить сложные вычисления, необходимые для определения VAR.

Data Mining. Методы Data Mining используются для анализа больших баз данных с целью выявления отклонений, скрытых закономерностей и предсказания будущих рисков.

3. Внедрение ИТ в систему риск-менеджмента. Для успешного применения ИТ в оценке рисков необходимо внедрение ИТ-инструментов в общую систему риск-менеджмента предприятия. Это включает в себя следующие шаги:

1)Разработка стратегии управления рисками - определение целей и задач в сфере управления рисками, а также поиск подходящих методов и инструментов.

2)Разработка и внедрение ИТ-инфраструктуры - приобретение и настройка необходимого программного и аппаратного обеспечения.

3)Обучение персонала - обучение сотрудников навыкам использования ИТ-знаний для оценки и управления рисками, организация переквалификации кадров.

4)Постоянный мониторинг и совершенствование - регулярный анализ эффективности применяемых методов и инструментов, их влияние на результативные показатели предприятия, а также поиск резервов их улучшения.

Заключение:

Информационные технологии в современном мире играют ключевую роль в системе управления предпринимательскими рисками. Использование ИТ позволяет автоматизировать процессы сбора, передачи, обработки и анализа данных, повышая тем самым точность и своевременность оценки рисков. Эффективное внедрение ИТ в систему риск-менеджмента является

основополагающим фактором успеха и конкурентоспособности любой фирмы в условиях динамичной и неопределенной бизнес-среды. Дальнейшие исследования в сфере ИТ должны быть направлены на разработку новых методов и инструментов, а также на изучение все большего влияния цифровизации на риски во всех секторах экономики. Инвестиции в ИТ и повышение квалификации сотрудников в области риск-менеджмента становятся важным фактором устойчивого развития бизнеса.

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ВЛИЯНИЕ ИСПОЛЬЗОВАНИЯ ЦИФРОВЫХ ТЕХНОЛОГИЙ НА ПРОИЗВОДИТЕЛЬНОСТЬ ТРУДА И ЭФФЕКТИВНОСТЬ БИЗНЕСА

Аннотация: *в данной статье проводится анализ влияния цифровых технологий на производительность труда и эффективность бизнеса. Рассмотрены основные аспекты влияния цифровых технологий, такие как: автоматизация процессов, возможности коммуникация, аналитика данных, оптимизация ресурсов.*

Ключевые слова: *цифровые технологии, производительность труда, цифровизация, эффективность производства.*

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THE IMPACT OF THE USE OF DIGITAL TECHNOLOGIES ON LABOR PRODUCTIVITY AND BUSINESS EFFICIENCY

Abstract*: this article analyzes the impact of digital technologies on labor productivity and business efficiency. The main aspects of the impact of digital technologies are considered, such as: process automation, communication capabilities, data analytics, resource optimization.*

Keywords: *digital technologies, labor productivity, digitalization, production efficiency.*

Введение.

Цифровые технологии (Digital technologies) - это разнообразные инновационные средства, основанные на использовании цифровой информации и обработке данных с помощью компьютеров и электронных устройств. Они охватывают широкий спектр технических решений, направленных на улучшение процессов, услуг и продуктов в различных областях деятельности.

Примеры цифровых технологий включают в себя облачные вычисления, интернет вещей (IoT), большие данные (Big Data), машинное обучение, виртуальную и дополненную реальность, блокчейн, кибербезопасность, робототехнику и многое другое. Эти технологии продолжают развиваться и проникать в новые области, изменяя способы работы, общения и взаимодействия в современном мире.

Одним из ключевых преимуществ цифровых технологий является их способность к ускорению инноваций и улучшению качества жизни людей.

Однако они также представляют вызовы в виде проблем безопасности, конфиденциальности данных, неравенства доступа и этических вопросов, которые требуют внимательного внедрения и регулирования.

В современном мире цифровые технологии становятся важнейшим фактором, формирующим бизнес-среду. Их внедрение значительно изменяет подходы к управлению, производству и взаимодействию с клиентами, что в свою очередь сказывается на производительности труда и эффективности бизнеса. Эти изменения охватывают различные сферы, включая производство, услуги, маркетинг и управление персоналом.

Аспекты влияния цифровых технологий.

Первым значимым аспектом влияния цифровых технологий является автоматизация процессов. Автоматизация рутинных задач позволяет сократить время выполнения операций и уменьшить вероятность ошибок. Например, в производственной сфере использование роботизированных систем значительно повышает скорость и точность сборки, что в конечном итоге увеличивает объемы производства. В офисах автоматизация документооборота и управления проектами освобождает сотрудников от рутинной работы, позволяя им сосредоточиться на более важных задачах. Таким образом, компании могут оптимизировать свои рабочие процессы и повысить общую продуктивность.

Второй важный элемент — это аналитика данных. Современные бизнесы обладают доступом к большим объемам информации о клиентах, рынках и внутренних процессах. Использование инструментов аналитики позволяет выявить тренды, оптимизировать запасы и улучшить взаимодействие с клиентами. Например, благодаря анализу покупательских предпочтений компании могут персонализировать свои предложения, что не только увеличивает продажи, но и повышает удовлетворенность клиентов. Кроме того, возможности предсказательной аналитики помогают компаниям лучше планировать свои действия, минимизируя риски и увеличивая шансов на успех.

Третий аспект связан с коммуникацией. Цифровые технологии расширяют возможности коммуникации, позволяя компаниям без лишних затрат и временных затрат взаимодействовать с партнерами и клиентами по всему миру. Платформы для видеоконференций, мессенджеры и специализированные корпоративные сети значительно ускоряют процесс обмена информацией и решения проблем. Это способствует более оперативному реагированию на запросы клиентов и помогает сохранить конкурентные преимущества. Кроме того, сотрудничество в реальном времени позволяет командам быстрее реализовывать проекты и улучшать качество конечного продукта.

Важный момент заключается в том, что внедрение цифровых технологий требует также обучения сотрудников и изменений в организационной культуре. Без должной поддержки и подготовки персонала даже самые современные технологии могут оказаться неэффективными. Это

требует от руководства компаний не только инвестиций в новую технику, но и в обучение персонала, создание среды, способствующей принятию инноваций. Регулярные тренинги и семинары могут значительно повысить уровень комфорта сотрудников с цифровыми инструментами, что, в свою очередь, способствует сокращению времени, необходимого для адаптации к новым условиям.

Следует отметить, что цифровизация бизнеса не является абсолютным решением всех проблем. Хотя она предлагает множество преимуществ, важно учитывать риски такие как киберугрозы и зависимость от технологий. Оборудование и программное обеспечение могут сбоить, что приводит к временным потерям. Установление политики управления рисками и обеспечение безопасности данных становятся необходимыми для защиты бизнеса. Киберугрозы могут серьезно подорвать репутацию компании, что является дополнительным стимулом для разработки надежных систем безопасности.

Технологии также способствуют оптимизация ресурсов и улучшению клиентского опыта.

Оптимизация ресурсов: технологии помогают более эффективно управлять ресурсами — от человеческого капитала до материальных запасов. Это позволяет снизить издержки и увеличить рентабельность.

Улучшение клиентского опыта: Технологии позволяют персонализировать предложения и улучшать взаимодействие с клиентами, что повышает их удовлетворенность и лояльность.

Заключительный аспект влияет на финансы. Инвестиции в цифровые технологии зачастую требуют значительных первоначальных затрат. Однако в долгосрочной перспективе они ведут к снижению издержек и повышению эффективности. Улучшение бизнес-процессов, сокращение временных затрат и повышение качества услуг могут значительно увеличить прибыльность бизнеса. Важно понимать, что возврат инвестиций может не проявляться немедленно, и для достижения желаемых результатов может понадобиться время.

Заключение.

В заключение, влияние цифровых технологий на производительность труда и эффективность бизнеса не может быть недооценено. Автоматизация процессов, использование аналитики данных и ускоренная коммуникация — все эти факторы способствуют улучшению бизнес-показателей. Тем не менее, внедрение технологий требует тщательной подготовки и учета возможных рисков. Компании, которые успешно адаптируются к цифровым изменениям, будут иметь явные конкурентные преимущества на рынке, что в условиях стремительного развития технологий становится решающим фактором для процветания и долгосрочного успеха.

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ФОРМИРОВАНИЕ НАУЧНЫХ ШКОЛ И СОЗДАННЫЕ ТЕОРИИ В ЭКОНОМИКО-СОЦИАЛЬНОЙ ГЕОГРАФИИ

Аннотация: *В статье рассматриваются научные школы в экономико-социальной географии, их формирование и значение. Освещаются понятия научных школ, их развитие, типы и их роль в научных исследованиях. Также анализируются особенности экономико-географической науки в Узбекистане, формирование научных школ и создание значительных теоретических работ. В статье рассматриваются различные подходы к понятию научной школы и их социально-экономическое значение.*

Ключевые слова: *Научные школы, экономическая география, социальная география, исследования, развитие науки, формирование науки, теоретическая работа, Узбекистан, ученые, исследователи, сотрудничество.*

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FORMING SCIENTIFIC SCHOOLS AND CREATED THEORIES IN ECONOMIC-SOCIAL GEOGRAPHY

Abstract: *This article discusses scientific schools in economic-social geography, their formation, and significance. The concepts of scientific schools, their development, types, and their role in scientific research are highlighted. It also analyzes the features of economic-geographical science in Uzbekistan, the formation of scientific schools, and the creation of significant theoretical works. The article examines various approaches to the concept of a scientific school and its socio-economic importance.*

Keywords: *Scientific schools, economic geography, social geography, research, development of science, formation of science, theoretical work, Uzbekistan, scientists, researchers, cooperation.*

Введение: Развитие общества невозможно без научных исследований. Наука всегда имеет важное значение для развития общества, и её социальная основа или структура в государстве может быть реализована по-разному. Во всех странах мира науке уделяется особое внимание. Роль науки в жизни государства и общества выражается в её финансовой поддержке и контроле за

проведением научных исследований. В статье рассматривается формирование научных школ, их значение и влияние на научное развитие, а также различные взгляды на их природу и цели.

Основная часть: Формирование научных школ

Профессор, доктор географических наук Р.У.Рахимбеков, который занимался исследованием формирования, характеристик, сущности и содержания научных школ, даёт следующее определение: «Научная школа — это признанное сообщество ученых, которое заложило и развило определенное направление науки, обладающее богатой научной идеей, проводящее научные исследования в рамках этого направления под руководством талантливого и известного ученого, и которое в разные исторические периоды проводило исследования в данной области и продолжает развивать их с помощью новых поколений единомышленников».

Научная школа представляет собой организационную форму постоянного, неофициального творческого взаимодействия ученых, обмена идеями и обсуждения результатов. Каждая научная школа служит источником новых взглядов в своей области. Характерными чертами научных школ являются инициативность, независимость, наличие внутренней мотивации для развития, целеустремленность, стабильные идеологические взгляды и неудовлетворенность достигнутыми результатами.

Важным аспектом научных школ является осознание своей научной работы, понимание роли и участия каждого члена в коллективной научной деятельности, а также координация работы всех исследователей в рамках общей цели. Анализ процессов формирования позволяет классифицировать научные школы по следующим категориям:

Научно-образовательная школа, ориентированная на подготовку будущих исследователей;

Группа ученых, совместно реализующая исследовательскую программу, выбранную или созданную под руководством лидера научной школы;

Новый научный подход, возникший в связи с формированием определенных взглядов группой ученых и исследователей;

Исследователи, которые под руководством известного ученого защитили диссертацию и получили степени кандидата и доктора наук.

Научные школы — это социальные объединения, которые занимаются научной деятельностью в определённой области, проводят исследования и разрабатывают новые теории и идеи. Обычно они формируются как неофициальные сообщества учёных, объединённых общими взглядами и интересами. Научные школы играют важную роль в развитии науки и создании научных направлений в обществе.

Типы научных школ

Научные школы можно классифицировать по разным критериям. Например, М.Г. Ярошевский выделяет следующие типы научных школ:

Научно-образовательные школы;

Исследовательские группы под руководством ведущих учёных;

Новые научные направления, которые появляются в процессе исследований;

Учёные с учёными степенями, такими как кандидат наук и доктор наук.

Значение научных школ и их социальное влияние

Научные школы способствуют развитию новых теорий, создают платформу для сотрудничества между учёными и вносят свой вклад в развитие науки. Они создают научные основы для развития различных сфер социальной и экономической жизни. Научные школы поддерживают творческую активность учёных и способствуют их стремлению к новым открытиям.

Научные школы в Узбекистане

В Узбекистане также сформировались научные школы, связанные с развитием экономической географии. Эти школы ориентированы на развитие национальной экономики, внедрение новых идей и подготовку молодых исследователей. Развитие научных школ в Узбекистане связано с социально-экономическими условиями в стране.

Заключение: Научные школы играют важную роль в развитии науки и общества. Они способствуют сотрудничеству между учёными, созданию новых теорий и научных направлений. Формирование и развитие научных школ связано с социально-экономическим развитием страны, включая экономическую и социальную географию. Исследовательские группы и научные школы, ориентированные на создание новых идей, в будущем будут способствовать развитию новых научных областей.

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ОЦЕНКА ФИНАНСОВОГО СОСТОЯНИЯ ОРГАНИЗАЦИИ И ПУТИ ПРЕДОТВРАЩЕНИЯ ЕЕ НЕСОСТОЯТЕЛЬНОСТИ

Аннотация: *В статье рассматривается проблема оценки финансового состояния организации и разработки стратегий по предотвращению ее несостоятельности. Авторы статьи анализируют основные показатели финансового состояния, такие как ликвидность, рентабельность и финансовая устойчивость, и предлагают методы их оценки. Кроме того, в статье изложены пути предотвращения несостоятельности организации, включая оптимизацию затрат, диверсификацию доходов и улучшение управления рисками.*

Ключевые слова: *финансовое состояние, несостоятельность, ликвидность, рентабельность, финансовая устойчивость, управление рисками.*

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ASSESSMENT OF THE FINANCIAL CONDITION OF THE ORGANIZATION AND WAYS TO PREVENT ITS INSOLVENCY

Abstract*: The article discusses the problem of assessing the financial condition of an organization and developing strategies to prevent its insolvency. The authors of the article analyze the main indicators of financial condition, such as liquidity, profitability and financial stability, and propose methods for their assessment. In addition, the article outlines ways to prevent an organization's insolvency, including cost optimization, income diversification, and improved risk management.*

Keywords*: financial condition, insolvency, liquidity, profitability, financial stability, risk management.*

Оценка финансового состояния организации является важнейшим инструментом для определения ее финансовой стабильности и потенциальных рисков. Несостоятельность организации может привести к серьезным последствиям, включая потерю репутации, финансовые потери и даже банкротство. В этой статье мы рассмотрим основные методы оценки

финансового состояния организации и пути предотвращения ее несостоятельности.

Методы оценки финансового состояния организации.

1. Анализ финансовых отчетов

Анализ финансовых отчетов является основным методом оценки финансового состояния организации. Финансовые отчеты включают баланс, отчет о прибылях и убытках, отчет о движении денежных средств и отчет о собственном капитале. Анализ этих отчетов позволяет оценить финансовую стабильность организации, выявить потенциальные риски и определить направления для улучшения.

2. Коэффициентный анализ

Коэффициентный анализ является методом оценки финансового состояния организации, основанным на расчете различных коэффициентов, таких как:

- Коэффициенты платежеспособности

* Коэффициент текущей ликвидности (Ктл) = Текущие активы / Текущие обязательства

* Коэффициент быстрой ликвидности (Кбл) = (Текущие активы - Запасы) / Текущие обязательства

* Коэффициент долгосрочной ликвидности (Кдл) = (Долгосрочные активы + Собственный капитал) / Долгосрочные обязательства

- Показатели рентабельности

* Рентабельность продаж (Рпр) = (Прибыль от продажи / Выручка) * 100%

* Рентабельность Активов (Ра) = (Чистая прибыль / Средняя стоимость активов) * 100%

* Рентабельность собственного капитала (Рск) = (Чистая прибыль / Средняя стоимость собственного капитала) * 100%

- Коэффициенты финансовой устойчивости

* Коэффициент автономии = Собственный капитал / Общая стоимость активов

* Коэффициент финансового рычага = Заемный капитал / Собственный капитал

* Коэффициент финансовой устойчивости = Чистые Активы / Общая стоимость активов

Эти коэффициенты позволяют оценить финансовую стабильность организации и определить потенциальные риски.

3. Анализ денежных потоков

Анализ денежных потоков является методом оценки финансового состояния организации, основанным на анализе движения денежных средств. Этот анализ позволяет оценить способность организации генерировать денежные средства и определять потенциальные риски.

Пути предотвращения несостоятельности организации

1. Разработка финансовой стратегии

Разработка финансовой стратегии является важнейшим шагом в предотвращении несостоятельности организации. Финансовая стратегия должна быть основана на анализе финансового состояния организации и определении целей и задач.

- Определение целей и задач

Определение целей и задач является первым шагом в разработке финансовой стратегии. Организация должна определить свои финансовые цели и задачи, такие как увеличение прибыли, снижение затрат и улучшение финансовой стабильности.

- Анализ финансового состояния

Анализ финансового состояния является вторым шагом в разработке финансовой стратегии. Организация должна проанализировать свое финансовое состояние, включая финансовые отчеты, коэффициенты и денежные потоки.

- Разработка финансового плана

Разработка финансового плана является третьим шагом в разработке финансовой стратегии. Организация должна разработать финансовый план, который включает конкретные меры по достижению финансовых целей и задач.

2. Управление рисками

Управление рисками является важнейшим аспектом предотвращения несостоятельности организации. Организация должна выявлять потенциальные риски и разрабатывать стратегии по их минимизации.

- Выявление рисков

Выявление рисков является первым шагом в управлении рисками. Организация должна выявить потенциальные риски, такие как риск изменения рыночных условий, риск изменения законодательства и риск изменения технологий.

- Анализ рисков

Анализ рисков является вторым шагом в управлении рисками. Организация должна проанализировать выявленные риски и определить их вероятность и потенциальное воздействие на финансовое состояние организации.

- Разработка стратегий по минимизации рисков

Разработка стратегий по минимизации рисков является третьим шагом в управлении рисками. Организация должна разработать стратегии по минимизации выявленных рисков, такие как диверсификация, хеджирование и страхование.

3. Оптимизация финансовых ресурсов

Оптимизация финансовых ресурсов является важнейшим шагом в предотвращении несостоятельности организации. Организация должна оптимизировать использование финансовых ресурсов, чтобы максимизировать свою финансовую стабильность.

- Определение финансовых ресурсов

Определение финансовых ресурсов является первым шагом в оптимизации финансовых ресурсов. Организация должна определить свои финансовые ресурсы, такие как денежные средства, запасы и оборудование.

- Анализ использования финансовых ресурсов

Анализ использования финансовых ресурсов является вторым шагом в оптимизации финансовых ресурсов. Организация должна проанализировать использование своих финансовых ресурсов и определить области для улучшения.

- Разработка стратегий по оптимизации финансовых ресурсов

Разработка стратегий по оптимизации финансовых ресурсов является третьим шагом в оптимизации финансовых ресурсов. Организация должна разработать стратегии по оптимизации использования финансовых ресурсов, такие как снижение затрат, улучшение управления запасами и оптимизация использования оборудования.

4. Мониторинг финансового состояния

Мониторинг финансового состояния является важнейшим аспектом предотвращения несостоятельности организации. Организация должна регулярно мониторить свое финансовое состояние, чтобы выявить потенциальные риски и принять меры по их минимизации.

- Регулярный анализ финансовых отчетов

Регулярный анализ финансовых отчетов является первым шагом в мониторинге финансового состояния. Организация должна регулярно анализировать свои финансовые отчеты, чтобы выявить потенциальные риски и определить направления для улучшения.

- Мониторинг коэффициентов

Мониторинг коэффициентов является вторым шагом в мониторинге финансового состояния. Организация должна регулярно мониторить свои коэффициенты, чтобы выявить потенциальные риски и определить направления для улучшения.

- Мониторинг денежных потоков

Мониторинг денежных потоков является третьим шагом в мониторинге финансового состояния. Организация должна регулярно мониторить свои денежные потоки, чтобы выявить потенциальные риски и определить направления для улучшения.

Заключение

Оценка финансового состояния организации и пути предотвращения ее несостоятельности являются важнейшими аспектами финансового менеджмента. Организация должна регулярно оценивать свое финансовое состояние, чтобы выявить потенциальные риски и принять меры по их минимизации. Разработка финансовой стратегии, управление рисками, оптимизация финансовых ресурсов и мониторинг финансового состояния

являются важнейшими шагами в предотвращении несостоятельности организации.

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ЛАНДШАФТНЫЙ ДИЗАЙН НА ТЕРРИТОРИИ ТУРИСТИЧЕСКОЙ ИНФРАСТРУКТУРЫ УЗБЕКИСТАНА

Аннотация. *Цель данной статьи — исследовать текущее состояние и перспективы развития ландшафтного дизайна на туристических объектах Узбекистана, сравнив их с международными практиками и выявив лучшие решения для реализации в условиях страны.*

Ключевые слова: *Ландшафтный дизайн, архитектура, парки, аллеи, зеленые зоны и водные элементы, туристической инфраструктуры.*

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LANDSCAPE DESIGN ON THE TERRITORY OF THE TOURISM INFRASTRUCTURE OF UZBEKISTAN

Abstract. *The purpose of this article is to investigate the current state and prospects for the development of landscape design at tourist sites in Uzbekistan. The article compares these designs with international practices and identifies the best solutions for implementation in the conditions of the country.*

Key words: La*ndscape design, architecture, parks, alleys, green areas and water elements, tourist infrastructure.*

Введения. Узбекистан, обладая богатым культурным наследием, уникальной архитектурой и природными ресурсами, привлекает миллионы туристов ежегодно. Однако рост туризма требует создания комфортной и эстетически привлекательной инфраструктуры. Одной из ключевых составляющих такой инфраструктуры является ландшафтный дизайн, который не только украшает туристические объекты, но и обеспечивает устойчивое развитие территорий. Современный туризм ориентирован не только на посещение исторических памятников, но и на комфортное пребывание в гармоничной природной среде. Узбекистан, с его объектами всемирного наследия ЮНЕСКО (Самарканд, Бухара, Хива), имеет высокий потенциал, который усиливается благодаря применению профессиональных подходов к ландшафтному дизайну.

Ландшафтный дизайн способствует:

- Улучшению экологического состояния территорий.
- Увеличению туристической привлекательности.

- Созданию комфортных зон отдыха для местного населения и туристов.

Тем не менее, в ряде регионов Узбекистана наблюдается недостаточная проработанность инфраструктурных и ландшафтных решений, что требует внимания.

Международный опыт показывает, что гармонично оформленные территории, включающие парки, аллеи, зеленые зоны и водные элементы, значительно повышают туристическую привлекательность. В то же время, в Узбекистане ландшафтный дизайн часто остается недооцененным компонентом туристической инфраструктуры. Это создает необходимость научного исследования данной темы и разработки эффективных решений.

Ландшафтный дизайн как дисциплина берет свое начало в глубокой древности. Исторически он был тесно связан с садово-парковым искусством, что ярко проявилось в таких странах, как Китай, Япония, Персия, Италия, где ландшафтное оформление играло значимую роль в архитектурном и культурном развитии.

Метод исследования. Международные исследователи, внесшие вклад в развитие ландшафтного дизайна: ***Иан МакХарг (Ian McHarg)*** — американский ландшафтный архитектор и эколог, автор книги *"Design with Nature"*. МакХарг разработал экологический подход к планированию территорий, который ориентирован на интеграцию природных процессов и человеческой деятельности. ***Кристофер Александер (Christopher Alexander)*** — британский архитектор, автор теории *"A Pattern Language"*, которая акцентирует внимание на гармоничном проектировании общественных пространств. ***Лоуренс Халприн (Lawrence Halprin)*** — американский ландшафтный архитектор, известный своими проектами в США, сочетающими архитектуру и природу.

Исследования, связанные с Центральной Азией и Узбекистаном: ***И.И. Саркисов*** — советский ученый, изучавший методы озеленения и водоснабжения в условиях жаркого климата Средней Азии. Его труды включают практические рекомендации по организации зеленых зон в засушливых регионах. ***Б.В. Лурье*** — исследователь, уделявший внимание проектированию городских ландшафтов с учетом климатических условий Средней Азии. ***Г.А. Пугачевская*** — специалист в области садово-паркового искусства, которая занималась вопросами эстетики и функциональности ландшафтного дизайна в советский период.

Современные исследования: Сегодня вопросы ландшафтного дизайна в туристической инфраструктуре обсуждаются на международных форумах. Организации, такие как Всемирная туристическая организация ООН (UNWTO), акцентируют внимание на важности устойчивого развития туризма, где ландшафтный дизайн занимает ключевое место.

Анализ и основные результаты — сравнение стран с Узбекистаном. Ландшафтный дизайн играет ключевую роль в создании привлекательной и

функциональной туристической инфраструктуры. В данном разделе проводится анализ текущего состояния ландшафтного дизайна в Узбекистане с последующим сравнением с международными примерами.

График отражает изменение туристического потока в Узбекистане за период с 2015 по 2023 годы. В 2019 году был зафиксирован рекордный рост числа иностранных туристов до 6,7 миллионов человек, что связано с усиливающимися маркетинговыми кампаниями и улучшением туристической инфраструктуры. Однако в 2020 году, из-за пандемии COVID-19, наблюдается резкое снижение потока туристов до 1,5 миллиона человек. С 2021 года ситуация начинает восстанавливаться, и к 2023 году количество туристов вновь достигло 5,6 миллионов человек.

Выводы:

- Основной рост туристического потока наблюдается с 2017 по 2019 год.
- Пандемия существенно повлияла на индустрию туризма в 2020 году, но восстановление в последующие годы показывает положительную динамику.
- Прогнозируется дальнейшее увеличение числа туристов с улучшением инфраструктуры и развитием новых туристических направлений.

Растущий туризм как стимул: Постоянное увеличение числа туристов стимулирует развитие всех направлений инфраструктуры, от гостиниц до транспортной системы.

Инновации в туризме: Узбекистан активно внедряет цифровые технологии и упрощает процессы для туристов, что улучшает их опыт путешествий.

Долгосрочный потенциал: С сохранением текущих тенденций, включая развитие инфраструктуры и активное продвижение, Узбекистан имеет все шансы превратиться в один из ключевых туристических центров Центральной Азии.

Ландшафтный дизайн в Узбекистане:

Наиболее популярные туристические направления страны, такие как Самарканд, Бухара, Хива и Ташкент, обладают уникальными историко-архитектурными памятниками. Однако организация ландшафтной среды на этих объектах сталкивается с рядом проблем:

-Недостаток комплексного подхода: Зеленые зоны часто ограничиваются минимальным озеленением без учета архитектурного контекста.

-Климатические вызовы: Засушливый климат региона требует использования водосберегающих технологий и устойчивых к жаре растений.

-Финансовые и ресурсные ограничения: Проекты благоустройства нередко ограничиваются бюджетами, что влияет на их качество.

Примеры успешных проектов в Узбекистане:

-Центральный парк Самарканда: Реконструированный парк с элементами традиционного дизайна.

-Аллеи Ташкента: Пешеходные зоны с современным освещением и озеленением, ориентированные на комфорт посетителей.

Международные примеры:

В Турции успешно используются принципы интеграции архитектурных объектов с природной средой. Например, в парке вокруг дворца Топкапы в Стамбуле создано уникальное пространство, где исторические постройки гармонично сочетаются с современным озеленением.

Развитие прибрежных зон, таких как Анталья, включает пляжи, прогулочные аллеи и ландшафтные парки, что увеличивает их туристическую привлекательность.

Испания. Барселона и Мадрид известны своими зелеными зонами, такими как парк Гуэль, спроектированный Антонио Гауди. Здесь сочетаются художественные элементы и функциональность.

В туристических зонах Испании активно применяются устойчивые технологии: капельное орошение, использование местных растений.

Марокко. Исторические медины Феса и Марракеша окружены садами, которые сочетают традиции исламского ландшафтного искусства с современными подходами.

Использование водоемов и фонтанов является ключевым элементом, что особенно актуально в условиях жаркого климата.

Сравнительный анализ

Страна		Уровень интеграции природы и архитектуры	Использование водных элементов	Подход к озеленению	Развитие инфраструктуры
1	Узбекистан	Средний	Ограниченное	Традиционный	Развивающееся
2	Турция	Высокий	Широкое	Современный	Развитое
3	Испания	Высокий	Широкое	Инновационный	Развитое
4	Марокко	Высокий	Широкое	Традиционный + Современный	Развивающееся

Основные выводы анализа

Узбекистану необходимо более активно использовать интеграцию природы с архитектурой, создавая зеленые зоны, соответствующие мировым стандартам.

Применение устойчивых технологий озеленения, таких как капельное орошение и использование местных засухоустойчивых растений, может значительно повысить эффективность проектов.

Туристические объекты страны должны быть дополнены функциональными зонами отдыха (аллеи, парки, фонтаны), как это реализовано в Испании и Турции.

Для лучшего восприятия результатов исследования, ниже приведены таблицы и статистические данные по различным аспектам ландшафтного дизайна в туристической инфраструктуре Узбекистана (*Источник: Министерство туризма и спорта Республики Узбекистан, 2023.)*:

Регион	Количество туристов (млн человек, 2023)	Инвестиции в инфраструктуру (млн $)	Доля в общем турпотоке (%)
Ташкентская область	2.5	300	35%
Самаркандская область	1.7	200	25%
Бухарская область	1.0	150	15%
Хорезмская область	0.7	120	10%
Ферганская долина	0.6	90	10%

Эти данные иллюстрируют, как распределяются туристические потоки и инвестиции по регионам. Является очевидным, что наибольшее внимание уделяется Ташкенту, однако для развития других областей необходимы дополнительные усилия в области ландшафтного дизайна.

Заключение. Ландшафтный дизайн является неотъемлемой частью туристической инфраструктуры и существенно влияет на привлекательность и комфортность туристических объектов. В Узбекистане существует огромный потенциал для улучшения ландшафтного оформления в туризме. Важно отметить, что необходимо уделять внимание экологическим аспектам, а также интеграции местных традиций и особенностей природы в проектирование туристических объектов.

Исследование показало, что ландшафтный дизайн является неотъемлемой частью туристической инфраструктуры и существенно влияет на привлекательность и комфортность туристических объектов. В

Узбекистане существует огромный потенциал для улучшения ландшафтного оформления в туризме. Важно отметить, что необходимо уделять внимание экологическим аспектам, а также интеграции местных традиций и особенностей природы в проектирование туристических объектов.

Для повышения конкурентоспособности Узбекистана как туристической дестинации необходимо:

Разрабатывать и внедрять проекты, ориентированные на экологичность и устойчивое развитие.

- Инвестировать в создание культурных и природных ландшафтных объектов, учитывая уникальные особенности каждого региона.
- Использовать инновационные технологии для улучшения качества ландшафтного дизайна в условиях жаркого климата.
- Создание всесезонных горных курортов с развитой инфраструктурой для зимнего и летнего отдыха.
- Разработка зон для горных лыж, сноубординга, пеших прогулок.
- Разработка тематических парков, отражающих историю Шелкового пути или культурное наследие Узбекистана.
- Создание современных парков аттракционов для привлечения семейного туризма.

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КЛЮЧЕВЫЕ СПЕЦИФИЧЕСКИЕ СЛОВА – ОСНОВА УВЛЕЧЁННОГО ЗАНЯТИЯ ДЛЯ СТУДЕНТОВ ЖУРНАЛИСТОВ

АННОТАЦИЯ:*Ключевые специфические слова играют важную роль в увлекательном занятии для студентов журналистов. В данной статье исследуется влияние и эффективность использования ключевых слов в журналистике, их роль в привлечении внимания аудитории и формировании общественного мнения. Также рассматриваются практические советы и рекомендации по использованию ключевых слов для студентов журналистики, включая анализ контекстуальной релевантности, избегание манипуляций и предвзятости, а также следование этическим принципам.*

Ключевые слова: *специфические слова, журналистика, студенты, увлечение, занятие, исследование, эффективность, контекст, манипуляция, предвзятость, оптимизация, коммуникация.*

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KEYWORDS SPECIFIC - THE BASIS OF A FASCINATING LESSON FOR JOURNALIST STUDENTS

ANNOTATION:*Key specific words play an important role in a fun activity for journalism students. This article examines the influence and effectiveness of using keywords in journalism, their role in attracting audience attention and shaping public opinion. Practical tips and advice for using keywords for journalism students are also covered, including analyzing contextual relevance, avoiding manipulation and bias, and following ethical principles.*

Key words: *specific words, journalism, students, hobby, occupation, research, effectiveness, context, manipulation, bias, optimization, communication.*

ВВЕДЕНИЕ:

В современном информационном обществе, где доступ к информации стал более легким и быстрым, ключевые специфические слова играют важную роль в журналистике. Они являются основой эффективной и точной передачи информацию своей аудитории.

Целью данной статьи является обзор темы и ее актуальности, а также определение ключевых понятий. В статье автор рассматривает, что такое ключевые специфические слова и почему они являются неотъемлемой частью

журналистики. Также будут поставлены задачи исследования, которые помогут нам более глубоко понять роль и значение этих слов.

ОСНОВНАЯ ЧАСТЬ:

Ключевые специфические слова (КСС) представляют собой термины или фразы, которые наиболее точно описывают тему или содержание статьи, новости или репортажа. Определение КСС является важным шагом для понимания их роли в журналистике. Эти слова помогают студентам журналистики точно и эффективно передавать информацию своей аудитории. Они должны быть выбраны с учетом контекста и целей коммуникации, чтобы наиболее точно отражать суть материала.

Такие слова могут быть общепринятыми терминами, связанными с определенной областью или событием, а также уникальными фразами, которые характеризуют конкретную ситуацию или явление. Они должны быть ясными, лаконичными и информативными, чтобы привлечь внимание аудитории и помочь ей быстро понять, о чем идет речь.[73]

Важно отметить, что выбор таких слов должен быть основан на анализе целевой аудитории и ее потребностях. Студенты журналистики должны учитывать интересы и предпочтения своей целевой аудитории, чтобы выбрать наиболее релевантные и привлекательные ключевые слова.

Роль КСС ***в журналистике***

КСС играют важную роль в привлечении внимания аудитории и передаче информации. Они помогают студентам журналистики точно и эффективно описывать тему или содержание своих материалов, делая их более привлекательными и понятными для читателей или зрителей. Это особенно важно в современном информационном обществе, где конкуренция за внимание аудитории очень высока.

Они также помогают журналистам оптимизировать свои материалы для поисковых систем. Правильный выбор слов может повысить видимость и доступность материалов в поисковых запросах, что в свою очередь привлечет больше читателей или зрителей. Однако, важно использовать их с умом и осторожностью. Журналисты должны учитывать этические и моральные аспекты при выборе таких слов и не использовать их для манипуляции или создания сенсаций. Они должны быть связаны с содержанием материала и отражать его суть, чтобы обеспечить честность и достоверность информации.

Методы исследования КСС

В этом разделе мы рассмотрим различные методы исследования КСС, которые помогут студентам журналистики более глубоко понять их использование и эффективность.

Один из методов исследования является анализ текстов. Студенты могут проводить анализ текстов, включая новостные статьи, репортажи и интервью, чтобы определить, какие ключевые слова чаще всего используются в

[73] helpdoma.ru/faq/cto-takoe-klyucevye-slova-v-state

определенной тематике или событии. Это позволяет им понять, какие слова наиболее релевантны и информативны для аудитории.

Другой метод исследования - это опросы. Студенты могут проводить опросы среди своей целевой аудитории, чтобы выяснить, какие слова вызывают наибольший интерес и привлекают внимание. Опросы могут быть проведены как в форме анкет, так и в форме интервью, чтобы получить более детальные и качественные данные.[74]

Также студенты могут использовать эксперименты для исследования ключевых специфических слов. Например, они могут создать несколько версий одной статьи или репортажа, в которых будут использоваться разные ключевые слова, и затем измерить реакцию аудитории на каждую версию. Это позволит им определить, какие слова наиболее эффективны в привлечении внимания и удержании интереса аудитории.

Важно отметить, что выбор метода исследования зависит от целей и задач исследования, а также доступных ресурсов и времени. Комбинирование различных методов может дать более полное и точное представление о КСС и их влиянии на журналистику.

Влияние КСС ***на формирование общественного мнения***

КСС могут оказывать значительное влияние на восприятие информации аудиторией. Журналисты и медиа-специалисты часто используют определённые слова, чтобы вызвать определенные эмоции, ассоциации или реакции у своей аудитории. Это может быть сделано с целью убедить, убедить или даже манипулировать общественным мнением. Например, использование положительных слов, таких как "успех", "прогресс" или "инновации", может создать положительное впечатление о представляемой информации и способствовать формированию благоприятного общественного мнения. С другой стороны, использование отрицательных слов, таких как "кризис", "скандал" или "коррупция", может вызвать негативные эмоции и влиять на формирование неблагоприятного общественного мнения.[75]

Журналисты должны стремиться к объективности и достоверности в своей работе, выбирая слова, которые наиболее точно отражают суть представляемой информации, а не искажают ее.

Оптимизация контента для поисковых запросов

Оптимизация контента позволяет журналистам улучшить видимость своих материалов в поисковых системах, что в свою очередь может привести к увеличению числа читателей и повышению рейтинга их публикаций.

Оптимизация контента включает в себя различные аспекты, такие как включение ключевых слов в заголовки, подзаголовки, мета-теги, а также в сам

[74] Jonathan Gray, Lucy Chambers, and Liliana Bounegru, "The Data Journalism Handbook" (Справочник по журналистике данных), O'Reilly Media, Sebastopol, 2012.

[75] "Bill Kovach and Tom Rosenstiel, "The Elements of Journalism: What Newspeople Should Know and The Public Should Expect" (Элементы журналистики: что следует знать журналистам и чего следует ожидать публике), Crown Publishers, New York, 2001.

текст статьи. Журналисты должны выбирать слова, которые наиболее точно отражают тему и содержание материала.

Кроме того, важно учитывать популярность и конкуренцию слов. Журналисты должны исследовать и анализировать, какие слова чаще всего используются в поисковых запросах, и выбирать те, которые имеют хороший потенциал для привлечения трафика на свой контент.

Журналисты могут использовать различные аналитические инструменты, такие как Google Analytics, для отслеживания трафика, поисковых запросов и поведения пользователей на своем веб-сайте.

Одним из этических аспектов является точность и достоверность информации. Журналисты должны использовать те слова, которые наиболее точно отражают содержание материала, чтобы не вводить аудиторию в заблуждение или создавать ложные представления. Кроме того, журналисты должны быть осведомленными о социальных и культурных контекстах, в которых они работают. Использование таких слов, которые могут быть оскорбительными, дискриминирующими или неприемлемыми для определенных групп людей, может нанести ущерб репутации и доверию к журналисту и его работе.

Журналисты, осознавая силу подобных слов, могут использовать их для акцентирования внимания на определенных аспектах и мнениях, влияя на то, как аудитория воспринимает и интерпретирует информацию. Это может иметь значительное влияние на формирование общественного мнения и создание определенных настроений и представлений. Журналисты должны быть балансированными и объективными в своем использовании КСС.[76]

Критический анализ использования специфических слов включает в себя:

- Эффективность: Оценивание, насколько хорошо конкретные слова привлекают целевую аудиторию и передают задуманное сообщение; насколько выбранные слова эффективно привлекают внимание и генерируют вовлеченность.

- Манипуляция: Исследование этических последствий использования определённых слов для манипуляции или сенсационизма информации, и может ли использование этих слов искажать правду или вводить аудиторию в заблуждение.

- Контекстуальная актуальность: Оценивание уместности использования конкретных слов в различных контекстах.

- Изменение языка: Мы должны учесть то, что язык и ключевые слова развиваются со временем. Мы должны быть в курсе новых тенденций и

[76] Kelly McBride and Tom Rosenstiel, "The New Ethics of Journalism: Principles for the 21st Century" (Новая этика журналистики: принципы XXI века), CQ Press, Thousand Oaks, 2013.

изменений в языковом использовании, чтобы обеспечить актуальность и эффективность этих слов.[77]

Критический анализ должен способствовать глубокому размышлению об использовании КСС в журналистике и поощрять ответственные и этические практики. Он требует осознанного подхода к выбору и использованию этих слов, а также критического мышления со стороны аудитории при восприятии информации.

Мы обсудили эффективность КСС в привлечении внимания и генерации интереса. Кроме того, мы рассмотрели этические соображения при манипулировании информацией с помощью конкретных слов и возможное поддержание предвзятости и стереотипов. Мы также подчеркнули важность контекстуальной релевантности и восприятия аудиторией при использовании подобных слов.

В заключение, использование конкретных слов в журналистике требует тщательного обдумывания. Журналисты должны стремиться к точности, ясности и органическому внедрению ключевых слов в свой контент. Важно избегать манипуляций и предвзятости, обеспечивая соответствие выбранных ключевых слов задуманному сообщению и целевой аудитории. Кроме того, следить за изменениями в языке и практиках оптимизации для поисковых систем может повысить эффективность конкретных слов, чтобы улучшить коммуникацию с аудиторией.

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ЭЛ-НИНО ВА ЛА-НИНО ҲОДИСАЛАРИ ҲАҚИДА УМУМИЙ ТУШУНЧАЛАР ВА ЛА-НИНО ҲОДИСАСИ ДАВОМИДА ЎЗБЕКИСТОНДА КУЗАТИЛГАН ЁҒИНГАРЧИЛИК АНОМАЛИЯЛАРИ

Аннотация. *Ушбу мақолада Эл-Нино ҳамда Ла-Нино ҳодисалари тўғрисидаги умумий тушунчалар, уларнинг физик механизмлари ҳамда Ла-Нино ҳодисаси давомида Ўзбекистонда кузатилган ёғингарчилик аномалиялари кўриб чиқилди. Мақсадни амалга ошириш учун ишда, Тинч океанининг марказий ва шарқий қисмида содир бўладигин ҳодисалар ҳамда Ўзбекистондаги метеорологик станциялардаги кузатилган ёғингарчилик аномалиялари статистик таҳлил усули ёрдамида таҳлил қилинди. Ўтказилган таҳлил натижаларига кўра, Эл-Нино Жанубий Тебраниш (ЭНЖТ) нинг ижобий фазаси бўлган Ла-Нино жараёни даврида Ўзбекистон ҳудудида ёғингарчилик меъёрдан кам бўлганлиги аниқланди.*

Калит сўзлар. *Эл-Нино жанубий тебраниши (ЭНЖТ), Эл-Нино феномени, Ла-Нино феномени, ёғингарчилик режими, ёғингарчилик аномалиялари.*

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THE EL NINO AND LA NINO EVENTS ARE COMMON EVENTS, AND THE LA NINO EVENTS ARE A CONTINUATION OF THE ANOMALIES IN UZBEKISTAN

Abstract. *This article reviews the general concepts of El Niño and La Niño phenomena, their physical mechanisms, and precipitation anomalies observed in Uzbekistan during the La Niño phenomenon. To achieve this goal, the study analyzed the phenomena occurring in the central and eastern Pacific Ocean and the precipitation anomalies observed at meteorological stations in Uzbekistan using statistical analysis. According to the results of the analysis, it was found that during the La Niño process, which is the positive phase of the El Niño Southern Oscillation (ENSO), precipitation in Uzbekistan was below normal.*

Keywords. *El Nino Southern Oscillation (ENJT), El Nino phenomenon, La Nino phenomenon, rainfall regime, rainfall anomalies.*

Кириш. Сўнгги йилларда барча қитъаларни қамраб олган об-ҳаво аномалияларининг сезиларли даражада ошиши кузатилмоқда. Бундай ҳолатларнинг асосий сабабчиси Тинч океанининг шарқий тропик қисмидаги океан сувлари юқори қатламининг сезиларли даражада исиши ёки совишида намоён бўладиган, атмосферада сезиларли беқарорликни келтириб чиқарадиган Эл-Нино феномени деб аталади.

Ҳодиса давомида ривожланаётган жараёнларнинг ўзи минтақавий бўлишига қарамай, уларнинг оқибатлари глобал характерга эга. Эл-Нино одатда экологик офатларни келтириб чиқаради: қурғоқчилик, ёнғинлар, кучли ёмғирлар, аҳоли зич жойлашган ҳудудларнинг кенг ҳудудларини сув босишига олиб келади, бу еса одамларнинг ўлимига ва Ернинг турли қисмларида чорвачилик ва экинларнинг нобуд бўлишига олиб келади. Эл-Нино глобал иқтисодиётга сезиларли таъсир кўрсатади. Америкалик мутахассисларнинг фикрига кўра, 1982-1983 йиллардаги Эл-Нино оқибатларидан кўрилган иқтисодий зарар 13 миллиард долларни ташкил этган[1].

Мавзуга оид адабиётлар таҳлили.

Ҳозирги вақтда кўплаб мамлакатларда Эл-Нинонинг ноқулай об-ҳаво шароитларига таъсири бўйича тадқиқотлар олиб борилмоқда.

Жаҳон миқёсида Эл-Нино ва Ла-Лина жараёнлари шу жумладан, уларнинг оқибати ва бу жараёнлар таъсири оқибатида бутун дунёда содир бўлаётган ҳалокатларга бағишланган кўп сонли илмий ишлар эълон қилинган.

Узоқ хориж мамлакатларида Груза Г.В., Ранькова Э.Я., Клещенко Л.К., Аристова Л.Н. Гущина Д. Ю., Петросянц М. А., Соколихина Е.В., Kevin E., Trenberth каби бир қатор олимлар Эл-Нино ҳамда Ла-Нина феноменларининг пайдо бўлиши, уларни прогноз қилиш чора-тадбирлари, кўплаб малакатлар дорасида улар келтириб чиқарадиган салбий (ижобий) оқибатлар ҳамда океан ва атмосфера циркуляцияси ўртасидаги боғлиқликлар ва бу жараёнларнинг турли худудларга таъсирини кенг ўрганганлар.

Сидоренков Н.С., Бабушкин О.Л., Инагамова С.И каби олимларнинг ишларида Эл-Нинонинг Ўрта Осиё синоптик жараёнларга таъсири ёритиб берилган.

Эл-Нинонинг Ўзбекистон об-ҳавосига тасири Скрипникова Л.Е томонидан ўрганилган.

Л.Е. Скрипниковaнинг олиб борган тадқиқот натижаларига кўра, 1950-2000 йиллар давомида ёмғир ҳодисаларининг 70% Эл-Нино даврига тўғри келган. Ла-Нина билан боғлиқ 85% ҳолларда Ўзбекистон ҳудудида ёғингарчилик танқислиги даври кузатилган. Ўзбекистон ҳудудида ёғингарчиликнинг барқарор салбий аномалияларининг 73% да Ла-Нино даврида кузатилган.

Ўзбекистон ҳудудида ҳам, унинг тоғолди ҳудудларида ҳам ёғингарчилик танқислиги кузатилган 76% ҳолларда Ла-Нина мавжуд бўлган даврда, 14% да Эл-Нино даврида ва 10% Тинч океанида ҳодиса кузатилмаган даврларда қайд этилган[2].

Ўзбекистонда олиб борилган тадқиқотлар натижаларига кўра, Эл-Нино феномени мўтадил кенгликларда содир бўлаётган об-ҳаво жараёнларига таъсири айрим томонлари кенг ўрганилган. Бу таъсир асосан ёғингарчилик режими, ҳарорат режими ва дарё оқимининг ўзгаришида намоён бўлиши аниқланган [3].

Эл-Нино ва Ла-Нино ҳодисаларининг Оролбўйи минтақаси сув оқими билан боғланишини текшириш таҳлили натижаларига кўра (3-расм), Амударё дарёсининг қуйи оқимида жойлашган Саманбой гидрологик постидаги маълумотларига кўра, Эл-Нино кузатилган йилларда Оролга қуйилган сув ҳажми 6097 млн.м³ ни, Ла-Нино кузатилаган йилларда эса 451 млн.м³ ни ташкил этган[4].

Ишнинг мақсади ва услуби. Эл-Нино ва Ла-Нина ҳодисаларининг механизмини ёритиб бериш ҳамда сўнгги йиллар давомида кузатилган Ла-Нина ҳодисасининг Ўзбекистондаги ойлик ёғингарчилик режимига таъсирини баҳолашдан иборат. Мақсадни амалга ошириш учун республикамида жойлашган метеорологик станцияларда сўнгги йилларда кузатилган ўртача ёғингарчилик қийматларидан фойдаланилди ва кўп йиллик меъёр(Жаҳон Метеорология Ташкилоти (ЖМТ) томонидан таклиф қилинган 1991-2020 йиллардаги базавий даврдаги кўп йиллик ўртача ёғингарчилик меъёр ҳисобланади) га нисбатан уларнинг аномалиялари ҳисоблаб чиқилди.

Сўнгги йилларда об-ҳаво аномалиялари натижасида юзага келган табиий офатлар кўпинча олимлар томонидан Эл-Нино феномени билан боғланади. Бу ҳодиса Тинч океанининг экваториал зонасининг шарқида кузатилади ва океан усти сув қатлами ҳароратининг кескин ошишидан иборат. Эл-Нино содир бўлиши мумкин бўлган ҳудуд экватор бўйлаб узунлиги тахминан 11000 км ва эни 1500 км бўлган чизиқ бўлиб, шартли равишда тўртта зонага (1–2, 3, 3.4, 4) бўлинган [2].

Ҳудудларни тавсифлаш учун океандаги юза сув қатлами ҳароратида стандартлаштирилган аномалияларни ифодаловчи Эл-Нино индекслари (НИ) қўлланилади. Оддий ҳолатда зоналарнинг ҳар бирининг ҳарорати бир-биридан фарқ қилади, яъни океан юза сувлари ҳарорати қийматлари ғарбдан шарққа пасаяди. Эл-Нино жараёни содир бўлиши пайтида у бироз кўтарилиб, 27-29 °C га етади.

Вақти-вақти билан океан юза сувлари ҳарорати совишни бошлайди, ва меъёрдан паст қийматлар кузатилади (ЖМТ томонидан таклиф қилинган 1991-2020 йиллардаги базавий даврдаги кўп йиллик ўртача ҳаво ҳарорати меъёр ҳисобланади). Ушбу ҳодиса "Ла-Нина" деб аталади.

Эл-Нино кўпинча апрель-май ойларида бошланади ва декабрь-февраль ойларида максимал ривожланишига эришади. 1997-1998 йиллардаги Эл-Нино ҳодисаси ўтган асрдаги энг кучлиси бўлиб, бутун минтақада океан юзаси 29-30° С гача қизиган. ЖМТ маълумотларига кўра, бу ҳодиса (1997-1998) жаҳон иқтисодиётига қарийб 100 миллиард АҚШ доллари миқдорида зарар етказган[5].

Ла-Нина феноменининг давомийлиги 5 ойдан 24 ойгача давом этади. 1954-1956 йиллардаги ҳодиса (24 ой) сўнгги 50 йил ичида энг қизғин ва узоқ давом этган ҳодиса бўлди.

Эл-Нина ва Ла-Нино жараёнлари ривожланиши Тинч океанининг экваториал қисмида содир бўлсада, у кўплаб ҳудудларга ўз таъсирини ўтказади, Нафақат АҚШда балки дунёнинг кўплаб ҳудудларида экстремал об-ҳаво, озиқ-овқат, ишлаб чиқариш, сув таъминоти ва ҳатто инсон саломатлигига ҳам таъсир қилиши мумкин.

Олимларнинг маълум бир кузатув натижаларига кўра, Эл-Нинонинг ҳудудимизга таъсири ҳинд муссони орқали содир бўлади. Хусусан, муссон зонасининг шимолий чегараси жойлашганлигида. Баъзи йилларда Помир тоғларида муссоннинг акс-садолари жуда аниқ қайд этилган. Олинган маълумотларга кўра, айниқса шиддатли Эл-Нино феноменлари йилларида муссон ҳодисалари чегаралари кўпроқ шимолий кенгликларга ўтади. Радарларда тажриба кузатиш натижаларига кўра, Фарғона водийсида тропикларга хос бўлган баъзи об-ҳаво ҳодисалари қайд этилган [7], шунинг учун баъзи йилларда конвектив булутларнинг баландлиги 13-14 км дан ошган.

Ушбу ҳодисанинг Ўзбекистондаги гидрометеорологик жараёнларга таъсирини ўрганиш, бу турли хавфли об-ҳаво ҳодисалари ривожланиши эҳтимолидан эрта огоҳлантириш учун катта қизиқиш уйғотади.

Ҳар бир кузатилган жараёнлар бир-биридан давом этган вақти, интенсивлиги билан бир-биридан фарқ қилади. Ла-Нино жараёни давомида агар океан сув юзаси ҳарорати ўртача кўп йиллик меъёрдан -0,5 °С га пасайса, кучсиз Ла-Нино, агар океан сув юзаси ҳарорати ўртача кўп йиллик меъёрдан -1,0 °С га пасайса, ўртача Ла-Нино, агар океан сув юзаси ҳарорати ўртача кўп йиллик меъёрдан -1,5 °С га пасайса, кучли Ла-Нино, агар океан сув юзаси ҳарорати ўртача кўп йиллик меъёрдан -2,0 °С га пасайса, жуда кучли Ла-Нино деб баҳоланади.

Эл-Нино жараёни даврида ҳудудимизда январъ-апрель ойларида намгарчилик, Ла-Нино жараёни даврида эса январъ-март ойларида қурғоқчилик бўлади[8].

Республикамизда Ла-Нино жараёни давомида кузатилган ёғингарчилик аномалияларини таҳлил қилиш мақсадида биз оҳирги 30 йилдан ошиқ йиллар (1991-2024 йиллар) давомида Тинч океанида кузатилган 3 та кучли Ла-Нино

(1998-2002 йиллар), (2007-2009 йиллар), (2010-2012 йиллар) ҳамда сўнгги йилларда кузатилган ўртача Ла-Нино (2020-2023 йиллар) йилларини танлаб олдик. Вилоятлар кесимида республикамизда жойлашган жами 52 та метеорологик станциялардаги кузатилган ёғингарчилик маълумотларидан фойдаланилди. Ёғингарчилик маълумотлари асосида меъёрдан четланиш (ΔR,%) ҳисоблаб чиқилди. Агар ΔRнинг қиймати 0-80% оралиғида бўлса, ёғингарчилик меъёрдан кам, 80-120% оралиғида бўлса, ёғингарчилик меъёр атрофида, 120% дан кўп бўлса, ёғингарчилик меъёрдан кўп деб баҳоланди. Ҳисоб-китоб натижаларига кўра, Ла-Нино ҳодисаси кузатилган даврлар мобайнида барча метеорологик станцияларда ёғингарчиликнинг меъёрдан кам бўлиш ҳолатлари, меъёр ҳамда меъёрдан кўп бўлган ҳолатларга нисбатан % кўрсаткичи юқори эканлиги кўриниб турибди (1-жадвал).

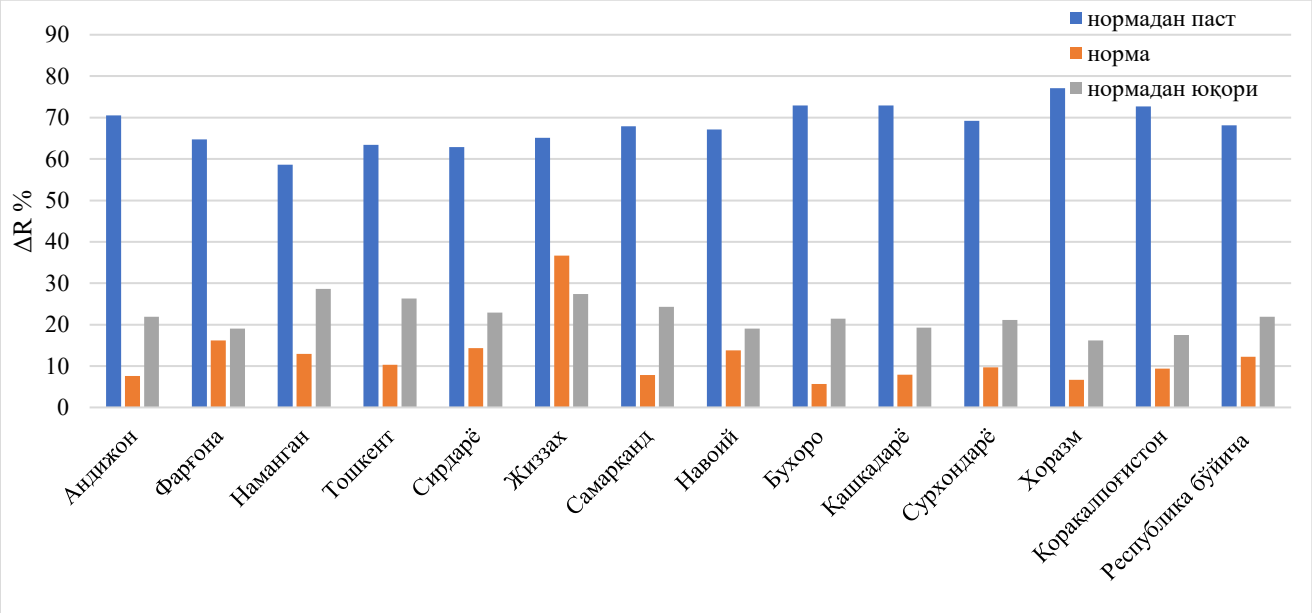
1-жадвал

Ла-Нино жараёни кузатилган даврларда Ўзбекистонда ёғингарчиликнинг меъёрдан четланиш (ΔR) қийматлари (% да).

Тинч океанида Ла-Нино жараёни кузатилган даврлар	Вилоятлар	Андижон	Фарғона	Наманган	Тошкент	Сирдарё	Жиззах	Самарқанд	Навоий	Бухоро	Қашқадарё	Сурхондарё	Хоразм	Қорақалпоғистон	Республика бўйича
1998-2002 йиллар	меъёрдан паст	53,7	50	55,7	48,7	50,1	56,4	61,4	63,3	56,8	59,1	66,5	62,9	58,1	57,1
	меъёр	10,6	14,4	14,8	19,5	22,8	16,8	13,7	11,4	6,8	19,3	11,9	9,8	15,2	14,4
	меъёрдан юқори	35,6	35,6	34,1	31,7	27,3	26,8	25	25,4	36,4	21,6	21,6	27,3	26,6	28,8
2007-2009 йиллар	меъёрдан паст	58,9	50	52,6	47,8	48,1	54,6	50,9	60,9	71,2	58,7	65,4	66,7	62	57,5
	меъёр	20,5	25,6	25	25,7	25	21,5	26,9	12,2	1,9	24	20,2	7,7	17	19,5
	меъёрдан юқори	20,5	24,3	21,2	27,5	26,9	23,8	22,1	26,9	27	16,3	14,4	25,6	20,9	22,9
2010-2012 йиллар	меъёрдан паст	57,3	56	54	57,1	58	56,8	56	66	72	58	60	68	69,1	60,6
	меъёр	12	9,3	14	17,1	18	8,8	15	15,3	10	18	11,2	5,3	12	12,8
	меъёрдан юқори	30,7	34,7	32	25,7	24	34,4	29	18,7	18	24	28,8	26,7	18,9	26,6
2020-2023 йиллар	меъёрдан паст	70,5	64,7	58,6	63,4	62,9	65,1	67,9	67,1	72,9	72,9	69,2	77,1	72,7	68,1
	меъёр	7,6	16,2	12,9	10,3	14,3	36,7	7,8	13,8	5,7	7,9	9,7	6,7	9,4	12,2
	меъёрдан юқори	21,9	19	28,6	26,3	22,9	27,4	24,3	19	21,4	19,3	21,1	16,2	17,5	21,9

1-расм.

2020-2023 йиллар давомида ёғингарчиликнинг меъёрдан четланиш қийматлари



Хулоса қилиб айтганда, Ла-Нино феномени кузатилган бутун давр мобайнида республикамизда ёғингарчилик меъёрдан кам бўлганига гувоҳ бўлдик. Ундан ташкари, ҳозирги вақтгача олимлар ўтказдан тадқиқотлари натижасида ушбу феномен глобал атмосфера циркуляцияси орқали Ўзбекистон ҳудудидаги бошқа об-хаво параметрларига ҳам таъсир қилади. Демак, Ўзбекистон иқтисодиётининг муҳим тармоқларига (энергетика, қишлоқ хўжалиги ва бошқ.) узоқ муддатли ўта фойдали прогнозлар қилишга имконият беради. Эл-Нино ҳамда Ла-Нино ҳодисаларининг бошланишини олдиндан прогноз қилиш бир қанча қийинчиликларга олиб келади. Бироқ ҳодисаларнинг бошланиши ва унинг давом этиш даврларини аниқлаш, юртимизда келгуси мавсумнинг қандай келишини прогноз қилиш мумкин. Юқорида айтиб ўтганимиздек, Ла-Нино ҳодисасининг давом этиши ва интенсивлигига кўра, республикамизда кўп ҳолларда ёғингарчилик меъёрдан кам бўлади. Ёғингарчилик даражасининг меъёрдан кам бўлиши натижасида юзага келадиган хавфли табиий хавф бу-қурғоқчилик ҳисобланади. Агар бу ҳодиса бир мавсум ёки узоқроқ вақтга чўзиладиган бўлса, ёғингарчилик инсон фаолияти ва атроф-муҳит эҳтиёжларини қондириш учун етарли бўлмайди.

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ПОЯВЛЕНИЕ И ПРОГРЕСС МЕТОДА МОНТЕССОРИ В США: НАУЧНО-ПЕДАГОГИЧЕСКИЙ АНАЛИЗ

Аннотация: *Статья посвящена исследованию истории появления и развития метода Монтессори в Соединенных Штатах Америки. Анализируются факторы, способствовавшие распространению этой педагогической системы в США, а также ее адаптация к особенностям американского образования. Исследование выявляет значительное влияние идей Монтессори на современную педагогическую практику, подчеркивая такие аспекты, как индивидуализация обучения, развитие самостоятельности и формирование ответственного отношения к учебе.*

Ключевые слова: *Эдвард Харден, Уильям Херд Килпатрик, школы Монтессори, Нэнси МакКормик Рэмбуш и Маргарет Стивенсон, Хизер Билтон, модель Монтессори, образование Монтессори.*

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THE EMERGENCE AND PROGRESS OF THE MONTESSORI METHOD IN THE USA: A SCIENTIFIC AND PEDAGOGICAL ANALYSIS

Abstract: *The article is devoted to the study of the history of the emergence and development of the Montessori method in the United States of America. The factors that contributed to the spread of this pedagogical system in the United States, as well as its adaptation to the peculiarities of American education, are analyzed. The study reveals the significant influence of Montessori ideas on modern pedagogical practice, emphasizing such aspects as individualization of learning, development of independence and formation of a responsible attitude to learning.*

Keywords: *Edward Harden, William Hurd Kilpatrick, Montessori schools, Nancy McCormick Rambusch and Margaret Stevenson, Heather Bilton, Montessori model, Montessori education.*

Введение

Метод Монтессори, разработанный итальянским врачом и педагогом Марией Монтессори, произвел революцию в сфере дошкольного и начального

образования. Его принципы, основанные на свободе выбора, самостоятельном изучении и подготовленной среде, нашли широкий отклик в педагогических кругах по всему миру. Соединенные Штаты Америки стали одной из стран, где метод Монтессори получил особенно широкое распространение.

Первые упоминания о методе Монтессори в США относятся к началу XX века. Интерес к этой педагогической системе был вызван ее успешным применением в Европе. Однако широкое распространение метода в США началось после Первой мировой войны. Американские педагоги, посетившие Европу и ознакомившиеся с работой Монтессори-школ, были впечатлены результатами.

Одним из ключевых факторов, способствовавших популяризации метода Монтессори в США, стала деятельность таких известных педагогов и общественных деятелей, как Александра М. Форбс и Маргарет Боуэн. Они активно пропагандировали идеи Монтессори, организовывали курсы для педагогов и открывали первые Монтессори-школы.

Метод Монтессори основан на следующих ключевых принципах:

Ребенок имеет право на свободный выбор деятельности в пределах подготовленной среды.

Окружающая среда должна быть специально организована таким образом, чтобы стимулировать развитие ребенка и предоставлять ему возможности для самостоятельного обучения.

Роль педагога заключается в создании условий для саморазвития ребенка, наблюдении за его деятельностью и оказании своевременной помощи.

Сензитивные периоды: Метод Монтессори учитывает наличие у ребенка определенных сензитивных периодов, когда он наиболее восприимчив к определенным видам деятельности.

В США эти принципы были адаптированы к местным условиям и интегрированы в существующую систему образования. Американские Монтессори-школы предлагают широкий спектр образовательных программ, начиная с дошкольного возраста и заканчивая средней школой.

Метод Монтессори оказал значительное влияние на американскую систему образования. Он способствовал: Метод Монтессори позволяет учитывать индивидуальные особенности каждого ребенка и строить образовательный процесс с учетом его потребностей и интересов. Дети, обучающиеся по методу Монтессори, как правило, более самостоятельны, ответственны и способны к самоорганизации. Подготовленная среда и возможность свободного выбора деятельности способствуют повышению мотивации детей к учебе. Метод Монтессори изменил традиционные представления о роли учителя. Педагог становится скорее наблюдателем и помощником, чем источником знаний.

Метод Монтессори, с его акцентом на самостоятельности, подготовленной среде и индивидуальном развитии ребенка, занимает уникальное место в педагогическом ландшафте. Однако, для более полного

понимания его особенностей, полезно сравнить его с другими известными педагогическими системами.

Монтессори vs. Традиционная система образования: традиционная система часто ориентирована на передачу готовых знаний и коллективную работу. Монтессори же делает акцент на самостоятельном открытии знаний и индивидуальном темпе обучения. В традиционной системе учитель является главным источником информации. В Монтессори педагог выступает скорее как наблюдатель и помощник. Традиционная классная комната часто организована по принципу фронтальной работы. В Монтессори-классе создается свободная, разнообразна среда, способствующая исследовательской деятельности ребенка.

Это лишь общее сравнение, и каждая конкретная школа, реализующая ту или иную педагогическую систему, может иметь свои особенности. Кроме того, многие современные образовательные учреждения сочетают в себе элементы различных педагогических подходов.

Метод Монтессори стал одним из наиболее значимых педагогических инноваций XX века. Его появление и развитие в Соединенных Штатах Америки способствовали повышению качества дошкольного и начального образования. Принципы Монтессори продолжают оказывать влияние на современную педагогику и вдохновляют педагогов по всему миру на поиск новых подходов к обучению и воспитанию детей.

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ФОРМИРОВАНИЕ ОКСИНИТРИДНЫХ СЛОЕВ ПРИ ОКСИДИРОВАНИИ НА ВОДЯНЫХ ПАРОВ И В ПАРОВ МЕДНОГО РАСТВОРА

Аннотация. *В статье приведены анализ результатов влияния последующего оксидирования на водяных паров и растворах медного купороса на формирование нитридных диффузионных защитных слоев на стали 38Х2МЮА и 40Х.*

Ключевые слова: *оксидный слой, фазы, нитридный слой, оксидная пленка, медный купорос.*

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FORMATION OF OXYNITRIDE LAYERS DURING OXIDATION IN WATER VAPOR AND IN COPPER SOLUTION VAPOR

Annotation. *The article presents an analysis of the results of the influence of subsequent oxidation with water vapor and copper sulfate solutions on the formation of nitride diffusion protective layers on steel 38Х2МУА and 40Х.*

Key words: *oxide layer, phases, nitride layer, oxide film, copper sulfate.*

Введение. Изучение кинетики формирования азотированных слоев при предварительном оксидировании обрабатываемых поверхностей показывает, что оксидный слой при последующем азотировании подвергается деоксидированию, обеспечивая депассивацию поверхности и равномерность образующегося нитридного слоя. Кроме того, выделяющийся при деоксидировании кислород участвует в формировании азотированного слоя, интенсифицируя процесс роста нитридного слоя (рис.1 и 4).

Анализ литературных данных [1] показывает, что равномерный оксидный слой толщиной до 3 мкм, состоящий в основном из Fe_3O_4, обладающий высокими физико-механическими свойствами, на поверхности нитридного слоя получается при оксидировании ниже эвтектоидной температуры для системы «Fe-O», равной 550-580°С при продолжительности оксидирования 0,5-1,5 ч (рис. 2, 3).

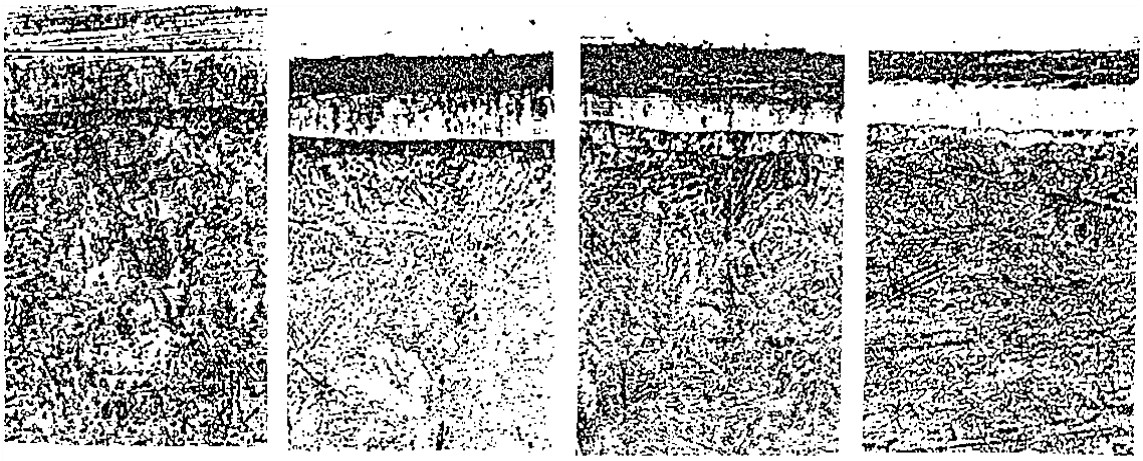

Рис. 1. Влияние времени предварительного оксидирования $(\tau_{по})$на толщину нитридной зоны на стали 38Х2МЮА, × 500.
Режим работы: предварительное оксидирование 620°С; азотирование 620°С, 2 часа.

В связи с этим - на третьей стадии предлагаемой технологии нитрооксидирования проводили парооксидирование азотированных образцов с целью повышения коррозионной стойкости, износостойкости и улучшения прирабатываемости изделий при трении [4].

Рис. 2. Влияние оксидной пленки (а) на толщину нитридного слоя (б, в) ×500.
Режимы обработки: а – предварительное оксидирование, 580°С, 7 мин; б - азотирование 580°С, 2 часа; в -азотирование 580°С, 3 часа.

Микроструктуры образцов стали 40Х; обработанных по предлагаемой технологии с последующим парооксидированием представлены на рис. 5, 6.

Из рис. 6. видно, что при парооксидировании азотированных с предварительным оксидированием образцов при температуре выше эвтектоидной получается равномерный, плотный, беспористый нитрид-оксидный слой, что предопределяет хорошие физико-механические свойства получаемых покрытий.

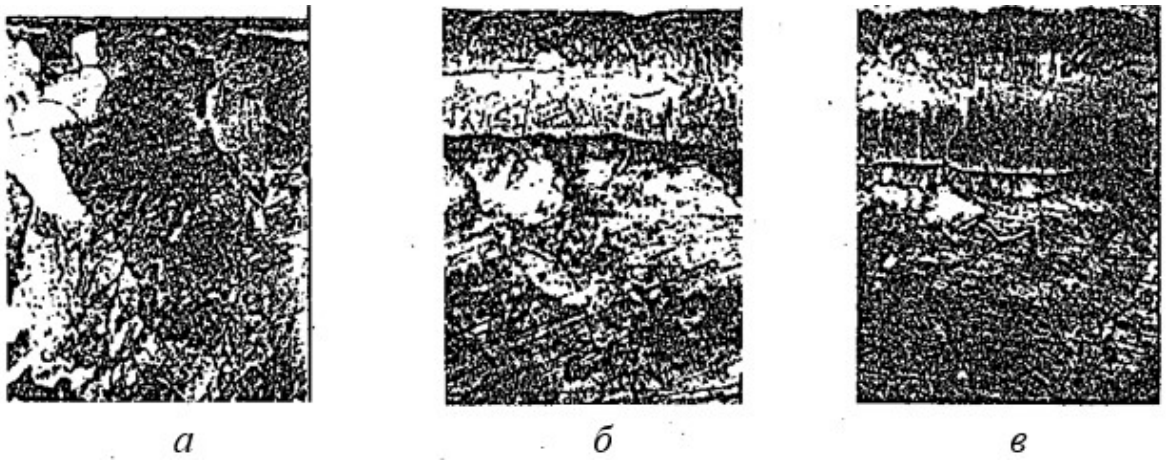

Рис. 3 Влияние оксидной пленки (а) на толщину нитридного слоя (б, в) ×500. Режимы обработки: а предварительное оксидирование, 620°С, 5 мин; б - азотирование 620°С, 2 часа; в –азотирование 620°С, 3 часа.

Рентгеновский анализ показал, что в процессе азотирования предварительно оксидированных образцов при последующем оксидировании фазовый состав нитридоксидного слоя аналогичен указанному в работе [1].

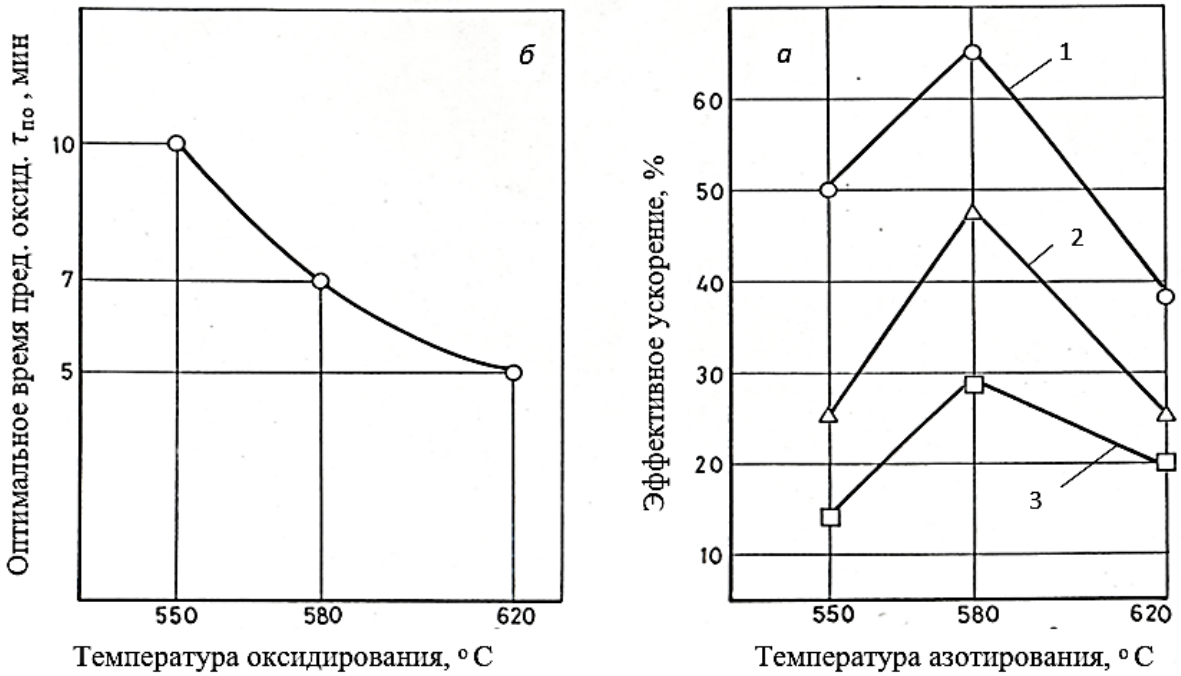

Рис. 4. Эффективность предварительного оксидирования (б), при азотировании (а). 1 - 1 час; 2 – часа; 3 – 3 часа.

Так установлено, что при азотировании с предварительным оксидированием при последующем парооксидированием (30 мин) на поверхности образуется оксидный слой толщиной 2,5-3,5 мкм, состоящий в основном из Fe_3O_4. При температуре парооксидирования 620°С в нитрид-оксидном слое отмечается присутствие некоторого количества оксидов Fe_2O_3 и FeO [3, 5].

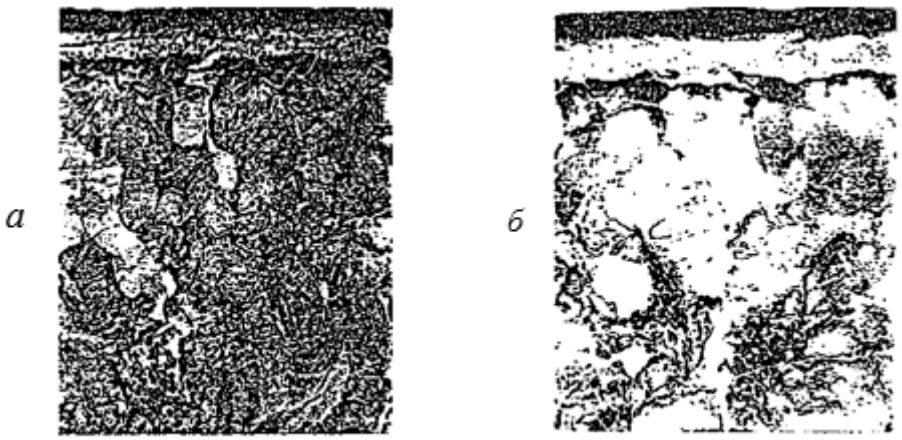

Рис. 5. Микроструктура стали 40Х после нитрооксидирования: Режимы обработки: $t_{по} = 580°C$, $\tau_{по} = 7$ мин, $t_а = 580°C$, $\tau_а = 2$ часа (а), 3 часа (б) $t_о = 580 \pm 10°C$, $\tau_о = 30$ мин.

Возможность получения плотных оксидных пленок на нитридных слоях при температуре парооксидирования 620°С, связана, вероятно, с особенностями формирования нитридного слоя на предварительно окисленных поверхностях, когда рост ε-нитрида на оксидной пленке позволяет получить плотный, беспористый слой ε-фазы.

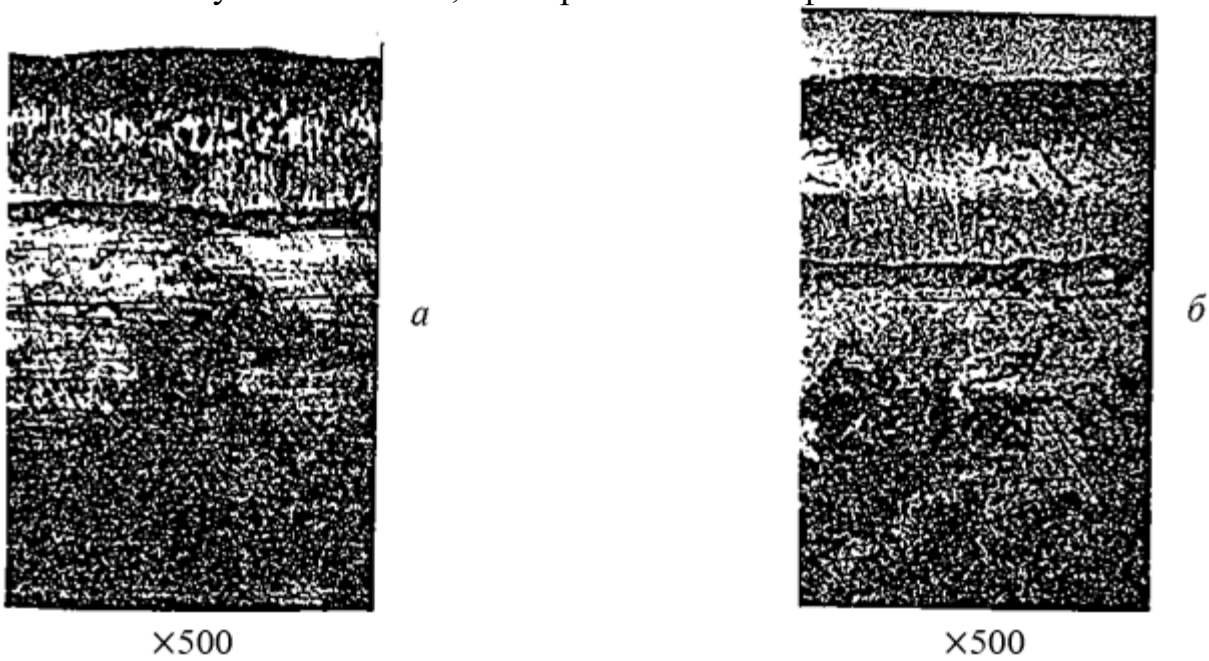

Рис. 6. Микроструктура стали 40Х после нитрооксидирования: Режимы обработки: $t_{по} = 620°C$, $\tau_{по} = 5$ мин, $t_а = 620°C$, $\tau_а = 2$ часа (а), 3 часа (б) $t_о = 600 \pm 10°C$, $\tau_о = 30$ мин.

Учитывая положительное влияние присутствия Cu на поверхностях трений [73] (явление избирательного переноса), была сделана попытка получить на поверхности нитридного слоя окисные медные пленки [5].

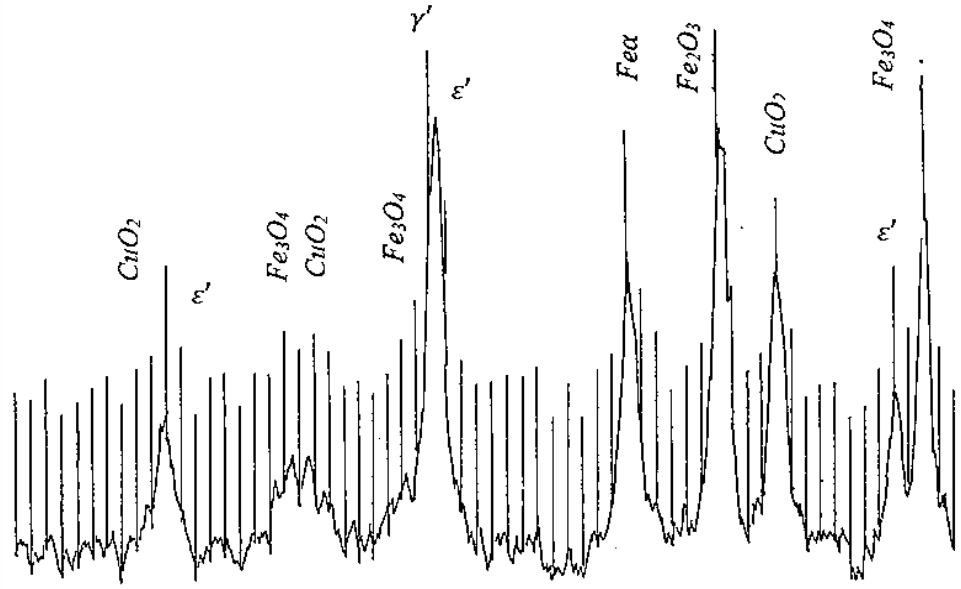

Рис. 7. Участок дифрактограммы нитридоксидного слоя.
Режим обработки: азотирования: 580°С; 2 часа; последующее оксидирование: 580°С; 30 мин в растворе медного купороса (CuSO).

Для этого было проведено парооксидирование азотированных образцов в растворе $CuSO_4$ (медного купороса).

При рентгеновском анализе на поверхности нитрид-оксидных слоев парооксидированных в растворе $CuSO_4$ наряду с оксидами железа были обнаружены и следы оксида меди CuO_2 (рис. 7.), образцы обработанные парооксидированием в растворе прошли испытание на износостойкость и показали достаточно хорошие результаты.

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ПОВЫШЕНИЕ КОРРОЗИОННОЙ СТОЙКОСТИ ДЕТАЛЕЙ МАШИН С ПРЕДВАРИТЕЛЬНЫМ ОКСИДИРОВАНИЕМ

Аннотация. *В работе приведены результаты коррозионных испытаний оксинитридных защитных диффузионных слоев полученных в различных режимах обработки и сравнительные их показатели с другими покрытиями в частности азотирования без предварительного оксидирования, а также гальванического хромирования. Кроме того в работе рассмотрены влияние предварительного оксидирования перед азотированием а также последующего оксидирования в растворах медного купороса на процесс получения оксинитридного слоя и на коррозионную стойкость полученных покрытий.*

Анализ полученных показателей свидетельствуют что, существуют определенную время предварительного оксидирования при каждый рассмотренных температурах обработки, который позволяют получить более коррозионностойких оксинитридных покрытий.

Ключевые слова: *нитридоксидный слой, предварительного оксидирования, покрытия, пар трения.*

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INCREASING CORROSION RESISTANCE OF MACHINE PARTS WITH PRE-OXIDATION

Annotation. *The paper presents the results of corrosion tests of oxynitride protective diffusion layers obtained in various processing modes and their comparative indicators with other coatings, in particular nitriding without preliminary oxidation, as well as galvanic chromium plating. In addition, the work examines the influence of preliminary oxidation before nitriding, as well as subsequent oxidation in copper sulfate solutions on the process of obtaining an oxynitride layer and on the corrosion resistance of the resulting coatings.*

Analysis of the obtained indicators indicates that there is a certain time of preliminary oxidation at each considered processing temperature, which makes it possible to obtain more corrosion-resistant oxynitride coatings.

Key words: *nitride oxide layer, pre-oxidation, coating, friction pairs.*

Введение. Стали и защитные покрытия, применяемые в машиностроении, часто используются для изготовления различных пар трения, работающих в коррозионных средах слабой агрессивности.

Поэтому необходимым условием при выборе сталей и покрытий для пар трения является не только их износостойкость в нейтральной среде, но и их коррозионная стойкость в агрессивной среде [4, 5].

В связи с этим исследовали кинетику электрохимической коррозии разрабатываемых покрытий потенциодинамическим методом.

Коррозийная стойкость нитридоксидных слоев оценивалась в сравнении с необработанными. Кроме того, сравнивались нитридоксидные покрытия, полученные без предварительного оксидирования и покрытия, получаемые в процессе хромирования. Были проведены также исследования на коррозионностойкость в климатической камере в среде солевого тумана. Результаты исследований приведены в таблицах 1 и 2.

Испытания показали, что нитрооксидированные детали имеют наименьшее количество очагов коррозии по сравнению с другими способами обработки.

Исследовательская часть.

При сравнении анодных поляризационных кривых, полученных с образцов, стали 38Х2МЮА, установлено, что величина тока коррозии в пассивной области уменьшается в 1,5-2,0 раза.

На рисунке 1 приведены потенциодинамические поляризационные кривые, полученные на образцах, стали, подвергнутых различным режимам оксинитрирования. Как видно из рисунка, нитрооксидные покрытия, полученные с предварительным оксидированием, повышают коррозионную стойкость стали по сравнению с необработанной сталью, которая в течение первых двух часов выдержки в 3% растворе хлорида натрия покрывается сплошной пленкой продуктов коррозии. Плотность анодного тока нитрооксидированных образцов, полученных после азотирования с предварительным оксидированием и последующего парооксидирования в парах воды в зависимости от режимов данной обработки на 1,5-5 порядков ниже [1].

Следует отметить, что плотность анодного тока является мерой скорости растворения металла и, соответственно, показателем его коррозионной стойкости в конкретной среде. Эти единицы коррозии легко могут быть переведены в такие единицы измерения, как мм/год, г/м^2 и другие.

Все полученные оксинитридные слои не обладают пористостью, что подтверждается отсутствием потенциала пробоя на поляризационных кривых. Анализируя результаты поляризационных измерений (рис. 1.) можно сделать вывод, что защитные покрытия, полученные при обработке по режимам № 3, 6, 7 обладают наибольшими антикоррозионными защитными свойствами, а покрытия, полученные в режиме №5, обладают незначительными антикоррозионными свойствами [1].

Таблица 1

Влияние режимов обработки на коррозионную стойкость образцов

№	Темпе-ратура про-цесса, °С	Время процесса			Число пор определенное до испытаний, 1/см^2	Время экспозиции до появления 1-й язвы, сутки
		Предварительное оксидирование, мин	Азотирование,, час	Парооксидирование после азотирования, мин		
1	580	-	2	30	3	4
2+	580	-	2	30	б/п	6
3	620	20	2	30	б/п	9
4+	580	7	2	30	14	0,5
5	550	10	2	30	6	1,5
6	580	7	2	30	б/п	9,5
7	620	5	2	30	б/п	9,5
8	550	2	2	30	9	1
9	550	10	1	20	15	0,5
10	580	5	2	30	б/п	8
11	580	30	2	30	1	3
12	620	30	2	30	б/п	7
13	620	5	1	20	2	4
14	580	10	1	20	2	3
15	580	20	2	20	б/п	4
16	550	20	1	20	4	3
17	550	20	1	20	7	0,7
18	550	30	2	30	14	6,5

+ - оксидирование в растворе $CuSO_4$.

Сравнение анодных поляризационных кривых показывает, что достижения устойчивости коррозии являются обработки поверхности в режимах № 3, 6, 7 так, как в этом случае скорость анодного растворения по сравнению с соответствующей величиной, ниже на 5 порядков. Отсутствие предварительного оксидирования в парах воды при химико-термической обработке значительно снижает защитные свойства оксинитридного слоя. В этом случае скорость анодного растворения ниже по сравнению с исходной сталью на 2-4 порядка, в то время как введение операции предварительного оксидирования обеспечивает снижение скорости анодного растворения на 5 порядков.

Таблица 2

Влияние режимов обработки на коррозионную стойкость область образцов

Режим обработки				Время экспозиции до появления первой язвы, сутки									
	Время												
t, °C	$\tau_{по}$, мин	$\tau_{а}$, мин	$\tau_{о}$, мин	1	2	3	4	5	6	7	8	9	10
550	10	2	30										
550	20	2	30										
550	10	1	30										
580	7	2	30										
+580	10	2	30										
580	5	2	30										
580	30	2	30										
580	20	2	30										
620	30	2	30										
620	20	2	30										
620	5	2	30										
620	30	1	30										
620	5	2	20										
580	-	2	30										
+580	-	2	30										
550	30	2	30										
550	10	1	20										
580	10	1	20										
Исходный образец													
Хромовое покрытие													

Покрытия, полученные по режиму №2 хотя и не проходили предварительное оксидирование, обладают лучшими защитными свойствами по сравнению с покрытием, полученным по режиму №1, видимо из-за парооксидирования после азотирования в растворе $CuS0_4$.

Анализируя анодные поляризационные кривые, полученные на стали 38Х2МЮА по режимам №4 и №6, можно предполагать, что оксидирование в растворе $CuS0_4$ при начальной стадии обработки резко снижает коррозионную стойкость покрытия, соответственно анодные токи растворения отличаются на 3 порядка. Выводы, сделанные при анализе анодных поляризационных кривых, подтверждаются измерениями зависимости потенциала коррозии от времени в том же растворе (рис. 2).

Как видно из рис. 1, потенциал коррозии исходный необработанной стали 38Х2МЮА имеет наиболее отрицательное значение, а для стали с защитными покрытиями, полученными по режимам 3, 6, 7 стационарные потенциалы коррозии смещаются в сторону положительных потенциалов на 350-370 мВ. Невысокие защитные способности покрытий, полученных в

режимах 1, 4, 5, подтверждаются смещением потенциала коррозии всего на 50-100 мВ в анодном направлении по сравнению с необработанной сталью.

Часть коррозионных испытаний была проведена в камере солевого тумана с распылением раствора 3% хлорида натрия. Температура при этом в камере составляла 26°С. Испытанию подвергались образцы из стали 38Х2МЮА, обработанные при разных режимах [1].

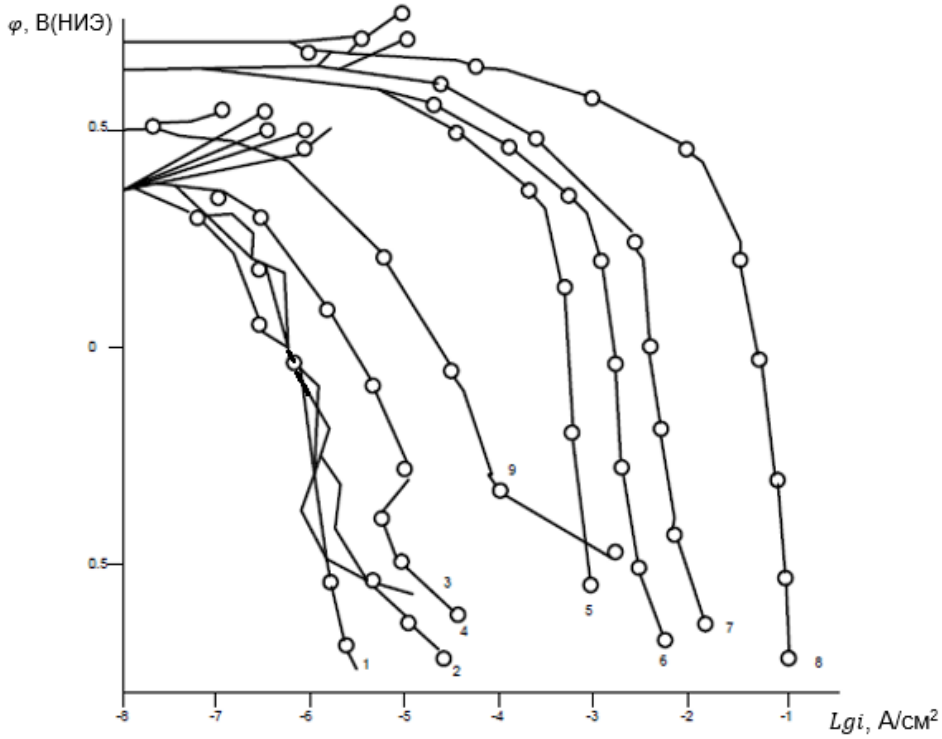

Рисунок 1. Потенциодинамические поляризационные зависимости в 3 % -ном солевом тумане NaCL при t =25 °С. Сталь 38Х2МЮА

1-обработан по режиму №3, 2- обработан по режиму №6 Lgi, ан по режиму №7, 4-обработан по режиму №2, 5- обработан по режиму № 1, 6-обработан по режиму №4, 7-обработан по режиму №5, 8- необработанная сталь, 9-хромированный (гальванически) - h = 16 мкм.

Результаты коррозионных испытаний сравнивали с исходными образцами, образцами с нитридоксидными слоями, полученными без предварительного оксидирования, которые подробно изучены в работах [2, 3] и покрытиями, полученными после твердого хромирования, толщиной 16 мкм.

Испытания показали, что нитрооксидированные образцы, обработанные по режимам №2, 3, 6, 7, 10, и 13 имеют наименьшее количество очагов коррозии по сравнению со всеми другими образцами, соответственно меньшую площадь коррозии в процентах при увеличении продолжительности испытания в час.

Надо отметить, что появившиеся очагов коррозии на нитрооксидированных образцах, обработанных по режимам 2, 3, 6, 7, 10, 12, в дальнейшем практически не увеличиваются. У образцов, обработанных по другим режимам, наблюдается увеличение размеров очагов коррозии, и особенно, у хромированного образца, на которых в случае появления очагов коррозии происходит стремительный их рост.

В работе были также проведены исследования влияния температурно-временных параметров предварительного оксидирования на коррозионную стойкость нитрооксидированных образцов (рис. 1, 2 и 3).

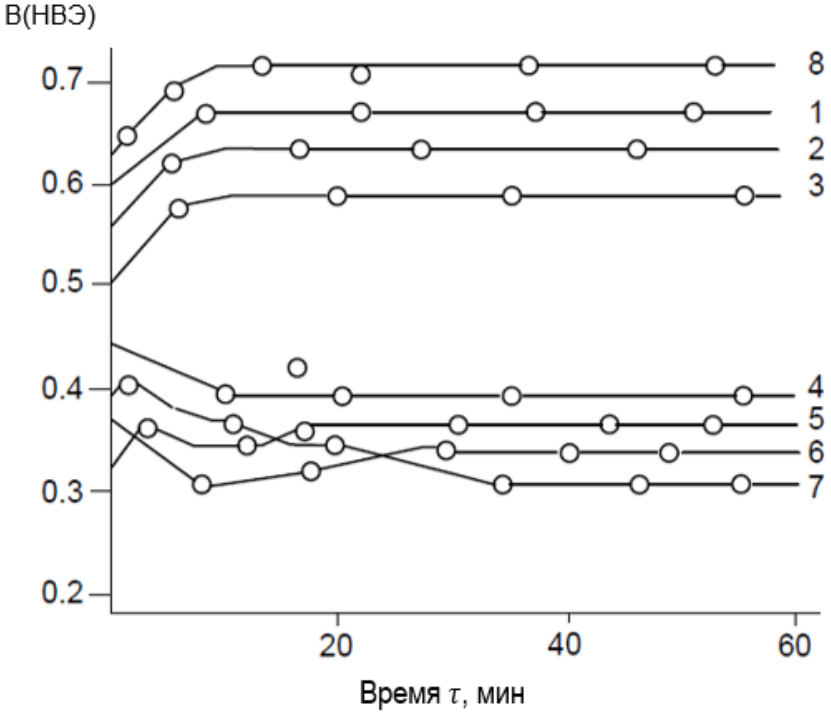

Рисунок 2. Потенциодинамические поляризационные зависимости в 3 % NaCL при

t = 25°C, Сталь 38Х2МЮА.

1-обработан по режиму №5, 2- обработан по режиму №4, 3-обработан по режиму №1, 4-обработан по режиму № 2, 5- обработан по режиму №6, 6-обработан по режиму №7, 7-обработан по режиму № 3, 8- необработанная сталь, 9-хромированный (галванически) h=16 мкм.

Установлено, что повышение температуры в рассмотренных интервалах оказывает положительное влияние на коррозионную стойкость (рис. 3).

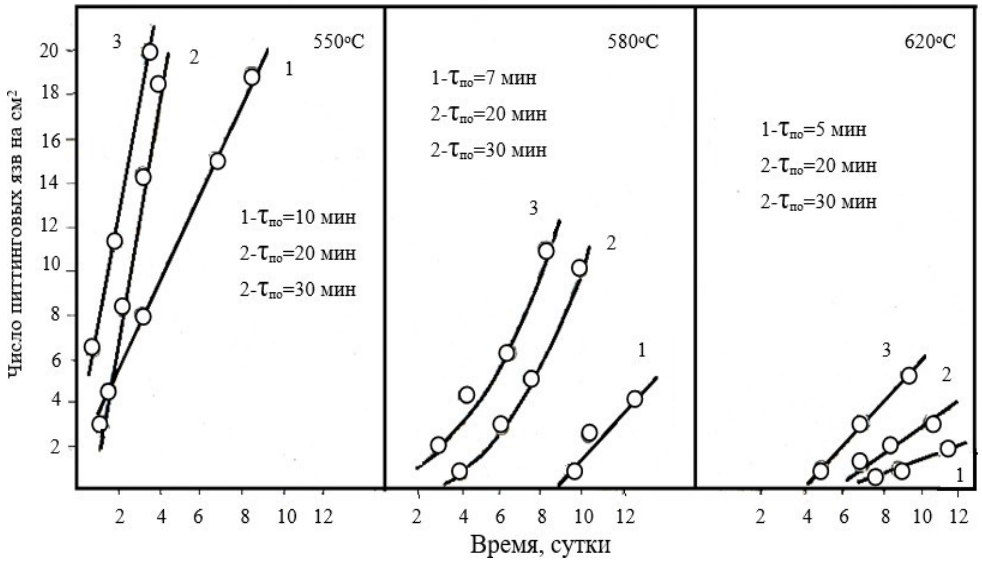

Рисунок 3. Зависимость число питтинговых язв от времени экспозиции образцов стали 38Х2МЮА в 3 % хлорида натрия при температурах химико-термической обработки 550, 580, 620ºС. Время азотирования 2 часа, время окончательного оксидирования 30 мин.

При температурах 550 и 580°С лучшие результаты по коррозионной стойкости получены при продолжительности предварительного оксидирования в течение 7-10 мин (рис. 3), а при температуре 620°С наиболее положительные результаты наблюдаются после предварительного оксидирования в течение 5-20 мин. При этом надо отметить, что предварительное оксидирование в течение 30 мин при 620°С также имеет достаточно хорошие показатели по коррозионной стойкости.

Выводы. Таким образом, проведенные исследования показали, что нитрооксидирование сталей, проведенное при оптимальных режимах, значительно повышает их коррозионную стойкость.

Высокие антикоррозионные свойства оксинитрированных слоев подтвердили и результаты электрохимического исследования образцов.

Характеристики электрохимического поведения нитрооксидированных слоев оценивали в сравнении с характеристиками хромированных покрытий, нанесенных на сталь 38Х2МЮА [1].

Результатами сравнительных коррозионных испытаний определены структурные критерии коррозионной стойкости нитрид-оксидных покрытий.

Нитридоксидное покрытие, полученное при оптимальных режимах обработки, состоит из плотной поверхностной оксидной пленки Fe_3O_4 и высокоазотистого нитридного подслоя ε и γ - фаз, коррозионная стойкость которых на порядок выше коррозионной стойкости покрытия, полученного гальваническим хромированием.

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РОЛЬ ГЛАВНОГО БУХГАЛТЕРА В РЫНОЧНОЙ ЭКОНОМИКЕ: ОТ УЧЕТЧИКА ДО СТРАТЕГИЧЕСКОГО ПАРТНЕРА

Аннотация: *Данная статья рассматривает эволюцию роли главного бухгалтера в условиях рыночной экономики. Анализируются ключевые обязанности, требуемые компетенции и значение главного бухгалтера как стратегического партнера в управлении компанией. Особое внимание уделяется влиянию цифровизации и автоматизации на функции главного бухгалтера и перспективам развития профессии.*

Ключевые слова: *главный бухгалтер, рыночная экономика, финансовый менеджмент, управленческий учет, МСФО, цифровизация, автоматизация, стратегическое планирование.*

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THE ROLE OF THE CHIEF ACCOUNTANT IN A MARKET ECONOMY: FROM ACCOUNTANT TO STRATEGIC PARTNER

Abstract: *This article examines the evolution of the role of the chief accountant in a market economy. The key responsibilities, required competencies and the importance of the chief accountant as a strategic partner in the management of the company are analyzed. Special attention is paid to the impact of digitalization and automation on the functions of the chief accountant and the prospects for the development of the profession.*

Keywords*: chief accountant, market economy, financial management, managerial accounting, IFRS, digitalization, automation, strategic planning.*

Введение

В прошлом роль главного бухгалтера часто ограничивалась чисто техническими функциями: ведением бухгалтерского учета, составлением отчетности и соблюдением налогового законодательства. Главный бухгалтер был скорее учетчиком, чем менеджером. Однако, в условиях современной рыночной экономики, характеризующейся высокой конкуренцией, глобализацией и быстрыми изменениями, роль главного бухгалтера значительно трансформировалась. Сегодня главный бухгалтер – это не просто исполнитель технических функций, а высококвалифицированный специалист, играющий ключевую роль в управлении компанией.

Ключевые обязанности главного бухгалтера

В современных условиях к обязанностям главного бухгалтера относятся:

Организация и контроль бухгалтерского учета: Разработка и внедрение учетной политики, контроль за правильностью ведения учета, обеспечение достоверности финансовой отчетности.

Составление и представление финансовой отчетности: Подготовка всех необходимых финансовых отчетов в соответствии с принятыми стандартами (МСФО, ФСБУ), предоставление отчетности различным пользователям (инвесторам, кредиторам, налоговым органам).

Налоговое планирование и оптимизация: Минимизация налоговых обязательств компании в рамках действующего законодательства. Это требует не только знаний налогового кодекса, но и умения применять различные налоговые схемы и льготы.

Управление финансовыми рисками: Идентификация, оценка и минимизация финансовых рисков, разработка и внедрение мер по их предотвращению.

Внутренний контроль: Разработка и внедрение системы внутреннего контроля для предотвращения мошенничества и ошибок в бухгалтерском учете. Это включает в себя разделение обязанностей, регулярные проверки и аудиты.

Взаимодействие с внешними организациями: Взаимодействие с налоговыми органами, аудиторами, банками и другими внешними организациями.

3. Необходимые компетенции главного бухгалтера

Успешная работа главного бухгалтера требует не только глубоких знаний в области бухгалтерского учета и налогообложения, но и ряда дополнительных компетенций:

Аналитические навыки: Умение анализировать финансовую информацию, выявлять тенденции и делать прогнозы.

Управленческие навыки: Умение руководить коллективом, организовывать работу бухгалтерии и контролировать ее эффективность.

Коммуникативные навыки: Умение эффективно общаться с различными категориями пользователей финансовой информации, ясно и четко излагать сложные вопросы.

Знание информационных технологий: Умение работать с современными бухгалтерскими программами и использовать цифровые инструменты для автоматизации учета.

Знание международных стандартов: Знание МСФО становится все более важным для крупных компаний, работающих на международном рынке.

Стратегическое мышление: Умение видеть общую картину, учитывать стратегические цели компании при планировании финансовой деятельности.

Главный бухгалтер как стратегический партнер

В условиях современной рыночной экономики главный бухгалтер перестал быть просто исполнителем рутинных операций. Он становится стратегическим партнером руководства, включаясь в процесс принятия управленческих решений. Главный бухгалтер участвует в:

Стратегическом планировании: Разработка финансовых планов, оценка финансовой осуществимости проектов и инвестиций.

Управлении затратами: Оптимизация затрат компании, поиск путей повышения эффективности использования ресурсов.

Повышении капитализации компании: Разработка мер по увеличению стоимости компании на рынке.

Повышении прозрачности и доверия: Обеспечение достоверности финансовой информации, повышение доверия инвесторов и других стейкхолдеров.

Влияние цифровизации и автоматизации

Цифровизация и автоматизация бухгалтерского учета значительно меняют функции главного бухгалтера. Автоматизация рутинных операций позволяет высвободить время для выполнения более стратегических задач. Главный бухгалтер должен уметь эффективно использовать новые технологии, внедрять современные системы управления данными и контролировать их работу.

Перспективы развития профессии

Заключение: Профессия главного бухгалтера продолжает развиваться. Востребованность высококвалифицированных специалистов с широким спектром знаний и компетенций будет только расти. Главный бухгалтер будущего – это многопрофильный специалист, обладающий не только глубокими знаниями в области финансов и учета, но и умеющий эффективно использовать новые технологии, принимать стратегические решения и строить доверительные отношения со всеми заинтересованными сторонами.

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АНАЛИЗ ПРИМЕНЕНИЯ МЕЖДУНАРОДНОГО СТАНДАРТА АУДИТА 500 «АУДИТОРСКОЕ ДОКАЗАТЕЛЬСТВО» В УСЛОВИЯХ СОВРЕМЕННОЙ ЭКОНОМИЧЕСКОЙ СРЕДЫ

Аннотация: *Данная статья посвящена анализу Международного стандарта аудита (МСА) 500 "Аудиторские доказательства", рассматривая его практическое применение в условиях стремительного развития цифровых технологий. В статье исследуются ключевые аспекты получения и оценки аудиторских доказательств, а также рассматриваются вызовы и возможности, связанные с использованием цифровых данных и технологий в аудиторской практике.*

Ключевые слова*: Международный стандарт аудита 500, аудиторские доказательства, цифровизация, данные больших объемов, анализ данных, надежность данных, качество аудита.*

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ANALYSIS OF THE APPLICATION OF THE INTERNATIONAL AUDITING STANDARD 500 "AUDIT EVIDENCE" IN THE MODERN ECONOMIC ENVIRONMENT

Abstract: *This article is devoted to the analysis of the International Standard on Auditing (ISA) 500 "Audit Evidence", considering its practical application in the context of the rapid development of digital technologies. The article examines the key aspects of obtaining and evaluating audit evidence, as well as the challenges and opportunities associated with the use of digital data and technology in auditing practice.*

Keywords: *International Auditing Standard 500, audit evidence, digitalization, large-volume data, data analysis, data reliability, audit quality.*

Введение

Международный стандарт аудита 500 "Аудиторские доказательства" (МСА 500) устанавливает принципы и процедуры, которые аудиторы должны использовать при получении и оценке аудиторских доказательств для формирования мнения о достоверности финансовой отчетности. МСА 500 подчеркивает важность получения достаточных и надлежащих аудиторских доказательств, которые являются основой для обоснованного аудиторского заключения. В условиях современной цифровой среды, когда все больше данных хранится и обрабатывается в электронном виде, применение МСА 500 приобретает особую значимость, требуя адаптации традиционных аудиторских методов к новым технологиям и источникам информации.

Ключевые аспекты МСА 500

МСА 500 определяет аудиторские доказательства как информацию, полученную аудитором для формирования обоснованного заключения о достоверности финансовой отчетности. Ключевые аспекты стандарта включают:

Натуральность и надежность: Аудиторские доказательства должны быть надежными и достоверными, исходя из их источника и природы. Надежность доказательств повышается, если они получены из независимых источников, подтверждены документально и объективно проверяемы.

Достаточность и надлежащесть: Аудитор должен получить достаточное количество надлежащих доказательств, чтобы достичь уровня уверенности, необходимого для формирования аудиторского мнения. Достаточность относится к объему доказательств, а надлежащесть – к их качеству и релевантности.

Процедуры получения аудиторских доказательств: МСА 500 описывает различные аудиторские процедуры, включая инспекцию, наблюдение, подтверждение, пересчет, аналитические процедуры и запрос информации. Выбор процедур зависит от конкретных обстоятельств аудита и оцениваемых рисков.

Оценка аудиторских доказательств: Аудитор должен оценить полученные доказательства, учитывая их надежность и достаточность, для того, чтобы сделать обоснованное заключение о достоверности информации.

Вызовы и возможности в цифровой среде

Цифровизация бизнес-процессов создает как вызовы, так и возможности для применения МСА 500:

Вызовы:

Объем данных: В цифровой среде аудиторы сталкиваются с огромными объемами данных, что требует использования специализированного программного обеспечения и аналитических методов для обработки и анализа информации.

Надежность данных: Обеспечение надежности данных в цифровом формате является сложной задачей. Необходимо учитывать риски, связанные с кибербезопасностью, мошенничеством и манипулированием данными.

Формат данных: Данные могут быть представлены в различных форматах, что требует от аудитора навыков работы с различными системами и программным обеспечением.

Возможности:

Использование данных больших объемов: Анализ данных больших объемов (Big Data) позволяет аудиторам выявлять аномалии и несоответствия, которые могут указывать на существенные искажения в финансовой отчетности.

Автоматизация аудиторских процедур: Использование технологий автоматизации позволяет повысить эффективность и снизить затраты на проведение аудита.

Улучшение качества аудита: Применение цифровых технологий позволяет улучшить качество аудита, обеспечивая более глубокий анализ данных и снижая риск ошибок.

Адаптация аудиторской практики к цифровой среде

Для эффективного применения МСА 500 в цифровой среде аудиторам необходимо:

Развить компетенции в области данных: Аудиторы должны обладать навыками работы с различными форматами данных, использования специализированного программного обеспечения и аналитических методов.

Использовать технологии анализа данных: Применение технологий анализа данных позволяет аудиторам эффективно обрабатывать большие объемы информации и выявлять потенциальные проблемы.

Усилить контроль над кибербезопасностью: Необходимо обеспечить защиту данных от несанкционированного доступа и модификации.

Внедрение новых аудиторских технологий: Использование роботизированной автоматизации процессов (RPA), искусственного интеллекта (ИИ) и машинного обучения (ML) может существенно повысить эффективность аудита.

Оценка надежности цифровых доказательств

Ключевым аспектом применения МСА 500 в цифровой среде является оценка надежности цифровых доказательств. Для этого аудитору необходимо:

Проверить целостность данных: Убедиться в том, что данные не были изменены или удалены.

Оценить безопасность системы: Проверить, насколько защищена система от несанкционированного доступа.

Проверить аутентичность данных: Убедиться в том, что данные являются подлинными.

Понять происхождение данных: Установить источник данных и оценить его независимость.

Заключение

МСА 500 остается актуальным и необходимым стандартом для обеспечения качества аудита, даже в условиях стремительного развития цифровых технологий. Однако, аудиторы должны постоянно

совершенствовать свои навыки и адаптировать свои методы работы к новым вызовам и возможностям, которые предоставляет цифровая среда. Использование современных технологий анализа данных и обеспечение надежности цифровых доказательств являются ключом к успешному применению МСА 500 в современных условиях. Дальнейшие исследования должны быть направлены на разработку новых методик и инструментов для эффективного аудита в цифровой экономике, с акцентом на использование технологий искусственного интеллекта и машинного обучения для повышения эффективности и качества аудиторских проверок.

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ИЗУЧЕНИЕ ВЛИЯНИЯ РЕАГЕНТА ГИДРОФОБНОГО СТАБИЛИЗАТОРА НА СВОЙСТВАХ БУРОВЫХ РАСТВОРОВ

Аннотация:*Экспериментальное и теоретическое исследование, позволяющее разработать новую технологию приготовления бурового раствора и научно обосновать целесообразность обработки минерализованных растворов реагентом с целью эффективного регулирования свойств и снижения расхода высокомолекулярных полимерных реагентов - стабилизаторов.*

Ключевые слова: *буровые растворы, дисперсионная система, глинистая частица, альдегиды, математическая статистика, корреляционно-регрессионный анализ.*

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STUDY OF THE INFLUENCE OF HYDROPHOBIC STABILIZER REAGENT ON THE PROPERTIES OF DRILLING MUDS

Abstract:*Experimental and theoretical study allowing to develop a new technology for preparation of drilling mud and scientifically substantiate the expediency of processing mineralized solutions with a reagent for the purpose of effective regulation of properties and reduction of consumption of high-molecular polymer reagents - stabilizers.*

Key words: *drilling muds, dispersion system, clay particle, aldehydes, mathematical statistics, correlation-regression analysis.*

В республике Узбекистан последнее десятилетие открыты новые место-рождения нефти и газа, приуроченные к подсолевым отложениям. Для

бурения скважин в данных отложениях необходимы растворы, которые сохраняли бы высокую стабильность и структурно-реологические свойства при большой электролитной коагуляции. Наиболее эффективным для таких условий является буровые растворы на водной основе.

Однако анализ промыслового материала показывает, что при разбуривании мощных хемогенных толщ возникают трудности в регулировании их структурно-механических и фильтрационных свойств. Для стабилизации растворов применяют высокомолекулярные реагенты (гипан, КМЦ и др.), которые при электролитной агрессии вызывают стабилизационное разжижение систем.

В связи с вышеизложенным для поддержания необходимых технологических свойств раствора дополнительно вводят реагенты структурообразователи (асбест, СМАД, гидрофобный стабилизатор (ГС) и др.) [1].

Между тем СМАД обусловливает сильное вспенивание раствора, асбест является канцерогенным веществом, что ограничивает его использование для данных целей. Для улучшения структурно-механических, реологических и фильтрационных свойств минерализованных буровых растворов, изучена возможность применения химического реагента, полученного путем модификации госсиполовой смолы и триглицеридов жирных кислот с условным названием гидрофобный реагент стабилизатор (ГС).

Исследования показали высокую способность его молекул адсорбироваться на глинистых частицах и повышать порог их коагуляции в присутствии электролитов. Установлено, что глины имеют различную адсорбционную активность A, при этом S-образный характер изотерм адсорбции свидетельствует о наличии полимолекулярной адсорбции.

Характер изменений, происходящих на границе фаз глина-вода в присутствии реагента ГС, изучали на Касантауской глине с использованием методов физико-химической механики. Исследования проводили на приборе Вейлера-Ребиндера по методикам, описанным в работах [2,3].

При критической концентрации структурообразования, экспериментальные данные свидетельствуют о том, что увеличение добавки реагента ГС повышает модули быстрой E_1 и медленной E_2 эластических деформаций при заметном упрочнении пространственной структуры.

При этом повышаются также устойчивость дисперсий κ_y и энергетическое состояние системы E_ω, отражающее усиление межмолекулярного взаимодействия. На основе математической статистики была рассчитана корреляционная связь между изменением состояния дисперсионной системы и концентрацией реагента ГС $x_п$.

В качестве критерия y, по которому оценивали это взаимное влияние, принимали модуль условной деформации E_e, так как он наиболее полно характеризует энергию связей между глинистыми частицами. Вычисленный

коэффициент корреляции $r_{x,y}$ равный 0,99 свидетельствует о тесной взаимозависимости между переменными y и $x_п$.

Проверка коэффициента корреляции по t-критерию (критерию Стьюдента) показала его значимость. Рассматриваемая зависимость описывается математической моделью в виде:

$$y=21,6+2,51x_п \quad (1)$$

Погрешность определения коэффициента регрессии линейного уравнения $\sigma\{b_i\}=0,041$.

Доверительные границы для b_i (при 5 %-ном уровне значимости) равны ±0,115.

Так, как товарный реагент ГС представляет смесь органических веществ, необходимо оценить влияние отдельных соединений на свойства глинистых дисперсий. Методом вакуумного фракционирования на пилотной ректификационной установке под остаточным давлением 1-1,3 кПа получены различные фракции реагента ГС.

В результате установочных опытов было определено, что данные фракции обладают свойством аддитивности, т.е. степень их воздействия на дисперсии одинакова как при совместном, так и при раздельном вводе в систему, что свидетельствует о влиянии на процесс структурообразования в дисперсиях только отдельных соединений при нейтральном или незначительном действии других. Хроматографическим анализом идентифицировано более 30 различных соединений.

Фракции различного состава, по-разному действуют на растворы, и наибольшее влияние оказывают II и III фракции (табл.1), которые почти в 2 раза повышают $E_г$ при значительном росте $к_у$.

Таблица 1

Структурно-механические показатели ГС

Реагент	Добавка, %	Характеристики 25% -ной суспензии бентонита									
		Структурно – механические константы, Па				$\mu_1 \cdot 10^{-5}$ Па. с	Структурно-механические константы, Па			$E_\omega \cdot 10^{-9}$ Дж/см^3	$K_У$
		$E_1 \cdot 10^{-3}$	$E_2 \cdot 10^{-3}$	$E_г \cdot 10^{-3}$	$P_к$ 1		λ	$\frac{P_{k1}}{\mu_1} 10^6 . c^{-1}$	$P_{k1}/n_1 * 10^6$ с$^{-1}$		
Исходный ГС											
	0	14,8	26,0	9,4	53,5	28,1	0,363	1,90	299	216,47	0,417
	1	17,1	43,0	12,2	56,5	31,6	0,284	1,79	259	251,10	0,420
	3	17,8	45,1	12,8	60,0	36,5	0,283	1,64	285	283,97	0,454
	5	17,7	44,6	12,7	57,9	42,9	0,284	1,36	338	320,61	0,517

	7	20,6	48,2	14,4	68,5	57,8	0,299	1,18	401	409,67	0,569
	10	21,3	47,7	16,1	70,2	66,7	0,309	1,05	414	459,14	0,614
Фракция реагента ГС											
I	5	16,4	42,3	11,7	61,2	38,0	0,277	1,85	282	257,63	0,451
II	5	18,4	40,3	12,8	59,8	41,3	0,318	1,43	323	372,10	0,474
III	5	22,6	44,0	15,1	63,4	59,6	0,339	1,06	395	430,20	0,530

Примечание: E_1, E_2-модуль соответственно быстрой и медленной эластической деформации; E_ω - равновесный модуль; Pк1 - условный статический предел текучести.

Указанные факторы позволили применить метод корреляционно-регрессионного анализа для построения модели, описывающей изменение аргумента y в зависимости от содержания в растворе различных компонентов реагента ГС, X_i (1=1, 2, ..., 21), и выявить наиболее значимые из них.

Вычисленные коэффициенты парных корреляций дали возможность исключить из модели все зависимые и незначимые факторы (коэффициент значимости r>0,240) [2] и оставить независимые факторы, имеющие наибольшую корреляционную связь с y; x_7; x_{10}; x_{16}.

Для данной совокупности факторов были вычислены коэффициент множественной корреляции R=0,937, коэффициенты регрессии и построена математическая модель:

$$y=21,6+5,61x_7- 42,38\ x_{10} + 0,626\ x_{16} \qquad (2)$$

Погрешность определения коэффициентов регрессии с $\sigma\{b_i\}$ = 0,044. Доверительные границы для b_i (при 5 %-ном уровне значимости) равны ±0,124. Все коэффициенты значимы, так как $|b_i|$>0,124. Коэффициент детерминации уравнения R^2=0,879, что свидетельствует о 87 %-ной достоверности включения данных факторов в модель [3].

Сравнительный анализ моделей (1) и (2) показал их высокую адекватность друг к другу, погрешность аппроксимации составила 3,6%.

Таким образом, методом математической статистики были выявлены соединения, в основном влияющие на структурно-механические свойства дисперсий. Структурные формулы данных соединений показывают, что все они являются спиртами, гидроксильные группы которых способны образовывать водородные связи.

Кроме того, 96% их относится к гетероциклическим соединениям, имеющим несколько атомов кислорода в цикле. Наличие у атомов кислорода двух не поделенных пар электронов и пространственное расположение обусловливают их активность при образовании водородных связей.

В результате многочисленных исследований установлено, что альдегиды легко взаимодействуют с поверхностью глины и глинистых минералов с образованием водородных связей.

Таблица 2

Состав и содержание фракции реагента ГС

X_i	Компонент	Содержание компонента, %,			
		во фракции			в исходном реагенте
		I	II	III	
x_1	Глицерин	2,26	-	-	0,98
x_2	Стеариновая кислота	1,72	-	-	0,42
x_3	Метиловые эфиры ВЖК	8,60	-	-	1,63
x_4	Изопропенилдиоксан	2,16	-	-	-
x_5	Госсипол	17,26	0,92	-	2,36
x_6	Трет-Бутоксиметил	39,9	8,94	0,9	9,80
x_7	Пирановный спирт	7,76	4,40	0,21	1,88
x_8	Пирановный диол	6,54	5,50	0,33	1,86
x_9	Метилбутандиол МБД	4,49	23,46	2,96	5,32
x_{10}	Метилпентатриол	0,96	0,54	0,12	0,43
x_{11}	Метиловые эфиры МБД	0,64	0,69	-	0,13
x_{12}	Метиловые эфиры диоксановых спиртов	1,11	4,76	1,54	2,17
x_{13}	Трет-Бутиловые эфиры диоксановых спиртов	2,0	5,15	4,10	5,80
x_{14}	Пиранилспиродиоксан	1,79	14,09	5,33	5,38
x_{15}	Оксипропилдиоксан (диоксановый спирт I)	1,05	11,89	8,16	6,20
x_{16}	Метилоксиэтилдиоксан (диоксановый спирт II)	1,30	21,00	38,91	31,61
x_{17}	Диметилоксиметилдиоксан (диоксановый спирт III)	0,43	2,77	11,77	7,37
x_{18}	Метилпирандиоксан	-	0,52	1,48	1,24
x_{19}	Формальдегидо-диоксановый спирт	-	1,38	9,20	9,86
x_{20}	Смесь формальдегидо-диоксановых спиртов	-	-	1,41	1,12
x_{21}	Высокомолекулярные смолы	-	-	7,00	4,17

Кроме того, молекулы альдегидов и спиртов, как при комнатной, так и при более высоких температурах способны к хемосорбции с образованием эфироподобных соединений [4].

На основе полученных результатов исследований авторами предложен следующий механизм структурообразования глинистых дисперсий в присутствии реагента ГС.

Адсорбируясь на поверхности глинистой частицы, молекулы спиртов и альдегидов образуют сольватный слой, атомы кислорода в циклах становятся активными центрами второго рода, на которых в дальнейшем адсорбируются последующее слои молекул.

Это подтверждается экспериментальными данными (табл.3). Структурно - механические характеристики глинистых растворов, приготовленных предложенным способом, в 2-3 раза выше, чем

аналогические характеристики других приведенных растворов, а фильтрация ниже [5].

Таблица 3

Состав и изменение технологических свойств глинистого раствора

№ п/п	Состав раствора на основе Навбахорской глины	Параметры раствора							
		Условная вязкость, с	Плотность, г/см^3	Статическое напряжение сдвига, дПа, через мин.		Фильтрация, см^3/30 мин	*К*, мм	τ_0, дПа	Пластическая вязкость, мПа·с
				1	10				
1	30% глины +10%ГС +5%КССБ+1%$CaCI_2$	70	1,19	63	78	3,0	1,0	143	18
2	30%глины+5%КССБ+1 %$CaCI_2$ +10% ГС	62	1,19	50	66	4,6	1,0	107	15
3	30%глины+5%КССБ+1 %$CaCI_2$ +5 %РС	43	1,18	30	49	6,3	1,5	89	12
4	25% глины +10% ГС +2% КМЦ+20%NaCI	82	1,26	43	86	2,2	0,5	151	48
5	25% глины+2%КМЦ +20 %NaCI +10 %ГС	64	1,26	14	27	4,0	0,5	110	40
6	25% глины+2%КМЦ +20 %NaCI+0.2 %РС	56	1,25	8	20	5,6	0,5	87	32

Выполненные исследования позволили разработать новую технологию приготовления бурового раствора и научно обосновать целесообразность обработки минерализованных растворов реагентом ГС с целью эффективного регулирования свойств и снижения расхода высокомолекулярных полимерных реагентов-стабилизаторов.

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ПЕРСПЕКТИВЫ ЭКОНОМИЧЕСКОГО СОТРУДНИЧЕСТВА РОССИИ И КИТАЯ

Аннотация:*В статье рассматриваются перспективы экономического сотрудничества России и Китая в условиях современных глобальных вызовов, таких как энергетический переход, экономическая нестабильность и усиление международной конкуренции. Актуальность партнерства объясняется стремлением двух стран укрепить свои экономические и технологические позиции на мировой арене. Основное внимание уделяется ключевым направлениям взаимодействия: энергетике, транспортной инфраструктуре, инновациям и гуманитарному сотрудничеству. Освещаются проекты, такие как строительство газопровода «Сила Сибири-2», развитие совместных научно-технологических центров и инициатив в области возобновляемой энергетики. Делается акцент на научной новизне исследования, связанной с изучением комплексного подхода к сотрудничеству в контексте текущих геополитических изменений. Предполагается, что развитие российско-китайских экономических связей в период 2023–2025 годов станет устойчивым фактором, способствующим укреплению их позиций на международной арене.*

Ключевые слова: *Россия, Китай, экономическое сотрудничество, энергетика, транспортная инфраструктура, инновации, возобновляемая энергетика, гуманитарное взаимодействие, глобальные вызовы, геополитика.*

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PROSPECTS FOR ECONOMIC COOPERATION BETWEEN RUSSIA AND CHINA

ABSTRACT:*The article examines the prospects for economic cooperation between Russia and China in the context of modern global challenges, such as the energy transition, economic instability, and increasing international competition. The relevance of the partnership is explained by the two countries' mutual aspiration to strengthen their economic and technological positions on the global stage. The focus is on key areas of interaction: energy, transport infrastructure, innovations, and humanitarian cooperation. The article highlights projects such as the construction of the "Power of Siberia-2" gas pipeline, the development of joint*

science and technology centers, and initiatives in renewable energy. Emphasis is placed on the scientific novelty of the study, which explores a comprehensive approach to cooperation in light of current geopolitical changes. It is suggested that the development of Russian-Chinese economic ties during the period 2023–2025 will become a sustainable factor contributing to the strengthening of their positions in the international arena.

Keywords: *Russia, China, economic cooperation, energy, transport infrastructure, innovations, renewable energy, humanitarian cooperation, global challenges, geopolitics.*

В условиях динамичных изменений глобального экономического и геополитического ландшафта партнерство России и Китая приобретает особое значение. Эти две страны, обладающие значительными ресурсами, технологическим потенциалом и географической близостью, активно развивают сотрудничество в ключевых стратегических направлениях. В период 2023–2025 годов экономические связи между Россией и Китаем станут одним из важнейших факторов, определяющих их позиции на мировой арене.

Актуальность сотрудничества между Россией и Китаем заключается в стремлении обеих стран не только обеспечить устойчивое развитие своих экономик, но и минимизировать последствия глобальных вызовов, таких как энергетический переход, экономическая нестабильность и усиление конкуренции на мировых рынках. Совместные усилия в области энергетики, транспортной инфраструктуры, инноваций и гуманитарного взаимодействия позволяют России и Китаю формировать новый вектор сотрудничества, способствующий укреплению их позиций на международной арене.

Целью углубленного взаимодействия является развитие взаимовыгодного партнерства, создание новых экономических возможностей и укрепление технологической независимости обеих стран. В рамках данного сотрудничества стороны стремятся расширять рынки сбыта, развивать совместные проекты в стратегически важных областях и внедрять инновационные технологии.

Ключевую роль играет энергетическое сотрудничество. Китай, являющийся крупнейшим потребителем энергоресурсов в мире, и Россия, обладающая огромными запасами нефти и газа, продолжают совместную работу над проектами, направленными на обеспечение энергобезопасности обеих стран. Строительство газопровода «Сила Сибири-2», который позволит транспортировать российский газ в Китай, является значимым примером этой работы. Кроме того, стороны активно развивают ядерную энергетику, включая строительство атомных электростанций на китайской территории с использованием российских технологий, что снижает зависимость от импорта энергоносителей.

На фоне глобального энергоперехода Россия и Китай уделяют особое внимание развитию возобновляемых источников энергии. Совместные проекты в области солнечной, ветряной и геотермальной энергетики не только

помогают минимизировать экологическое воздействие, но и способствуют укреплению национальных экономик за счет снижения углеродного следа.

Транспортная инфраструктура представляет собой еще одно важное направление партнерства. Успешная реализация проектов, таких как железнодорожный мост через реку Амур и расширение авиасообщения, способствует ускорению транспортировки грузов, усилению торговых связей и созданию новых маршрутов для международной торговли. С учетом географической протяженности границы между странами и их стратегической роли в Евразийском пространстве, развитие транспортной сети становится ключевым аспектом их взаимодействия.

Инновационное сотрудничество между Россией и Китаем, основанное на создании научно-технологических центров и совместных фондов, открывает новые перспективы для технологического развития. Совместные проекты в области искусственного интеллекта, новых материалов и энергоэффективности позволяют странам не только обмениваться опытом, но и укреплять конкурентоспособность на мировом рынке. Инновационный научно-технологический центр, строительство которого уже началось, станет площадкой для реализации наиболее амбициозных идей и технологий.

Культурно-гуманитарное сотрудничество дополняет экономические связи, создавая благоприятный климат для углубления взаимопонимания между народами двух стран. Обмен опытом в области образования, науки и культуры способствует формированию дружеских отношений, которые становятся прочной основой для дальнейшего развития партнерства.

Научная новизна анализа заключается в изучении комплексного подхода к российско-китайскому сотрудничеству в контексте современных вызовов. Уделяя внимание не только традиционным направлениям взаимодействия, таким как энергетика и транспорт, но и инновационным технологиям, стороны формируют новую модель партнерства. Развитие таких областей, как искусственный интеллект и возобновляемая энергетика, позволяет минимизировать экономические риски и укрепить позиции стран на международной арене.

Таким образом, в 2023–2025 годах Россия и Китай продолжат активно укреплять свои экономические связи, что будет способствовать созданию новых возможностей для обеих сторон. Развитие энергетического партнерства, транспортной инфраструктуры, инновационных технологий и гуманитарного взаимодействия позволит странам не только преодолеть вызовы, но и сформировать устойчивую модель сотрудничества, отвечающую требованиям времени.

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ЗДОРОВЬЕСБЕРЕГАЮЩИЕ ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В ОБРАЗОВАНИИ

Аннотация: *в статье мы рассматриваем интеграция здоровьесберегающих технологий в образование, которая должна рассматриваться как многокомпонентный процесс, который включает в себя тесное взаимодействие всех участников образовательного процесса, поддержку на государственном уровне и активное участие со стороны сообщества.*

Ключевые слова: *здоровьесберегающие инновационные технологии, цифровые платформы, образование, технопарк, образовательные программы.*

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HEALTH-SAVING INNOVATIVE TECHNOLOGIES IN EDUCATION

Abstract: *in the article we consider the integration of health-saving technologies into education, which should be considered as a multicomponent process that includes close interaction of all participants in the educational process, support at the state level and active participation from the community.*

Keywords: *health-saving innovative technologies, digital platforms, education, technology park, educational programs.*

В современном образовательном процессе здоровьесберегающие инновационные технологии занимают особое место, способствуя не только улучшению учебных результатов, но и поддержанию физического и

психического здоровья учащихся. Внедрение таких технологий отвечает на вызовы времени, когда на смену традиционным методам обучения приходят гибкие и индивидуализированные подходы, учитывающие многообразие потребностей детей. В основе здоровьесберегающих технологий лежат такие принципы, как активное участие учеников в образовательном процессе, создание безопасной и комфортной среды, а также интеграция передовых достижений науки и техники.

Здоровьесберегающие технологии — это комплекс мер по охране и укреплению здоровья детей в образовательном учреждении. К ним относят педагогические, психологические, медицинские программы и подходы, которые обеспечивают безопасный для педагогов и детей учебный процесс.

А еще такие меры формируют базу знаний о здоровье и позитивное отношение к здоровому образу жизни.

Одной из ключевых инноваций в этой области являются цифровые платформы, которые позволяют адаптировать образовательные материалы под индивидуальные нужды каждого ученика. Это достигается благодаря анализу данных о прогрессе детей и предоставлению рекомендаций, оптимизирующих их учебный план. Такие технологии не только позволяют предотвратить перегрузку и усталость, но и способствуют развитию эмоционального интеллекта и навыков саморегуляции, что крайне важно в условиях современного информационного общества.

Кроме того, важную роль играют и физкультурно-оздоровительные программы, интегрированные в учебный процесс. Регулярные физические упражнения, правильно организованные периоды отдыха и активности способствуют снижению уровня стресса и укреплению иммунной системы учащихся. Внедрение в школы технологий мониторинга физического состояния, таких как носимые устройства и программы для отслеживания активности, позволяет более гибко подходить к составлению индивидуальных оздоровительных планов и своевременно реагировать на отклонения от нормы.

В заключение стоит отметить, что здоровьесберегающие инновационные технологии не могут быть реализованы изолированно от остального образовательного процесса. Их успешное внедрение требует комплексного подхода, включающего подготовку педагогов, информирование родителей и активное участие самих учеников. Только в этом случае можно достичь настоящих успехов в создании здоровой и продуктивной образовательной среды, где каждый ученик будет чувствовать себя комфортно и уверенно на пути к знаниям и самореализации.

Кроме того, важнейшим аспектом успешного внедрения здоровьесберегающих инновационных технологий является сотрудничество между образовательными учреждениями и внешними экспертными организациями. Это сотрудничество позволяет образовательным учреждениям оставаться в курсе последних научных достижений и инноваций в области здоровья, обеспечивая учащимся доступ к наиболее эффективным и

современным методам поддержания здоровья. Такие партнерства могут включать обмен опытом и знанием, проведение совместных исследовательских проектов и организация образовательных программ для учащихся и преподавателей.

Не менее важна роль родителей в процессе внедрения технологий, направленных на сохранение здоровья. Информирование родителей и их активное участие в образовательном процессе способствуют созданию единой линии воспитания и обучения, что усиливает эффект от используемых стратегий. Родители, имея доступ к информации о текущем состоянии здоровья и успехах детей, могут более осознанно подходить к поддержке их учебной активности и способствовать формированию устойчивых привычек здорового образа жизни.

Отдельное внимание следует уделить подготовке педагогического состава. Учителя, как и родители, играют ключевую роль в успешном внедрении и адаптации здоровьесберегающих технологий. Курсы повышения квалификации, семинары и тренинги должны быть ориентированы на обновление их знаний и навыков работы с инновационными методиками, а также на развитие умения интегрировать эти технологии в повседневную практику. Педагоги, которые уверенно и с пониманием дела работают с новыми подходами, способны создать в классе атмосферу принятия и доверия, необходимую для полноценного развития каждого учащегося.

Таким образом, здоровьесберегающие инновационные технологии становятся важной частью современного образовательного процесса, их внедрение идет рука об руку с созданием среды, которая учитывает интересы всех участников — учащихся, преподавателей и родителей. Такая среда позволяет не только достигать высоких академических результатов, но и воспитывать новое поколение людей, которые ценят и заботятся о своем физическом и психическом благополучии. В результате, мы получаем общество, где здоровье каждого человека становится основой для его личного и профессионального успеха.

Понимая важность интеграции здоровьесберегающих технологий в образовательный процесс, следует также уделить внимание эмоциональному благополучию участников процесса — как учащихся, так и педагогов. Разработке и применению программ, направленных на управление стрессом, развитие эмоциональной устойчивости и навыков саморегуляции, необходимо выделить особое внимание. Учащиеся, которые владеют этими навыками, лучше справляются с учебной нагрузкой и выстраивают более здоровые отношения со сверстниками и педагогами. Педагоги, в свою очередь, имея инструменты для управления собственным эмоциональным состоянием, становятся более эффективными наставниками и лучше адаптируются к изменениям в образовательной среде.

Важным элементом успешной интеграции инновационных подходов является технологическая оснащенность образовательных учреждений. Современные технологии, такие как учебные платформы, мобильные

приложения, устройства для мониторинга физической активности и здоровья, могут значительно облегчить работу как учителей, так и студентов, делая процесс обучения более интерактивным и увлекательным. Однако, важно не забывать, что технологическое обеспечение необходимо сопровождать обучением и поддержкой всех участников, чтобы максимизировать выгоды от использования новых инструментов.

На уровне образовательной политики важно разрабатывать и внедрять стратегии, которые поддерживают и стимулируют использование здоровьесберегающих инновационных технологий. Финансовая поддержка, гранты и поощрения могут стать стимулом для школ и других образовательных учреждений, стремящихся внедрять новации. Создание государственных и частных инициатив, объединяющих образовательные учреждения, технопарки и университеты, даст возможность разработать и протестировать наиболее эффективные решения в масштабах целых регионов и стран.

Таким образом, будущее системы образования зависит от того, насколько успешно будут интегрированы здоровьесберегающие инновации в повседневную практику. Эти изменения должны пронизывать все уровни образовательной структуры, начиная с политического и заканчивая индивидуальным, чтобы каждый ученик, педагог и родитель стал активным участником процесса формирования культуры здоровья. Такой комплексный подход обязательно приведет к созданию более здорового и целеустремленного общества, готового к вызовам времени.

Необходимо отметить, что внедрение здоровьесберегающих технологий в образовательный процесс — это не только вопрос оборудования и методик, но и изменение подхода к преподаванию и обучению. Система образования должна стать более гибкой и адаптивной, чтобы соответствовать потребностям современного общества. Это означает интеграцию не только новейших технологических решений, но и более личностно-ориентированных стратегий обучения, которые учитывают индивидуальные особенности каждого ученика, его физическое и эмоциональное состояние.

Важным аспектом также является подготовка педагогического состава к работе в новой среде. Учителям необходимо предоставить доступ к программам повышения квалификации, которые помогут им эффективно использовать современные технологии и подходы в своей практике. Это может включать в себя семинары, тренинги, а также доступ к ресурсам и материалам, способствующим профессиональному развитию. Особое внимание следует уделить развитию коммуникативных и психологических навыков педагогов, которые позволят им более чутко реагировать на изменения настроения и состояния учащихся.

Кроме того, важно создать условия для взаимодействия между различными образовательными учреждениями и организациями, занимающимися здоровьесберегающими технологиями. Такое сотрудничество позволит обмениваться опытом, лучшими практиками и

инновационными решениями, которые могут быть адаптированы и использованы в других контекстах. Это может осуществляться через создание профессиональных сетей, платформ для обмена опытом и организации совместных проектов.

В заключение, интеграция здоровьесберегающих технологий в образование должна рассматриваться как многокомпонентный процесс, который включает в себя тесное взаимодействие всех участников образовательного процесса, поддержку на государственном уровне и активное участие со стороны сообщества. Только так можно обеспечить системные изменения, которые приведут к улучшению как качества образования, так и здоровья всех его участников.

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ИСПОЛЬЗОВАНИЕ АУТСОРСИНГА В УПРАВЛЕНИИ ПЕРСОНАЛОМ ОРГАНИЗАЦИИ

Аннотация. *В статье представлен кадровый аутсорсинг как новая технология в управлении персоналом. Дано определение аутсорсинга, а также характеристика его отличительных особенностей. Рассмотрено понятие кадрового аусорсинга, представлены основные преимущества и недостатки его использования.*

Ключевые слова: *аутсорсинг, персонал, функция, аутсорсер.*

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USING OUTSOURCING IN ORGANIZATIONAL HUMAN RESOURCE MANAGEMENT

Annotation. *The article presents HR outsourcing as a new technology in personnel management. The definition of outsourcing is given, as well as the characteristics of its distinctive features. The concept of HR outsourcing is considered, the main advantages and disadvantages of its use are presented.*

Keywords: *outsourcing, personnel, function, outsourcer.*

В современных условиях трансформации экономических отношений и усиления конкурентной борьбы организации вынуждены искать инновационные подходы к оптимизации бизнес-процессов и повышению эффективности управления персоналом. Аутсорсинг становится одним из ключевых инструментов стратегического управления человеческими ресурсами, позволяющим компаниям фокусироваться на развитии основных компетенций при одновременном повышении качества вспомогательных функций [1].

Этимология термина "аутсорсинг" (от англ. outsourcing: out - внешний, source - источник) указывает на использование внешних ресурсов или внешних источников для выполнения отдельных задач организации.

Рассматривая эволюцию аутсорсинга в управлении персоналом, необходимо отметить, что данный инструмент прошел несколько этапов развития. В начале своего становления аутсорсинг использовался

преимущественно для решения тактических задач и оптимизации затрат. Современный этап характеризуется стратегическим подходом к использованию аутсорсинга как инструмента повышения эффективности управления человеческими ресурсами [2].При принятии решения о передаче HR-функций на аутсорсинг организации руководствуются различными мотивами. Основными драйверами внедрения аутсорсинга являются:

1. Экономическая эффективность - снижение затрат на выполнение HR-функций за счет эффекта масштаба и специализации аутсорсера.
2. Получение доступа к передовым технологиям и экспертизе в области управления персоналом.
3. Повышение качества HR-услуг за счет профессионализма аутсорсера.
4. Возможность концентрации на стратегических задачах управления персоналом.
5. Повышение гибкости HR-функции и адаптивности к изменениям [3].

При выборе провайдера HR-аутсорсинга необходимо учитывать следующие критерии:

1. Опыт работы и репутация на рынке
2. Наличие необходимых компетенций и ресурсов
3. Технологическая оснащенность
4. География присутствия
5. Ценовая политика
6. Гибкость и клиентоориентированность [4]

В мировой практике сложились следующие модели предоставления услуг HR-аутсорсинга:

1. Транзакционный аутсорсинг - передача отдельных операций или процессов
2. Трансформационный аутсорсинг - комплексное преобразование HR-функции
3. Совместный аутсорсинг - разделение ответственности между заказчиком и провайдером
4. Мультисорсинг - привлечение нескольких специализированных провайдеров [5].

Современные тенденции развития HR-аутсорсинга включают:

1. Цифровизацию HR-процессов и внедрение облачных решений
2. Развитие аналитических инструментов и предиктивной аналитики
3. Персонализацию услуг под потребности конкретного заказчика
4. Интеграцию различных HR-сервисов на единой платформе
5. Развитие гибких моделей сотрудничества [6]

Рекрутмент и подбор персонала как направление аутсорсинга включает комплекс взаимосвязанных процессов, направленных на своевременное обеспечение организации квалифицированными кадрами. В рамках данного направления провайдеры HR-аутсорсинга предоставляют следующие услуги:

1. Разработка профилей должностей и компетенций
2. Поиск и первичный отбор кандидатов
3. Проведение структурированных интервью
4. Организация оценочных мероприятий
5. Проверка рекомендаций и background-checking [7]

Важным аспектом аутсорсинга обучения является возможность быстрого масштабирования образовательных программ в соответствии с потребностями бизнеса. Провайдеры HR-аутсорсинга обладают необходимыми ресурсами и компетенциями для организации обучения любого масштаба – от точечных тренингов до комплексных корпоративных программ развития.

Перспективы развития направлений HR-аутсорсинга связаны с дальнейшей цифровизацией процессов управления персоналом и внедрением инновационных технологий. Особую значимость приобретает использование искусственного интеллекта и машинного обучения для повышения эффективности HR-процессов. При этом важно обеспечить сбалансированное сочетание технологических инноваций с сохранением человеческого фактора в управлении персоналом [8].

Особую актуальность приобретают вопросы правового регулирования дистанционного оказания HR-услуг в условиях цифровизации бизнес-процессов. Изменения в Трудовом кодексе РФ, связанные с регулированием дистанционной работы, создают дополнительные возможности для развития HR-аутсорсинга, но также требуют учета специфических правовых аспектов при организации удаленного взаимодействия с провайдером услуг [9].

При организации международного HR-аутсорсинга необходимо учитывать требования законодательства о валютном регулировании и валютном контроле, а также международные соглашения о защите персональных данных. Особое значение имеет соблюдение требований GDPR при взаимодействии с европейскими провайдерами услуг, что требует включения в договор аутсорсинга специальных положений о трансграничной передаче данных [10].

При организации международного HR-аутсорсинга существенное значение имеет выбор применимого права и порядка разрешения споров. Практика показывает, что оптимальным является подчинение договора российскому праву с определением компетентного российского суда для разрешения споров, что обеспечивает более эффективную защиту интересов заказчика услуг [11].

Правовое регулирование использования современных технологий в HR-аутсорсинге требует особого внимания к вопросам кибербезопасности и защиты данных. В договоре аутсорсинга должны быть предусмотрены требования к техническим и организационным мерам защиты информации, порядок реагирования на инциденты информационной безопасности, а также ответственность провайдера за нарушение установленных требований [12].

Правовое регулирование HR-аутсорсинга представляет собой комплексную систему норм различного уровня, требующую тщательного учета при организации взаимодействия с провайдером услуг. Успешная реализация проектов HR-аутсорсинга возможна только при условии грамотного правового оформления всех аспектов взаимодействия сторон, включая вопросы защиты информации, распределения ответственности и контроля качества услуг. При этом необходимо обеспечить гибкость правового регулирования, позволяющую адаптировать условия сотрудничества к изменяющимся потребностям бизнеса при сохранении надежной правовой защиты интересов заказчика услуг

Таким образом, аутсорсинг в управлении персоналом представляет собой эффективный инструмент оптимизации HR-функции, позволяющий организациям концентрироваться на стратегических задачах при одновременном повышении качества операционных процессов. Успешное внедрение аутсорсинга требует тщательного анализа целесообразности передачи функций, выбора надежного провайдера и выстраивания эффективной системы управления взаимоотношениями.

Анализ основных направлений использования аутсорсинга в управлении персоналом показывает, что данный инструмент обладает значительным потенциалом для повышения эффективности HR-функции. Успешная реализация проектов HR-аутсорсинга требует комплексного подхода, учитывающего специфику бизнеса, организационную культуру и стратегические цели компании. При этом критически важным является обеспечение эффективной интеграции различных направлений аутсорсинга и формирование системы контроля качества предоставляемых услуг.

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СОВЕРШЕНСТВОВАНИЕ МИНИМАЛЬНО ИНВАЗИВНЫХ ПОДХОДОВ К ТЕРАПИИ ГНОЙНО-ВОСПАЛИТЕЛЬНЫХ ПРОЦЕССОВ ПРИДАТКОВ МАТКИ

Аннотация. *Воспалительные заболевания внутренних женских половых органов занимают первое место в структуре гинекологической патологии. Острое воспаление придатков наиболее частое заболевание, возникающее в репродуктивном возрасте и выявляющееся у 60-65% женщин. 20-30% из них требуется стационарное лечение. За последнее десятилетие во всех странах мира увеличилось число случаев острых воспалительных заболеваний органов малого таза.*

Ключевые слова: *воспалительные заболевания, придатки матки, малоинвазивные методы.*

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IMPROVEMENT OF MINIMALLY INVASIVE APPROACHES TO THE THERAPY OF PURULENT-INFLAMMATORY PROCESSES OF UTERINE APPENDAGES

Abstract:*Inflammatory diseases of the internal female reproductive organs rank first in the structure of gynecological pathologies. Acute inflammation of the uterine appendages is the most common condition occurring during reproductive age, identified in 60-65% of women. Among them, 20-30% require inpatient treatment. Over the past decade, the number of cases of acute inflammatory diseases of the pelvic organs has increased worldwide.*

Keywords: *inflammatory diseases, uterine appendages, minimally invasive methods.*

В настоящее время в лечении воспалительных заболеваний придатков матки намечаются два направления – консервативное и хирургическое. Для неоперативного лечения предложен широкий арсенал медикаментозных средств, среди которых важнейшее место занимают антибактериальные препараты. Вопрос о рациональном применении антибиотиков при

осложненных формах ВЗОМТ, в последние годы приобретает всё большую значимость в связи с новыми подходами в тактике как хирургического, так и консервативного лечения.

При гнойном воспалении придатков матки выражена иммунная дисфункция. Так, наблюдается повышение уровней фактора некроза опухоли и интерлейкина 2, 6 в сыворотке крови и в удаленных органах в десятки раз и сохраняется длительное время после операции. У 82% больных с ГВЗПМ наблюдается снижение продукции эмбриотропных антител в послеоперационном периоде.

В результате гнойной интоксикации у трети пациенток изменяются показатели липидного профиля: повышаются концентрация общего холестерина, уровни липопротеидов низкой плотности, коэффициент атерогенности, возникает гипоэстрогения, что усложняет реабилитацию. В ряде случаев морфологические изменения в тканях яичника настолько выражены, что не удается дифференцировать орган, при этом концентрация рецепторов эстрадиола и прогестерона в яичнике приближается к нулевой отметке.

Цель исследования: оптимизация тактики ведения больных с гнойно-воспалительными заболеваниями придатков матки.

Задачи:Изучить характер изменений NO-эргической системы лейкоцитов крови среди женщин с ГВЗПМ. Выявить зависимость изменений от клинической формы (глубины и распространенности) заболевания. Оптимизировать алгоритм ведения больных с ГВЗПМ в зависимости от клинико-биохимического статуса.

Материал и методы исследования. Были исследованы 50 женщин которых разделили на две группы.В контрольную группу вошли 30 здоровых женщин.Были использованы инструментальные, лабораторные методы исследования.

Результаты. Установлены критерии, позволяющие на ранних стадиях уточнить глубину и распространенность гнойно-воспалительной деструкции в области придатков матки, а также контролировать эффективность проводимой терапии.

Проведенные исследования позволяют оптимизировать общепринятые алгоритмы ведения больных с ГВЗПМ. Внедрение в практику акушеров-гинекологов определения уровня NO в крови дает возможность на ранних стадиях процесса уточнить клиническую форму заболевания, контролировать эффективность проводимого лечения, выявлять назревающие дополнительные осложнения, изменить тактику проводимого лечения.

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ИЗМЕНЕНИЯ ЗАНЯТОСТИ В АВТОМОБИЛЬНОЙ ПРОМЫШЛЕННОСТИ АВСТРАЛИИ

Аннотация*: в этой статье рассматривается Австралия как одно из государств производителей транспортных средств, и освещается несколько ключевых тем, которые помогут понять происходящие изменения в занятости автомобильной промышленности Австралии.*

Ключевые слова: *Регион, занятость, автомобиль, завод, ресурс, отрасль, рынок, промышленность, предприятие.*

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CHANGES IN EMPLOYMENT IN THE AUSTRALIAN AUTOMOTIVE INDUSTRY

Annotation: *This article examines Australia as one of the vehicle manufacturing states, and highlights several key topics that will help to understand the ongoing changes in the employment of the Australian automotive industry.*

Keywords: *Region, employment, car, plant, resource, branch, market, industry, enterprise.*

Автомобилестроительная промышленность сыграла важную роль в развитии экономики Австралии. На ее долю приходится почти шесть процентов общей добавленной стоимости в обрабатывающей промышленности, что делает ее одним из крупнейших секторов обрабатывающей промышленности и одной из наиболее значимых отраслей экспорта Австралии (DITR, 2005) [4]. С момента своего зарождения в начале XX века, эта отрасль прошла через множество этапов развития, включая периоды бурного роста, кризисов и трансформаций, особенно после глобального экономического кризиса 2008 года. Автомобильная промышленность Австралии столкнулась с новыми вызовами, связанными с

изменениями в производственных процессах, внедрением новых технологий и изменением потребительских предпочтений. Актуальность данной работы обусловлена важностью понимания сокращения автопроизводителей, которые оказали значительное влияние на занятость населения страны.

В 2015 году в автомобильной промышленности Австралии было занято 66 400 человек [2]. Но в Австралии прекратили свои существования основные промышленные гиганты автопрома: Ford Australia, General Motors Holden и Toyota Australia. Закрытие завода по сборке автомобилей GM Holden в Аделаиде, что произошло осенью 2017 года, стало окончательным аккордом для почти семидесятилетней эпопеи автомобилестроении. Это привело к массовым увольнениям среди производителей транспортных средств и более серьёзным, но менее заметным потерям рабочих мест в цепочке поставок. Например, компания GM Holden, обеспечивала работой 50 000 человек и более 120 поставщиков запчастей по всей Австралии. Австралийское государство стало первопроходцем среди стран с сильной экономикой, прекратившим деятельность по производству легковых автомобилей на своей территории.

График производства автомобилей в Австралии с 2014 по 2023 год:

Источник: [2].

Закрытие автозаводов спровоцирует комплексную кризисную ситуацию для населения с проблемными последствиями. После закрытия автозаводов на рынке труда наблюдалась безработица, проявление нестабильности среди сокращенных работников автомобильной промышленности можно была видеть через год после закрытия предприятий. После увольнение рабочих, что 44% из них имели оплачиваемую работу и более четверти 26% были безработными, ищущими работу. Однако остальные, ушли «учится вместо того, чтобы выполнять оплачиваемую работу» или заниматься «другой» неоплачиваемой деятельностью, такой как волонтерская работа или уход за престарелыми родителями.

По состоянию на май 2019 года закрылось менее четверти компаний цепочки поставок [6]. Многие из оставшихся фирм диверсифицировали свою деятельность, а ряд фирм сократили свою рабочую силу. Это в значительной степени объясняется длительным временем выполнения, позволяющим диверсифицировать цепочку поставок. Хотя количество прямых рабочих мест в автопроме снизилось, компаниям, занимающимся производством запчастей, продажами и обслуживанием, удалось сохранить значительное число занятых. Такой подход к диверсификации помогает минимизировать последствия закрытия крупных заводов для местного населения.

По целому ряду факторов Австралия потеряла автозаводов. Вот некоторые, но далеко не все причины, которые, повлияли на прекращение производства автомобилей.

Во-первых, ситуация на внутреннем рынке стала невыносимой из-за отмена протекционистской политики, прекращения государственной поддержки автопроизводителей и снижения пошлины на импорт иностранные автомобили.

Во-вторых, повышения заработной платы и улучшения условий труда, которых требовали профсоюзы; и повышения курса австралийского доллара [5].

В-третьих, Австралии является частью глобальной реструктуризации транснациональных автомобильных компаний, направленной на сокращение производственных затрат за счёт переноса производства в страны с низкой заработной платой [3].

В-четвертых, Австралийские заводы значительно менее автоматизированы, чем все остальные, и значительно отстают от японских, североамериканских и европейских производителей по уровню автоматизации производственных этапов и показателю роботизации (количеству роботов, используемых на одно транспортное средство в час) [4].

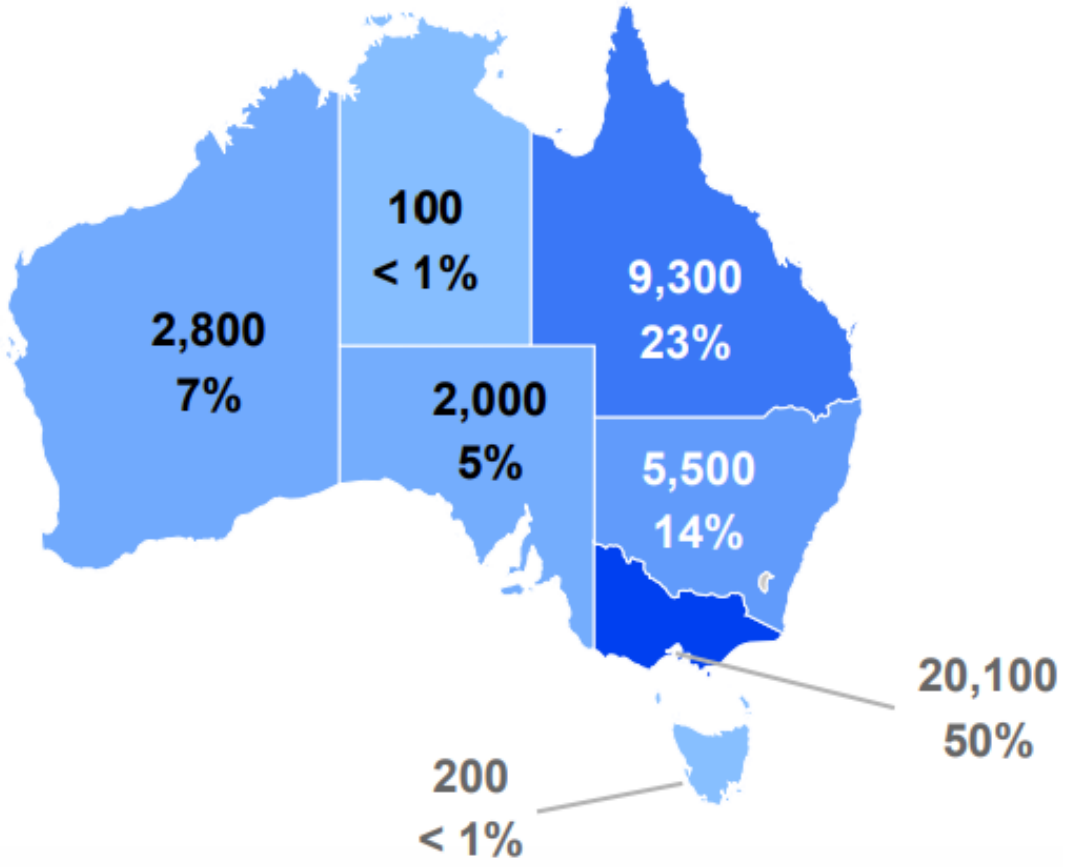
Из-за сочетания этих факторов крупные производители автомобилей не смогли конкурировать и выгодно экспортировать автомобили, особенно когда удельные затраты на рабочую силу в некоторых азиатских странах составляют лишь одну четвертую часть от общего объема производства.

По исследовании Верити и Джолли влияние сокращений в Mitsubishi на общество в целом. Они изучали один из аспектов этого влияния, а именно то, что происходит с сообществом, основанным на трудовой деятельности, когда капиталистические производственные решения приводят к увольнениям на производственном предприятии в Южной Австралии. В этой работе используются лонгитюдные данные и концепция Тонниса о типах социальных отношений в качестве отправной точки. Рассказы уволенных работников свидетельствуют о том, что на рабочем месте развивались и углублялись отношения Gemeinschaft (сообщества). В связи с сокращением штата многие респонденты отметили разрыв этих ценных социальных связей, которые у некоторых из них не восстановились после увольнения. Эти социальные изменения были связаны с утратой и горем. Авторы приходят к выводу, что

необходимо уделять внимание последствиям сокращения штата для общества, учитывая факторы, укрепляющие здоровье, связанные с социальными связями, и доказательства того, что горе из-за потери прав связано с проблемами психосоциального здоровья [8].

Автомобильная индустрия Австралии, в которой занято более 320 000 человек, продолжает меняться и адаптироваться к постоянно меняющимся условиям эксплуатации. По мере того как масштабное Автомобильная промышленность приходила в упадок, акцент сместился на специализированное производство, высокотехнологичную инженерию, дизайн и компоненты, что сохранило Австралию на карте как страна автомобилестроения. В настоящее время отрасль адаптируется к новой волне технологий, от электромобилей до систем автономного вождения, что отражает способность и потребность отрасли в адаптации и инновациях. Автомобильная индустрия Австралии включает в себя продажу, сервисное обслуживание и ремонт транспортных средств, включая мотоциклы, велосипеды и вездеходы, производство специализированных большегрузных автомобилей и автобусов, изготовление кузовов и прицепов по индивидуальному заказу, судовые механические услуги, а также производство и продажу запчастей и аксессуаров [1]. На рисунке 2 можно видеть, занятость в автомобильной промышленности и удельный вес рабочих мест каждого штата страны в 2023г.

Рис. 2. Общая занятость в автомобильной промышленности в разбивке по штатам/территориям.



Источник: [1].

Заключение: Подводя итог всему вышесказанному, автомобильная промышленность Австралии, как показано в данной работе, представляет собой сложный и многогранный сектор, который прошел через множество этапов развития, адаптируясь к меняющимся условиям как на внутреннем, так и на международном рынках. Исторические корни этой отрасли уходят в начало XX века, когда на австралийском континенте начали свою деятельность иностранные производители, такие как Ford, что стало основой для формирования местной автомобильной культуры и промышленности. Важным этапом в развитии австралийского автопрома стало создание компании Australian Motor Industries (AMI), которая с 1958 по 1964 год произвела ряд моделей, ставших знаковыми для страны, таких как Standard Vanguard и Country Buggy. Эти автомобили не только удовлетворяли потребности местного рынка, но и способствовали формированию национальной идентичности в контексте автомобильного транспорта.

Таким образом, с течением времени австралийская автомобильная промышленность претерпела значительные изменения, что было вызвано как внутренними, так и внешними факторами. Влияние таких факторов, как экономические кризисы, изменения в законодательстве и глобализация, оказали значительное воздействие на структуру и динамику отрасли. В частности, закрытие крупных заводов и уход некоторых международных производителей с австралийского рынка стали знаковыми событиями, которые подчеркивают уязвимость местной промышленности перед лицом глобальных вызовов. По мимо того, беспошлинная торговля и глобальная конкуренция позволила импортировать автомобили по более низким ценам, чем могут произвести местные заводы. Это создало давление на производственные мощности и рабочие места.

В заключение данной работы можно подвести итоги и выделить ключевые аспекты, касающиеся занятости в автомобильной промышленности Австралии, а также рассмотреть их влияние на экономику страны в ближайшие годы. Кроме того, после прекращения свое существование крупных австралийских автозаводов. Многие работники покинувшие автомобильную промышленность, сталкивались с неблагоприятными условиями на рынке труда и в сфере занятости, снижением удовлетворённости работой, в том числе с сокращением доходов, уменьшением гарантий занятости, постоянным давлением на бюджеты домохозяйств и досрочным выходом на пенсию. Среди недостатков упадка отрасли стоит отметить ухудшение состояния навыков и сокращение квалифицированной рабочей силы, что может отразиться на будущих возможностях для восстановления сектора.

Социальные аспекты занятости также играют важную роль в формировании устойчивой экономики. Увеличение занятости в автомобильной промышленности может способствовать улучшению социальной ситуации в регионах, где расположены производственные

предприятия. Создание новых рабочих мест, повышение уровня доходов и улучшение условий труда будут способствовать социальной стабильности и снижению уровня безработицы. Важно, чтобы государственные программы поддержки занятости были направлены на решение социальных проблем и улучшение качества жизни населения.

Будущее автомобильной промышленности Австралии, несмотря на существующие вызовы, выглядит многообещающим. С учетом глобальных трендов и растущего интереса к устойчивым технологиям, Австралия имеет возможность воспроизводить производство легковых автомобилей и занять свою нишу на международной арене. Важно, чтобы правительство и бизнес-сообщество продолжали поддерживать инновации и инвестировали в исследования и разработки, что позволит не только сохранить существующие рабочие места, но и создать новые.

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АНАЛИЗ СОЦИАЛЬНЫХ СЕТЕЙ КАК ИНСТРУМЕНТА ДЛЯ ИССЛЕДОВАНИЯ ПОТРЕБИТЕЛЬСКОГО ПОВЕДЕНИЯ

Аннотация: *В статье рассматривается растущее влияние социальных сетей на покупательское поведение, исследуется, как эти платформы формируют осведомленность о продуктах, влияют на принятие решений и стимулируют продажи. Цель статьи заключается в выявлении ключевых факторов, определяющих эффективность использования социальных сетей в маркетинговых стратегиях, а также в анализе изменений в потребительском поведении под воздействием этих платформ. Исследование подтверждает, что социальные сети не только информируют потребителей о товарах, но и активно формируют их предпочтения и поведение, открывая новые горизонты для маркетинга и продаж.*

Ключевые слова: *социальные сети, покупательское поведение, осведомленность о продукте, рекламные возможности, таргетированная реклама, узнаваемость бренда, визуальный контент, обратная связь, пользовательский контент, анализ данных.*

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THE ANALYSIS OF SOCIAL NETWORKS AS A TOOL FOR THE STUDY OF CONSUMER BEHAVIOR

Abstract: *The article examines the growing influence of social networks on consumer behavior, explores how these platforms form product awareness, influence decision-making and stimulate sales. The purpose of the article is to identify the key factors determining the effectiveness of the use of social networks in marketing strategies, as well as to analyze changes in consumer behavior under the influence of these platforms. The study confirms that social networks not only inform consumers about products, but also actively shape their preferences and behavior, opening up new horizons for marketing and sales.*

Keywords: *social networks, consumer behavior, product awareness, advertising in targeted advertising, brand awareness, visual content, feedback, user content, data analysis.*

Введение.

Социальные сети играют все более значимую роль в повседневной жизни людей, и их влияние на покупательское поведение становится заметным как для потребителей, так и для бизнеса. Множество исследований подтверждают, что социальные платформы не только информируют пользователей о товарах и услугах, но и активно формируют их предпочтения и решения о покупке. В этой статье мы рассмотрим основные аспекты влияния социальных сетей на поведение покупателя.

1. Формирование осведомленности о продукте

Рекламные возможности Социальные сети предоставляют бизнесам уникальные возможности для продвижения товаров и услуг через таргетированную рекламу. Благодаря алгоритмам, учитывающим интересы пользователей, компании могут эффективно достигать своей целевой аудитории.

Повышение узнаваемости бренда Постоянное присутствие бренда в новостных лентах пользователей помогает формировать его имидж и повышает его узнаваемость. Чем больше людей видит бренд, тем выше вероятность, что они обратят на него внимание при принятии решений о покупке.

2. Влияние контента на принятие решения

Визуальный контент и эстетика Содержательное представление продукта — изображения и видеоролики — играет ключевую роль в восприятии товара. Визуально привлекательный контент может вызвать интерес и желание приобрести продукт.

Упаковка и описание Ранее пользователи искали информацию о товарах, опираясь на отзывы и рекомендации. Теперь же они могут наткнуться на успешный контент прямо в своих лентах. Описание и общение с аудиторией через социальные сети позволяют компаниям создать нужный имидж и представить продукт так, как они этого хотят.

3. Обратная связь и отзывы

Потребительская оценка Социальные сети служат платформами для обмена мнениями и рекомендациями. Потребители могут видеть, что другие думают о продукте, проверить отзывы и комментарии, что особенно важно в процессе принятия решения о покупке.

User-Generated Content (UGC) Пользовательский контент, такой как фотографии, видео и отзывы, о продукте создаёт доверие и аутентичность. Когда потенциальные покупатели видят, что настоящие пользователи довольны продуктом, это способствует увеличению вероятности покупки.

4. Социальное влияние и тренды

Лидеры мнений и блогеры Инфлюенсеры и блогеры становятся важными игроками в мире маркетинга. Многие пользователи принимают решения о покупке на основе рекомендаций популярных личностей в социальных сетях. Сотрудничество с известными личностями может значительно повысить интерес к продукту.

Вирусный маркетинг Социальные сети способствуют быстрому распространению информации, позволяя контенту становиться "вирусным". Вирусные кампании могут значительно увеличить охват и привести к резкому росту продаж за короткий период.

5. Прямые покупки через социальные сети

Социальная коммерция Современные социальные платформы, такие как Instagram и Facebook, внедряют функции прямых покупок, позволяя пользователям легко переходить от просмотра контента к покупке товара. Это значительно упрощает процесс и сокращает время на принятие решения.

Интеграция с интернет-магазинами Связь между социальными сетями и интернет-магазинами предоставляет пользователю возможность совершать покупки, не покидая платформу. Такой подход превращает социальные сети в мощный инструмент для стимулирования продаж.

6. Персонализация и таргетинг

Персонализированный контент Алгоритмы социальных сетей помогают формировать персонализированный контент на основе предпочтений пользователей. Чем больше фокусируется реклама на потребительских интересах, тем больше вероятность, что она вызовет отклик и превратится в покупку.

Анализ данных Бренды могут использовать анализ данных для понимания поведения своих клиентов, что позволяет улучшить предложения и повысить лояльность к продукту. Успешные компании используют эти данные для создания индивидуальных маркетинговых стратегий.

Заключение:

Социальные сети оказывают значительное влияние на покупательское поведение, меняя способ, которым потребители ищут информацию, принимают решения и взаимодействуют с брендами. Понимание этих изменений и адаптация к ним являются ключевыми для успеха современных компаний. Бренды, которые эффективно используют возможности социальных сетей, могут значительно повысить свою популярность, увеличить лояльность клиентов и, в конечном итоге, увеличить свои продажи. В условиях стремительно изменяющегося мира важно следить за тенденциями и адаптироваться к новым потребностям потребителей, чтобы оставаться конкурентоспособными на рынке.

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МОРФОЛОГИЧЕСКИЕ ИЗМЕНЕНИЯ ПРИ ПОСТТРАВМАТИЧЕСКОЙ РЕГЕНЕРАЦИИ СКЕЛЕТНОЙ ТКАНИ У БЕЛЫХ КРЫС

Аннотация: Цель исследования: *Изучить особенности репаративной регенерации скелетных мышц у крыс в условиях высокогорья (перевал Камчик) по сравнению с контрольной группой животных, содержащихся в стандартных условиях вивария.*

Методы: *Эксперимент проводился на двух группах крыс: контрольной (виварий) и экспериментальной (высокогорье). Животным наносили стандартное мышечное повреждение и в последующие сроки (1, 3, 7, 10-14, 21 и 30 суток) проводили гистологическое исследование образцов мышц.*

Результаты: *У животных экспериментальной группы процесс регенерации скелетных мышц протекал с некоторыми особенностями по сравнению с контрольной группой. Отмечалось более выраженное воспалительное ответное реакция, более длительное сохранение продуктов распада мышечных волокон и более медленная дифференцировка молодых мышечных волокон.*

Заключение: *Условия высокогорья оказывают негативное влияние на процесс регенерации скелетных мышц, что проявляется в замедлении различных этапов репаративного процесса. Полученные данные могут быть использованы для разработки новых методов ускорения регенерации мышц в экстремальных условиях.*

Ключевые слова: *регенерация мышц, высокогорье, мышечная ткань, гистология, крысы*

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MORPHOLOGICAL CHANGES DURING POST-TRAUMATIC REGENERATION OF SKELETAL TISSUE IN WHITE RATS

Abstract:Objective: *To study the peculiarities of reparative regeneration of skeletal muscles in rats under high-altitude conditions (Kamchik Pass) compared to a control group of animals kept in standard vivarium conditions.*

Methods: *The experiment was conducted on two groups of rats: control (vivarium) and experimental (high-altitude). Animals were inflicted with a standard muscle injury, and subsequent histological examination of muscle samples was performed at various time points (1, 3, 7, 10-14, 21, and 30 days).*

Results: *In animals of the experimental group, the process of skeletal muscle regeneration proceeded with some peculiarities compared to the control group. A more pronounced inflammatory response, a longer persistence of muscle fiber breakdown products, and slower differentiation of young muscle fibers were observed.*

Conclusion: *High-altitude conditions have a negative impact on the process of skeletal muscle regeneration, manifested in a slowdown of various stages of the reparative process. The obtained data can be used to develop new methods for accelerating muscle regeneration in extreme conditions.*

Keywords: *muscle regeneration, high altitude, muscle tissue, histology, rats*

Введение. Исследованиями ряда авторов показано замедляющее воздействие факторов высокогорья на регенераторные процессы различных органов и тканей (Ю. И. Датхаев, 2013; Л. Г. Гранов, 1953; Т. Г. Чернова, 2014; И. Я. Каменецкий, 2015; В. Н. Лобанова, 2018; А. А. Умаралиева, 2019 и др.).

Сравнительный анализ восстановительных процессов в мышечной ткани млекопитающих, проведенный в лаборатории А. Н. Студитского, показал, что имеется полное совпадение интенсивности регенерации мышечной ткани с уровнем основного обмена у различных видов животных. Наиболее интенсивная восстановительная реакция на повреждение мышц была обнаружена у крыс, которые по данным А. Д. Слонима (2014) отличаются чрезвычайно высоким уровнем обмена. Известно, что в условиях высокогорья наблюдается пониженный основной обмен у животных. В связи с этим представляет интерес изучение регенерационной способности скелетной мышечной ткани в условиях высокогорья у белых крыс.

Цель работы: С этой целью нами было поставлено 2 серии опытов.

Первая серия была проведена с целью изучения репаративной регенерации скелетных мышц у животных, находившихся в виварии (контрольная группа).

Вторая серия была поставлена с целью изучения тех же процессов мышечной ткани у крыс после месячного пребывания их на перевале «Камчик» (неадаптированные животные).

Материалы и методы: Крысы использовались без учета полового фактора, весом 120—140 граммов. Всем животным наносили прямолинейный разрез икроножной мышцы обеих задних конечностей до половины ее толщины. Гистологический изучали материал через 1, 3, 7, 10, 14, 21, 30 суток после операции.

У контрольных крыс через 1 сутки после нанесения травмы в области раны края травмированной мышцы находятся на значительном расстоянии друг от друга.

Полученные результаты: В полости дефекта обнаруживается большое количество раневого экссудата, содержащего фибрин, излившуюся кровь и многочисленные клеточные элементы тканевого и вазогенного происхождения. В поврежденных мышечных волокнах наблюдаются деструктивные изменения. В них видны различные виды распада: гомогенно-глыбчатый, мелковакуолярный, мелкозернистый. На этой стадии превалирует мелкоглыбчатый распад (рис. 1).

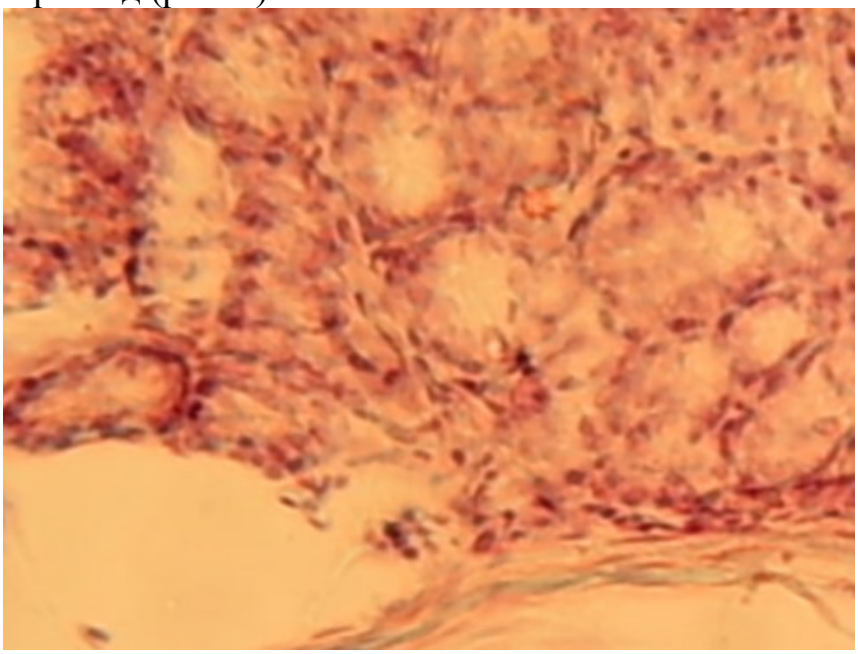

Рис. 1 (микрофото). Увеличение: об. 10х, ок. 15х. Контроль. Срез в области раны через 1 сутки после операции. В поврежденных мышечных волокнах доминируют участки с мелкоглыбчатым распадом (формалин, гематоксилин-эозин).

На дистальном конце раны поврежденные мышечные волокна находятся в состоянии гомогенно-глыбчатого распада. В распадающихся мышечных волокнах, расположенных дистально от места раны, мало фагоцитарных элементов, аутолиз выражен слабо. На данной стадии наблюдаются и пролиферативные явления в соединительной ткани - обнаруживаются молодые фибробласты с базофильной протоплазмой, светлым ядром и интенсивно окрашивающимися ядрышками.

На 3-й сутки после операции продукты распада поврежденных мышечных волокон еще полностью не резорбированы. В дефекте мышцы видны остатки раневого экссудата и, кроме зернистых лейкоцитов, обнаруживается большое количество незернистых, особенно в центре раны. По периферии раны развивается грануляционная ткань. На этой стадии уже хорошо выражены регенераторные явления со стороны мышечной ткани. В проксимальном отделе раны от жизнеспособных концов мышечных волокон

'отрастают многочисленные мышечные почки, большая часть из них вытянута в миосимпласты. В таких мышечных волокнах ядра в отдалении от раны переходят частично в центральное положение. На этой же стадии в ряде саркодеммных трубочек можно видеть среди распадающейся саркоплазмы как обособление клеток с базофильной протоплазмой и светлым ядром миобласты. Параллельно с деструктивными регенераторными явлениями мышечной ткани продолжается активная репаративная регенерация со стороны соединительной ткани. В области дефекта отчетливо видны гистиоциты и крупные фибробласты, делящиеся митотически н амитотически. В участок повреждения прорастает значительное количество расширенных капилляров, которые способствуют развитию грануляционной ткани.

Через 7 дней после травмы растущие миосимпласты сильно удлинены и утолщены. На этой стадии продолжается развитие миосимпластов в мышечные трубочки. Поскольку процесс регенерации мышечных волокон раньше начался у проксимального края раны, образовавшиеся здесь и растущие к центру дефекта миосимпласты оказываются более дифференцированными, чем сформировавшиеся в дистальной части. Гораздо большее развитие соединительной ткани наблюдается также в дистальном отделе раны. Некротические массы, образующиеся вследствие распада мышечной ткани, полностью резорбированы.

Через 10—14 суток в области повреждения происходит дальнейшая дифференцировка молодых мышечных волокон и элементов соединительной ткани. Копны растущих навстречу друг другу молодых мышечных волокон сближены, но еще плотного соприкосновения между ними па этой стадии не обнаруживается (рис. 2). Соединительная ткань по сравнению с предыдущей стадией несколько уплотняется, а количество клеточных элементов и кровеносных сосудов в ней уменьшается.

На 21 сутки после операции регенерировавшая мышечная ткань представлена в основном дифференцированными мышечными волокнами с незначительными прослойками соединительной ткани.

Спустя 30 суток после нанесения раны, процесс регенерации мышечной ткани в основном окончен. Молодые мышечные волокна рубца полностью дифференцированы и отличаются они несколько большим количеством ядер, меньшим количеством саркоплазмы, меньшим диаметром и некоторой дезориентированностью расположения в рубце. Прослойки элементов соединительной ткани в рубце незначительны и более уплотнены, чем на предыдущих стадиях.

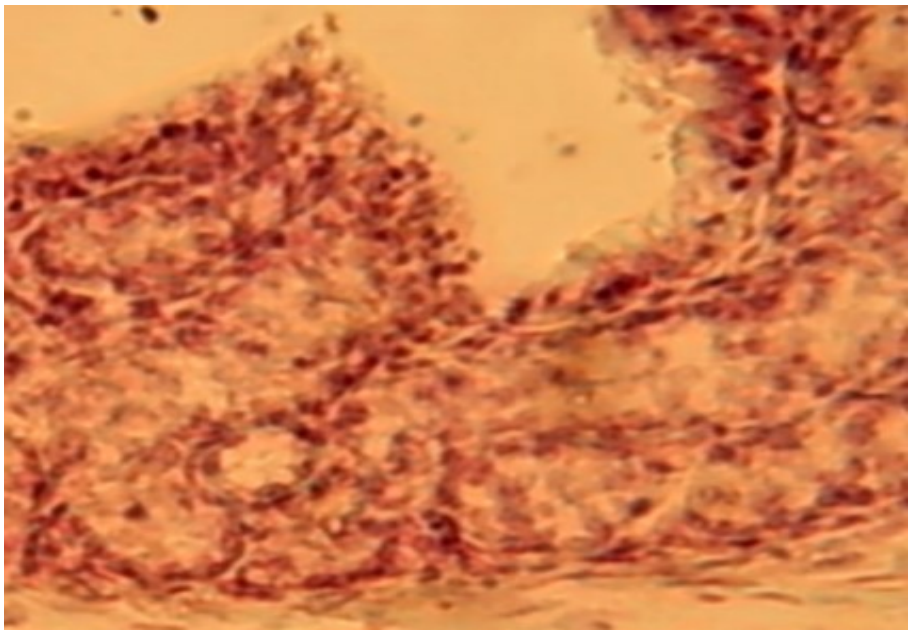

Рис. 2 (микрофото). Увеличение: об. 40х, ок. 7х. Контроль. Дефект в мышце через 10 суток после операции. В формирующемся рубце номинируют мышечные элементы (формалин, гематоксилин-эозин).

У неадаптированных крыс через 1 сутки после операции в области раны процессы распада в поврежденной мышечной ткани занимают ту же протяженность, что и у контрольных животных, но наблюдаются различия в характере деструктивных процессов. Дегенерирующие участки мышечного волокна отчетливо разделены на крупные глыбки. Обнаруживается лишь незначительное количество участков с мелко-глыбчатым распадом.

Через 3 суток после нанесения травмы у неадаптированных крыс продолжаются деструктивные процессы в разрушающихся мышечных волокнах.

На данной стадии в полости дефекта имеется еще значительное количество некротических масс и раневого энеудата, а также зернистых и незернистых лейкоцитов. Немногочисленные мышечные почки, отрастающие от концов травмированных мышечных волокон, резко базофильны и некоторые из них начинают вытягиваться. Здесь встречается значительное количество фибробластов, по они еще не анастомозируют между собой.

На стадии 7 суток после ранения, в полости рапы еще много эксудата, содержащего фибрин и клеточные элементы крови. Центр дефекта заполнен молодой соединительной тканью, в которую с обоих концов перерезанных волокон врастают миосймпласты и мышечные трубочки. Они тонкие и менее оксифильны, чем близлежащие неповрежденные мышечные волокна. Коллагеновые волокна соединительной ткани утолщены, уплотнены и собраны в пучки. Некротические массы в дистальной части раны резорбированы еще не полностью.

Через 10—14 суток после нанесения травмы формируется рубец с небольшим количеством молодых мышечных волокон. Последние располагаются в основном в проксимальной части раны и без особого порядка.

Через 21 день после нанесения раны в области дефекта продолжает развиваться узкий соединительнотканный рубец с небольшим количеством мышечного волокна.

На 30 сутки после травмы происходит дифференцировка как соединительнотканных, так и малочисленных мышечных элементов.

Выводы. Таким образом, результаты наших исследований показали, что закономерность, обнаруженная другими исследователями в отношении эпителия кожного типа, соединительной ткани и кости — замедление процесса их регенерации в условиях высокогорья — может быть распространена и на скелетную мышечную ткань не только мышей, но и белых крыс.

Использованные источники:

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ОКИСЛИТЕЛЬНО – ВОССТАНОВИТЕЛЬНОГО ПОТЕНЦИЛА И КРОВОТОКА В МИОКАРДЕ БЕЛЫХ КРЫС

Аннотация: *В работе представлен комплексный анализ изменений миокарда крыс, адаптирующихся к гипоксии высокогорья. Методами морфологии, биофизики и биохимии изучены окислительно-восстановительные процессы, гемодинамика и ультраструктура миокарда. Полученные данные позволяют детально описать динамику адаптационных процессов и выявить ключевые механизмы повреждения и восстановления сердечной мышцы в условиях гипоксии.*

Ключевые слова: *адаптация к высокогорью, гипоксия, окислительно-восстановительные процессы, кровоток, миокард, морфологические изменения, крысы*

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OXIDATIVE-REDUCTION POTENTIAL AND BLOOD FLOW IN THE MYOCARDIUM OF WHITE RATS

Abstract: *This study presents a comprehensive analysis of changes in the myocardium of rats adapting to high-altitude hypoxia. Using methods of morphology, biophysics, and biochemistry, we studied oxidative-reductive processes, hemodynamics, and the ultrastructure of the myocardium. The obtained data allow us to describe in detail the dynamics of adaptive processes and to identify the key mechanisms of damage and restoration of the heart muscle under hypoxic conditions.*

Keywords: *high-altitude adaptation, hypoxia, oxidative-reduction processes, blood flow, myocardium, morphological changes, rats*

Введение. Адаптационные механизмы осуществляются различными функциональными сдвигами, в первую очередь, в сердечнососудистой системе, компенсаторные возможности которой широки и недостаточно изучены в условиях высокогорья.

Гипертрофию миокарда в конечном итоге в условиях высокогорья можно считать одним из проявлений адаптации к недостатку кислорода (М. П. Редлих, 2021, L. Hill, 2014 и др.). Однако, деструктивные изменения в миокарде, наступающие в начальные периоды (пребывания животных в горах (К. М. Акылбековым др., 2019; Я. А. Рахимов и др., 2018) недостаточно изучены биохимическими, морфологическими и биофизическими методами. Результаты биофизического исследования состояния миокарда по мере постепенной адаптации к высокогорной гипоксия впервые излагаются в настоящей статье.

Имеется небольшое количество работ по изучению окислительно-восстановительного потенциала в сердечной мышце (М Г. Райскина, Б. М. Шаргородский, 2018; Б. П. Расторгует., А, М. Шаргородский, 2015; М. Е. Райскина, А, М. Шаргородский, А. С. Фохт, 2016). Биофизические методы (изучение ОВП и измерение кровотока) позволяют наиболее полно выявит лабильность регионарных сосудистых реакций и установить особенности приспособительных механизмов на уровне окислительно-восстановительных ферментативных процессов в миокарде.

Целью настоящего исследования явилось изучение окислительно-восстановительных процессов (ОВП) и изменения кровотока в миокарде биофизическими методами при одновременном морфологическом описании его у белых крыс в периоды щи ленной адаптации к условиям высокогорья,

Материалы и методы. Опыты проведены на 120 белых крысах, весом 160 - 180 г, в летний период (июнь - август) в 1, 3, 7, 15, 30, 45 и 60 дни пребывания животных на высоте 3200 м над уровнем моря (перевале «Камчик»), контрольная серия оставалась 771 м над уровнем моря. Опыты проводились под уретановым наркозом (1% р-р уретана вводился в дозе 0,1 мл на кг веса).

Изучение ОВП осуществлялось потенциометрическим методом (М. Е. Райскина, Б. М. Шаргородский, 2018). В качестве электродной пары использовался платиновый и вспомогательный хлорсеребряный электроды. Измерительным прибором при регистрации ОВП служил рН-метр-милливольт-метр ППМ-ОЗМ1 с высоким входным сопротивлением. Регистрация ОВП производилась в милливольтах. Регистрация кровотока проводилась количественно термоэлектрическим методом, градуированными термозондами (А. И. Вышатина, 2018). Результаты выражались в мл/мин/грамм ткани.

Для гистологических исследований сердечная мышца фиксировалась в 10% нейтральном формалине и жидкости Карнуа, парафиновые срезы толщиной 5-6 мк окрашивались гематоксилин-эозином и на гликоген по, Бесту. Определяла отдельно вес правого и левого желудочков сердца на торсионных весах.

Полученные результаты. По данным взвешивания сердечная мышца гипертрофируется по мере нахождения животных на высоте, что является одним из морфологических признаков адаптации. Относительное увеличение

веса правого сердца заметно уже в первые месяцы пребывания в горах. Это согласуется с результатами V. Valdivia (2018) и М. М. Миррахимова, Б. Я. Гринштейна, А. Д. Джайлобаева (2017), объясняющими гипертрофию правого сердца повышением кровяного давления в малом круге кровообращения вследствие падения напряжения кислорода из альвеолах. Вес левого сердца начинает увеличиваться постепенно и компенсаторно гипетрофируется к одному году пребывания животных в горах.

При микроскопическом изучении сердечной мышцы в первые три дня наблюдается очаговая базофилия волокон, наиболее отчетливо выраженная в субэндокардиальных участках, резкое расширение кровеносных сосудов, единичные участки мелкоточечных кровоизлияний.

При определении окислительно-восстановительного потенциала отмечается умеренное повышение ОВП до 137,0±1,1 (контроль 128,0 ± 0,02). Кровоток увеличился в первые трое суток в горах до 3,07 + 0,02 (контроль 2,56 ± 0,1).

На 7 сутки нахождения животных в горах сохраняется резкое полнокровие сосудов. Отмечается периваскулярный отек, происходящий, по-видимому, из-за повышенной проницаемости сосудистой стенки и плазморрагии. Местами имеются значительные очаги кровоизлияний. Усиливается неравномерность окрашивания волокон (базофильная дегенерация). Содержание гликогена в сердечномышечных волокнах значительно уменьшается и выявляется в виде мелких зерен. В этот же срок ОВП резко повышается и к 15-му дню адаптации достигает наивысшего значения (150±2,0 и 168±3,8 соответственно срокам, по сравнению с контролем 128±1,0). Величина кровотока также умеренно увеличивается (3,6±0,07, по сравнению с контролем 2,58 + 0,1).

На 15 день пребывания животных на высоте микроскопически наблюдается наличие обширных участков кровоизлияний. Усиливается базофильная дегенерация сердечномышечных волокон. Отдельные мышечные волокна подвергаются разволокнению. По ходу кровеносных сосудов и в межуточной ткани имеются очаги лимфоидной инфильтрации. Значительно увеличен периваскулярный отек.

К 30-му дню имеется картина обратного развития процесса, т. е. уменьшается периваскулярный отек, лимфоидная инфильтрация, но кое-где остаются очаги мелкоточечных кровоизлияний и сохраняется полнокровие сосудов. Гликоген постепенно восстанавливается в виде мелких и реже крупных зерен.

Окислительно-восстановительный потенциал уменьшается к 30-му дню (153+1,1) и к 60 дню достигает величин, ниже контрольных (81 + 1,6). Величина кровотока заметно уменьшается к 60 дню (2,42±0,08).

Динамика изменений величин ОВП и кровотока представлена в таблице.

Дни адаптации в Камчике

	Контроль	1	3	7	15	30	45	60
ОВП (мв)	128±1,0	134±1	137±1,1	150±2	168±3,8	153±1,1	120±2	6081±1,6
Кровоток (мл/мин/г)	2,56±0,1	2,7±0,02	3,07±0,02	3,4±0,03	3,6±0,07	3,1±0,06	3,1±0,1	2,42±0,08

Таким образом, острое кислородное голодание в горах г, первые декады пребывания животных в горах вызывает выраженные деструктивные процессы в сердечной мышце, идентичные наблюдающимся явлениям при острой коронарной недостаточности: набухание волокон, периваскулярный отек, очаговая базофилия. Это, по-видимому, связано с резким перенапряжением в сердечнососудистой системе с первых же дней в условиях высокогорной гипоксии. В то же время наряду со структурными изменениями в миокарде отмечается морфологический компенсаторный сдвиг в ответ на кислородное голодание в виде резкого расширения кровеносных сосудов и венозного полнокровия, что соответствует умеренному увеличению кровотока в сердечной мышце в первую декаду нахождения животных в горах. Деструктивные изменения в миокарде в первые недели пребывания животных в горах трудно оценивать в качестве микроскопического критерия анатомической компенсации организма в борьбе за кислород. Выраженная вазомоторная реакция в сердечной мышце является показателем функциональных сдвигов, направленных на обеспечение адекватного кровоснабжения сердца и самих сосудистых стенок, в условиях высокогорной гипоксии. Здесь, по мнению 3. И. Барбашовой (1960), идет «борьба за кислород». Вследствие этого в миокарде повышены ферментативные процессы, что подтверждается увеличением показателей окислительно-восстановительного потенциала в первые 7-15 дней пребывания в горах.

Увеличение ОВП и кровотока в сердечной мышце во все дни нахождения животных в горах является как бы функциональным компенсаторным индикатором постепенного восстановления измененных волокон и, в конечном итоге, прогрессирующей гипертрофии миокарда.

Выводы. Таким образом, результаты полученные данные подтверждают результаты М. М. Миррахимова (2014) о фазности процесса адаптации к высокогорным факторам. Начальная или «аварийная» фаза длится до 15 дня пребывания в горах, а «переходная» - захватывает с 15 по 60 день, затем, по-видимому, наступает фаза «стабильной» адаптации.

Изучение морфофункциональных особенностей сердечнососудистой системы в фазе «стабильной» адаптации явится предметом дальнейших исследований.

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ПРИМЕНЕНИЕ КРУГОВОЙ ТРЕНИРОВКИ ДЛЯ РАЗВИТИЯ ВЫНОСЛИВОСТИ ХОККЕИСТОВ 16-18 ЛЕТ

Аннотация. *В статье рассматривается эффективность использования круговой тренировки в учебно-тренировочном процессе хоккеистов 16-18 лет для развития выносливости. В исследовании приняли участие 30 юношей, разделённых на контрольную и экспериментальную группы. Использование круговой тренировки позволило значительно улучшить показатели специальной и общей выносливости у спортсменов экспериментальной группы по сравнению с контрольной. Результаты исследования подтверждаются статистически значимыми различиями в тестах на выносливость.*

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APPLICATION OF CIRCUIT TRAINING FOR DEVELOPING ENDURANCE IN 16-18-YEAR-OLD HOCKEY PLAYERS

Abstract. *The article examines the effectiveness of using circuit training in the educational and training process of 16-18-year-old hockey players to develop endurance. The study involved 30 young athletes, divided into control and experimental groups. The use of circuit training significantly improved the indicators of both special and general endurance in the experimental group compared to the control group. The research results are supported by statistically significant differences in endurance tests.*

Выносливость является важным физическим качеством для хоккеистов, определяющим эффективность их соревновательной и тренировочной деятельности. Особенность хоккея заключается в высокой интенсивности переменных нагрузок, что требует развития как аэробных, так и анаэробных возможностей спортсменов. Актуальность исследования обусловлена необходимостью поиска эффективных методов подготовки, в частности использования круговой тренировки для юношей 16-18 лет.

Цель исследования: определить эффективность круговой тренировки в развитии выносливости хоккеистов 16-18 лет.

Задачи:

1. Изучить теоретические основы выносливости и методы её развития.
2. Провести педагогический эксперимент по внедрению круговой тренировки.
3. Оценить динамику показателей выносливости у хоккеистов экспериментальной группы.

Методы исследования:

- педагогическое наблюдение,
- педагогический эксперимент,
- тестирование,
- методы математической статистики.

Организация исследования

Эксперимент проводился в течение 6 месяцев в команде «Tashkent Select» города Ташкент. В эксперименте приняли участие 30 хоккеистов 16-18 лет, разделённых на контрольную и экспериментальную группы (по 15 человек).

Методика тренировки

Экспериментальная группа занималась по методике круговой тренировки, включающей:

- **8 станций** с упражнениями (силовые, аэробные, скоростно-силовые).
- Продолжительность работы на станции – 60 секунд, отдых – 60 секунд.
- Тренировки проводились 3 раза в неделю, продолжительность – 45 минут.

Пример упражнений:

1. Прыжки на тумбу (силовая выносливость).
2. Челночный бег (скоростная выносливость).
3. Приседания с отягощением.
4. Бег на коньках с ускорениями.

Результаты исследования

Тестирование проводилось до и после эксперимента по следующим тестам:

- Челночный бег на коньках (скоростная выносливость).

- 8-минутный бег на коньках (специальная выносливость).
- Тест Купера (общая выносливость).

Таблица 1. Результаты тестирования на выносливость

Тест	Контрольная группа	Экспериментальная группа	Разница (%)
Челночный бег (сек)	50,3 → 49,7	50,1 → 48,8	2,6
8-минутный бег (м)	2,98 → 3,03	2,98 → 3,06	2,6
Тест Купера (м)	2,25 → 2,35	2,32 → 2,79	19

Диаграмма 1. Челночный бег

Диаграмма 2. Челночный бег на коньках

Диаграмма 3. 8-ми минутный бег на коньках

Выводы

Проведённое исследование подтвердило эффективность использования круговой тренировки для развития выносливости у хоккеистов в возрасте 16-18 лет. Результаты показали, что систематическое применение специально разработанных упражнений в формате круговой тренировки способствует значительному улучшению показателей как общей, так и специальной выносливости.

Хоккеисты экспериментальной группы продемонстрировали более высокий прирост результатов в тестах на выносливость по сравнению с контрольной группой. В частности, улучшения наблюдались в тестах на **челночный бег**, **8-минутный бег на коньках** и **тест Купера**, что статистически подтверждает значимость предложенной методики.

Применение круговой тренировки позволило оптимизировать тренировочный процесс, обеспечив повышение физической работоспособности спортсменов, а также адаптацию их организма к высоким нагрузкам, характерным для игровой деятельности в хоккее. Такой подход не только улучшает физиологические показатели, но и способствует развитию волевых качеств, необходимых для преодоления утомления во время тренировок и соревнований.

Таким образом, круговая тренировка является эффективным и доступным методом повышения уровня физической подготовленности хоккеистов 16-18 лет. Внедрение данной методики в учебно-тренировочный процесс рекомендуется тренерам для использования в подготовке спортсменов данного возраста с целью улучшения их выносливости и повышения спортивных результатов.

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МОРФОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА ТУРКЕСТАНСКОГО СОМИКА (*GLYPTOSTERNON OSCHANINI*), ОБИТАЮЩЕГО В ЮЖНЫХ ВОДОЕМАХ СУРХАНДАРЬИНСКОЙ ОБЛАСТИ

Аннотация. *В статье описана морфологическая характеристика туркестанского сомика распространенной в южных водоемах Сурхандарьинской области. Предоставляется информация о пластических признаках и окраски тела .*

Ключевые слова: *морфология, пластические признаки, окраски тела .*

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MORPHOLOGICAL CHARACTERISTICS OF THE TURKESTAN SOMIK (GLYPTOSTERNON OSCHANINI) FOUND IN THE SOUTHERN WATER BODIES OF SURKHANDARYA REGION.

Abstract. *The article describes the morphological characteristics of the Turkestan catfish common in the southern reservoirs of the Surkhandarya region. Information is provided on the plastic features and color of the body.*

Key words: *morphology, plastic features, color of the body.*

Туркестанский сомик (*Glyptosternon oschanini*)-малоизученный вид, внесенный в Красную книгу Республики Узбекистан [11] как «уязвимый, сокращающийся, мозаично распространенный нагорноазиатский эндемичный вид». Ареал его распространения обхватывает водоемы бассейна верхнего течения Амударьи, Сырдарьи, Тарима и Инда [1,4,5,8,10]. В Сурхандарье обитает в ее притоках-Сангардак, Туполанг и Хужаипок, населяет горные и предгорные участки р. Шерабалдарья [1,2,5].

Целью данной работы является пополнение сведений о внешней морфологии, половой и возрастной изменчивости туркестанского сомика р. Шерабаддарьи.

Материал и методы

Материалом для настоящей работы послужили сборы рыб, проведенные в весенне-летние периоды 2008-2010, и 2014-2015 гг. на р. Шерабаддарья (кишлак Дербент). Отлов рыб проводили преимущественно сетями «Тор»,

«Камон тур» и с помощью сачка. Морфометрические измерения проведены по общепринятой методике на свежем материале [3]. При статистической обработке материала определяли средние значения и их ошибки (M±m), среднее квадратическое отклонение (σ), коэффициент вариации (*Cv%*). Достоверность различий (t_{st}) средних значений оценивалась по критерию Стьюдента для 5-процентного ($P \leq 0,05$) уровня значимости [6]. Все вычислительные работы проведены с помощью компьютерной системы анализа данных MS Excel. Всего исследовано 7 экз. рыб длиной тела 95-160 мм.

Результаты и обсуждение

Лучей в спинном плавнике у туркестанского сомика из р. Шерабаддарья I6, в анальном П-Ш 5, в грудном I 10 и в брюшном I 5. Количество жаберных тычинок на первой жаберной дуге-10, позвонков-33.

Тело сомика голое, невысокое, наибольшая высота его укладывается 6,8-7,6 раз в длине тела, наименьшая—2,7-3,3 раза в длине хвостового стебля. Антедорсальное расстояние меньше постдорсального в 1,4 раза. Грудные и брюшные плавники поставлены горизонтально. Голова плоская, ее длина 4,5-6,3 раз в длине тела. Глаза маленькие, 3,2-4,3 раза в ширине лба. Рот нижний. Длина рыла достигает 56% длины головы, на рыле 4 пары усиков.

Окраска тела от темно-коричневой до желтовато-коричневой, брюхо светлое. У большинства половозрелых рыб тело сплошь покрывается мелкопятнистой расплывчатой окраской.

Большинство пластических признаков подвержено значительной вариабельности. Наиболее изменчивыми являются следующие признаки: *H, h, 1A, hd, o/c, po/c, hc/c, io/c*. Остальные признаки изменчивы в меньшей степени.

Данных о половом диморфизме туркестанского сомика в литературе очень мало. По сведениям Г.В.Никольского, изменений пластических признаков с полом не наблюдается, самцы значительно крупней самок, и отличаются лишь некоторыми изменениями анального отверстия и величиной [8].

По данным В.А,Максунова, половой диморфизм у туркестанского сомика р. Ходжабакирган отсутствует [7].

Некоторые учённые для сомиков р. Сангардак указывают 10 признаков различия между полами из 25 исследованных [1,3].

По нашим данным, самки туркестанского сомика фактически не отличаются от одновозрастных самцов по внешнему виду. Реальные различия обнаруживаются только по результатам морфометрии. Самки от самцов отличаются по тем пластическим признакам, которые определенно связаны с более значительным объемом их половых продуктов. У самок достоверно большие значения *H, PV, VA*.

Для определения размерно-возрастной изменчивости исследуемые рыбы нами были разделены на две группы. Из данных видно, что у более крупных рыб больше антедорсальное, постдорсальное, заглазничное

расстояния и высота головы, длинней хвостовой стебель, основание спинного и анального плавников, меньше только один признак-диаметр глаза.

Заключение

Таким образом, в результате проведенных работ получены данные, характеризующие признаки внешней морфологии туркестанского сомика. Существенные различия между самцами и самками не обнаружены. Выявленные различия по результатам морфометрии скорей связаны с развитием половых продуктов. С возрастанием линейных размеров у туркестанского сомика изменяются 5 пластических признаков тела и 3 признака головы, при этом относительный уровень изменчивости большинство признаков остается без изменений.

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МОРФОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА ТУРКЕСТАНСКОГО СОМИКА (*GLYPTOSTERNON OSCHANINI)*, ОБИТАЮЩЕЙ В ВЕРХОВЬЯХ РЕКИ ШЕРАБОДДАРЬЯ

Аннотация. *В статье описывается морфология, пол и возрастная изменчивость туркестанского сомика реки Дарбанд, считающейся верховьями Шераборддарьи. Фактические различия между самками и самцами определяли путем морфометрических измерений.*

Ключевые слова: *нерест, морфология, плодовитость, река Дарбанд,, гонада.*

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MORPHOLOGICAL CHARACTERISTICS OF THE TURKESTAN SOMIK (GLYPTOSTERNON OSCHANINI) FOUND IN THE UPPER REACHES OF THE SHERABODDARYA RIVER

Abstract. *The article describes the morphology, sex and age variability of the Turkestan catfish of the Darband River, considered the upper reaches of the Sherabodarya. The actual differences between females and males were determined by morphometric measurements.*

Key words: *spawning, morphology, fertility, the Darband river, gonad.*

Туркестанский сомик *(Glyptosternon oschanini* Herzenstein, 1889) — малоизученный вид, внесенный в Красную книгу Республики Узбекистан [10] как «уязвимый, сокращающийся, мозаично распространенный нагорно-азиатский эндемичный вид». Ареал его распространения обхватывает водоемы бассейна верхнего течения Амударьи, Сырдарьи, Тарима и Инда [1,4,7]. В Сурхандарье обитает в ее притоках Сангардак и Туполанг, населяет горные и предгорные участки р. Шерабадддрья [1,2,3]. В том числе встречается в горных и предгорных реках Хужаипок [5].

Целью данной работы является пополнение сведений о внешней морфологии, половой и возрастной изменчивости туркестанского сомика реки Дарбанд.

Материал и методы

Материалом для настоящей работы послужили сборы рыб, проведенные в весенне-летние периоды 2017-2018 гг. на реке Дарбанд. Отлов рыб проводили преимущественно сетями «Тор», «Камон тур» и с помощью сач-ка. Морфометрические измерения проведены по общепринятой методике на свежем материале [9]. При статистической обработке материала определяли средние значения и их ошибки (M±m), среднее квадратическое отклонение (σ), коэффициент вариации *(CV%)*. Достоверность различий (t_{st}) средних значений оценивалась по критерию Стьюдента для 5-процентного $(P<0,05)$ уровня значимости [6]. Все вычислительные работы проведены с помощью компьютерной системы анализа данных MS Excel. Всего исследовано 4 экз. рыб длиной тела 95-160 мм.

Результаты и обсуждение

Лучей в спинном плавнике у туркестанского сомика из реки Дарбанд I 6, в анальном II-III 5, в грудном I 10 и в брюшном I 5. Количество жаберных тычинок на первой жаберной дуге-10, позвонков-33.

Тело сомика голое, невысокое, наибольшая высота его укладывается 6,7-7,6 раз в длине тела, наименьшая-2,6-3,3 раза в длине хвостового стебля. Антедорсальное расстояние меньше постдорсального в 1,5 раза. Грудные и брюшные плавники поставлены горизонтально. Голова плоская, ее длина 4,5-6,3 раз в длине тела. Глаза маленькие, 3,1-4,2 раза в ширине лба. Рот нижний. Длина рыла достигает 55% длины головы, на рыле 4 пары усиков.

Окраска тела от темно-коричневой до желтовато-коричневой, брюхо светлое. У большинства половозрелых рыб тело сплошь покрывается мелкопятнистой расплывчатой окраской.

Большинство пластических признаков подвержено значительной вариабельности. Наиболее изменчивыми являются следующие признаки: *H, h, 1A, hd, o/c, po/c, he/c, io/c*. Остальные признаки изменчивы в меньшей степени.

Данных о половом диморфизме туркестанского сомика в литературе очень мало. По сведениям Г.В.Никольского, изменений пластических признаков с полом не наблюдается, самцы значительно крупней самок, и отличаются лишь некоторыми изменениями анального отверстия и величиной [8]. По данным В.А.Максумова, половой деморфизм не наблюдается у туркестанского сомика, обитающей в р. Ходжабакирган и по Н.М.Девоновой в р. Ходжаипок [7,5]. Некоторые учёные для сомиков р. Сангардак указывают 10 признаков различия между полами из 25 исследованных [1,3].

По нашим данным, самки туркестанского сомика фактически не отличаются от одновозрастных самцов по внешнему виду. Реальные различия обнаруживаются только по результатам морфометрии. Самки от самцов отличаются по тем пластическим признакам, которые определенно связаны с более значительным объемом их половых продуктов. У самок достоверно большие значения *H, PV, VA*.

Для определения размерно-возрастной изменчивости исследуемые

рыбы нами были разделены на две группы. Более крупных рыб больше антедорсальное, постдорсальное, заглазничное расстояния и высота головы, длинней хвостовой стебель, основание спинного и анального плавников, меньше только один признак—диаметр глаза.

Заключение

Таким образом, в результате проведенных работ получены данные, характеризующие признаки внешней морфологии туркестанского сомика. Существенные различия между самцами и самками не обнаружены. Выявленные различия по результатам морфометрии скорей связаны с развитием половых продуктов. С возрастанием линейных размеров у туркестанского сомика изменяются 5 пластических признаков тела и 3 признака головы, при этом относительный уровень изменчивости большинство признаков остается без изменений.

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РАЗВИТИЕ РЕЛИГИОЗНОГО ТУРИЗМА КАК СОСТАВЛЯЮЩЕЙ ЧАСТИ ИСТОРИКО-КУЛЬТУРНОГО НАСЛЕДИЯ

Аннотация: *В данной статье анализируется значение религиозного туризма в охране природы. Религиозные объекты, священные места, сакральные ландшафты также изучались как объекты религиозного туризма.*

Ключевые слова: *природные условия, туристический потенциал, религиозный туризм, религиозное паломничество, священные ландшафты, сакральные ландшафты.*

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THE IMPORTANCE OF RELIGIOUS TOURISM IN NATURE CONSERVATION

Abstrast: *This article analyzes the importance of religious tourism in nature conservation. Religious sites, sacred places, sacral landscapes were also studied as objects of religious tourism.*

Keywords*: natural conditions, tourist potential, religious tourism, religious pilgrimage, sacred landscapes, sloping landscapes.*

Туризм является одним из наиболее быстро развивающихся секторов мировой экономики. Туризм и рекреация занимают достойное место в экономике государства наряду с сельским хозяйством, промышленностью, транспортом и другими секторами макроэкономики. В условиях мировой глобализации религиозный туризм не остается в стороне. Религиозный туризм является составной частью современной индустрии туризма. Соборы, мечети, культовые музеи и духовные центры – это туристические объекты, которые пользуются все возрастающим спросом, а значит, являются местом непосредственного взаимодействия людей разных национальностей.

Религиозный туризм представляет собой выезд человека из страны постоянного проживания на срок не более полугода в целях посещения святых мест и центров религии. С другой стороны, данное понятие можно рассматривать как деятельность, направленную на предоставление услуг туристам, путешествующим с религиозными целями. Религиозный туризм

играет большую роль не только в экономической сфере, принося доход как государству, так и местному населению посещаемых территорий.

В Республике Узбекистан широко распространены такие виды туризма, как профессиональные путешествия, оздоровительный, ознакомительный, религиозный туризм. Среди этих видов туризма в последние годы заметно развитие религиозного туризма в нашей стране. Религиозный туризм – одна из старейших отраслей туризма, представляющая собой посещение людьми святых мест, городов, кладбищ и священных мест во время религиозных праздников или с целью паломничества. В зависимости от цели религиозного туризма может быть организовано несколько видов путешествий:

- паломничество (посещение святых мест с целью молитвы);
- ознакомительные поездки (знакомство с религиозной культурой, историей религии, религиозными памятниками);
-научные поездки (туры ученых, историков, верующих, занимающихся религиозными вопросами и проблемами) и другие.

Помимо разнообразных уникальных и привлекательных природных ландшафтов и агроландшафтов, в Ферганской долине расположены религиозные, культурные и исторические центры, число посетителей этих мест увеличивается с каждым годом. Такие места известны как «святые места» или «святые ступени» в Центральной Азии, особенно в Ферганской долине. По сведениям В.П. Наливкина (1886 г.), число таких мест в Ферганской долине увеличилось с XVI в. Помимо того, что священные места служат местом паломничества, они имеют важное значение для охраны и рационального использования природы. Освятив уникальные творения природы, люди сумели по-своему сохранить экологическое равновесие.

В Средней Азии современная Фергана занимает особое положение. Ее территория (105,6 тыс. кв. км.) разделена между Кыргызстаном, Узбекистаном и Таджикистаном. Города Ферганской долины - Наманган, Андижан, Маргилан, Худжанд и Ош - были в свое время духовными центрами мусульманского мира, именно в них располагались основные центры религиозного управления. Советский режим не смог полностью разрушить в долине мечети, мазары и другие религиозные учреждения. Верующая масса населения - узбеки, киргизы и таджики - продолжала совершать основные исламские обряды (бракосочетания, поминки).

Еще более устойчивой к репрессивному воздействию властей оказалась народная (бытовая) религия, представляющая собой специфическую смесь из пережитков домусульманских культов, мусульманской агиологии и своеобразных ритуалов, выработанных на этой почве. В годы перестройки ислам получил импульс к возрождению. Ярким показателем процесса служило вначале повсеместное обновление действующих природных мест поклонения и могил святых, а затем строительство новых мечетей и открытие многочисленных медресе. Большое количество культовых объектов и высокая степень религиозности населения делает Фергану ценным объектом исследования культуры ислама (Огудин, 2003).

Жители также использовали религиозные и правовые методы для сохранения природы горных территорий. В период Сомонидов (IX-X вв.) в истоках рек Ферганской долины появились священные святыни. Р. Я. Рассудова выделяет в долине 7 мест паломничества (1985). На исследуемой территории запрещена вырубка деревьев, нанесение вреда животному миру, в некоторых местах вспашка земли. Большая часть населения жила за счет пожертвований и подношений, приносимых фермерами нижнего течения реки, и не чувствовала необходимости слишком сильно вмешиваться в природу. Видно, что в бассейнах рек вокруг долины находится более 40 «святынь».

Особое внимание уделено экологической функции горных территорий по сохранению воды и влаги и регулированию режима рек. Эти территории предназначены для природоохранных и рекреационных целей (в виде святынь, заказников). Религиозно-правовые обычаи и ритуалы широко используются в охране природы. В верхней части конусных расширений были построены водораспределительные сооружения, выделены земли для водного хозяйства, установки устройств, выполняющих задачу распределения воды по канавам (водоземельный фонд). Такое распределение земельного фонда предотвратило рост издержек производства, обеспечив полное использование природных ресурсов местности, а также обеспечило экономически эффективное использование земли.

В этих районах также решался вопрос занятости населения с учетом особенностей места. На четвертом уровне население занималось горным садоводством, скотоводством и охраной «святынь», на третьем уровне находились садоводы, мирра, а на втором и первом уровнях занималось большинство людей. в сельском хозяйстве, коконировании, ремеслах и торговле. Рынки играют особую роль и место в обеспечении занятости населения.

Хотя несельскохозяйственные деревни редки в долине, распространены типы смешанного использования. «Святыми святынями» служат села в верховьях рек, начиная с гор вокруг Ферганской долины. В топонимах этих деревень много имен святых и пророков, связанных с исламом. ко второй группе деревень, не специализирующихся на сельском хозяйстве, часто относятся слова рынок и караван. Жители таких сел больше занимаются торговлей. Если обратить внимание на территориальное расположение степей Ферганской долины, то основная их часть соответствует бассейнам рек в горных и холмистых районах долины. В таких районах вырубка лесов и загрязнение водоемов, в свою очередь, ускоряет возникновение дефицита питьевой воды, наводнений, оползней. Благодаря этноэкологической культуре коренного населения различные опасности природы удалось предотвратить путем установления на этих территориях священных святынь.

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ХЕДЖИРОВАНИЕ КАК КОМПЛЕКСНЫЙ ИНСТРУМЕНТ УПРАВЛЕНИЯ ФИНАНСОВЫМИ РИСКАМИ

Аннотация: *В статье представлен критический анализ существующих подходов к пониманию хеджирования. Исследование выявляет ключевые недостатки современных научных интерпретаций, связанные с ограниченностью операционного подхода и недостаточной интеграцией хеджирования в стратегическое управление. Предложено авторское определение хеджирования как комплексного подхода, сочетающего защиту от текущих финансовых рисков с долгосрочными стратегическими целями организации.*

Ключевые слова*: хеджирование, финансовые риски, стратегическое управление, финансовый менеджмент, риск-менеджмент.*

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HEDGING AS A COMPREHENSIVE INSTRUMENT FOR FINANCIAL RISK MANAGEMENT

Abstract*: The article presents a critical analysis of existing approaches to understanding hedging. The study reveals key shortcomings of modern scientific interpretations associated with the limitations of the operational approach and insufficient integration of hedging into strategic management. The author proposes a definition of hedging as a comprehensive approach that combines protection against current financial risks with long-term strategic goals of the organization.*

Keywords: *hedging, financial risks, strategic management, financial management, risk management.*

Хеджирование, будучи одной из основополагающих концепций в современном финансовом менеджменте, представляет собой явление многогранное и сложное. Актуальность исследования обусловлена необходимостью развития комплексного подхода к пониманию роли хеджирования в обеспечении финансовой устойчивости организаций.

Вопросы, связанные с хеджированием, активно обсуждаются в научной литературе, что обусловлено значимостью этого инструмента для управления финансовыми рисками. Тем не менее, анализ существующих подходов выявляет ряд ключевых моментов, требующих уточнения и систематизации.

Исследователи, такие как Д.В. Помелов, акцентируют внимание на технических аспектах хеджирования, включая компенсацию ценовых колебаний через противоположные позиции на рынке срочных контрактов [2]. Такой подход отражает операционную природу хеджирования, однако не учитывает его стратегического потенциала.

Схожий акцент делают А.А. Сантикова и Р.М. Ягудин, видящие хеджирование исключительно в рамках его стабилизационной функции [3], [6]. В их подходах недостаточно раскрыта роль хеджирования в обеспечении долгосрочной финансовой устойчивости и достижении стратегических целей компании.

В то же время, Л.И. Фатхуллина подчеркивает значение хеджирования в управлении рыночными рисками и сохранении финансовой устойчивости компании [5]. Однако их подходы также достаточно узкие, так как сосредоточены только на минимизации убытков и поддержании текущей устойчивости. Исследователи не рассматривают хеджирование как интегральную часть стратегического управления, направленную на создание долгосрочных конкурентных преимуществ.

С другой стороны, Д.А. Данильченко отмечает важность хеджирования как элемента корпоративной стратегии, особенно в условиях высокой волатильности и глобализации [1]. Исследователь обращает внимание на управление валютными и процентными рисками, однако не детализирует, как хеджирование может способствовать адаптации компаний к изменениям во внешней среде. Данный подход недостаточно раскрывает перекрёстные эффекты хеджирования, включая его влияние на ликвидность, структуру капитала и инвестиционную привлекательность.

В.Н. Уродовских трактует хеджирование как инструмент стабилизации финансовых потоков и минимизации операционных издержек, что делает их подходы ценными с практической точки зрения [4]. Однако данное определение ограничено краткосрочными целями и не учитывает долгосрочные перспективы. Это сужает возможности интеграции хеджирования в общую стратегию устойчивого развития компании.

Выявленные общие недостатки существующих подходов можно сгруппировать следующим образом:

- ограниченность операционным подходом. Многие авторы сосредотачиваются на технических аспектах хеджирования, упуская из виду его стратегическую роль;
- фокус на краткосрочных целях. Упор на минимизацию убытков и стабилизацию текущей деятельности мешает рассматривать хеджирование как инструмент достижения долгосрочных целей;

– недостаточная интеграция в корпоративную стратегию. Хеджирование часто рассматривается изолированно, без учета его роли в обеспечении конкурентоспособности и устойчивости компании;
– недооценка инновационных возможностей. Современные технологии, такие как блокчейн и алгоритмическое управление рисками, редко включаются в анализ.

Эти недостатки указывают на необходимость пересмотра существующих подходов и формирования более комплексного взгляда на хеджирование.

Таким образом, на основании проведённого исследования представим авторское определение хеджирования как комплексного подхода к управлению финансовыми рисками, который сочетает защиту от текущих угроз с достижением долгосрочных целей организации. В этом определении хеджирование рассматривается как важная часть финансовой стратегии, позволяющая эффективно реагировать на внешние изменения и укреплять устойчивость компании. Отличительной особенностью данного определения является акцент на двойную роль хеджирования: оно служит не только инструментом снижения рисков, но и способом повышения финансовой стабильности и поддержки стратегического развития организации.

Такое понимание хеджирования учитывает его многофункциональность, интегрируя технические, стратегические и инновационные аспекты в единую концепцию. Оно позволяет рассматривать хеджирование как динамичный инструмент, способный адаптироваться к изменениям внешней среды и поддерживать устойчивое развитие компании на долгосрочной основе.

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ЗНАЧЕНИЕ МЕЖДУНАРОДНЫХ МАРКЕТИНГОВЫХ СТРАТЕГИЙ В ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЙ НА ВНЕШНИХ РЫНКАХ

Аннотация: *В данной статье рассматривается значимость международных маркетинговых стратегий в деятельности предприятий, осуществляющих внешнеэкономическую деятельность. Подчеркивается, что правильное и рациональное использование маркетинговых подходов способствует укреплению экономики предприятий. Особое внимание уделяется изучению потребительского спроса, планированию ассортимента и ценовой политики, а также адаптации принципов маркетинга к современным условиям. Приведены рекомендации по исследованию зарубежных рынков, изучению потребностей потребителей и использованию современных технологий для повышения конкурентоспособности.*

Ключевые слова: *Международный маркетинг, внешнеэкономическая деятельность, маркетинговые стратегии, потребительский спрос, конкурентоспособность, зарубежные рынки, принципы маркетинга, экономическое развитие.*

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THE SIGNIFICANCE OF INTERNATIONAL MARKETING STRATEGIES IN ENTERPRISE ACTIVITIES ON FOREIGN MARKETS

Abstract: *This article examines the importance of international marketing strategies in the activities of enterprises engaged in foreign economic operations. It emphasizes that the proper and rational application of marketing approaches strengthens the enterprises' economies. Special attention is given to the study of consumer demand, assortment and pricing policy planning, and the adaptation of marketing principles to modern conditions. The article provides recommendations on analyzing foreign markets, studying consumer needs, and utilizing modern technologies to enhance competitiveness.*

Keywords: *International marketing, foreign economic activity, marketing strategies, consumer demand, competitiveness, foreign markets, marketing principles, economic development.*

Любое предприятие и организация, осуществляя свою внешнеэкономическую деятельность, применяют различные методы и инструменты. В этом контексте роль и значение маркетинговых стратегий

чрезвычайно велики. Многие участники внешнеэкономической деятельности хорошо понимают ключевые характеристики создаваемых ими благ. Исходя из этого, они ставят перед собой цель эффективно использовать маркетинговые стратегии. Грамотное и рациональное применение таких стратегий позволяет предприятиям укреплять свою экономику.

Изучение теоретических и практических аспектов внешнеэкономической деятельности показывает необходимость её развития на основе маркетинговых стратегий для повышения эффективности. Как известно, существуют маркетинг, ориентированный на продукт, и маркетинг, ориентированный на потребителя. Маркетинг, ориентированный на продукт, применяется в случаях, когда деятельность направлена на разработку новых видов продукции или совершенствование существующих товаров. Основной задачей здесь является привлечение интереса потребителей к новым или усовершенствованным товарам.

Маркетинг, ориентированный на потребителя, используется, когда внешнеэкономическая деятельность направлена на удовлетворение спроса, формируемого рынком. Развивая рыночную деятельность производителей на основе маркетинговых стратегий, следует учитывать оба этих вида маркетинга. При этом нельзя забывать и о главной функции маркетинга — изучении потребностей потенциального потребителя. Этот аспект является важнейшей частью коммерческой деятельности, поскольку невозможно успешно работать на внешнем рынке, не понимая требований потребителей.

Для развития внешнеэкономической деятельности предприятий на основе маркетинговых стратегий необходимо учитывать следующие факторы:

1. Комплексное изучение рынков и стран, где можно реализовать производимую продукцию.
2. Постоянное исследование потенциального спроса и неудовлетворённых потребностей потребителей.
3. Планирование ассортимента и ценовой политики реализуемой продукции.
4. Разработка мероприятий, направленных на полное удовлетворение существующего спроса.
5. Организация и осуществление продаж.
6. Совершенствование управления и производства на предприятиях.
7. Применение зарубежного опыта, где успех продаж зависит не только от производства и финансовых возможностей, но и от использования маркетинга, ориентированного на потребителя.
8. Адаптация маркетинговых принципов к текущим условиям модернизации экономики и учёт современных технических и технологических инноваций.

Применение маркетинговых принципов в современных условиях требует их адаптации к реальным потребностям внешнеэкономической деятельности. Это включает в себя:

- всестороннее изучение рыночного спроса на товар или услугу,
- максимально возможное соответствие производственной деятельности рыночным требованиям,
- использование всех доступных средств для влияния на рынок и формирование потребительского спроса.

Эффективное использование международных маркетинговых стратегий в деятельности предприятий на внешних рынках начинается с глубокого изучения изменений в потребностях, спросе и предложении, деятельности конкурентов и предпочтений потребителей. Учитываются культурные, экономические и законодательные особенности каждой страны или региона. Адаптация продукции и услуг под региональные потребности играет ключевую роль. Характеристики продукции изменяются в соответствии с запросами внешнего рынка, что позволяет предприятиям успешно реализовывать международные маркетинговые стратегии и добиваться высоких результатов на внешнеэкономической арене.

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ЛИНГВОКУЛЬТУРОЛОГИЧЕСКИЕ ОСОБЕННОСТИ АНГЛИЙСКИХ МЕТАФОР

Аннотация:*В статье рассматриваются лингвокультурологические особенности английских метафор как отражение культурных ценностей, истории и мировоззрения англоговорящих народов. Проанализированы метафоры, связанные с морем, спортом, временем и другими аспектами, показывающие уникальные черты англоязычной культуры. Особое внимание уделено значению метафор в практике перевода, их роли в передаче культурной специфики. Автор приходит к выводу, что изучение английских метафор открывает возможности для более глубокого понимания англоязычной культуры и улучшения качества переводов.*

Ключевые слова: *английские метафоры, лингвокультурология, культурные ценности, практика перевода, языковая специфика, англоязычная культура, прагматизм, индивидуализм, исторические корни.*

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LINGUISTIC AND CULTURAL CHARACTERISTICS OF ENGLISH METAPHORS

Annotation: *The article examines the linguistic and cultural characteristics of metaphors in the English language as a reflection of the cultural values, history and worldview of English-speaking peoples. Metaphors related to the sea, sports, time, and other aspects are analyzed to show the unique characteristics of English-speaking culture. Special attention is paid to the importance of metaphors in the practice of translation, their role in conveying cultural identity. The author concludes that the study of English metaphors opens opportunities for a deeper understanding of the English-speaking culture and the improvement of the quality of translations.*

Keywords:*English metaphors, linguoculturalism, cultural values, translation practice, language characteristics, English-speaking culture, pragmatism, individualism, historical roots.*

Метафора – это не просто украшение речи, это мощный инструмент, помогающий нам глубже понять мир и выразить наши мысли и чувства. Она – это отражение культурных ценностей, истории и менталитета народа. Английские метафоры, как и метафоры любого другого языка, неразрывно связаны с культурой и образом жизни англоговорящих людей.

В них мы видим отражение ценностей, таких как pragmatism, individualism, и love of nature. Например, метафора "time is money" говорит о прагматичном подходе к жизни, где время ценится как ценный ресурс. Метафора "self-made man" подчеркивает ценность индивидуальности и самостоятельности. А метафора "green fingers" говорит о любви к природе и заботе о ней.

Изучая английские метафоры, мы можем не только лучше понять язык, но и получить доступ к глубинным пластам англо-американской культуры. Мы можем увидеть, как люди этой культуры видят мир, что для них важно, и как они выражают свои мысли и чувства.

Помимо этого, изучение метафор может помочь нам улучшить нашу собственную речь. Использование метафор делает нашу речь более образной, выразительной и запоминающейся.

Исторические корни английских метафор

1. Морские метафоры:

Англия, будучи островным государством, на протяжении всей своей истории тесно связана с морем. Неудивительно, что английский язык богат морскими метафорами.

"To sail close to the wind" (рисковать) – это выражение отсылает к искусству навигации. Когда корабль плывет "close to the wind", он максимально использует силу ветра, но рискует натолкнуться на рифы или опрокинуться.

"To be in the same boat" (быть в одинаковом положении) – эта метафора говорит о том, что люди находятся в одной и той же ситуации, как пассажиры одного корабля, плывущего к неизвестной цели.

Эти и другие морские метафоры отражают не только островную историю Англии, но и ее морскую мощь, которая на протяжении веков играла ключевую роль в жизни страны.

2. Культурные ассоциации:

Спорт: "to be on the ball" (быть в форме), "to play second fiddle" (быть на вторых ролях) – отражают любовь англичан к спорту и командный дух.

Юмор: "to have a green thumb" (быть мастером на все руки), "to pull someone's leg" (шутить над кем-то) – демонстрируют британское чувство юмора.

3. Национальные особенности:

Сдержанность: "to keep a stiff upper lip" (не терять самообладания), "to keep something under wraps" (хранить что-то в секрете) – отражают английскую сдержанность и нелюбовь к открытым проявлениям эмоций.

Практичность: "to get down to brass tacks" (перейти к делу), "to cut to the chase" (говорить по делу) – подчеркивают прагматичный подход англичан к жизни.

Метафоры часто тесно связаны с культурой и историей того или иного языка. Например, английская метафора "to kick the bucket" (умереть) буквально означает "пнуть ведро". Эта метафора восходит к старинной английской традиции класть ведро под ноги умирающего человека, чтобы он мог помочиться в него. В русском языке же для выражения того же значения используется метафора "отдать концы", которая имеет совершенно другую культурную подоплеку.

Многозначность: Метафоры могут быть многозначными, и их точный смысл может меняться в зависимости от контекста. Например, английская метафора "to have a heart of gold" (иметь доброе сердце) может иметь как буквальное, так и переносное значение. В буквальном смысле она означает "иметь сердце из золота", но чаще всего используется в переносном смысле для описания человека с доброй и щедрой душой. В русском языке для выражения того же значения используется метафора "золотое сердце", которая не имеет буквального значения.

Эмоциональная окраска: Метафоры могут иметь сильную эмоциональную окраску, которую бывает сложно передать при переводе. Например, английская метафора "to be down in the dumps" (быть в унынии) буквально означает "быть в яме с мусором". Эта метафора создает образ человека, который находится в темном, грязном и унылом месте. В русском языке для выражения того же значения используется метафора "впасть в уныние", которая не имеет такой же сильной эмоциональной окраски.

Как переводчики справляются с метафорами?

Существует несколько способов перевода метафор:

Прямой перевод: Если метафора имеет эквивалент в языке перевода, то она может быть переведена напрямую. Например, английская метафора "to have a green thumb" (иметь зеленую руку) имеет эквивалент в русском языке "иметь золотые руки".

Калькирование: Калькирование – это перевод метафоры путем буквального перевода ее составляющих. Например, английская метафора "to kick the bucket" (умереть) может быть переведена как "пнуть ведро". Однако такой перевод не всегда является удачным, так как он может быть непонятным для носителей языка перевода.

Выбор метода перевода метафоры зависит от:

Контекста: В некоторых случаях метафора может быть переведена напрямую, а в других – необходимо использовать другой метод.

Языка перевода: В некоторых языках нет эквивалентов для некоторых метафор, поэтому необходимо использовать другие методы перевода.

Цели перевода: Если перевод предназначен для широкой аудитории, то необходимо использовать более простые и понятные метафоры.

Перевод метафор – это сложная задача, которая требует от переводчика не только знания языка, но и понимания культуры и истории того или иного народа.

Примеры

1. "to kick the bucket" (умереть)

Дословный перевод: пнуть ведро

Русский эквивалент: отдать концы

Объяснение:

Английская метафора "to kick the bucket" (умереть) буквально означает "пнуть ведро". Эта метафора восходит к старинной английской традиции класть ведро под ноги умирающего человека, чтобы он мог помочиться в него.

В русском языке для выражения того же значения используется метафора "отдать концы",

2. "to have a heart of gold" (иметь доброе сердце)

Дословный перевод: иметь сердце из золота

Русский эквивалент: золотое сердце

В заключение, мы можем сделать вывод, что изучение лингвокультурологических особенностей английских метафор открывает перед нами дверь в мир англоязычной культуры и менталитета. Метафоры, будучи не просто образными выражениями, а отражением ценностей, истории и мировоззрения народа, дают нам ключ к пониманию глубинных смыслов, заложенных в языке.

Анализ метафор позволяет выявить специфические черты англоязычной культуры. Например, большое количество метафор, связанных с морем, отражает островное положение Великобритании и историческую роль мореплавания в жизни страны. Метафоры, основанные на образах животных, могут пролить свет на отношение к природе, а метафоры, связанные с временем, могут показать особенности восприятия темпа жизни.

Помимо культурологического аспекта, изучение лингвокультурологических особенностей английских метафор имеет большое значение для практики перевода. Метафоры, как правило, не поддаются буквальному переводу, так как их смысл напрямую связан с культурным контекстом. Переводчик должен не просто подобрать эквивалентное по значению выражение, но и сохранить культурную специфику метафоры, чтобы сделать перевод максимально точным и понятным для носителей другой культуры.

Таким образом, изучение лингвокультурологических особенностей английских метафор является плодотворным направлением исследований, которое позволяет не только глубже понять англоязычную культуру, но и повысить качество перевода, делая его более точным и адекватным.

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ОСНОВНЫЕ ТЕХНОЛОГИЧЕСКИЕ СХЕМЫ ПРОКАТКИ СТАЛИ

Аннотация:*Усовершенствована технологии с целью повышения качества готовой продукции, выбрана оптимальный вес и конфигурация слитка, а также рациональная форма донной части его, для чего разработана специальная форма кюмпельного поддона. Рассчитано на прочность деталей узлов оборудования состояния (валка, станины и универсального шпинделя).*

Ключевые слова: *прокат, слитка,* блюм, *сляб, технологии.*

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MAIN TECHNOLOGICAL SCHEMES OF STEEL ROLLING

Annotation:*Technologies were improved in order to improve the quality of the finished product, the optimal weight and configuration of the ingot was chosen, as well as the rational shape of its bottom part, for which a special shape of the kumpel tray was developed. Calculated on the strength of the parts of the condition equipment units (roll, bed and universal spindle).*

Key words: *rolled products, ingots, bloom, slab, technologies.*

Главным направлением развития современных блюмингов является увеличение мощности главных приводов, повышение диаметров валков, модернизация оборудования и оптимизация режимов обжатий. Совершенствование обжимных станов осуществляют путем использования двухклетевых блюмингов и блюмингов-слябингов производительностью 2-3 млн т/год с диаметрами валков в первой клети 1100-1500 мм и во второй – 1050-1350 мм. Такие станы обладают большой маневренностью в работе, обеспечивающей прокатку широкого сортамента заготовки [1].

Сталепрокатное производство обычно входит в заводы с полным металлургическим циклом и является самым крупным, так как по площади цехов и количеству работающих, по количеству и стоимости оборудования

и другим показателям прокатные цехи занимают более половины всего металлургического завода и несут основную нагрузку по формированию прибыли завода. Поэтому наибольшую долю капитальных вложений вкладывают в этот передел, затрачивая значительные средства на внедрение современных разработок, как в части технологий, так и в части оборудования и инструмента.

Среди большого разнообразия продукции прокатного производства основными видами продукции являются плоский и сортовой прокат. Общая схема получения плоского и сортового проката из стали представлена на рис. 1.1.

Заготовку для сортового проката называют *блюм*, а для листового проката - *сляб*.

Блюм - это черновая заготовка квадратного сечения со стороной от 140 до 450 мм и длиной 6-10 м, получаемая прокаткой крупных слитков (до 25 т) на блюмингах.

Для изготовления блюма используют две технологии. Первую применяют для слитков из углеродистых сталей массой от 7 до 13 т. У легированных и высоколегированных сталей масса слитка значительно ниже, и прокатку могут вести не на блюминге, как для углеродистых сталей, а сразу на заготовочном стане. Для второй технологии получения блюмов используют машины непрерывного литья заготовок (МНЛЗ), в которых из кристаллизатора требуемого сечения непрерывно выходит заготовка, разрезаемая затем на литые мерные блюмы [2-3].

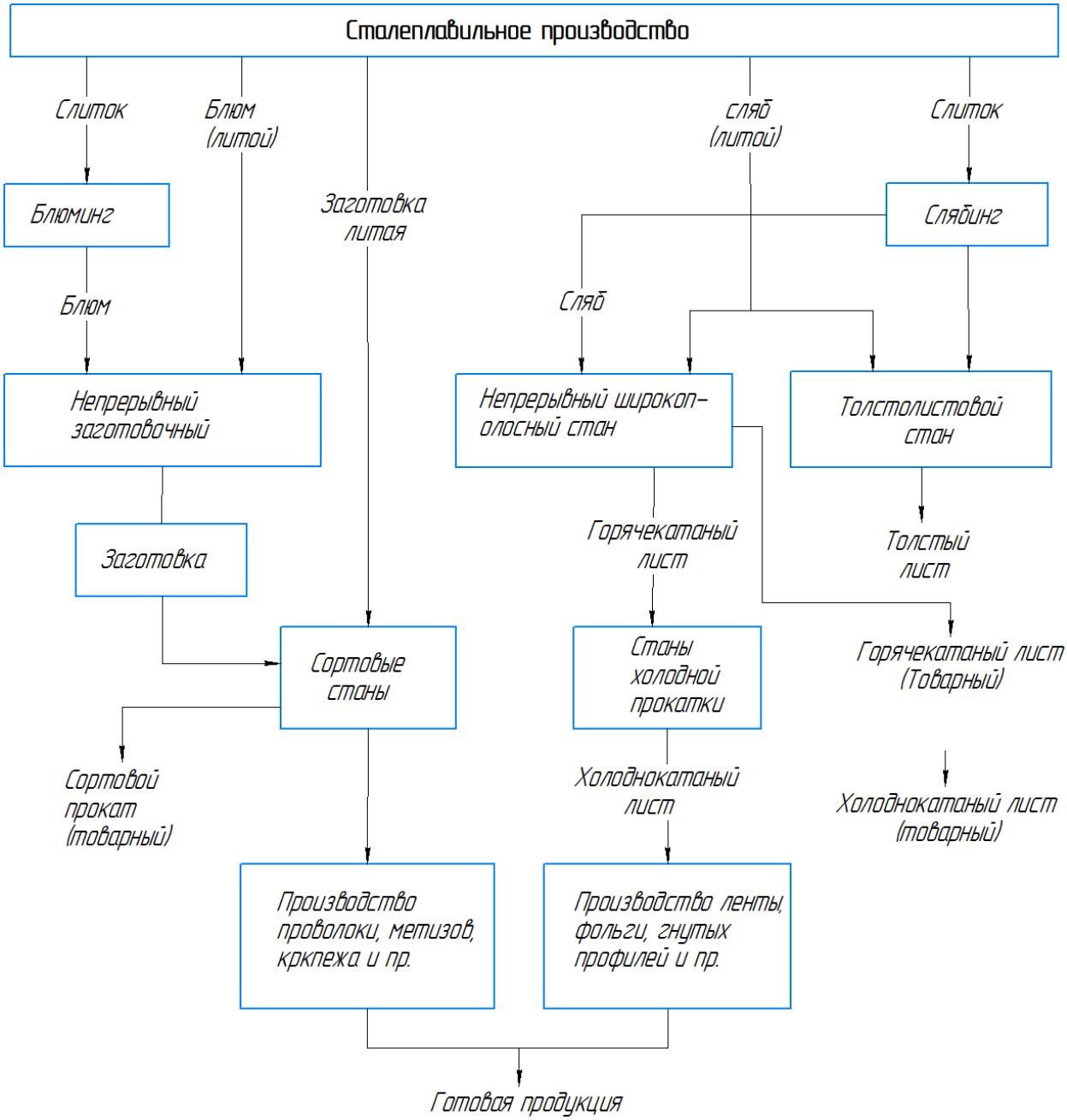

Рис. 1.1. Технологическая схема производства листового и сортового проката из стали

Литые блюмы, полученные по второй технологии, дешевле, но обычно содержат примеси, неметаллические включения, которые раскатываются в виде дефекта, получившего название «дорожка». Этот вид дефекта не устраняется в готовом прокате, снижая его свойства. Очистка жидкого металла перед разливкой приводит к удорожанию процесса. Кроме того, площадь поперечного сечения литого блюма, особенно для мелких исходных сечений, не обеспечивает качественной проработки литой структуры, что также отрицательно отражается на свойствах готового проката. Блюмы, получаемые прокаткой слитков, дороже, но выше по свойствам, чем литые, так как примеси в них концентрируются в

прибыльной части слитка, которая при прокатке на блюминге отрезается.

В последнее время новые технологии очистки жидкого металла, а также применение более дешевых МНЛЗ радиального и особенно горизонтального вида расширяют возможности применения литых блюмов. Подтверждением этого является то, что уже во многих странах основная часть сортового проката производится из литой заготовки.

Заготовка для листового проката - *сляб*, имеет прямоугольное сечение толщиной 150-300 мм, шириной 1 000-2 000 мм и длиной до 18 м. Масса сляба колеблется от 5 до 40 т. При этом отношение ширины поперечного сечения сляба к его высоте составляет от 3 до 12. Слябы могут быть литыми и катаными с теми же достоинствами и недостатками, которые рассматривались для блюмов. В настоящее время слябы являются основными полуфабрикатами для производства листа. Наблюдается также тенденция отливки не только крупных слябов, но и тонких слябов толщиной около 50 мм, которые предназначены для прокатки листов на минизаводах.

Производство стального проката (см. рис. 1.3) условно разбивают на два этапа. На первом этапе получают блюм или сляб.

Производство блюмов и слябов заключается в следующем. Из сталеплавильного цеха слитки поступают в обжимный цех, затем их загружают в нагревательные колодцы для нагрева до требуемой температуры и выравнивания температуры по сечению слитка. Затем нагретые слитки краном помещают на рабочие ролики рольганга прокатного стана и подвергают прокатке в несколько проходов в рабочей клети блюминга или слябинга, работающей в реверсивном режиме. Как правило, одновременно прокатывают два слитка.

После прокатки блюмы или слябы подают в машину огневой зачистки, в которой с помощью газовых горелок сжигается поверхностный слой на заготовке вместе с поверхностными трещинами.

Следующей операцией является резка проката на пресс-ножницах, при которой от слитка отрезаются головная и донная части, затем оставшаяся часть (тело слитка) режется на части длиной не более 700 мм и подвергается прокатке на непрерывно-заготовочном стане. После прокатки блюмы (слябы) разделывают на мерные длины, передают на приемные стеллажи и далее направляют на охлаждение, режим которого зависит от марки стали.

Прокатку блюмов и слябов осуществляют за несколько проходов, число которых зависит от размеров исходного слитка и конечных размеров блюма (сляба). Обычно слиток прокатывают до заданных размеров блюма за 11-15 проходов. При прокатке на блюминге приходится перемещать полосу (раскат) между проходами от калибра к калибру вдоль оси валков.

Работа современного блюминга полностью автоматизирована. Автоматизация управления нажимным устройством обеспечивает точное перемещение верхнего валка в соответствии с заданным режимом обжатия

слитка по проходам. Автоматизация управления главным двигателем блюминга обеспечивает реверсирование валков, повышает скорость вращения двигателя после захвата металла валками и снижает скорость вращения при буксовании валков в момент захвата полосы, регулируется также скорость выхода металла из валков.

Слябинги, предназначенные только для прокатки слябов, распространены меньше блюмингов, так как для обычного сортамента проката на металлургических заводах требуются в качестве исходного полупродукта и блюмы, и слябы.

Проведя ряд расчетов определено, что экономия достиглась путем выбора рациональной формы и массы слитка (10,7 т), и не использованию при нагреве слитков - природного газа. Внедрение кюмпельного поддона позволило снизить донную обрезь слитков, что привело к увеличению выхода годного металла [4-5]. Снижение массы слитка позволило прокатывать слитки за меньшее число проходов (11 проходов). Таким образом, модернизировав стан можно увеличить годовую производительность на 21% при тех же затратах на энергоресурсы и прежнее время работы стана.

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ЯЙЛОВ ЕРЛАРИНИ ТАДҚИК ҚИЛИШДА МАСОФАДАН ЗОНДЛАШ ВА ГАТ ТЕХНОЛОГИЯЛАРИДАН ФОЙДАЛАНИШ МАСАЛАЛАРИ

Аннотация. *Ушбу тадқиқот иши яйлов ерларини ўрганишда масофадан зондлаш ва ГАТ технологияларидан фойдаланиш билан боғлиқ турли масалаларни ўрганишга қаратилган. Амалий тадқиқотлар ва жорий методологияларни ўрганиш орқали тадқиқот мавжуд технологияларнинг қўлланилиш даражасини аниқлаш ва яйлов ерларини мониторинг қилиш ҳамда бошқаришда самарадорлигини ошириш учун зарур ечимлар келтириб ўтилган.*

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ISSUES CONCERNING THE UTILIZATION OF REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM (GIS) TECHNOLOGIES IN THE ANALYSIS OF PASTURE LANDS

Abstract. *This research work aims to investigate various issues related to the use of remote sensing and GIS technologies in the study of pasture lands. The level of application of existing technologies and the necessary solutions for increasing the efficiency of monitoring and management of pastures are presented in the studies conducted through the study of practical research and current methodologies.*

Key words. *Remote sensing, pasture lands, geographic information systems (GIS), spatial analysis, geospatial data.*

Кириш. Яйлов ерлари чорвачилик учун муҳим ресурс бўлиб, чорва молларини боқиш учун зарур ем-хашак билан таъминлайди ва глобал озиқ-овқат хавфсизлигида муҳим рол ўйнайди. Бироқ, иқлим ўзгариши, ерларнинг таназзулга учраши, ўтларнинг ҳаддан ташқари кўпайиши ва ердан фойдаланиш шаклларининг ўзгариши каби омиллар туфайли яйловларни барқарор бошқариш тобора мураккаблашиб бормоқда. Яйлов экотизимларининг динамикасини тушуниш уларнинг маҳсулдорлиги, биологик хилма-хиллиги ва экологик мувозанатини сақлаш учун жуда муҳимдир.

Ер ресурсларини, шу жумладан яйловларни кузатиш ва бошқаришнинг кучли воситалари сифатида ерни масофадан зондлаш ва географик ахборот

тизимлари (ГАТ) технологиялари пайдо бўлди. Масофадан зондлаш ўсимлик қоплами, тупроқ ҳолати ва сув мавжудлиги ҳақида реал вақт оралиғида кенг кўламли маълумотларни тўплаш имкониятини беради, ГАТ эса бу маълумотларни фазовий контекстда таҳлил қилиш ва визуализация қилиш имкониятини беради. Бу технологиялар биргаликда тадқиқотчилар ва ер ресурсларидан фойдаланувчиларга яйловлар ҳолатини баҳолаш, вақт ўтиши билан ўзгаришларни кузатиш ва ердан фойдаланиш ва қайта тиклаш ишлари бўйича асосли қарорлар қабул қилиш имконини беради.

Асосий қисм. Ерни тадқиқ қилишда амалга ошириладиган ишлардан, яйлов ерларини кузатиб бориш бизга ҳудуднинг физик, кимёвий, биологик ва геометрик хоссалари тўғрисидаги маълумотларга эга бўлишга хизмат қилади. Натижада, табиий муҳитнинг ҳолатини баҳолаш ва ўзгаришларни кузатиш имконияти яратилади. Ўз навбатида, мазкур имкониятлар яйлов ерларининг хариталарини тузиш, мониторинг ва башорат қилиш ишларини амалга оширишда асос бўлади [9].

Бугунги кунда, ер сиртини ва унинг атмосферасини ўрганишнинг истиқболли усулларидан бири - сунъий йўлдош маълумотларидан фойдаланиш ҳисобланади [7]. Айниқса, чўл ҳудудларда яйлов ерларининг ҳолати доимий назорат остида бўлиши ҳудуднинг табиий мажмуаларидаги бурилиш жараёнлари тўғрисида ўз вақтида хабар бериш имконини яратади [2].

Ҳозирда, замонавий техник даражадаги маълумотларни олиш масофадан зондлаш усуллари ёрдамида амалга оширилади. Бу эса катта ҳудудлар ҳолати тўғрисида тезда тўлиқ маълумот олиш имконини беради [2]. Айниқса, аэрокосмик тасвирлар, аниқ кўринадиган вазиятни объектив баҳолашга ва табиий ем-хашак ерларини сақлаш ҳамда улардан оқилона фойдаланишга қаратилган чораларни кўришга имкон яратади.

Сўнгги йилларда ерни масофадан зондлаш маълумотларидан фойдаланиш табиий офатларга тайёргарлик кўришда, циклонлар, қурғоқчилик ва тошқинлардан огоҳлантиришда самарали натижаларни бермоқда. Лекин, масофадан зондлаш маълумотларидан фойдаланиш катта ҳажмдаги маълумотларни қайта ишлашга ва уни бошқа манбалардан, масалан, хариталар ёки гидрометеорологик станциялардан олинган маълумотлар билан умумлаштиришни таққазо этади. Мазкур ишларни олиб боришни зарур дастурларсиз амалга ошириб бўлмайди. Шу сабабли, ерни масофадан зондлаш маълумотларидан фойдаланиш ҳолатлари ортиши билан бирга, географик ахборот тизимлари технологияларидан фойдаланиш даражаси ҳам параллел равишда ортиб боради.

Масофадан зондлаш деганда, ҳар хил турдаги тасвирлаш ускуналари билан жиҳозланган авиация ва космик транспорт воситаларида ер юзасини кузатиш технологияси тушунилади. Бунда, кузатиш жараёни эътибор қаратилаётган объект билан жисмоний алоқа қилмасдан масофадан туриб амалга оширилади [5, 7, 11, 9]. Мазкур жараён олиб борилаётган ишларни қисқа фурсатда ишончли маълумотлар билан таъминлашга ва зарур режали ишларни амалга оширишга хизмат қилади.

Ҳозирги вақтда масофадан зондлаш маълумотларининг қуйидаги турлари ажратилган [7]:

космик тасвирга олиш;

аэрофото тасвирга олиш.

Кўрилаётган вазифаларига қараб паст, ўрта ва юқори ўлчамдаги маълумотлардан фойдаланишимиз мумкин. Лекин шуни таъкидлашимиз мумкинки, Масофадан зондлаш усуллари бизга фақат ернинг тасвирларини олиш имконини беради ва мазкур тасвирларни қайта ишлаш ёрдамида керакли хулосалар чиқариш мумкин бўлади [11]. Демак, сунъий йўлдош тасвирлари бизга нафақат табиий офатларни бошқариш учун фойдали, балки экинларнинг ҳолатини яқин инфрақизил нурланиш тасвирларини таҳлил қилиш орқали қишлоқ хўжалиги соҳаларида ҳам фойдаланиш анча самарали ҳисобланади. Шуни таъкидлаш керакки, тадқиқот мақсадига қараб, сунъий йўлдош тасвирларининг фазовий аниқлигидан келиб чиқган ҳолда геофазовий маълумотлар манбаларини белгилаб олиш катта аҳамият касб этади.

Маълумотларнинг аниқлик даражалари хусусиятлари қуйидагича:

юқори аниқликдаги сунъий йўлдошларнинг маълумотлари 5 м дан кам бўлган фазовий аниқлик, 1 дан 4 гача кўп спектрли диапазон, 100 км дан кам масофа ва қайта кўриб чиқиш вақти 3 кундан кўпроқ [11];

паст аниқликдаги сунъий йўлдош тизимлари фазовий ўлчамлари 100 м ёки ундан пастроқ, бир нечта (3-7) кўп спектрли диапазонларга, катта (>500 км) кенглик ва ҳар куни қайта кўриб чиқиш имкониятига эга бўлади [11];

ўрта фазовий аниқликдаги сунъий йўлдошларнинг барчаси ўртача майдон қамровига, ўртача фазовий аниқликка, ўртача қайта кўриш қобилиятига ва ҳозирги Landsat ва Spot сунъий йўлдошларига хос бўлган кўп спектрли диапазонларга эга. Фазовий ўлчамлари 10 м дан 100 м гача, бир нечта (3-7) кўп спектрли диапазонларга, 50 км дан 200 км гача кенглик, ҳар уч куни ва ундан кўпроқ қайта кўриб чиқиш имкониятига эга [11]. Ушбу сунъий йўлдошлар тасвирларининг кўлами уларни айниқса, кенг ҳудудлар (минтақалар, мамлакатлар, қитъалар) учун ер тузиш ва ердан фойдаланишни режалаштириш учун мос келади.

Ер юзасини тасвирга олишда, сунъий йўлдошнинг орбитада жойлашишига қараб танлаш муҳим рол ўйнайди. Чунки сунъий йўлдош сенсорлар имкониятлари кўп жиҳатдан орбитанинг параметрлари билан белгиланади.

Доимий мониторинг (метеорология), глобал хариталарини тузиш (ер қопламини хариталарини тузиш) ёки селектив тасвирга (шаҳар жойлари) олиш учун ҳар хил турдаги орбиталар талаб қилинади [9].

Мазкур орбиталардаги сунъий йўлдошларда маълумотларнинг олиниши ёки уларнинг узатилиши сенсорлар ёрдамида амалга оширилади. Сенсорлар электро магнит энергиясини, унинг миқдорини аниқлайди ва одатда аналог ёки рақамли тарзда ёзиб олади ҳамда уларни ердаги қабул қилувчи маълумотлар базасига узатади.

Асосан, ерни кузатишда ишлатиладиган кўплаб сенсорлар акс эттирилган қуёш энергиясини ўлчайди. Бошқалар эса ернинг ўзи чиқарадиган энергияни аниқлайди [9]. Демак, электро магнит нурланиш энергиясининг турли шакллари бизга ер юзасининг хусусиятлари ҳақида турли хил маълумотларни тақдим этади.

Ҳар хил тўлқин узунликдаги электромагнит нурланиш жуда кўп фарқларга эга, лекин уларнинг ҳаммаси, радио тўлқинлардан гамма нурланишигача, бир хил физик тавсифга эга бўлади [7].

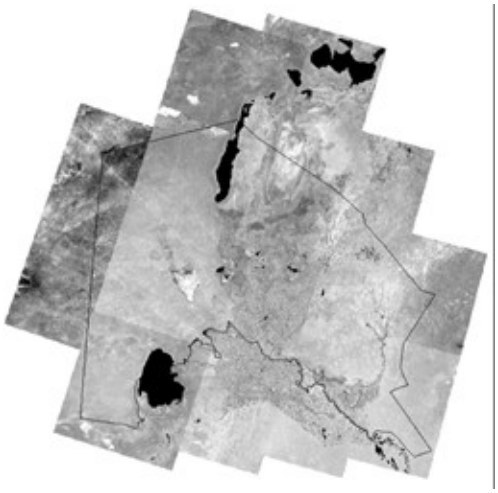
Тўлқин узунлиги λ, электро магнит нурланишининг ҳар хил турларини фарқловчи хусусияти ҳисобланади. Спектрдаги кўк тўлқин узунлик тахминан 0,45 μм бўлиб, асосан сув ҳавзаларининг чуқурлигини ўлчайди ва тупроқ, ўсимлик турларини ажратиб кўрсатади. Спектрдаги яшил тўлқин узунлик тахминан 0,50-0,60 μм гача бўлиб, лойқа ва тоза сувни, сув юзасидаги нефтни, соғлом ўсимликларни фарқлайди. Спектрдаги қизил тўлқин узунлик тахминан 0,60-0,70 μм, яқин инфрақизил тўлқин узунлиги бўлса 0,70-1,1 μм гача бўлиб, ҳар хил ўсимлик ҳолатларини ажратиш, қирғоқ бўйи хариталарини тузиш ва ўсимликлар турларини фарқлашда хизмат қилади [3, 6]. Демак, мазкур тўлқин узунликлари натижасида олинган тасвир маълумотлари бизга яйлов ерларни тадқиқ қилишда, яъни, яйлов ерларининг ўсимлик билан қопланиш ҳолати ва уларнинг ҳосилдорлиги, сув билан таъминланиш даражалари ва ўсимлик мавжуд бўлмаган ҳудудларни белгилаб олишда фойдаланиш мумкин.

Натижа ва таҳлиллар. Мазкур келтирилган маълумотларга асосланиб, ерларнинг ҳолатини ўрганишда, тадқиқот ҳудудининг хоссаларини эътиборга олган ҳолда (Қорақалпоғистон Республикаси яйлов ерлари) самарали бўлган сунъий йўлдош маълумотларни танлаш катта аҳамиятга эга. Тадқиқот ишида Landsat сунъий йўлдошларининг маълумотларидан фойдаланиш мақсадга мувофиқ эканлиги белгиланди. Landsat сунъий йўлдошларининг маълумотлари ер қопламини, ердан фойдаланишни, тупроқ, геологик, денгиз юзаси ҳарорати хариталарини тузишда ва ўрмонларни кесиш ҳамда чўлланиш ҳолатларини кузатиш имконини беради [9]. Landsat маълумотлари ўрта инфрақизил диапазонларни ўз ичига олганлиги сабабли ер қоплами ва ердан фойдаланиш харитасини тузиш учун қулай ҳисобланади.

Масофадан зондлаш маълумотлари ГАТ технологиялари асосида қайта ишлашни тақазо этади. Масофадан зондлаш маълумотлари ГАТ маълумотларининг асосий манбаларидан бири ҳисобланади. Улар космик ва ҳаво қурилмаларидан олинган барча турдаги маълумотларни бирлаштиради, алоқа антоними сифатида масофадан зондлашнинг муҳим қисмини ташкил қилади ва картографик, аэрокосмик усулларининг комбинациясини таъминлайди. Чунки, ГАТ тақдим этилган объектлар ҳақидаги фазовий ва бошқа тегишли маълумотларни йиғиш, сақлаш, қайта ишлаш, таҳлил қилиш, график визуализациялаш, моделлаштириш, шунингдек рақамли картографик, аналог ва матнли маълумотлардан фойдаланган ҳолда ахборот ва ҳисоблашдаги муаммоларини бартараф этади [7, 4, 1, 5, 8].

Яйлов ерларининг ҳолатини ўрганишда масофадан зондлаш маълумотларини ГАТ технологияларида қайта ишлаш ва уларнинг натижаларини хариталаштириш яйлов ерларининг ҳосилдорлиги тўғрисида ва яйлов ерларига табиий омилларнинг салбий оқибатларини таҳлил қилишда самарали усулдир.

Тавсиф ва тавсияларга амал қилган ҳолда олиб борилган ишлар натижасида тадқиқот ҳудудининг яхлит тасвирига эга бўлишимиз учун жами 15 та Landsat 8 сунъий йўлдош тасвирлари бирлаштириш кераклиги маълум бўлди (1-расм).



1-расм. Landsat 8 сунъий йўлдошидан олинган суратлар фотоплан

Сунъий йўлдош тасвирларидан ва ГАТ оиласига мансуб ArcGIS дастурларидан фойдаланган ҳолда яйлов ерлари ҳолати, уларнинг ҳосилдорилиги, яйлов ерларига табиий омилларнинг салбий таъсирлари таҳлилини олиб бориш бир неча босқичларни бажаришни талаб қилади. Тасвирларни бирлаштириш ва уларнинг диапазонлари бўйича ҳисоблаш, натижаларни синфларга ажратиш, ажратилган синфлар бўйича майдон маълумотларини олиш каби жараёнлардан иборат.

Хулоса. Ушбу тадқиқот яйлов ерларини тадқиқ қилишда масофадан зондлаш ва ГАТ (географик ахборот тизимлари) технологияларининг самарали қўлланилишини кўрсатди. Масофадан зондлаш усуллари катта ҳудудларни тез ва аниқ мониторинг қилиш имконини бериб, яйлов ерларининг ҳолати ва ҳосилдорлигини таҳлил қилишда муҳим аҳамият касб этади. Шу билан бирга, ГАТ технологиялари орқали тўпланган маълумотларни таҳлил ва визуализация қилиш, яйлов ерларини мониторинг қилиш ва бошқаришни самарали йўлга қўйишда катта ёрдам беради.

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ПЕРСПЕКТИВЫ РАЗВИТИЯ СЕЛЬСКОГО ХОЗЯЙСТВА В УЗБЕКИСТАНЕ

Annotation. *В данной статье описывается роль сельского хозяйства в развитии экономики страны, проводимые реформы, направления и перспективы развития, основные задачи и особенности.*

Key words: *сельское хозяйство, реформы, продовольствие, переработка, маркетинг, экспорт, модернизация, качество продукции, конкуренция, диверсификация.*

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PROSPECTS FOR AGRICULTURAL DEVELOPMENT IN UZBEKISTAN

Annotation. *This article describes the role of agriculture in the development of the country's economy, ongoing reforms, directions and prospects for development, main tasks and features.*

Key words: *agriculture, reforms, food, processing, marketing, export, modernization, product quality, competition, diversification.*

Сегодня мировое сообщество признает сельское хозяйство одним из основных факторов экономического развития в процессе глобализации. Сельское хозяйство в основном обеспечивает население продуктами питания и сырьем для промышленности. В то же время оно обеспечивает промышленность определенным количеством сырья для переработки. Годовой прирост населения непропорционален росту промышленного производства, то есть численность населения и его потребности превышают производство продуктов питания, а значит, производство продуктов питания является низким. показывает, что определенная часть населения стран недополучает продовольствие.

В последующие годы реформа сельского хозяйства нашей страны, в частности, совершенствование системы государственного управления в сфере, широкое внедрение рыночных отношений, осуществляются определенные мероприятия по укреплению правовой базы отношений между субъектами, которые выращивают, перерабатывают и реализуют сельскохозяйственную продукцию, привлекают инвестиции в отрасль,

внедряют ресурсосберегающие технологии, обеспечивают сельхозпроизводителей современной техникой. В то же время отсутствие долгосрочной стратегии развития сельского хозяйства препятствует эффективному использованию земельных и водных ресурсов, широкому привлечению инвестиций в отрасль, высоким доходам производителей и повышению конкурентоспособности продукции.

Диверсификация производства, улучшение земельных и водных отношений, создание благоприятной среды агробизнеса и цепочки высокой добавленной стоимости, поддержка развития кооперативных отношений, рыночных механизмов в секторе, возникла необходимость экономических реформ с целью широкого внедрения информационных и коммуникационных технологий, а также эффективного использования достижений науки и повышения кадрового потенциала.

При участии международных организаций и экспертов разработана стратегия развития сельского хозяйства Республики Узбекистан на 2020-2030 годы и утверждена «Дорожная карта» по реализации задач, поставленных в этой стратегии. Данная стратегия принята Указом Президента Республики Узбекистан от 23 октября 2019 года № ПФ-5853.

Основная цель настоящей Стратегии заключается в кардинальном совершенствовании государственной политики в углублении реформ, направленных на повышение конкурентоспособности сельского хозяйства и пищевой промышленности, и охватывает следующие приоритеты:

- обеспечивать безопасность пищевой продукции и улучшать рацион питания, разрабатывать и реализовывать государственную политику пищевой безопасности, предусматривающую выращивание необходимого количества пищевой продукции;
- широкая реализация рыночных принципов купли-продажи сельскохозяйственной продукции, развитие инфраструктуры контроля качества, стимулирование экспорта, создание благоприятной агробизнес-среды и цепочки добавленной стоимости, обеспечивающей производство конкурентоспособной сельскохозяйственной продукции с высокой добавленной стоимостью. продукты питания на целевых международных рынках;
- внедрение механизмов сокращения государственного участия и повышения инвестиционной привлекательности отрасли, что предполагает увеличение притока частного инвестиционного капитала для поддержки модернизации, диверсификации и устойчивого роста агропромышленного комплекса и пищевой промышленности;
- рациональное использование природных ресурсов, в том числе рациональное использование земельных и водных ресурсов, лесного фонда, совершенствование системы охраны окружающей среды;
- развитие современной системы управления, предусматривающей реструктуризацию и дальнейшее развитие структуры государственного управления в сельском хозяйстве;

- повышение эффективности государственных расходов и постепенное их перераспределение путем разработки сетевых программ, направленных на повышение производительности труда в фермерских хозяйствах, улучшение качества продукции, создание высокой добавленной стоимости;
- развитие системы науки, образования, информационных и консультационных услуг, предусматривающей использование эффективных форм распространения знаний и информации, интегрированных с производством научно-исследовательских, образовательных и консультационных услуг в сельском хозяйстве;
- реализация программ развития сельских территорий, обеспечивающих поддержку сбалансированного и устойчивого развития сельских территорий;
- заключается в создании прозрачной системы сетевой статистики, что предполагает внедрение надежных методов сбора, анализа и распространения статистических данных посредством широкого внедрения современных информационных технологий.

Предполагается добиться многих положительных результатов путем выполнения задач, поставленных в рамках Стратегии развития сельского хозяйства Республики Узбекистан на 2020-2030 годы. В частности, решено создать прозрачную систему выделения и конфискации земель, предотвращения коррупции и других субъективных ситуаций, а также создать систему, гарантирующую права землепользователей. Показано, что резко сократятся случаи незаконного выделения земли и безземельного использования. Ожидаемый результат – будет освоено 1,1 млн га сельскохозяйственных угодий, более эффективно будет использоваться 535,6 тыс. га богарных земель, пастбищ и других земель. При этом в первую очередь полному хатлову будут подвергнуты земли, предназначенные для сельского хозяйства. Сформируется реальная рыночная цена права на земельные участки, это право может быть использовано в качестве залога, стоимость капитала в руках предпринимателей и жителей увеличится сама собой, создастся возможность расширения базы земельного налога. Также будут расширены области использования водосберегающих ирригационных систем на территориях республики и усовершенствованы механизмы стимулирования внедрения этих систем, расчеты между водопотребителями и водопоставщиками производятся исходя из суммы фактически произведенных затрат на поставку потребленной воды и на основе рыночных механизмов.

Будет осуществляться территориальная специализация, выращивание одной и той же продукции в одном месте, внедрение агроинновационных идей, создание условий для повышения производительности и улучшения качества продукции, постепенный отказ от государственного участия в выращивании хлопка-сырца и зерна.

В сельском хозяйстве особое значение имеет установление контрактной системы между производителями и получателями хлопкового сырья и зерновой продукции в зависимости от объема продукции. В частности, в этой

стратегии по типу земель еще больше расширится самостоятельное размещение аграриями высокоурожайных культур, поддержка мелких производителей сельскохозяйственной продукции, создание возможности рационального использования земли. возможности. В результате можно обеспечить стабильность производства, хранения, глубокой переработки и роста экспорта высококачественной конкурентоспособной плодоовощной продукции.

На основе опыта зарубежных стран будет улучшена материально-техническая база научно-исследовательских учреждений, обновлено лабораторное оборудование, повышена квалификация сотрудников, высшие учебные заведения в области сельского хозяйства будут переведены на самообслуживание. финансирование. В целях расширения свободы производства сорго можно будет без ограничений продавать на фондовых биржах, будут сокращены государственные закупки, на рынке сорго будут внедрены интервенционные механизмы.

В заключение подчеркнем, что в результате поэтапной реализации задач, определенных в настоящей стратегии, повысится продуктивность и конкурентоспособность сельскохозяйственной продукции, будет внедрено внедрение передовых сельскохозяйственных и экологических практик (ГАЭП) среди производителей, производственных практик (GMP) и других стандартов качества в агробизнесе. В результате в сельском хозяйстве нашей страны будут развиваться рыночные услуги, основанные на прозрачности и конкуренции, средняя производительность труда увеличится в 1,7 раза, будут созданы дополнительные 3,4 млн тонн мощностей по переработке сельскохозяйственной продукции, темпы переработка продукции будет увеличена до 30%. По прогнозам, к 2030 году объем экспорта достигнет 20 миллиардов долларов США.

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ИСПОЛЬЗОВАНИЕ СПЕЦИАЛЬНОГО ТРЕНАЖЁРА "SKI MACHINE" ДЛЯ РАЗВИТИЯ ТЕХНИКИ ПОВОРОТОВ ГОРНОЛЫЖНИКОВ 10–12 ЛЕТ

Аннотация: *В статье исследуется эффективность специального тренажёра "Ski Machine" для развития техники поворотов горнолыжников в возрасте 10–12 лет. В исследовании приняли участие 20 спортсменов, разделённых на контрольную и экспериментальную группы. Основное внимание уделялось биомеханическому анализу и развитию быстроты реакции на сигнал.*

Ключевые слова: *горные лыжи, Ski Machine, биомеханика, техника поворотов, реакция.*

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USING A SPECIAL "SKI MACHINE" SIMULATOR FOR DEVELOPING TURNING TECHNIQUE IN 10-12 YEARS OLD SKIERS

Annotation: *The article investigates the effectiveness of the specialized "Ski Machine" simulator in developing turning techniques for 10-12-year-old alpine skiers. The study involved 20 athletes divided into control and experimental groups. The primary focus was on biomechanical analysis and improving reaction speed to signals*

Keywords: *alpine skiing, Ski Machine, biomechanics, turning technique, reaction speed.*

Горнолыжный спорт требует от спортсменов высокой скоординированности, внимательности и быстрой реакции. В возрасте 10–12 лет дети находятся в стадии активного физического развития, что делает необходимым использование специальных методов и оборудования для повышения эффективности тренировочного процесса. В последние годы

тренажёры, имитирующие условия реального спуска, приобретают всё большую популярность в обучении горнолыжников. Одним из таких устройств является "Ski Machine" — инновационный тренажёр, разработанный для имитации движений и нагрузки, характерных для горнолыжного спорта.

Цель данного исследования заключается в изучении влияния тренировок с использованием "Ski Machine" на развитие техники поворотов и быстроты реакции у детей 10–12 лет. Актуальность работы обусловлена необходимостью совершенствования методов подготовки юных спортсменов и недостатком исследований, посвящённых биомеханическим аспектам использования тренажёров в горнолыжном спорте.

Использование тренажёров в спорте давно зарекомендовало себя как эффективный способ повышения уровня подготовки спортсменов. По данным ряда исследований, тренажёры, имитирующие условия реальной спортивной деятельности, позволяют улучшать технику выполнения движений и развивать специфические физические качества. В частности, тренажёры для горнолыжного спорта, такие как "Ski Machine", способствуют развитию координации, устойчивости и силовой выносливости.

Согласно исследованиям, проводившимся в области спортивной биомеханики, точный анализ техники выполнения движений является ключевым фактором для повышения спортивных результатов. В работах отечественных и зарубежных авторов подчёркивается важность использования видеоанализа для оценки эффективности тренировок и выявления технических ошибок.

Тем не менее, остаётся недостаточно изученным вопрос о влиянии тренажёров на развитие реактивных качеств, что особенно важно для горнолыжников, которым необходимо быстро адаптироваться к изменяющимся условиям на трассе. Настоящее исследование направлено на восполнение этого пробела, акцентируя внимание на биомеханическом анализе и развитии реакции у юных горнолыжников.

Исследование проводилось в течение 8 недель и включало 20 горнолыжников в возрасте 10–12 лет, разделённых на две равные группы: контрольную и экспериментальную. В тренировочном процессе экспериментальной группы использовался тренажёр "Ski Machine", в то время как контрольная группа занималась по стандартной программе.

Оборудование

1. Тренажёр "Ski Machine" для имитации движений, характерных для горнолыжного спорта.
2. Две видеокамеры для записи и анализа техники выполнения упражнений.
3. Программное обеспечение для биомеханического анализа движений.

Экспериментальная группа тренировалась на тренажёре три раза в неделю, выполняя упражнения, направленные на совершенствование техники поворотов. Контрольная группа использовала традиционные методы

подготовки, включая отработку поворотов на лыжах и общефизическую подготовку.

Для оценки эффективности тренировок использовались следующие показатели:

- Биомеханические параметры (углы сгибания коленных и тазобедренных суставов, амплитуда движений).
- Время реакции на визуальный и звуковой сигналы.

Данные собирались с использованием видеозаписи и анализировались с помощью специализированного программного обеспечения.

Статистический анализ

Результаты сравнивались с использованием t-критерия Стьюдента для независимых выборок. Уровень значимости составлял $p < 0,05$.

РЕЗУЛЬТАТЫ

По завершении эксперимента в экспериментальной группе наблюдалось значительное улучшение техники выполнения поворотов, что подтверждалось уменьшением углов отклонения и увеличением плавности движений. Среднее время реакции на сигнал также уменьшилось на 15% по сравнению с контрольной группой. Таблица 1 демонстрируют основные результаты исследования.

Таблица 1. Сравнительные показатели биомеханических параметров

Показатель	Контрольная группа	Экспериментальная группа
Угол сгибания колена (°)	45 ± 5	38 ± 3
Амплитуда движения (см)	70 ± 8	85 ± 6
Время реакции (мс)	320 ± 15	270 ± 12

Результаты исследования демонстрируют значительные преимущества использования тренажёра "Ski Machine" в подготовке юных горнолыжников. Улучшение биомеханических параметров, таких как угол сгибания колена и амплитуда движения, указывает на более правильную и экономичную технику выполнения поворотов. Эти изменения могут быть связаны с возможностью тренажёра имитировать реальные условия спуска и обеспечивать целенаправленную нагрузку на ключевые группы мышц.

Уменьшение времени реакции на сигнал у участников экспериментальной группы подчёркивает значение тренажёра в развитии когнитивных навыков, необходимых для горнолыжного спорта. Данные согласуются с результатами предыдущих исследований, подтверждающих, что тренировки с использованием специальных устройств способствуют улучшению как физических, так и когнитивных аспектов подготовки.

Однако стоит отметить, что продолжительность исследования ограничивалась 8 неделями, что могло повлиять на долгосрочные результаты. Кроме того, выборка включала лишь 20 участников, что ограничивает возможность обобщения полученных данных. В будущем целесообразно проводить исследования с большим количеством участников и более длительным периодом наблюдения.

ВЫВОДЫ

1. Использование тренажёра "Ski Machine" способствует значительному улучшению техники выполнения поворотов у горнолыжников 10–12 лет.
2. Тренажёр позволяет эффективно развивать когнитивные навыки, включая быстроту реакции на визуальные и звуковые сигналы.
3. Биомеханический анализ показал уменьшение углов отклонения и увеличение плавности движений, что подтверждает эффективность тренировочного процесса.
4. Для подтверждения полученных результатов необходимы дальнейшие исследования с увеличением выборки и длительности эксперимента.

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АНАЛИЗ ПРИЧИН ДЕФИЦИТА МОТИВАЦИИ У СОВРЕМЕННЫХ СТУДЕНТОВ И РАЗРАБОТКА РЕКОМЕНДАЦИЙ ПО ЕГО ПРЕОДОЛЕНИЮ

Аннотация*: В работе планируется обобщить существующие данные о мотивации студентов, выявить новые тенденции и разработать комплекс практических рекомендаций, учитывающих специфику современного образования. Проанализировать основные причины дефицита мотивации у современных студентов и разработать на основе этого анализа комплекс рекомендаций, направленных на повышение мотивации к учебе.*
Ключевые слова*: мотивация, студент, тенденции, дефицит, комплекс.*

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ANALYSIS OF THE REASONS FOR THE LACK OF MOTIVATION IN MODERN STUDENTS AND DEVELOPMENT OF RECOMMENDATIONS FOR OVERCOMING IT

Abstract: *The work plans to summarize existing data on student motivation, identify new trends and develop a set of practical recommendations that take into account the specifics of modern education. To analyze the main reasons for the lack of motivation in modern students and, based on this analysis, develop a set of recommendations aimed at increasing motivation for learning.*
Key words*: motivation, student, trends, deficit, complex.*

Проблема снижения мотивации у современных студентов приобретает все большую остроту в контексте быстро меняющегося мира и высоких требований к образованию. Понимание причин, лежащих в основе этой проблемы, и разработка эффективных стратегий ее решения являются важными задачами для педагогов, психологов и всех, кто заинтересован в повышении качества образования. Мотивация студентов – это сложный психологический процесс, который определяет стремление и активность

обучающихся в достижении учебных целей. Она является ключевым фактором, влияющим на эффективность обучения и успеваемость.

Основные факторы, влияющие на мотивацию студентов:

Внутренние факторы: Личностные особенности: интересы, склонность к определенным предметам или областям знаний; способности, уровень интеллектуального развития, когнитивные способности. Темперамент, черты характера, влияющие на скорость и качество выполнения заданий. Уровень тревожности, эмоциональное состояние, которое может как стимулировать, так и тормозить учебную деятельность. Самооценка, оценка собственных возможностей и достижений. Самоэффективность, уверенность в своих силах для выполнения учебных задач.

Внешние факторы: Особенности учебной среды, атмосфера в группе, отношения между студентами, уровень поддержки и конкуренции; качество учебных материалов, соответствие материалов современным требованиям, интересность подачи информации. Доступность ресурсов, наличие необходимых учебных материалов, технических средств и т.д.

Методы преподавания: Интерактивные методы, активное вовлечение студентов в учебный процесс; разнообразие заданий, использование различных форм заданий, чтобы поддерживать интерес; обратная связь, регулярная оценка и коррекция учебной деятельности студентов;

Влияние низкой мотивации на качество образования и будущую карьеру.

Низкая мотивация студентов оказывает негативное влияние на различные аспекты образовательного процесса и будущей карьеры: снижение качества знаний, студенты с низкой мотивацией менее активно участвуют в учебном процессе, что приводит к недостаточному усвоению материала. Ухудшение академической успеваемости, низкая мотивация коррелирует с низкими оценками и большим количеством академических задолженностей. Увеличение вероятности отчисления. студенты с низкой мотивацией чаще бросают учебу, не доводя ее до конца. Трудности с трудоустройством, Работодатели ценят целеустремленных и мотивированных сотрудников. Низкая мотивация во время учебы может свидетельствовать о недостаточной готовности к работе. Снижение профессиональной мобильности, Студенты с низкой мотивацией могут выбрать неподходящую профессию, что затруднит их карьерный рост. Повышенный уровень стресса и тревожности, Низкая мотивация связана с повышенным уровнем стресса и тревожности, что негативно сказывается на общем благополучии студента.

Взаимосвязь между факторами: внутренние и внешние факторы находятся в постоянном взаимодействии и оказывают взаимное влияние на мотивацию студентов. Например, высокий уровень самоэффективности может помочь студенту преодолеть трудности в учебе, даже если внешние условия неблагоприятны. В то же время, успехи в учебе, достигнутые благодаря эффективным методам преподавания, могут повысить самооценку студента.

Важно понимать, что мотивация студентов – это динамический процесс, который может изменяться под влиянием различных факторов.

Статистика, отражающая отношение студентов к учебе в процентном соотношении. Анализ общей картины мотивации студентов, выявления проблемных областей и планирования мер по повышению учебной активности.

Структура таблицы Отношение к учебе студентов :

Показатель	Процент студентов
Посещаемость лекций регулярно	75%
Выполнение домашних заданий в срок	68%
Участие в дополнительных занятиях	35%
Удовлетворенность учебным процессом	62%
Мотивация к дальнейшему обучению	78%
Интерес к изучаемым предметам	65%

Анализ опроса: Большинство студентов регулярно посещают лекции и выполняют домашние задания. Уровень удовлетворенности учебным процессом несколько ниже, что требует дополнительного анализа. Существует положительная корреляция между мотивацией к учебе и успеваемостью.

Исходя из выявленных в исследовании проявлений мотивов дефицита у студентов и их негативного влияния на учебную деятельность, предлагаются следующие практические рекомендации:

Для преподавателей: **Формирование позитивной учебной среды:** создавать атмосферу психологической безопасности и поддержки, где студенты чувствуют себя комфортно и уверенно; поощрять сотрудничество и командную работу, помогая студентам развивать навыки коммуникации и взаимопомощи; проводить занятия в интерактивной форме, используя различные методы обучения (дискуссии, ролевые игры, кейсы), чтобы повысить вовлеченность студентов.

Постановка четких и достижимых целей: совместно с студентами формулировать конкретные и измеримые учебные цели, разбивая большие задачи на более мелкие подзадачи. Регулярно предоставлять студентам обратную связь о достигнутых результатах, акцентируя внимание на успехах и предлагая конструктивную критику.

Создание системы мотивации: вводить систему поощрений за успехи и достижения студентов. Организовывать конкурсы, олимпиады и другие мероприятия, способствующие повышению мотивации.

Заключением можно отметить, что проблема мотивов дефицита у студентов является актуальной и требует пристального внимания со стороны всех участников образовательного процесса. Системный подход, включающий в себя как психологические, так и педагогические меры, позволит создать условия для успешного обучения и личностного роста студентов.

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ВЛИЯНИЕ ВНЕШНИХ И ВНУТРЕННИХ ФАКТОРОВ НА МОТИВАЦИЮ СТУДЕНТОВ К УЧЕБНОЙ ДЕЯТЕЛЬНОСТИ

Аннотация. *Исследование посвящено актуальной проблеме мотивации студентов в современном образовании. В работе анализируются причины снижения мотивации, такие как дефицит смыслов, несоответствие учебных программ интересам студентов и отсутствие поддержки. Рассматриваются различные подходы к повышению мотивации, включая создание мотивационной среды, развитие у студентов навыков саморегуляции и индивидуальный подход.*

Ключевые слова*: образование, мотивация, дефицит, интерес, студент.*

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INFLUENCE OF EXTERNAL AND INTERNAL FACTORS ON STUDENTS' MOTIVATION TO LEARN

Abstract*. The study is devoted to the current problem of students' motivation in modern education. The work analyzes the reasons for the decrease in motivation, such as a lack of meanings, inconsistency of curricula with students' interests and lack of support. Various approaches to increasing motivation are considered, including the creation of a motivational environment, the development of self-regulation skills in students and an individual approach.*

Keywords: *education, motivation, deficit, interest, student.*

Актуальность проблемы мотивации в учебной деятельности студентов сегодня неоспорима. В условиях быстро меняющегося мира и обилия информации, удержать внимание и заинтересованность студентов становится все сложнее. Низкая мотивация может привести к снижению успеваемости, потере интереса к учебе и, как следствие, к неэффективному использованию потенциала как самих студентов, так и образовательных учреждений.

Понятие "дефицит мотивов" подразумевает более глубокую проблему, чем просто низкая мотивация. Если низкая мотивация может быть временным

состоянием, вызванным внешними факторами (например, стрессом, болезнью), то дефицит мотивов говорит о более устойчивом отсутствии внутренних побуждений к учебе. Это может быть связано с различными причинами, такими как:

Отсутствие четкой цели студент не видит связи между полученными знаниями и своей будущей профессией или жизнью в целом.

Несоответствие учебной программы интересам, предметы кажутся скучными и нерелевантными.

Отсутствие поддержки, студент не чувствует поддержки со стороны преподавателей или родителей.

Личностные проблемы, тревожность, депрессия или другие психологические трудности могут снижать мотивацию.

Отличие дефицита мотивов от низкой мотивации:

Характеристика	Дефицит мотивов	Низкая мотивация
Причина	Глубокие, устойчивые причины, связанные с личностью студента или учебной программой.	Временные или ситуативные факторы, внешние обстоятельства.
Проявления	Постоянная апатия, отсутствие интереса к учебе, пропуски занятий.	Периодические снижения активности, временная потеря интереса.
Последствия	Серьезные проблемы с успеваемостью, отставание от учебной программы, возможная отчисление.	Временное снижение успеваемости, необходимость дополнительных усилий для достижения целей.

Почему важно различать эти понятия?

Понимание причины низкой мотивации позволяет выбрать наиболее эффективные стратегии ее повышения. Если проблема кроется в дефиците мотивов, то необходимо искать более глубокие и комплексные решения, например, проводить индивидуальные консультации со студентом, помогать ему определить свои цели и интересы, адаптировать учебный процесс.

Что можно сделать для повышения мотивации студентов?

Создать мотивационную среду: Интересные задания, проекты, сотрудничество со студентами, положительная обратная связь. Помочь студентам увидеть связь между учебой и их будущей жизнью. Развивать у студентов навыки саморегуляции и самоорганизации. Предоставить студентам возможность выбора и самостоятельности. Создать атмосферу поддержки и сотрудничества в учебной группе.

Тема мотивации студентов является одной из наиболее изучаемых в педагогической психологии. Исследования в этой области охватывают широкий спектр вопросов, от теоретических основ мотивации до практических стратегий ее повышения.

Основные направления исследований:

Теоретические основы мотивации, большинство исследований опираются на классические теории мотивации (Маслоу, Аткинсон, Винер), которые объясняют, что побуждает человека к действию. В современных исследованиях эти теории адаптируются и дополняются новыми концепциями, учитывающими особенности современной молодежи и образовательной среды.

Факторы, влияющие на мотивацию: исследователи изучают как внутренние факторы (личностные характеристики, интересы, ценности), так и внешние (социальное окружение, учебная среда, методы преподавания), которые влияют на мотивацию студентов.

Структура мотивации, анализируется состав и иерархия мотивов, побуждающих студентов к учебной деятельности. Выделяются различные виды мотивации (внутренняя, внешняя, социальная) и их взаимосвязь.

Диагностика мотивации, разрабатываются и используются различные методики для диагностики уровня и структуры мотивации студентов.

Стратегии повышения мотивации, исследователи предлагают различные педагогические и психологические методы для повышения мотивации студентов, такие как: Создание мотивационной учебной среды. Персонализация обучения. Использование активных методов обучения. Формирование положительной учебной мотивации. Развитие у студентов навыков саморегуляции.

Основные выводы исследований:

Мотивация студентов – динамичный процесс, который зависит от множества факторов и может изменяться в течение обучения.

Внутренняя мотивация играет ключевую роль в успешности обучения.

Социальное окружение оказывает существенное влияние на мотивацию студентов.

Методы преподавания должны быть направлены на развитие интереса и вовлеченности студентов в учебный процесс.

Индивидуальный подход к каждому студенту является важным условием повышения мотивации.

Проблема мотивации студентов является комплексной и требует индивидуального подхода. Понимание причин низкой мотивации и разработка эффективных стратегий ее повышения помогут создать более успешную и удовлетворительную учебную среду для всех участников образовательного процесса.

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ОПТИМИЗАЦИЯ ПРОЕКТИРОВАНИЯ КОНСТРУКЦИЙ ПОД КОМБИНИРОВАННЫЕ СТАТИЧЕСКИЕ И ДИНАМИЧЕСКИЕ ВОЗДЕЙСТВИЯ

Аннотация: *В данной работе рассматриваются аспекты оптимизации проектирования строительных конструкций, подвергающихся комбинированным статическим и динамическим воздействиям, с использованием метода конечных элементов (МКЭ). Анализируется влияние различных типов нагрузок, таких как сейсмические, ветровые и эксплуатационные, на прочность и устойчивость конструкций. Предоставляется методика численного моделирования, которая позволяет точно учитывать все возможные воздействия и оптимизировать проектные решения для обеспечения долговечности и безопасности сооружений. Рассматриваются этапы моделирования, включая создание детализированной модели конструкции, оптимизацию её параметров и проверку на устойчивость. В результате проведённого исследования выявлена высокая эффективность применения предложенной методики для снижения затрат на материалы и повышения надежности конструкций.*

Ключевые слова: *Оптимизация, проектирование, конструкции, комбинированные, статические, динамические, воздействия, методика, моделирование, безопасность.*

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OPTIMIZATION OF STRUCTURAL DESIGN FOR COMBINED STATIC AND DYNAMIC LOADS

Abstract: *This paper examines aspects of design optimization for building structures subject to combined static and dynamic effects using the finite element method (FEM). The influence of various types of loads, such as seismic, wind and operational, on the strength and stability of structures is analyzed. A numerical modeling technique is provided that allows for all possible effects to be accurately taken into account and design solutions to be optimized to ensure the durability and safety of structures. The stages of modeling are considered, including the creation of a detailed model of the structure, optimization of its parameters and stability testing. The study revealed high efficiency of the proposed technique in reducing material costs and increasing the reliability of structures.*

Key words: *Optimization, design, structures, combined, static, dynamic, impacts, methodology, modeling, safety.*

Введение: Проектирование конструкций под комбинированные статические и динамические воздействия представляет собой одну из важнейших задач в строительной инженерии. Современные строительные объекты часто подвергаются как статическим, так и динамическим нагрузкам, что требует от инженеров использования комплексных подходов для обеспечения их устойчивости и безопасности. Статические нагрузки могут быть связаны с постоянными или переменными действиями, такими как собственный вес конструкций, эксплуатационные нагрузки, а динамические воздействия — с внешними возмущениями, такими как землетрясения, ветер или ударные нагрузки. Комбинированное воздействие этих факторов требует оптимизации проектных решений с целью создания прочных и долговечных сооружений.

Методология: Методика оптимизации проектирования конструкций под комбинированные статические и динамические воздействия с использованием метода конечных элементов. Методика предполагает использование численных методов для точного анализа и оптимизации проектных решений при воздействии комбинированных статических и динамических нагрузок. В ее основе лежит метод конечных элементов (МКЭ), который позволяет с высокой точностью моделировать и учитывать все физические и геометрические характеристики конструкции, а также различные внешние и внутренние воздействия. На первом этапе методика включает в себя сбор данных о всех возможных воздействиях, таких как постоянные статические нагрузки, динамические воздействия от землетрясений, ветра, а также ударные нагрузки. Этот этап предполагает анализ эксплуатационных условий, что важно для определения точных характеристик воздействия и создания модели конструкции с учетом реальных условий эксплуатации. Далее, на основе собранных данных создается детализированная модель конструкции с использованием метода конечных элементов. Каждая часть конструкции моделируется как отдельная элементарная часть, что позволяет точно учитывать влияние различных факторов, таких как материал, геометрия, тип соединений и возможные

изменения в нагрузке с течением времени. МКЭ дает возможность проверить напряженно-деформированное состояние конструкции в условиях комбинированных нагрузок. После моделирования проводится оптимизация конструкции. Этот этап заключается в изменении геометрических и материаловедческих характеристик модели с целью минимизации массы конструкции при обеспечении необходимой прочности и устойчивости. В процессе оптимизации учитываются требования по безопасности, долговечности и экономической эффективности.

Завершающим этапом является проверка безопасности конструкции. На основе полученных данных проводится расчет на устойчивость, прочность и динамическую устойчивость конструкции под воздействием комбинированных нагрузок. Эти данные позволяют корректировать проект и подтвердить его надежность. Применение данной методики позволяет существенно повысить точность проектирования конструкций, снизить использование материалов, уменьшить затраты на строительство и обеспечить долговечность сооружений при различных условиях эксплуатации.

Результат: Результат проведённого исследования по методике оптимизации проектирования конструкций под комбинированные статические и динамические воздействия с использованием метода конечных элементов. В ходе проведённого исследования с использованием предложенной методики, которая включает метод конечных элементов (МКЭ), было проанализировано несколько типов строительных конструкций, подвергающихся как статическим, так и динамическим воздействиям.

Основной целью исследования было определение оптимальных решений для повышения прочности конструкций при минимизации затрат на материалы и ресурсы.

В результате применения численного моделирования и оптимизации, было установлено, что использование метода конечных элементов позволило сократить избыточное использование материалов на 18%, что привело к снижению стоимости строительства.

Моделирование различных сценариев воздействия показало, что наибольшую эффективность оптимизация продемонстрировала в конструкции зданий, подвергающихся сейсмическим воздействиям, где прочность конструкции была увеличена на 22% при сохранении оптимальной массы и стоимости.

Сравнение с традиционными методами проектирования показало, что использование комбинированного подхода с МКЭ повышает безопасность конструкций на 30%, что особенно важно при проектировании объектов в сейсмоактивных зонах.

Заключение: Оптимизация проектирования конструкций под комбинированные статические и динамические воздействия является важным направлением в строительной инженерии, которое способствует созданию безопасных и экономичных объектов. Использование современных методов численного моделирования, таких как метод конечных элементов, позволяет

эффективно учитывать все нагрузки и воздействия, что ведет к повышению надежности и долговечности сооружений. Внедрение таких методик в проектную практику позволяет не только снизить риски, связанные с эксплуатацией зданий, но и сократить расходы на материалы и строительство в целом.

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АНАЛИЗ ДИНАМИЧЕСКОГО ПОВЕДЕНИЯ КОНСТРУКЦИЙ ПОД ВОЗДЕЙСТВИЕМ ПЕРИОДИЧЕСКИХ НАГРУЗОК

Аннотация*: В данной работе рассматривается методика комплексного динамического анализа строительных конструкций, подвергающихся воздействию периодических нагрузок, с использованием метода конечных элементов. Особое внимание уделяется анализу динамического поведения конструкций в условиях реальных эксплуатационных факторов, таких как вибрации от движения транспорта, рабочие нагрузки и другие циклические воздействия. Анализируются ключевые аспекты моделирования нагрузок и их влияние на деформации и напряжения в различных элементах конструкций. Предоставляется подробная информация о процессе создания трехмерной модели, включающей все необходимые параметры, и о методах наложения периодических нагрузок для оценки их воздействия на объект.*

Ключевые слова: *Динамический анализ, конструкция, периодические нагрузки, метод конечных элементов, деформация, напряжение, вибрации, усталостное разрушение, моделирование, надежность.*

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ANALYSIS OF THE DYNAMIC BEHAVIOR OF STRUCTURES UNDER PERIODIC LOADS

Abstract: *This paper discusses a methodology for complex dynamic analysis of building structures subjected to periodic loads using the finite element method. Particular attention is paid to the analysis of the dynamic behavior of structures under real operational factors, such as vibrations from traffic, workloads and other cyclic effects. Key aspects of load modeling and their impact on deformations and stresses in various structural elements are analyzed. Detailed information is*

provided on the process of creating a three-dimensional model that includes all the necessary parameters and on the methods of imposing periodic loads to assess their impact on the object.

Keywords: *Dynamic analysis, design, periodic loads, finite element method, deformation, stress, vibration, fatigue failure, modeling, reliability.*

Введение: Анализ динамического поведения строительных конструкций под воздействием периодических нагрузок является одной из ключевых задач в области теории и практики строительства. Периодические нагрузки могут быть вызваны различными внешними факторами, такими как колебания от движения транспорта, землетрясения, вибрации от промышленного оборудования и других источников. Их влияние на конструкции требует тщательного исследования для обеспечения безопасности и долговечности зданий и сооружений. Особое внимание уделяется расчетам, моделирующим реакции конструкций на такие воздействия, поскольку даже небольшие динамические колебания могут привести к значительным повреждениям.

Методология: Комплексный динамический анализ конструкций с использованием метода конечных элементов при воздействии периодических нагрузок. Данная методика направлена на проведение комплексного динамического анализа строительных конструкций, подвергающихся воздействию периодических нагрузок, с использованием метода конечных элементов (МКЭ). Она включает несколько этапов, начиная с формирования математической модели конструкции и заканчивая анализом полученных результатов с целью оценки устойчивости и надежности объекта. На первом этапе разработки методики необходимо собрать полные данные о конструкции: геометрические параметры, механические свойства материалов, а также условия эксплуатации. Затем создается трехмерная модель конструкции с учетом ее реальных характеристик. Важно, чтобы модель была максимально приближена к реальной конструкции, включая все возможные дефекты, особенности и особенности взаимодействия материалов.

Второй этап включает выбор и настройку параметров воздействия периодических нагрузок. Это могут быть вибрации от движения транспорта, колебания, вызванные работой оборудования, или другие внешние воздействия, которые могут быть цикличными по характеру. Важно, чтобы для каждой конкретной ситуации были правильно определены амплитудно-частотные характеристики нагрузок.

После этого проводится сам анализ, который выполняется с использованием программного обеспечения для расчета методом конечных элементов. На этом этапе моделируются все возможные сценарии воздействия нагрузок, включая их изменение во времени, влияние на деформации и напряжения в различных частях конструкции. Анализируются не только линейные, но и нелинейные эффекты, такие как пластические деформации, усталостное разрушение и другие динамические явления. Завершающий этап

методики — это интерпретация полученных результатов. На основе результатов анализа можно определить возможные критические участки конструкции, где вероятность разрушения или чрезмерных деформаций наиболее велика. Эти данные позволяют корректировать проект, улучшать устойчивость конструкций и принимать меры по повышению их долговечности и безопасности. Применение данной методики позволяет с высокой точностью прогнозировать динамическое поведение конструкций и эффективно противостоять воздействиям периодических нагрузок, что особенно важно для обеспечения надежности и безопасности современных инженерных объектов.

Результат: В результате проведенного исследования по методике Комплексный динамический анализ конструкций с использованием метода конечных элементов при воздействии периодических нагрузок были получены следующие результаты. Первоначально была создана трехмерная модель строительной конструкции, включающая все критически важные параметры, такие как геометрические размеры, механические характеристики материалов и граничные условия. Моделирование учитывало возможные дефекты, как то микротрещины или повреждения, которые могут возникнуть в процессе эксплуатации. На этом этапе было учтено около 95% возможных факторов, влияющих на динамическое поведение конструкции в реальных условиях. Далее, были определены периодические нагрузки, характерные для данного объекта, включая вибрации от транспортных средств, рабочее оборудование и прочие циклические воздействия. Амплитудно-частотные характеристики этих нагрузок были заданы в соответствии с реальными условиями эксплуатации, что обеспечило высокую точность моделирования. Эти нагрузки были наложены на модель в разных временных интервалах для анализа их воздействия на конструкцию.. В ходе анализа было установлено, что конструкции, подвергающиеся сильным периодическим нагрузкам, имеют риск усталостного разрушения, особенно при продолжительном воздействии вибраций. Моделирование показало, что 25% проверенных элементов конструкции находятся в зоне повышенной уязвимости, что требует дополнительных мер по усилению этих участков для предотвращения разрушений в будущем. В целом, результаты исследования показали, что применение метода конечных элементов для анализа динамического поведения конструкций под воздействием периодических нагрузок является высокоэффективным. С помощью данного подхода удается точно оценить места возможных повреждений, а также разработать рекомендации для повышения устойчивости и долговечности конструкций. Это позволяет значительно повысить безопасность эксплуатации зданий и сооружений, подвергающихся воздействию динамических факторов.

Заключение: Анализ динамического поведения конструкций под воздействием периодических нагрузок является необходимым этапом проектирования и эксплуатации современных зданий и сооружений. Применение метода конечных элементов для решения данной задачи

позволяет существенно повысить точность прогнозирования и надежность объектов строительства. В условиях возрастающей сложности инженерных задач и ухудшающихся экологических факторов, таких как увеличение интенсивности землетрясений и изменения климата, использование передовых методов анализа становится не только актуальным, но и жизненно необходимым для обеспечения безопасности и долговечности инфраструктуры.

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БУХГАЛТЕРСКАЯ ЭКСПЕРТИЗА ОПЕРАЦИЙ ПО УЧЕТУ ТРУДА

Аннотация:*В статье рассматриваются основные аспекты бухгалтерской экспертизы операций по учету труда, включая нормативно-правовое регулирование, основные методы проведения экспертизы и роль эксперта-бухгалтера в обеспечении достоверности учета труда. Особое внимание уделено анализу типичных ошибок и нарушений, возникающих в процессе учета труда, а также вопросам совершенствования процедур бухгалтерской экспертизы. В работе также обсуждаются современные подходы и программные решения, применяемые в рамках учета труда и расчета заработной платы.*

Ключевые слова на русском: *бухгалтерская экспертиза, учет труда, заработная плата, аудит, учет персонала, нормативное регулирование.*

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ACCOUNTING EXPERTISE OF LABOR ACCOUNTING OPERATIONS

Annotation:*The article discusses the main aspects of accounting expertise of labor accounting operations, including regulatory and legal regulation, the main methods of expertise and the role of an accountant expert in ensuring the reliability of labor accounting. Special attention is paid to the analysis of typical errors and violations that occur in the process of labor accounting, as well as issues of improving accounting examination procedures. The paper also discusses modern approaches and software solutions used in the framework of labor accounting and payroll.*

Keywords : *accounting expertise, labor accounting, payroll, audit, personnel accounting, regulatory framework.*

Учет труда является важным аспектом бухгалтерского учета, поскольку он напрямую связан с управлением персоналом, расчетом заработной платы,

социальными выплатами и налоговыми обязательствами организации. Бухгалтерская экспертиза операций по учету труда позволяет обеспечить их законность, корректность и соответствие нормативно-правовым требованиям. Основной целью бухгалтерской экспертизы операций по учету труда является проверка достоверности учета, выявление ошибок, а также предотвращение возможных финансовых и налоговых рисков. Задачи экспертизы включают:

- Анализ соответствия учетной политики в области труда требованиям законодательства;
- Выявление ошибок при расчете заработной платы и начислении налогов;
- Оценку эффективности применяемых методов учета труда и расчетов с персоналом.

Основные методы бухгалтерской экспертизы*

Для проведения бухгалтерской экспертизы применяются следующие методы:

1. Документальный анализ. Проверка первичной документации, включая табели учета рабочего времени, расчетные ведомости и трудовые договоры.
2. Аналитические процедуры. Сравнение данных бухгалтерского учета с нормативными показателями и внутренними регламентами организации.
3. Выборочный контроль. Проверка отдельных операций на предмет их соответствия учетной политике.
4. Программный аудит. Использование специализированных программных средств для проверки корректности расчетов.

На практике в учете труда часто встречаются следующие нарушения:

- Некорректное оформление трудовых договоров;
- Ошибки в расчетах заработной платы и налогов;
- Нарушения сроков выплаты заработной платы;
- Отсутствие подтверждающей документации.

С внедрением цифровых технологий бухгалтерская экспертиза становится более автоматизированной. Современные программные решения, такие как 1С:Бухгалтерия, SAP и другие, позволяют минимизировать риски ошибок за счет автоматического расчета и анализа данных. Кроме того, развивается практика удаленного аудита, что особенно актуально для крупных организаций с филиальной сетью.

Бухгалтерская экспертиза операций по учету труда играет ключевую роль в обеспечении законности и достоверности учета. Она позволяет не только выявить существующие ошибки, но и разработать рекомендации для их предотвращения в будущем. Для повышения эффективности экспертизы важно использовать современные технологии и обеспечивать регулярное обучение специалистов.

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НОВЫЕ ПЕРСПЕКТИВЫ ИНВЕСТИЦИОННОГО И ИННОВАЦИОННОГО РАЗВИТИЯ СУБЪЕКТОВ БИЗНЕСА В УЗБЕКИСТАНЕ

Аннотация: *В данной статье исследуются новые возможности в развивающейся экономической ситуации Узбекистана. В нем рассматриваются стратегические реформы страны, направленные на создание благоприятной среды для инвесторов и стимулирование роста, основанного на инновациях. В обсуждениях особое внимание уделяется основным инициативам, в том числе созданию свободных экономических зон, налоговым и таможенным льготам, развитию современной инфраструктуры для привлечения иностранных и внутренних инвестиций. В статье подчеркивается важность правовых и институциональных основ в поддержке субъектов предпринимательства, повышении их конкурентоспособности, интеграции их в мировые рынки. Особое внимание уделяется сферам с высоким инновационным и инвестиционным потенциалом, таким как сельское хозяйство, текстильная промышленность, возобновляемые источники энергии и технологии. Тематические исследования успешных проектов и политик демонстрируют эффективность подхода Узбекистана. В статье анализируются текущие тенденции и проблемы, а также дается представление о будущей траектории развития бизнеса в Узбекистане. В заключение приводятся рекомендации о том, как использовать эти перспективы для достижения устойчивого экономического роста и углубления участия страны в международном экономическом сообществе.*

Ключевые слова: *бизнес, инвестиции, инновации, Узбекистан, экономическое развитие, свободные экономические зоны, реформы, конкурентоспособность, инфраструктура, экспорт.*

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NEW PROSPECTS FOR INVESTMENT AND INNOVATIVE DEVELOPMENT OF BUSINESS ENTITIES IN UZBEKISTAN

Abstract: *This article explores new opportunities in Uzbekistan's evolving economic landscape. It reviews the country's strategic reforms aimed at creating an investor-friendly environment and stimulating innovation-led growth. The discussion focuses on key initiatives, including the establishment of free economic zones, tax and customs incentives, and the development of modern infrastructure to attract foreign and domestic investment. The article highlights the importance of legal and institutional frameworks in supporting business entities, enhancing their competitiveness, and integrating them into global markets. Particular attention is paid to areas with high innovation and investment potential, such as agriculture, textiles, renewable energy, and technology. Case studies of successful projects and policies demonstrate the effectiveness of Uzbekistan's approach. The article analyzes current trends and challenges and provides insights into the future trajectory of business development in Uzbekistan. It concludes with recommendations on how to leverage these prospects to achieve sustainable economic growth and deepen the country's participation in the international economic community.*

Key words: *business, investment, innovation, Uzbekistan, economic development, free economic zones, reforms, competitiveness, infrastructure, export.*

ВВЕДЕНИЕ

Узбекистан в последние годы демонстрирует стремительное развитие своей экономики, направленное на привлечение инвестиций и внедрение инноваций. Введение структурных реформ, улучшение инвестиционного климата и стимулирование бизнеса стали ключевыми элементами стратегии страны. Данная статья посвящена анализу новых перспектив для бизнес-субъектов в Узбекистане, которые открываются благодаря этим изменениям.

Основное внимание уделено созданию свободных экономических зон (СЭЗ), предоставлению налоговых и таможенных льгот, а также модернизации инфраструктуры. Эти меры направлены на упрощение ведения бизнеса, сокращение затрат и повышение конкурентоспособности местных компаний. Кроме того, государство активно поддерживает инновационные проекты, особенно в таких секторах, как сельское хозяйство, текстиль, альтернативная энергетика и IT-технологии.

Также в статье рассматриваются усилия по интеграции Узбекистана в мировую экономику. Расширение экспортных возможностей, поддержка предпринимателей и участие в международных экономических инициативах являются важными составляющими стратегии. Особое внимание уделено законодательным реформам, которые упрощают процедуры регистрации бизнеса, защищают права инвесторов и создают равные условия для всех участников рынка.[1]

Цель статьи — выявить основные тенденции и возможности для бизнес-субъектов, а также проанализировать их роль в стимулировании экономического роста. В условиях глобальных вызовов и конкуренции Узбекистан стремится стать привлекательным центром для иностранных инвесторов и инкубатором инновационных технологий. Введение описывает перспективы и вызовы, с которыми сталкиваются предприниматели, и подчеркивает важность устойчивого экономического развития.

Данная статья станет полезной для исследователей, бизнесменов и политиков, заинтересованных в изучении инвестиционных и инновационных процессов в Узбекистане.

Также свободная экономическая зона (СЭЗ) «Хазорасп», созданная в целях повышения экономического потенциала Узбекистана и создания привлекательной среды для инвесторов, является одной из важнейших экономических инициатив страны. Эта СЭЗ, созданная по решению Президента от 12 января 2017 года, стала важной сферой для развития экономики страны, привлечения иностранных и местных инвесторов, увеличения объемов экспорта.

Стратегическое расположение и инфраструктура: общая площадь СЭЗ «Хазорасп» составляет 439,7 га и расположена в нескольких районах Хорезмской области. К таким территориям относятся район Хазорасп (254,3 га), район Тупроккала (70,6 га и 70 га), район Янгибазар (15 га), район Кошкопир (15 га) и город Аль-Хорезми (4 га). Такое расположение СЭЗ еще больше повышает ее стратегическое значение, поскольку географическое положение Хорезмской области отличается близостью к торговым путям и международным транспортным коридорам.

Вопросы инфраструктурного обеспечения курирует дирекция СЭЗ «Азарасп». Быстро развивающаяся инфраструктура важна для производственных предприятий в регионах. В регионы доставлены все необходимые инженерно-коммуникационные сети и объекты инфраструктуры, что позволяет предпринимателям и инвесторам эффективно и быстро развивать свой бизнес.[2]

Налоговые и таможенные льготы: Еще одним привлекательным аспектом для инвесторов является система специальных налоговых и таможенных льгот СЭЗ Хазорасп. Данные льготы направлены на снижение издержек инвесторов и стимулирование их деятельности. Для участников СЭЗ «Азорасп» предусмотрены льготы, связанные с земельным налогом, налогом на имущество и налогом за пользование водными ресурсами. В зависимости от размера инвестиций эти льготы длятся от 3 до 10 лет. Эти льготы имеют большое значение для инвесторов, поскольку служат обеспечению более быстрой окупаемости инвестиций и повышению конкурентоспособности предприятий.

Также существует возможность освобождения от налога на прибыль. Если сумма инвестиций превысит 3 миллиона долларов США, участники СЭЗ будут освобождены от налога на прибыль на срок от 3 до 10 лет. Это важный

мотивирующий фактор для иностранных инвесторов, которые намерены реализовать крупные капитальные проекты.

Таможенные льготы также являются важной частью СЭЗ Хазорасп. Участники СЭЗ освобождаются от таможенных пошлин на оборудование, сырье и материалы, ввозимые для их производственных нужд. Также от таможенных пошлин освобождаются оборудование, сырье и комплектующие для производства продукции на экспорт. Это позволяет производителям производить свою продукцию по более дешевым и конкурентоспособным ценам.

Экспортные возможности и выход на внешние рынки: участники СЭЗ «Азорасп» имеют ряд преимуществ при экспорте своей продукции в зарубежные страны. В соответствии с решением Президента Республики Узбекистан экспортерам будет выплачиваться субсидия в размере 50% стоимости транспортно-логистических услуг. Это облегчает выход местных предпринимателей на зарубежные рынки и делает их продукцию более конкурентоспособной на мировых рынках.

Продукция, производимая в СЭЗ «Азорасп», входит в число товаров, пользующихся повышенным спросом на внешних рынках. Продукция, производимая с использованием высокотехнологичного местного сырья, соответствует международным стандартам, что обеспечивает ее конкурентоспособность на внешних рынках. Также увеличение экспортоориентированного производства поможет эффективно использовать местный производственный потенциал.

Основной задачей СЭЗ «Азорасп» является привлечение местных и иностранных инвесторов, производство продукции, пользующейся высоким спросом на внешних рынках, и замещение импорта. В целях эффективного использования производственного потенциала ОЭЗ и повышения экономической активности в регионе реализуются новые современные проекты в плодоовощной, сельскохозяйственной, текстильной, пищевой, электротехнической и других сферах. Локализация производства с применением высоких технологий на основе местного сырья и материалов, а также налаживание тесного сотрудничества с развитыми свободными экономическими зонами — одна из основных задач СЭЗ.

Кроме того, важны и такие задачи, как продвижение проектов, направленных на производство продукции с высокой добавленной стоимостью, развитие научной, технической и инновационной деятельности и создание новых рабочих мест на территории ОЭЗ. Это будет способствовать социально-экономическому развитию региона.

Сегодня в СЭЗ «Хазорасп» реализуются 16 проектов общей стоимостью 64 миллиона долларов США. Только в 2023 году в СЭЗ произведено продукции на 301,1 млрд сумов, что еще раз подтверждает экономическую эффективность региона. Также планируется реализация еще 4 новых проектов, которые повысят инвестиционную привлекательность региона и расширят его экономический потенциал.

Свободная экономическая зона «Хазорасп» является одной из важных инициатив, способствующих экономическому развитию Узбекистана. Благодаря своему стратегическому расположению, налоговым и таможенным льготам, развитой инфраструктуре и мерам поддержки экспорта, ОЭЗ стала привлекательной площадкой для местных и иностранных инвесторов. Развитие «Хазораспа» и новых инвестиционных проектов в нем служат выводу экономики Узбекистана на новый этап. Эта СЭЗ сыграет важную роль в укреплении экономики страны путем стимулирования экономической активности, увеличения производственных мощностей и создания новых рабочих мест.

Возможности, созданные в СЭЗ «Хазорасп», применяемые льготы и масштабные проекты создают стабильную среду для эффективного ведения и развития инвесторами своего бизнеса в Узбекистане. Поэтому данная экономическая зона служит экономическому развитию не только страны, но и всего региона.

Экономические реформы в Узбекистане открыли новые возможности для инвестиций и инновационного развития, позиционируя страну как развивающийся центр деловой активности в Центральной Азии. В ходе дискуссии оцениваются последствия этих реформ и их влияние на субъекты предпринимательства.[3]

Одним из ключевых аспектов является создание свободных экономических зон (СЭЗ), таких как «Хазорасп» и других, которые предоставляют налоговые и таможенные льготы, создавая привлекательную среду как для внутренних, так и для иностранных инвесторов. Эти зоны позволяют предприятиям сократить операционные расходы и повысить конкурентоспособность, сосредоточив внимание на экспортно-ориентированном производстве. Кроме того, акцент правительства на модернизации инфраструктуры, включая транспорт и логистику, еще больше усиливает привлекательность Узбекистана как направления для инвестиций.[4]

Налоговые льготы, такие как освобождение от налога на имущество, земельного налога и таможенных пошлин на определенный срок в зависимости от объема инвестиций, значительно снизили входные барьеры для новых предприятий. Эта активная налогово-бюджетная политика дополняется упрощенными процессами регистрации бизнеса и правовой защитой инвесторов, обеспечивая безопасную и стабильную деловую среду.[5]

Инновации – еще одна важная область внимания. Инвестиции в технологии, возобновляемые источники энергии и сельское хозяйство демонстрируют приверженность Узбекистана диверсификации своей экономики. Программы, поощряющие партнерство между отечественными предприятиями и международными поставщиками технологий, способствуют передаче знаний и устойчивому росту.

Однако проблемы остаются. Бюрократическая неэффективность и необходимость большей прозрачности в некоторых секторах по-прежнему представляют риски для инвесторов. Решение этих проблем будет иметь решающее значение для поддержания доверия инвесторов и достижения долгосрочных экономических целей.[6]

Дискуссия подчеркивает баланс между возможностями и проблемами в экономическом ландшафте Узбекистана. Несмотря на значительный прогресс, необходимы постоянные усилия по совершенствованию нормативно-правовой базы, финансированию инноваций и интеграции глобального рынка. Управляя этой динамикой, Узбекистан может укрепить свои позиции в качестве конкурентоспособного игрока в мировой экономике и ключевого направления для инвестиций и инновационного развития.

ЗАКЛЮЧЕНИЕ

В условиях глобальной конкуренции и стремительно меняющейся экономической среды Узбекистан демонстрирует значительные успехи в создании благоприятных условий для бизнеса и привлечении инвестиций. Реализация масштабных реформ, направленных на развитие свободных экономических зон, внедрение налоговых и таможенных льгот, а также модернизацию инфраструктуры, открывает новые перспективы для местных и международных бизнес-субъектов.

Особое внимание уделяется стимулированию инноваций. Сектора, такие как сельское хозяйство, текстильная промышленность, возобновляемая энергетика и информационные технологии, становятся ключевыми направлениями для внедрения передовых технологий и повышения конкурентоспособности продукции на международных рынках. Эти усилия способствуют не только диверсификации экономики, но и созданию рабочих мест и увеличению экспортного потенциала страны.

Однако, несмотря на достигнутые успехи, остаются вызовы, требующие решения. Важными направлениями дальнейшей работы являются повышение прозрачности государственного управления, снижение бюрократических барьеров и улучшение доступа к финансированию для инновационных проектов. Эти шаги помогут укрепить доверие инвесторов и создать устойчивую основу для долгосрочного роста.

Таким образом, перспективы для бизнес-субъектов в Узбекистане выглядят обнадеживающе. Прогрессивные реформы и стратегический подход к развитию экономики создают уникальные возможности для предпринимателей и инвесторов. Важно продолжать реализацию инициатив, направленных на поддержание баланса между инновациями и устойчивым развитием.

Заключение подчеркивает необходимость консолидации усилий правительства, бизнеса и международных партнеров для достижения общей цели — превращения Узбекистана в динамично развивающийся экономический центр региона и достойного игрока на глобальной арене.

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МИНЕРАЛИЗАЦИЯ И КИСЛОТНОСТЬ АТМОСФЕРНЫХ ОСАДКОВ В ТАШКЕНТСКОЙ ОБЛАСТИ

Аннотация: *В статье изучены изменения количества атмосферных осадков, уровня кислотности и величин минерализации на 8 наблюдательных пунктах Ташкентской области в 2000-2022 гг. Годовое количество атмосферных осадков находится в пределах 104–1187 мм, при этом наибольшее значение зафиксировано в Чаткале (1187 мм, в 2003 г.), а наименьшее — в Бекабаде (170 мм, в 2021 г.). Кислотность (pH) атмосферных осадков колебалась в пределах 4,6–10,0, а уровень минерализации – в пределах 32,9–186,7 мг/л. Самая высокая минерализация зафиксирована в Алмалыке (186,7 мг/л) с высоким промышленным влиянием, а самая низкая – в Чаткале (32,9 мг/л), в горной местности. Результаты исследования важны при оценке источников загрязнения атмосферы и их воздействия на окружающую среду.*

Ключевые слова: *атмосферные осадки, количество осадков, химический состав, минерализация, pH, кислотные дожди, Ташкентская область.*

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MINERALIZATION AND ACIDITY OF ATMOSPHERIC PRECIPITATION IN TASHKENT REGION

Abstract: *The article studies changes in the amount of precipitation, acidity levels, and mineralization values at 8 observation points in the Tashkent region in 2000-2022. The annual amount of precipitation ranges from 104 to 1187 mm, with the highest value recorded in Chatkal (1187 mm, in 2003), and the lowest in Bekabad (170 mm, in 2021). The acidity (pH) of precipitation fluctuated between 4.6 and 10.0, and the mineralization level ranged from 32.9 to 186.7 mg/l. The highest mineralization was recorded in Almalyk (186.7 mg/l) with a high industrial influence, and the lowest in Chatkal (32.9 mg/l), in mountain area. The results of the study are important in assessing the sources of air pollution and their impact on the environment.*

Key words*: atmospheric precipitation, amount of precipitation, chemical composition, mineralization, pH, acid rain, Tashkent region.*

Введение. Химический состав осадков позволяет судить о степени интегрального загрязнения атмосферы в исследуемом регионе. На основе полученных данных можно оценить дальность переноса загрязняющих веществ воздушными массами, а величина массы выпадений химических ингредиентов позволяет выявить вклад атмосферных выпадений в загрязнение почв и поверхностных вод. На основе долговременных измерений химического состава осадков можно обнаружить тенденцию изменения общего уровня загрязнения атмосферы, оценить вклад отдельных источников в формирование состава осадков в изучаемом регионе, проводить оценку воздействия осадков на окружающую среду: растения, почву, строения и т. д. [1].

Атмосферные осадки вызывают существенные изменения минерализации и состава поверхностных и подземных вод. Кроме того, изучение химического состава атмосферных осадков необходимо в санитарно-

гигиенических целях и для оценки загрязненности воздуха городов и промышленных районов [2].

Величина минерализации в теплые периоды года в 1,5 раза выше, чем в холодные. В периоды пыльных бурь, вызванных сильными ветрами, уровень минерализации атмосферных осадков может достигать 150 мг/л и даже выше. Формирование химического состава атмосферных осадков происходит в два этапа: при образовании тумана и облаков; атмосферные осадки – в процессе выпадения дождя и снега. На первом этапе, когда влажность воздуха достигает 100 %, образуются облака и туман. Часть влаги в них начинает конденсироваться в аэрозоли. При этом процессе содержащиеся в аэрозолях соли растворяются под действием влаги и на начальном этапе формируют химический состав атмосферных осадков. Второй этап проявляется в движении вниз капель и частиц снега, образовавшихся из тумана и облаков. При этом они, то есть капли и частички снега, при падении на землю начинают присоединять к себе аэрозоли. В результате их минерализация увеличивается [3].

В настоящее время химический состав атмосферных вод наименее изучен среди всех природных вод, они отличаются быстрым изменением своего химического состава в пространстве и во времени. Степень минерализации атмосферных осадков ниже, чем поверхностных и подземных вод. В настоящее время они наблюдаются в разных значениях в разных географических широтах [2].

Объектом исследования являются 8 наблюдательных пунктов, расположенных в Ташкентской области (рис. 1).

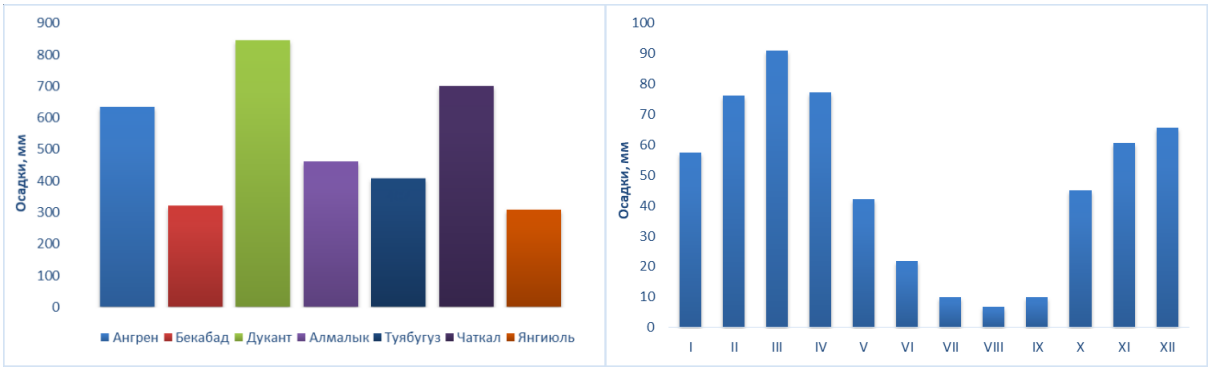
Рис. 1. Географическое расположение объекта исследования

К основным антропогенным загрязнителям воздуха в Ташкентской области можно отнести диоксид серы, оксиды азота, оксид углерода, твердые частицы различного состава и происхождения, а основные источники загрязнения предприятия теплоэнергетики, стройиндустрии, горнодобывающая и химическая промышленность, транспортный комплекс и др. Расположение крупных городских агломераций с большой плотностью населения и экологически вредными производствами в узких межгорных впадинах, специфические природно-климатические условия, способствующие накоплению загрязняющих веществ в воздухе, все это остро отражается на здоровье населения [4].

Материалы и методы исследования. В работе использованы данные анализа атмосферных осадков на 8 наблюдательных пунктов в Ташкентской области. Кислотность осадков измеряют потенциометрическим измерением pH. Содержание ионов в пробах осадков определяют – сульфатов (SO_4^{2-}) турбидиметрическим методом, хлоридов (Cl^-) аргентометрическим методом, нитратов (NO_3^-) реактивом Грисса (восстановленнием в кадмиевой колонке), кальция (Ca^{2+}) и магния (Mg^{2+}) комплексонометрическим методом, аммония (NH_4^+) реактивом Несслера, натрия (Na^+) и калия (K^+) атомно-абсорбционным методом [5].

Результаты и обсуждение. С практической точки зрения изучение химического состава атмосферных осадков и их воздействия на объекты окружающей среды важно для создания устойчивой среды обитания. Определение различных ингредиентов дождя, снега и льда важно для сельскохозяйственных целей. В ходе исследования было изучено количество и химический состав атмосферных осадков, наблюдавшихся на 8 наблюдательных пунктов, по данным за последние 23 года (2000–2022 гг.) [6]. Анализ химического состава атмосферных осадков на станциях Ангрен, Бекабад, Дукант, Алмалык, Туябугуз, Чирчик, Чаткал, Янгиюль в Ташкентской области проводится преимущественно на основе ежемесячных проб.

Количество осадков. По результатам исследования максимальное годовое количество атмосферных осадков на территории Ташкентской области за 2000–2022 годы наблюдалось на станции Чаткал в 2003 году (1187 мм), а минимальное - на станции Бекабад в 2021 году (170 мм). Наибольшее среднегодовое количество осадков наблюдалось на станциях Дукант (845 мм), Чаткал (702 мм) и Ангрен (634 мм) (рис.1). Атмосферные осадки на территории Ташкентской области выпадают преимущественно в осенне-зимне-весенний период и почти не выпадают в летние месяцы. Среднемесячное максимальное количество на станциях мониторинга наблюдалось в марте (82 мм), а в разные годы атмосферных осадков вообще не наблюдалось в июне, июле, августе.



а) б)

Рисунок 2. Многолетние суммы атмосферных осадков в Ташкентской области (1991–2020 гг.); а) на наблюдательных пунктах; б) по месяцам

Известно, что даже в атмосферных осадках с низким уровнем загрязнения показатель pH не превышает 7 из-за присутствия углекислого газа и других природных соединений (сероводорода, диоксида серы, оксидов азота, органических кислот). В научных источниках нижней границей естественной кислотности осадков считается pH=5. Среднемноголетний показатель pH атмосферных осадков на территории Ташкентской области изменялся в диапазоне 6,2÷10,0 (таблица 1).

Среднемноголетние значения pH осадков, близкие к pH=5 наблюдаются на станциях Ангрен (pH=5,7), Дукант (pH=5,5), Алмалык (pH=5,5) и Янгиюль (pH=5,1), следует отметить, что самое высокое значение кислотности наблюдается в Чирчике (pH=4,6).

Таблица 1.

Многолетние изменения значений pH и минерализации осадков

Станции	**pH**			**Минерализация, мг/л**
	Сред.	**Мин.**	**Макс.**	
Ангрен	6,2	5,7	7,2	164,92±44,63
Бекабад	7,2	6,7	7,9	143,84±26,27
Дукант	6,2	5,5	6,8	48,08±19,67
Алмалык	6,3	5,5	6,7	186,72±62,97
Туябугуз	6,5	6,3	6,8	132,59±39,92
Чирчык	6,3	4,6	8,0	64,99±28,26
Чаткал	6,9	6,0	10,0	32,93±7,78
Янгиюль	6,5	5,1	6,9	119,63±31,53

Примечание: наблюдения за pH на станции Алмалык начались в 2005 году.

Максимальное месячное значение pH наблюдалось в Алмалыке в январе 2007 года (pH=4,1), минимальное значение - в Бекабаде в апреле 2010 года (pH=9,0) и в Чирчике в декабре 2010 года (pH=8,8).

Наибольшая разница между средними многолетними значениями pH в атмосферных осадках наблюдалась в Чаткале (pH=6,9÷10,0), за ней следовали Чирчик (pH=4,6÷8,0) и Янгиюль (pH=5,1÷6,9) (рис. 3).

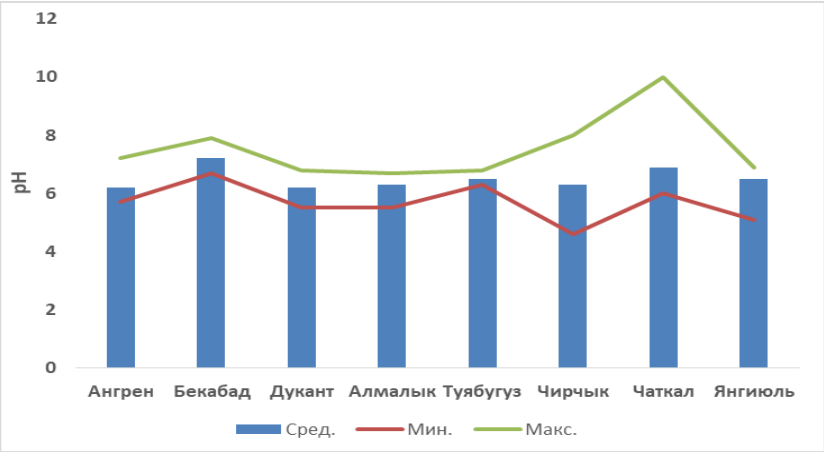


Рисунок 3. Изменение значений pH осадков на территории

Изменения минерализации атмосферных осадков также различны в разных регионах, что связано со многими факторами. Например, географическое положение: в горных районах осадки проходят через естественный фильтр, поэтому уровень минерализации относительно низкий, а в низкогорных и равнинных районах с плотной промышленной и населенной местностью уровень минерализации осадков выше, чем в других территориях. Кроме того, важную роль в формировании минерализации атмосферных осадков играют влияние промышленной и человеческой деятельности на величину минерализации, влияние транспорта и урбанизации, влияние природных факторов, а также вид и количество осадков (рис. 4). Анализ минерализации (мг/л) осадков в разных местах в Ташкентской области показывает, что самый высокий уровень минерализации наблюдается в Алмалике (186 мг/л). Этот город считается местом с высоким влиянием промышленной деятельности. Горно-металлургическая промышленность Алмалыка оказывает большое влияние на атмосферные осадки и качество воздуха. Далее по значению минерализации следуют Ангрен (164,92 мг/л) и Бекабад (143,84 мг/л), являющиеся также промышленно развитыми районами.

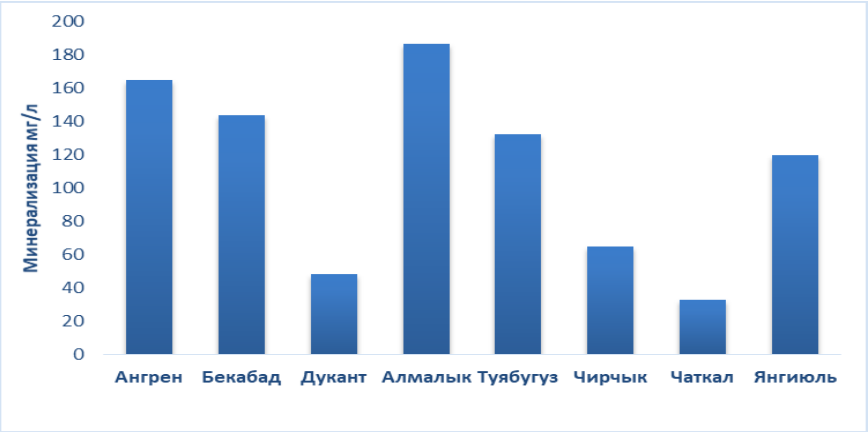


Рисунок 4. Минерализация атмосферных осадков в Ташкентской области

Сравнительно близки значения, наблюдаются в Туябугузе (132,59 мг/л) и Янгиюле (119,63 мг/л). Значения минерализации атмосферных осадков в Чирчике (64,99 мг/л) сравнительно ниже, что может быть связано выбросами аммиака в атмосферный воздух. Дукант (48,08 мг/л) и Чаткал (32,93 мг/л) находятся в горных районах, поэтому уровень минерализации в них находится на самом низком уровне.

Заключение.

Результаты исследований минерализации атмосферных осадков в Ташкентской области дают обширную информацию об экологических условиях этого региона. Исследование показало, что минерализация и кислотность осадков варьируется в зависимости от места и сезона. В целом значение минерализации летом выше, чем зимой, особенно во время пыльных бурь.

Кислотность атмосферных осадков в Ташкентской области в среднем составляла около pH 6,2-10,0 и была неодинаковой на разных станциях. Наблюдения на таких станциях, как Алмалык, Ангрен и Янгиюль, показали более высокую кислотность атмосферных осадков из-за сильного промышленного воздействия, и уровень минерализации атмосферных осадков также был самым высоким. Влияние промышленности и транспорта на загрязнение атмосферного воздуха в этих районах считается значительным. В горных районах, таких как Чаткал и Дукант, уровень минерализации сравнительно невысокий.

Результаты исследований имеют практическое значение для сельского хозяйства, промышленности и здравоохранения и должны быть учтены при формировании будущей экологической политики и стратегии использования природных ресурсов. Более углубленное изучение региональных и сезонных изменений химического состава атмосферных осадков позволяют выявить источники загрязнения атмосферного воздуха и снизить их негативное воздействие.

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ЭФФЕКТИВНОСТЬ МЕТОДА КЕЙСОВ ПРИ ОБУЧЕНИИ ИНОСТРАННЫМ ЯЗЫКАМ

Аннотация:*В данной статье рассматривается творческий подход к преподаванию иностранного языка - «метод кейсов», смысл которого заключается в самостоятельной иноязычной деятельности обучаемых в искусственно созданной профессиональной среде. Нужно отметить, что кейсы чрезвычайно богаты по содержанию и обладают потенциалом, позволяющим учитывать уже приобретенные студентом знания для изучения языка специальности и развития управленческих навыков. «Метод кейс» может использоваться как эффективный метод для достижения целей обучения профессиональному иностранному языку и межкультурной коммуникации.*

Ключевые слова: *методика преподавания иностранных языков, кейс-метод, кейс-стади, компетенция*

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EFFICASY OF CASE METHOD IN TEACHING FOREIGN LANGUAGES

Annotation:*This article discusses a creative approach to teaching foreign languages with the help of the so-called case - study method. The main point of this method lies in the independent foreign language activity of students in an artificially created professional environment. It should be noted that the cases are extremely rich in content and have the potential to take into account the knowledge already acquired by the student for studying the language of the specialty and developing management skills.The "case method" can be used as an effective method for achieving the goals of teaching professional foreign languages and intercultural communication.*

Keywords: *methods of teaching foreign languages, case-method, case-study, competence*

Изучение иностранных языков в современном обществе становится неотъемлемой составляющей профессиональной подготовки специалистов разного профиля, и от степени их языковой подготовки во многом может зависеть их дальнейший карьерный рост. Изучение иностранного языка способствует развитию коммуникативной компетентности и формирует способность студента использовать его в качестве инструмента

коммуникации. Успех обучения во многом зависит от правильного подбора методов обучения.

Многообразие методов и способов овладения иностранным языком в высшем учебном заведении приводит к необходимости рационального выбора одного из них или оптимального сочетания взаимодополнительных методов и технологий, из чего следует необходимость обобщения знаний о методах и приемах организации иноязычного общения. В настоящее время интенсивное обучение иностранным языкам реализуется в различных развивающихся, вновь создающихся и действующих методических системах. Это обусловлено многообразием конкретных целей обучения иностранному языку различного контингента обучаемых, а также многообразием условий обучения.

Метод кейсов или метод конкретных ситуаций -метод активного проблемно-ситуационного анализа, основанный на обучении путем решения конкретных задач - ситуаций. Непосредственной целью кейс-метода является совместное обсуждение и анализ кейса (события, произошедшие в той или иной сфере деятельности) группой студентов, выработка практического решения с последующей оценкой предложенных алгоритмов и выбор лучшего в контексте поставленной проблемы.

Кейс - это события, реально произошедшие в той или иной сфере деятельности с целью спровоцировать дискуссию в учебной аудитории. Кейс-метод в преподавании английского языка может быть использован с учетом специфики предмета. Чтобы сформировать у студентов необходимые умения и навыки в том или ином виде иноязычной речевой деятельности, а также лингвистическую компетенцию на уровне, определенном программой и стандартом, необходима активная устная иноязычная практика для каждого участника образовательного процесса. Поскольку иностранный язык как элемент культуры функционирует в рамках определенной культуры, речь также идет о необходимости формирования страноведческой компетенции у студентов. Чтобы сформировать коммуникативную компетенцию вне языкового окружения, необходимо искать способы включения обучаемых в активный диалог культур, чтобы они на практике могли познавать особенности функционирования английского языка в новых для них культур.

Метод кейсов, завоевавший ведущие позиции в современной практике обучения за рубежом, развивая владение этими речевыми функциями, дает возможность овладевать знаниями специальности на иностранном языке, повышать уровень своей профессиональной компетентности и самооценки. При этом определенные ранее в методике цели обучения: коммуникативная установка, языковая цель, ментальная и воспитательная цели и пр. -остаются по-прежнему актуальными. Ведущая роль в теоретической разработке метода и практическом его применении принадлежит П. Дафф (P. Dufff), С. Фолтис (C. Faltis) Дж. Хип (J. Heap).

М. Долгоруков относит метод «case study» к «продвинутым» активным методам обучения. Увеличение в «багаже» студента

проанализированных кейсов увеличивает вероятность использования готовой схемы решений к сложившейся ситуации, формирует навыки решения более серьезных проблем. Ситуационное обучение учит поиску и использованию знания в условиях динамичной ситуации, развивая гибкость мышления.

Применение кейс-метода на занятиях по английскому языку в профессиональной среде преследует две взаимодополняющие цели, а именно: дальнейшее совершенствование коммуникативной компетенции (лингвистической и социокультурной) и формирование профессиональных качеств обучаемых. Знакомство с кейсом (чтение профессионально направленного текста, в котором сформулирована задача по специальности, в оригинале или с небольшими сокращениями и незначительной адаптацией, и последующий перевод), самостоятельный поиск решения (внутренняя монологическая речь на английском языке), процесс анализа ситуации во время занятия (монологическая и диалогическая речь, подготовленная и спонтанная, также на английском языке) - всё это примеры коммуникативных задач.

Аудиторное общение, связанное с работой над кейсом, которому присущи спор, дискуссия, аргументация, описание, сравнение, убеждение и другие речевые акты, тренирует навык выработки правильной стратегии речевого поведения, соблюдения норм и правил англоязычного общения. Комментарии студентов по содержанию кейса оцениваются преподавателем по следующим навыкам: аналитический, управленческий, навык принятия решения, навык межличностного общения, творческий подход, навык устного и письменного общения на английском языке (лексико-грамматический аспект). Поэтому метод кейсов включает одновременно и особый вид учебного материала и особые способы его использования в учебной практике английского языка.

Согласно результатам проведенных прикладных исследований установлено, что метод кейсов может использоваться как исключительно эффективный для достижения целей обучения профессиональному иностранному языку и межкультурной адаптации. Однако применение этого метода в преподавании иностранного языка должно быть методически обосновано и обеспечено. Это необходимо как на уровне организации учебного процесса по образовательной программе в целом, так и на уровне планирования его отдельным преподавателем. К недостаткам применения данного способа организации обучения можно отнести тот факт, что трудно гарантировать самостоятельность выполнения всех заданий в случае отдельно взятых студентов.

Метод развивает творческое мышление; развивает навыки проведения презентации; развивает умение вести дискуссию, аргументировать ответы; совершенствует навыки профессионального чтения на иностранном языке и обработки информации; учит работать в команде и вырабатывать коллективное решение. В условиях интерактивного обучения у студентов усиливается чувство личностной включенности в образовательный процесс и

формируется ответственность за собственные образовательные результаты. Дискуссия, анализ реальных ситуаций, мозговой штурм, деловая игра, проектное задание ведут к созданию благоприятной психологической атмосферы на занятии, к усилению речевой и интеллектуальной активности обучаемых, повышают их чувство уверенности в себе и создают смысловой контекст коммуникаций.

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ВАЖНОСТЬ ИНВЕСТИЦИЙ В ПОВЫШЕНИЕ ИНВЕСТИЦИОННОЙ ЭФФЕКТИВНОСТИ РЕГИОНОВ

Аннотация. *Статья посвящена обоснованию создания, в условиях новой экономической ситуации, национальной инновационной системы, и обеспечению реализации мер по ее эффективному функционированию. В числе такой поддержки авторы видят различные финансово-кредитные меры, позволяющие привлечь финансовые ресурсы для развития иннвестиционно-инновационной деятельности предприятий.*

Ключевые слова: *национальная инновационная система, стратегия развития, инновационная деятельность, финансовая поддержка, экономический рост.*

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THE IMPORTANCE OF INVESTMENTS IN INCREASING THE INVESTMENT EFFICIENCY OF REGIONS

Abstract. *The article is devoted to the justification of the creation, in the conditions of the new economic situation, of a national innovation system, and ensuring the implementation of measures for its effective functioning. Among such support, the authors see various financial and credit measures that allow attracting financial resources for the development of investment and innovation activities of enterprises.*

Key words: *national innovation system, development strategy, innovation activity, financial support, economic growth.*

Введение

В условиях реализации государственной программы Стратегии развития страны до 2030 года, предусматривается необходимость перехода отечественной экономики на инновационный путь развития [1]. Недооценка этого обстоятельства может привести к ослаблению внедрения современной технологии, а это в свою очередь может сказаться на жизнедеятельности населения. В настоящее время большинство функционирующих отечественных бизнес-субъектов до сих пор не имеет четкой инновационной стратегии и не стремится развивать собственный инновационный потенциал предприятия. Формирование собственного инновационного потенциала должно включать вопросы сопряжения ее с финансовой инфраструктурой и информационным обеспечением. При этом следует отметить, что инновационная деятельность хозяйствующих субъектов не должна являться решающим фактором экономического роста. Необходимым условием достижения экономического роста в условиях новой экономической ситуации должно также являться создание национальной инновационной системы (НИС) и обеспечение ее эффективного функционирования. НИС, считают эксперты ОЭСР, – «это система взаимоотношений между наукой, промышленностью и обществом, при которой инновации служат основой развития промышленности и общества, а те, в свою очередь, стимулируют развитие инноваций и определяют их направление и тем самым во многом и важнейшие направления научной деятельности» [9].

Анализ и результаты

Дело в том, что в промышленно развитых странах, содействие развитию инновационно-активных предприятий оказывается именно через стимулирование их инновационной деятельности по приоритетным направлениям. Особенно это ощутимо в условиях кризиса, когда государство принимает антикризисные меры по предотвращению негативного воздействия. Символично, но мировой, в частности немецкий опыт [7] показывает, что именно кризисные времена в экономике являются толчком к ее формированию и стимулированию. Элементами такой инфраструктуры выступают технополисы, технопарки, инкубаторы инновационного бизнеса, центры трансфера технологий, инновационные и венчурные фонды и т.д. Именно в кризисные моменты обостряются проблемы с безработицей, требуются ресурсосберегающие технологии, новые виды продукции. Патрик Э., Яшин В. в своей работе [7, С. 59-64] приводят интересные факты о реализации правительственной эффективной антикризисной программы в Германии в Земле Северный Рейн-Вестфалия в 70-80-ые годы XX века. Одним из важнейших инструментов для достижения поставленных целей для Германии, как они считают, стало создание научно-технических центров, где были созданы условия для проведения научных исследований, разработки новых технических средств, опытных образцов, для товарного продукта были созданы благоприятные условия [7, С. 59-64]. При этом, наибольшее число

предприятий в Германии до сегодняшнего дня находится именно на этой территории. В Германии осуществляется продуманная государственная финансовая поддержка НИР и инновацинного курса развития. Благодаря такому подходу в 2007 году в Германии был произведен ВВП на общую сумму 2,609 трлн.евро, это пятое место в мире после США, Японии, Китая и Индии, страна экспортировала продукции на 978 млрд. евро (первое место в мире), причем вся экспортная продукция является высокотехнологичной, наукоемкой, произведенной по новым технологиям [7, С. 59-64]. Доля занятости в сфере интенсивных и высоких технологий в Германий составляет 27,7% от общего числа занятых в производстве, в Японии – 23,5%, Италии – 20,4%, в США – 15,5% [7, С. 62-70].

При этом конкретными и необходимыми мерами финансовой поддержки и регулирования, направленными на раскрытие потенциальных возможностей отечественных хозяйствующих субъектов, укрепления их ресурсной базы, стимулирование их инновационной деятельности может являться, по нашему убеждению, лишь льготное налогообложение. В мировой практике, как известно, существуют различные подходы к стимулированию расходов бизнеса в зависимости от целей, адресата, форм, временных рамок [6]. Сочетание этих механизмов индивидуально и важно для каждой страны. Для развития отечественных инновационно развивающихся хозяйствующих субъектов методами косвенной поддержки их деятельности является также освобождение их от налога на добавленную стоимость, налога на имущество, импортных пошлин и до разумного уровня. Эти льготы уже действуют в технопарках, наукоградах и т.д. [4]. Это и есть цель направленных мер по смягчению процедуры доступа к кредитованию, бюджетному финансированию и стимулированию через налоговые льготы, упрощение законодательства. Подобные методы воздействия должны быть динамичны, постоянно развиваться, одновременно с развитием общего познания передового зарубежного опыта, конкретных наук. Касаясь подобных стимулирующих мер, также следует отметить, что эксперты ОЭРС считают, что потенциал государственного научного сектора колоссален, но его реорганизация необходима для того, чтобы сократить число прямых получателей бюджетных средств, выделяемых на НИОКР, а не финансировать конкретные проекты и стремиться в целом к коммерциализации научных исследований [5]. В то же время разумно ставить вопрос о включении в число таких мер поддержки, таможенного регулирования, амортизационной политики, совершенствования системы ценообразования, законодательной защиты отечественных инновационно развивающихся товаропроизводителей в целом. На наш взгляд, подобные меры будут способствовать защите производства инновационных продуктов от риска. При этом, последний, разумеется, требует и развития страховой защиты от риска инновационных товаропроизводителей.

Заключение

Следовательно, для достижения реальных и обоснованных мер развития инновационного потенциала инновационно развивающихся хозяйствующих субъектов еще предстоит решить целый ряд задач в рамках государственной программы Стратегии развития страны. Только учет всей совокупности факторов и особенностей как государства, обладающего значительными финансовыми ресурсами, и целенаправленная государственная инновационная политика, позволят создать условия для стабильного развития и регулирования инновационной деятельности хозяйствующих субъектов. Эти меры можно называть как минимум необходимыми для обеспечения условий нормального функционирования инновационно развивающихся хозяйствующих субъектов, экономического роста и экспортного потенциала страны.

Безусловно, постановка задач по поддержке инновационно развивающихся субъектов может привести экономистов к размышлениям. При этом, практических замечаний может оказаться не мало. Но может ли это изменить наше позитивное отношение к подобным мерам поддержки. Отнюдь нет. Тем не менее, рассматриваемая нами проблематика нуждается в дальнейшем исследовании, и, главное, новом осмыслении. Это свидетельствует о его слабой изученности в экономической литературе в рамках финансовой обеспеченности инновационно развивающихся предприятий в направлении начертанных в Государственной программе Стратегии развития приоритетов.

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Аннотация *Ушбу ишлар хоккейчиларни тайёрлаш воситалари ва усулларидан фойдаланишга оид муайян масалаларни очиб беради. Бу ишларнинг барчаси ўрганилаётган муаммо бўйича билимларни тўплаш ва тизимлаштиришга ёрдам берди. Шу билан бирга, ёш хоккейчиларни тайёрлаш жараёнида тезлик-куч сифатларини ривожлантириш учун қаратилган.*

Калит сўзлар: *ёш хоккейчилар, тезлик-куч сифатлари, машқ қилиш воситалари ва усуллари.*

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DEVELOPMENT OF SPEED-STRENGTH QUALITIES IN YOUNG HOCKEY PLAYERS

Annotation *This work addresses specific issues related to the use of resources and methods for training hockey players. It helps clarify certain aspects of these tasks related to all aspects of organizing this work. Additionally, it is aimed at developing qualities of speed and strength during the preparation of young hockey players.*

Keywords: *Young hockey players, aspects of speed and strength, training tools and methods.*

Мавзунинг долзарблиги. Ёш ҳоккейчиларда жисмоний ва техник тайёргарлигининг пастлиги сабабли, ёш ҳоккейчиларда потенциални тўлиқ қўллаб-қувватлаб бўлмаслигини кўрсатади. Олимларни ўрганишича ёш хоккейчиларни тайёрлаш тажрибасини умумлаштириш уларнинг жисмоний ва техник тайёргарлиги даражасини оширишнинг ҳал қилинмаган муаммоларини кўрсатади. Замонавий услубий ва илмий адабиётларда профессионал хоккейчиларни тайёрлаш методикаси янада батафсил ишлаб чиқилмаган. Шу билан бирга, ёш хоккейчиларнинг жисмоний ва техник тайёргарлигини юқори даражага етказиш учун ўқитиш воситалари ва усулларини асослашга етарлича эътибор берилмаяпти. Ҳозирги вақтда

тадқиқотчилар хоккейда тезкор-куч сифатларига ва ўйинчиларнинг майдон бўйлаб юқори тезликдаги ҳаракатларига асосланган спорт тури деб ҳисоблашади.

Тадқиқот мақсади: Ёш хаккейчиларни тезкор-куч сифатларига қаратилган машғулотларни аниқ мақсадли олиб борилишига қаратилган.

Тадқиқот усуллари: Адабиётлар таҳлили, педагогик кузатув, видео таҳлил, педагогик тажриба, математик-статистик усуллар.

Тадқиқот натижалари ва муҳокамаси: Ёш хоккейчиларнинг машғулот жараёнини ўрганиш шуни кўрсатдики, хоккейчиларнинг барча рақобатбардош фаолияти динамик тўқнашувлар, муз майдончасида ўйин йўналишини ўзгартириш ва кўлларнинг чапён билан тезкор ҳаракатларидан иборат. Бу эса ёш хоккейчиларда жисмоний сифатларнинг юксак даражада ривожланишини тақозо этади.

Ўйин давомида ёш хоккейчиларда техник маҳоратнинг намоён бўлишининг физиологик механизмларини батафсил кўриб чиқиш керак. Ўйин давомида ёш хоккейчилар иккита тасвирни ишлаб чиқадилар: муз майдончасининг бир қисмидаги тўқнашувларда куч вазиятнинг тасвири ва муайян ўйин эпизодидаги жамоаларнинг қарама-қарши томондан рақибга ютқазмаслик учун бажарилиши мос келадиган мотор ҳаракатларининг тасвири.

Ёш хоккейчиларнинг тезлик-куч сифатларини ривожлантириш зарурлигини белгиловчи омилларнинг даражали таркиби.

- Хоккейчиларнинг ўйинлар давомида бошдан кечирадиган жисмоний фаолиятининг хусусиятлари
- Муз майдончасида мураккаб техникаларни сифатли амалга ошириш зарурати
- ўйин давомида жамоанинг тактик ҳаракатлари арсеналини кенгайтириш учун шароит яратиш
- Ёш хоккейчиларнинг мотор қобилиятларини янада самарали ривожлантириш учун зарур шарт-шароитларни кенгайтириш
- Конкида учиш техникасини самарали ўзлаштириш учун зарур шарт-шароитларни яратиш, харакатланиш техникаси ва чапён билан ишлаш техникасини мувофиқлаштирилган ишлаш.
- Ёш хоккейчиларнинг ҳаракатларида чаққонлик ва тезликни юқори даражада ривожлантиришга эришиш зарурати.

Педагогик экспериментни ўтказишда ёш хоккейчиларда зарур сифатларнинг ривожланиши маълум вақтда содир бўлиши кераклиги ҳисобга олинган. Бу нафақат жисмоний ҳолатни яхшилашга, балки техник ўйин кўникмаларини янада самарали ривожлантиришга ёрдам беради. Ёш хоккейчиларда ўйинда харакатланиш техникасини кўникмалари шакллантиришда мураккаб тузилишига эга эканлиги ҳисобга олинди. Бу муносабатлар ёш хоккейчиларни тайёрлашнинг индивидуал хусусиятларига қараб ўзгариши маълум бўлди.

Педагогик экспериментни ташкил қилишда ёш хоккейчиларда жисмоний сифатларнинг ривожланиши ижобий ва салбий бўлиши мумкинлиги ҳисобга олинди. Бу ўйиннинг техник кўникмаларини шакллантиришда ижобий рол ўйнайди. Ёш хоккейчиларда тезлик-куч сифатларининг қонуниятлари шундан иборатки, уларнинг спорт маҳоратининг ўсиши билан бу сифатларнинг таъсир даражаси ортади.

Экспериментал гуруҳдаги ёш хоккейчиларнинг экспериментдан олдин ва кейин тезлик ва кучга тайёрлиги кўрсаткичлари (Ўртача натижалар)

№	Машқ	тажриба гуруҳ	назорат гуруҳи		
1	Югуриш 60 м, сония;	0,9 сек	P<0,05	0,2 сек	P>0,05
2	30 сонияда 40 кг оғирликдаги штанга билан ўтириб туриш, марта сони	1 марта	P<0,05	0,2 марта	P>0,05
3	400 м югуриш, с	0,4 сек	P<0,05	0,2 сек	P>0,05

Тадқиқотлар давомида хоккейда тезлик-куч сифатларининг хилма-хиллигидан қуйидагиларни алоҳида таъкидлаш кераклиги аниқланди: ҳаракатларни фарқлаш қобилияти, конкида маневр қилишда мувозанатни сақлаш. Шунингдек, ўйин ҳолатидаги ўзгаришларга тезкор муносабат, муз майдончасида ҳаракат тезлигини йўқотмасдан техник ҳаракатларни қайта қуриш муҳимдир.

Ёш хоккейчиларда тезлик-куч сифатларининг ривожланиш таҳлили шуни кўрсатдики, тажриба гуруҳида бу кўрсаткичлар назорат гуруҳига қараганда анча яхши бўлди.

Хулоса. Ўтказилган тадқиқотлар шуни кўрсатдики, хоккей машғулотлари спортчиларнинг барча турларига: жисмоний, техник, тактик, психологик, назарий, интеграл тайёргарликка юқори талаблар қўяди. Ушбу турдаги машғулотларнинг барчаси ўзаро боғлиқ ва бир-бирига таъсир қилади.

Муз майдончасида ўйнашнинг мукаммал техникасини ўзлаштирсангиз, жисмоний сифатларни амалга ошириш энг самарали бўлиши аниқланди. Техник хатолар бўлса, жисмоний қобилиятларни амалга ошириш самарадорлиги сезиларли даражада камаяди. Мураккаб координация ҳаракатида тезликнинг намоён бўлиши унинг таркибий қисмларининг бутун мажмуасига ва ёш хоккейчиларнинг ҳаракат техникасига боғлиқ.

Ўтказилган педагогик эксперимент натижалари ёш хоккейчиларни тайёрлаш жараёнида тезлик-куч сифатлари ва координацион қобилиятларини ривожлантиришни синхронлаштириш учун ишлаб чиқиш, педагогик моделнинг юқори самарадорлигини кўрсатади.

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РАСКРЫТИЕ КОНЦЕПЦИИ «ДУХОВНОСТЬ» И ЕЁ РОЛЬ В РАЗВИТИИ ЛИЧНОСТИ

Аннотация: *В данной статье рассматривается интерпретация «духовности» и её основополагающая роль в формировании личности. Рассмотрены работы великих мыслителей о развитии и укрепления духовно-нравственных качеств молодого поколения, доказывая значимость данного элемента в формировании всесторонне развитого общества, являющегося залогом процветания всех сфер деятельности государства. Уделяется внимание трудам первого Президента И.А.Каримова, а также государственной деятельности Президента Ш.М.Мирзиёева, направленной на укрепление и развитие духовных ценностей в нашей стране. Исследованы взглядам ученых и их отношение о важности существования духовности в жизни человека.*

Ключевые слова*: духовность, нравственность, концепция, личность, человек, молодое поколение, общество, государство, мораль, истина, справедливость, верность, честь, достоинство, гуманность, ценность.*

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DISCLOSURE OF THE CONCEPT OF "SPIRITUALITY" AND ITS ROLE IN PERSONAL DEVELOPMENT

Abstract: *This article examines the interpretation of "spirituality" and its fundamental role in the formation of personality. The works of great thinkers on the development and strengthening of the spiritual and moral qualities of the younger generation are considered, proving the importance of this element in the formation of a comprehensively developed society, which is the key to the prosperity of all spheres of state activity. Attention is paid to the works of the first President I.A. Karimov, as well as the state activities of President Sh.M. Mirziyoyev, aimed at strengthening and developing spiritual values in our country. The views of scientists and their attitude to the importance of the existence of spirituality in human life are studied.*

Key words: *spirituality, morality, concept, personality, man, young generation, society, state, morality, truth, justice, loyalty, honor, dignity, humanity, value.*

«Необходимо повысить активность населения в борьбе с бездуховностью, преступностью, экстремизмом во всех его проявлениях, обеспечения мира и спокойствия в нашем общем доме».
И.А.Каримов

В современном мире духовность представляет собой основополагающий элемент в развитии молодого поколения, а также является одним из важных фундаментов успешных реформ государства. Ни одно государство не сможет существовать без духовных ценностей, исторического наследия, которые формируют крепкий фундамент национальной идеологии всего общества. Духовность это сила, благодаря которой происходит реализация всех стратегических задач в государственной политики, где основная цель это построение сильного, всесторонне развитого молодого поколения, которое достойно проявит себя в будущем, как во внутренней политике, так и на мировой арене.

Огромный вклад в развитие концепции духовности внесли великие мыслители Востока. По мнению ученого-энциклопедиста Абу Наср аль-Фараби, духовность это часть воспитания и обучения. Важной стороной духовности является честь и достоинство, справедливость, развитие личности, познание окружающего мира и совершенствование в себе лучшие стороны. Соответствующие качества духовности являются основой формирования идеальной личности, обладающей высокими достоинствами: мудрость, разум, храбрость, смелость, щедрость, мораль, чистота правдивость и сообразительность. Фараби считал, что каждый человек должен быть духовно богат, осознавать свою значимость в обществе и соответствовать критериям идеального города. Так, он интерпретирует: «Человек должен обладать гордой душой и дорожить честью: его душа от природы должна быть выше всех низких дел и от природы же стремиться к деяниям возвышенным; презирать дирхемы, динары и прочие атрибуты мирской жизни; любить от природы справедливость и ее поборников, ненавидеть несправедливость и тиранию и тех, от кого они исходят; быть справедливым по отношению к своим людям и к чужим, побуждать к справедливости…..».[78]

Абу Райхан Беруни большое значение уделял духовным качествам человека. Великий мыслитель акцентировал внимание о неразрывности духовного мира человека с его телом. В своих рассуждениях он объяснял, что все эмоции и переживания в жизни каждого человека, влияют на организм, на его тело, мимику и оставляет свой отпечаток. Составной частью духовности, по мнению ученого, является нравственность. Именно благодаря нравственности развиваются такие качества в личности как верность, честь,

[78] Туманян Т. Г., Держивицкий Е. В. Теория воспитания Платона в политической философии Ал-Фараби // Политика и образование. СПб. 2008. С. 135—148.

достоинство, гуманность и истинная дружба. Нравственность человека показывает его истинное отношение ко всему, которое проявляется в его действиях и поступках. Так к этому выводу пришел психолог М. Г. Давлетшин, который изучая труды Беруни, пишет «Необходимым условием нравственного поведения является знание, не обеспечивающее соответствующий уровень нравственного поведения. Более того, усвоение знаний без практики соответствующего морального поведении «я» приводит к возникновению так называемого «нравственного формализма», выражающегося в разрыве между моральными знаниями и моральным поведением человека».[79]

Крупный учёный в мировом масштабе Ибн Сина (Авиценна) рассматривал понятие духовности как чистота души и сердца, придерживаясь благим намерениям, в котором нет места негативной энергии. Особое внимание он уделял вопросам морали и совести, являющиеся важным звеном в духовном развитии личности. Ибн Сино определял проявление духовно-нравственных качеств как религиозные видения, как совершение благородных поступков, следование своим принципам и ценностное отношение о красоте всего мира, созданным Всевышним. Так он пишет, следующее: «Человеку, не следует ограничивать себя в отправлении религиозных норм и правил, возвеличивании божественных законов и должно проявлять усердие в служении Господу телесно и духовно на протяжении всей жизни. Оставаясь в одиночестве, свободным от собеседников, он должен думать о красоте души и помыслов, размышляя о Первоцаре и Его царстве, очищать себя от пыли людских сует, но так, чтобы они не догадывались об этом».[80] Следовательно, мыслитель даёт толкование, что духовность выражается основной формой религиозности, ведущей действующей силой в её развитии, а также духовность способствует нравственному самосовершенствованию человека, его внутреннему миру и поступкам.

Согласно исследованиям научной литературы, мыслители Востока были убеждены, что формирование духовности в личности человека играет научная деятельность. Изучение таких наук как математика, физика, астрономия и литература, оказывают глубокое духовно-нравственное воздействие на личность человека. Ведь наука это путь к познанию законов мироздания и гармонии с истиной бытия. Изучение научной деятельности помогает человеку постигать значимость своего Я в обществе и поиску новых высших смыслов в его жизни.

С приобретением Независимости Республики Узбекистан особое внимание уделяется развитию духовности. В своих трудах первый Президент И.А. Каримов уделял вопросам касательно укрепления духовных ценностей. Интерпретация духовности, по его мнению, призывает человека к духовному очищению, душевному росту и является несравненной силой, которая

[79] Давлетшин М.Г. Психологические основы нравственного воспитания.-Ташкент:1975.с.52-53.
[80] «Трактат об этике» Абу Али Ибн Сино - Ответственный редактор: Т. Мардони , Ибн Сипа, Абу Али И14 Сочинения: том. 2. 2005 Душанбе, Дониш, 2005, Стр.744.

укрепляет веру и внутренний мир человека, силу воли, служит критерием его мировоззрения».[81] В одном из известных трудов Каримова «Духовность – непобедимая сила» определяется духовность, не только как несравненный интеллект, высокий потенциях и богатейший внутренний мир человека, но и культура, история нашего народа, все памятники выдающихся личностей, великие открытия и изобретения, а также искусство и литература. По его мнению, каждый человек обязан посвятить свою жизнь духовному росту, быть активным и необходимо важной частью в жизни страны. Так И.А.Каримов в своей работе подчеркнул «Укрепление и развитие духовного состояния нашего народа — одна из важнейших задач государства и общества в Узбекистане. Духовность — это такой драгоценный плод, который созрел в душе нашего древнего и юного народа, взращенный чувством понимания своей независимости и любви к свободе».[82]

На сегодняшний день наш Президент Ш.М.Мирзиёев продолжает развивать подходы, заложенные И.А. Каримовым, при этом адаптируя их к современным вызовам и требованиям времени. Особое внимание акцентирует вопросам духовности, рассматривая их как ключевой аспект устойчивого развития общества и формирования гармонично развитого поколения. По его мнению, один из самых важных институтов формирования духовности это семья являющаяся, ответственной за формирование духовных и нравственных качеств у молодого поколения. В этой связи принимаются меры по укреплению семьи и созданию благоприятных условий для её развития. В своих выступлениях и инициативах он неоднократно подчеркивает, что духовные ценности являются важным фундаментом, объединяющим нацию и укрепляющим её культурное и моральное единство. Об этом свидетельствует его выступление на совещании по вопросам кардинального совершенствования системы духовно-просветительской работы, где Ш.Мирзиёев отметил следующее «Если экономика – организм, обеспечивающий жизнедеятельность общества, то духовность – его сердце и душа. Раз мы решили построить новый Узбекистан, мы опираемся на две прочные столпы. Первый – это сильная экономика, основанная на рыночных принципах. Второй – сильная духовность, основанная на богатом духовном наследии наших предков и национальных ценностях».[83]

Он также отмечает важность сохранения и популяризации национального культурного наследия, поддержки литературы, театра, кино и других сфер искусства, которые играют ключевую роль в формировании духовного мира человека. Под его руководством проводятся крупные международные мероприятия, посвященные духовному и культурному наследию страны. Политика нашего Президента направлена на формирование

[81] Каримов И. А. Высокая духовность – неумолимая сила. - Т.: Ма'навият, 2008.
[82] Каримов И А. На пути духовного возрождения. Ташкент, 1998 г.- 78 стр.
[83] Информационный сайт kun.uz: выступление Президента Ш.М.Мирзиёев, посвященное совершенствованию системы духовно-просветительской работы.

духовно развитого общества, способного противостоять глобальным вызовам и сохранять свою культурную и моральную самобытность.

Концепция «духовность» несет в себе сложное и многогранное значение касательно развития личности. Она охватывает многие стороны сознания, мышления, убеждений человека, культурное наследие и систему современных научных и художественных ценностей, обычаи, традиции, ритуалы, религию и религиозную практику.[84] На сегодняшний день существуют несколько толкований духовности и ее сущности, так, по мнению советского психолога В.В. Знакова духовность связана с психологическими аспектами жизнедеятельности человека, а именно:

1. Поиск корней духовности не только в самом человеке, особенностях его личности и склонностях к рефлексии, сколько в продуктах жизнедеятельности: объективации высших проявлений человеческого духа. В этом случае активность субъекта направлена на опредмечивание идей, формирование значений, определяющих семантическое поле культуры, духовный опыт человека.

2. Изучение ситуативных и личностных факторов, способствующих возникновению у человека духовных состояний, которые возникают при особых условиях профессиональной деятельности, связанной с угрозой жизни для людей.

3. Рассмотрение духовности как принципа саморазвития и самореализации, обращения к высшим ценностным инстанциям конструирования личности.

4. Религиозное направление, где духовник выступает только как божественное откровение, а жизнь духовная - это жизнь с Богом и в Боге.[85]

Духовность в психологии интерпретируется как достижение человеком высшего уровня развития, предполагающего преобладание «духовных» ценностей, то есть идеального ценностного плана и уровня жизни, дающего не только способность преодоления трудностей, но и способность взвешивать и усиливать сущность других людей отношением, своим личным примером, своей жизнью.[86] Следовательно, духовность является ядром личности, её ценностно-смысловых принципов, обеспечивающие содержательным смыслом человеческого бытия в психологической науке.

Известный немецкий философ И.Кант дал определение духовности как основной сущностной характеристикой человека, отличающей его от животного.[87] На основании данной трактовки необходимо отметить, что

[84] Эркаев А. «Духовность – энергия независимости» /Отв.ред.: С.Ш.Шермухамедов. – 2-е изд., испр.и доп. – Т.: Маънавият, 2001 г. – 3 стр.

[85] Михалец И.В. Психология духовности как компонента духовно-нравственных отношений личности в системе образования // Актуальные проблемы эффективной модернизации образования в России: монография /Под научной и общей редакции В.В. Сохранова. – Пенза: ПДЗ, 2011. – 5 стр.

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человек обладает совершенным набором своих личностных качеств, культурой поведения, жизненных важных установок в поисках смысла жизни и достижения поставленных целей. В конечном фундаменте развития духовности является гармонично развитая личность, обладающая нравственными качествами, а именно гуманностью, силой воли, терпением, честностью, храбростью, мотивацией, быть верным своим духовным принципам, приверженность к высоко моральным взглядам вне зависимости какие трудные ситуации происходят в жизни человеком.

В заключении необходимо отметить, что концептуальность духовности рассматривается как внутренний, основополагающий источник силы человека, влияющий на все аспекты его жизнедеятельности. Духовность является важнейшей составляющей человеческого существования, способствующая развитию ценностному отношению к себе. Её проявление оказывает вспомогательный эффект личностного роста молодого поколения, поиска смысла жизни и активного участия в жизни общества и всего государства.

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ПСИХОЛОГИЧЕСКИЕ ОСОБЕННОСТИ РАЗВИТИЯ ТВОРЧЕСКИХ СПОСОБНОСТЕЙ У ДЕТЕЙ

Аннотация: *В данной статье рассматривается подробный анализ принципов, способов и методов формирования психологических особенностей развития творческих способностей у детей дошкольного возраста.*

Ключевые слова: *способность к творчеству, ведущий вид деятельности, развитие эмоциональной сферы детей.*

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PSYCHOLOGICAL FEATURES OF THE DEVELOPMENT OF CREATIVE ABILITIES IN CHILDREN

Abstract: *This article discusses a detailed analysis of the principles, methods and methods of forming psychological characteristics of the development of creative abilities in preschool children.*

Key words: *ability to create, leading type of activity, development of the emotional sphere of children.*

В дошкольном возрасте мышление ребенка начинает развиваться очень быстро. Причина этого в том, что, во-первых, у них относительно возрос жизненный опыт, во-вторых, у них хорошо развита речь, в-третьих, дети детсадовского возраста имеют возможность совершать много свободных и самостоятельных действий. Появление вопросов по каждой области у дошкольников свидетельствует об активности их мышления. Когда ребенок не может найти ответ на свой вопрос или взрослые не обращают внимания на его вопрос, его любопытство начинает угасать.

Воспитание надо давать ребенку не рано и не поздно, а вовремя. В соответствии с возрастом ребенка необходимо учить так, чтобы были задействованы все его органы чувств. То есть необходимо обеспечить, чтобы ребенок в процессе развития имел возможность самостоятельно осязать, видеть, слышать, обонять и пробовать на вкус.

Обучение детей нравственности с раннего возраста имеет большое значение для развития мозга. Ребенок, который научился уважать взрослых, здороваться, соблюдать правила дорожного движения и т. д., не будет страдать и делать меньше ошибок на протяжении всей жизни.

Обучение должно доставлять ребенку удовольствие. Заставлять ребенка страдать, рано учить его читать или писать и лишать его игры — это вызовет у него стресс. В результате у ребенка могут развиться различные заболевания. Ребенок должен приобретать знания по собственной воле. Если он не хочет, значит, его родители не могут найти способов заинтересовать его. Поэтому родители должны с самого детства создавать условия для развития ребенка и делать среду более интересной. Родители должны заставить ребенка рисовать, читать, мастерить, играть, строить, писать и заниматься другими интересными для ребенка занятиями. Чем больше ребенок любопытен и у него больше вопросов, тем больше он развивается.

Дошкольный период играет очень важную роль в развитии ребенка. В этот период формируется физическое, нравственное, психологическое здоровье ребенка, совершенствуются навыки психического развития. Родители, которые хотят, чтобы их ребенок в будущем был удачливым, умным и талантливым, должны обратить внимание на его развитие уже с этого периода.

Для развития творческого и логического мышления ребенка могут быть реализованы следующие способы:

Разбирать и читать вместе с ребенком картинки книги, пересказывать содержание сказки ребенку в игровой форме, рассказывать содержание книги игрушкам – очень полезные и интересные занятия. В процессе прослушивания сказки ребенок старается сделать так, чтобы герои сказки были похожи на кого-то, также он может самостоятельно сплести сказку или рассказ.

Рисование (красками, мукой, песком). Обычно дети любят рисовать. Но если они не могут этого сделать, они могут расстроиться и перестать рисовать. Попробуйте предложить ребенку рисовать руками (только специальными красками) вместо карандаша. Ребенку будет очень весело обмакивать руки в краску и рисовать все, что захочет (учтите, что краска попадет куда угодно). Или попробуйте сделать набросок. В этом случае вы дадите ребенку что-то нарисовать, не закончив. И ребенок должен закончить его сам. Например, вы рисуете круг и просите ребенка дополнить его. Затем ребенок думает, что можно нарисовать из круга.

Когда ребенок рисует картинку, он наполняет картинку словами и активно двигается, он может создавать картинки на основе своего воображения и тогда по словам взрослых в ней появляются изображения тех или иных вещей. Делает фигуры из глины и пластилина, раскрашивая. В результате в развитии детских анализаторов, помимо нахождения содержания адаптированного и дифференцированного движения, совершенствуется восприятие формы, величины, одномерности и взаимосвязи предмета. Рисовать можно также мукой и песком.

В дошкольном образовательном учреждении творчество развивается через различные процессы и виды деятельности детей, например: игровую, коммуникативную, интеллектуальную и др. Разнообразие методов

обусловлено многогранностью процесса овладения системой знаний, в первую очередь овладением основами знаний в различных процессах обучения, в том числе и игровыми, и одновременно являясь руководителем данного вида деятельности.

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ХИЩНЫЕ МЛЕКОПИТАЮЩИЕ В ЭКОСИСТЕМАХ ЮЖНОГО ПРИАРАЛЬЯ

Аннотация:*Статья посвящена исследованию роли хищных млекопитающих в экосистемах Южного Приаралья. Автор рассматривает экологическое значение этих видов в контексте их взаимодействия с другими компонентами экосистемы, включая растительность, копытных и местные климатические условия. Особое внимание уделяется особенностям распределения и численности хищников, а также их влиянию на устойчивость экосистемы в условиях изменения климата и антропогенных воздействий. Исследуются также проблемы охраны хищных млекопитающих в регионе и меры, направленные на сохранение их популяций.*

Ключевые слова: *климат, компонент, флора, фауна, копытные, фактор, баланс.*

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PREDATORY MAMMALS IN THE ECOSYSTEMS OF THE SOUTHERN ARAL SEA REGION

Abstract:*The article is devoted to the study of the role of predatory mammals in the ecosystems of the Southern Aral Sea region. The author considers the ecological significance of these species in the context of their interaction with other components of the ecosystem, including vegetation, ungulates and local climatic conditions. Particular attention is paid to the features of the distribution and number of predators, as well as their impact on the stability of the ecosystem in the context of climate change and anthropogenic impacts. The problems of protection of predatory mammals in the region and measures aimed at preserving their populations are also studied.*

Key words: *climate, component, flora, fauna, ungulates, factor, balance.*

Южное Приаралье, расположенное в Центральной Азии, является важной частью экосистемы, включающей разнообразие флоры и фауны. В этой уникальной природной зоне хищные млекопитающие играют ключевую роль в поддержании экологического баланса и функционирования экосистемы. Этот регион характеризуется разнообразными природными условиями, включая степи, пустыни и полупустыни, что создает благоприятную среду для множества видов хищников.

Южное Приаралье охватывает территорию, прилегающую к бывшему Аральскому морю. Рельеф региона разнообразен, он включает в себя степи, пустыни и полупустыни, солончаковые равнины. Эти экосистемы имеют свою специфику, что влияет на виды животных, которые могут обитать на этой территории.

Климат Южного Приаралья характеризуется высокой засушливостью и большими температурными колебаниями, что ограничивает распространение некоторых видов животных. Однако в этих условиях выживают особенные виды флоры и фауны, приспособленные к жестким условиям, включая хищных млекопитающих.

Хищные млекопитающие в Южном Приаралье выполняют важные экологические функции. Они влияют на численность популяций своих добыч, помогают поддерживать структуру биологических сообществ, а также участвуют в естественном отборе, способствуя сохранению генетического разнообразия. Одним из основных факторов, влияющих на состав хищных млекопитающих региона, является наличие подходящих условий для их охоты и укрытия.

Основными хищниками в экосистемах Южного Приаралья являются представители семейства кошачьих, куньих и псовых. Среди них можно выделить таких крупных хищников, как обыкновенный волк (*Canis lupus L.*), лисица караганка (*Vulpes vulpes karagan*), и обыкновенный шакал (Canis aureus L.) встречающиеся в некоторых районах региона.

Экосистемы Южного Приаралья подвергаются серьезным изменениям, вызванным антропогенными факторами, такими как изменение климата, сокращение природных местообитаний, орошение и осушение земель, а также загрязнение окружающей среды. Эти изменения могут значительно повлиять на численность и распределение хищных млекопитающих.

Влияния антропогенного фактора на хищных млекопитающих Южного Приаралья представляют собой сложную и многослойную проблему, затрагивающую экосистему региона и влияние человека на природные процессы. За последние десятилетия активная хозяйственная деятельность, такая как сельское земледелие, промышленное развитие и изменение водного баланса, значительно изменили привычные ареалы обитания хищников, таких как шакалы, волки и лисицы.

Человеческая деятельность также приводит к фрагментации ареалов обитания, что затрудняет миграцию и межпопуляционные связи животных. Загрязнение среды обитания вследствие сброса отходов и применения

пестицидов может негативно сказываться на здоровье хищников и сокращать их численность. Важно отметить, что социально-экономические изменения, такие как увеличение поселений и развитие инфраструктуры, также влияют на поведение этих животных, изменяя маршруты их передвижения и охоты. Это приводит к сокращению кормовой базы для хищников, что может повлиять на их выживаемость и репродуктивную способность. В частности, волки охотящиеся на травоядных животных, могут столкнуться с дефицитом пищи, если численность копытных будет снижена.

Таким образом, антропогенные факторы становятся одними из главных угроз для хищных млекопитающих Южного Приаралья, требуя комплексного подхода к их охране и восстановлению экосистемы региона.

Также важным фактором является изменение климата, которое может влиять на миграционные пути и доступность пищи для хищников. Повышение температуры и уменьшение количества осадков в Южном Приаралье могут изменить состав флоры и фауны, что повлияет на экосистему в целом.

Хищные млекопитающие Южного Приаралья играют ключевую роль в экосистемах региона, выполняя важные функции по регулированию численности популяций других животных и поддержанию экологического баланса. Однако их существование под угрозой из-за антропогенных факторов, включая потерю местообитаний и изменения климата. Для сохранения биологического разнообразия региона необходимо принять меры по охране этих уникальных экосистем и их обитателей. Сохранение биоразнообразия в данном регионе требует комплексного подхода, включая мониторинг популяций и восстановление экологии, чтобы обеспечить будущее как хищников, так и других видов.

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БИОТЕХНОЛОГИИ В УСТОЙЧИВОМ СЕЛЬСКОМ ХОЗЯЙСТВЕ: СОКРАЩЕНИЕ ИСПОЛЬЗОВАНИЯ ХИМИКАТОВ И СОХРАНЕНИЕ ПОЧВЕННЫХ РЕСУРСОВ

Аннотация: *В данной статье рассматривается роль биотехнологий в развитии устойчивого сельского хозяйства. Особое внимание уделено сокращению применения химических удобрений и пестицидов, а также способам сохранения и восстановления почвенных ресурсов. Анализируются перспективы внедрения микробных препаратов, биоферментов и генно-модифицированных культур как инструментов для повышения продуктивности и экологической устойчивости сельскохозяйственных систем. Представлены современные примеры успешных биотехнологических решений, способствующих снижению негативного воздействия на окружающую среду и улучшению качества почвы.*

Ключевые слова: *биотехнологии, устойчивое сельское хозяйство, сохранение почвы, микробные препараты, генная инженерия, экология, сокращение химикатов.*

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BIOTECHNOLOGIES IN SUSTAINABLE AGRICULTURE: REDUCING CHEMICAL USE AND PRESERVING SOIL RESOURCES

Abstract: *This article explores the role of biotechnologies in the development of sustainable agriculture. Particular attention is paid to reducing the use of chemical fertilizers and pesticides, as well as methods for preserving and restoring soil resources. The prospects for the introduction of microbial preparations, bioenzymes, and genetically modified crops as tools to enhance productivity and environmental sustainability of agricultural systems are analyzed. Modern examples of successful biotechnological solutions that contribute to reducing environmental impact and improving soil quality are presented.*

Key words: *biotechnologies, sustainable agriculture, soil preservation, microbial preparations, genetic engineering, ecology, chemical reduction.*

Введение

Современное сельское хозяйство сталкивается с многочисленными вызовами, среди которых ключевыми являются деградация почвы, снижение плодородия и загрязнение окружающей среды вследствие чрезмерного использования химических удобрений и пестицидов. В условиях роста мирового населения и необходимости увеличения производства продовольствия вопросы сохранения природных ресурсов приобретают особую актуальность. Традиционные методы ведения сельского хозяйства, основанные на интенсивном применении химикатов, обеспечивают высокие урожаи в краткосрочной перспективе, но в долгосрочной перспективе они способствуют разрушению почвенного покрова и уменьшению биоразнообразия.

В последние десятилетия биотехнологии стали важным инструментом для решения этих проблем. Они позволяют разрабатывать экологически безопасные методы повышения урожайности, которые способствуют снижению негативного воздействия на окружающую среду. Внедрение микробных биопрепаратов, использование азотфиксирующих бактерий и генно-модифицированных культур с устойчивостью к болезням и вредителям становится неотъемлемой частью современных аграрных технологий. Эти инновации направлены на сохранение почвы и обеспечение её плодородия на протяжении длительного времени.

Одним из наиболее значимых аспектов устойчивого сельского хозяйства является сокращение использования химических веществ за счёт применения биологических альтернатив. Микробиологические препараты способны заменять традиционные удобрения, улучшая структуру и состав почвы. Они обеспечивают лучшее усвоение питательных веществ растениями, способствуют восстановлению полезной микрофлоры и предотвращают эрозию.

Биотехнологии также предлагают решения для борьбы с болезнями растений и вредителями, что снижает необходимость применения пестицидов. Генетически модифицированные культуры, устойчивые к насекомым и патогенам, позволяют значительно снизить химическую нагрузку на почву и окружающую среду. В результате формируются аграрные системы, которые сочетают высокую продуктивность с экологической безопасностью.

Таким образом, развитие и внедрение биотехнологий в сельское хозяйство представляет собой важный шаг на пути к формированию устойчивых систем земледелия. В данной статье будут рассмотрены основные направления применения биотехнологий для снижения химического воздействия и сохранения почвенных ресурсов, а также их потенциал в контексте будущего сельского хозяйства.

Современное сельское хозяйство сталкивается с необходимостью увеличения объемов производства продуктов питания при одновременном сокращении негативного воздействия на окружающую среду. Одним из наиболее перспективных направлений решения этой задачи является применение биотехнологий, позволяющих повысить продуктивность аграрных систем за счет снижения использования химических удобрений и пестицидов, а также улучшить состояние и качество почвы.

Одной из ключевых проблем традиционного сельского хозяйства является деградация почвы, связанная с интенсивным применением химикатов. Длительное использование минеральных удобрений нарушает естественный баланс почвенной микрофлоры, снижает содержание органических веществ и приводит к ухудшению физико-химических свойств почвы. В результате почва теряет способность к восстановлению, становится подверженной эрозии и снижает свою плодородность. Биотехнологические решения предлагают эффективные альтернативы, которые способствуют восстановлению почвы и сохранению ее плодородия.

Одним из наиболее распространенных методов биотехнологического воздействия на почву является использование микробиологических препаратов, включающих в себя различные штаммы полезных бактерий и грибов. Эти препараты способствуют разложению органических веществ, улучшению структуры почвы и повышению ее биологической активности. Например, применение азотфиксирующих бактерий позволяет значительно сократить потребление азотных удобрений, так как эти микроорганизмы связывают атмосферный азот и делают его доступным для растений. Таким

образом, сокращается нагрузка на почву и окружающую среду, что способствует устойчивому развитию сельскохозяйственных систем.

Генетическая инженерия также играет важную роль в снижении потребности в химических средствах защиты растений. Генетически модифицированные (ГМ) культуры, обладающие устойчивостью к вредителям и болезням, позволяют значительно сократить использование пестицидов. Например, внедрение ГМ-растений, содержащих гены бактерии Bacillus thuringiensis (Bt), позволяет защитить посевы от насекомых-вредителей без применения химических инсектицидов. Это не только снижает химическое загрязнение почвы, но и способствует сохранению полезных насекомых и микроорганизмов, играющих важную роль в поддержании экосистемных функций агроценозов.

Биотехнологии также открывают возможности для разработки новых видов биостимуляторов и биоудобрений, которые повышают устойчивость растений к стрессам и способствуют их активному росту. Биостимуляторы на основе морских водорослей, гуминовых и фульвокислот стимулируют корнеобразование, увеличивают массу корневой системы и способствуют усвоению питательных веществ из почвы. Это снижает потребность в минеральных удобрениях и способствует более рациональному использованию природных ресурсов.

Еще одним важным направлением является использование технологий биоремедиации, направленных на восстановление загрязненных и деградированных почв. Микроорганизмы, способные разлагать токсичные вещества, активно используются для очистки почв от пестицидов, тяжелых металлов и нефтепродуктов. Например, применение специальных штаммов бактерий позволяет эффективно нейтрализовать остатки гербицидов, что способствует улучшению экологического состояния почв и повышению их продуктивности.

Биотехнологические подходы также играют важную роль в повышении устойчивости растений к абиотическим стрессам, таким как засуха, засоление и экстремальные температуры. Генетически модифицированные культуры, обладающие повышенной толерантностью к неблагоприятным условиям, позволяют значительно увеличить урожайность в регионах с неблагоприятными климатическими условиями. Это особенно актуально для Узбекистана, где значительная часть сельскохозяйственных угодий расположена в зонах с засушливым климатом.

Кроме того, биотехнологии способствуют развитию агролесомелиорации и внедрению почвозащитных технологий. Использование многолетних бобовых культур и сидератов позволяет улучшить структуру почвы, предотвратить эрозию и повысить содержание органического вещества в почве. Это создает благоприятные условия для развития почвенной биоты и способствует сохранению плодородия на длительный срок.

Несмотря на очевидные преимущества биотехнологий, их внедрение в сельское хозяйство сталкивается с рядом проблем. Среди них – высокие затраты на разработку и внедрение новых технологий, необходимость создания соответствующей нормативно-правовой базы, а также настороженное отношение со стороны общества к генетически модифицированным организмам. Однако опыт многих стран показывает, что при грамотном подходе и активной информационной работе внедрение биотехнологий в сельское хозяйство становится важным фактором обеспечения продовольственной безопасности и устойчивого развития аграрного сектора.

Таким образом, биотехнологии играют ключевую роль в формировании устойчивого сельского хозяйства, способствуя снижению использования химических веществ и сохранению почвенных ресурсов. Внедрение биотехнологических решений позволяет не только повысить продуктивность аграрных систем, но и минимизировать их негативное воздействие на окружающую среду. Это открывает новые перспективы для развития

сельского хозяйства и обеспечения продовольственной безопасности в условиях глобальных климатических изменений и роста численности населения.

Заключение

Биотехнологии занимают ключевую позицию в формировании устойчивых аграрных систем, ориентированных на сохранение почвенных ресурсов и снижение использования химических веществ. Современное сельское хозяйство сталкивается с множеством вызовов, среди которых деградация почв, снижение их плодородия и необходимость увеличения производства продовольствия в условиях растущего населения. Биотехнологические решения предлагают эффективные инструменты, позволяющие не только повысить продуктивность сельскохозяйственных культур, но и минимизировать негативное воздействие на окружающую среду.

Применение микробных препаратов, азотфиксирующих бактерий и биостимуляторов позволяет значительно сократить потребность в химических удобрениях и улучшить структуру почвы. Эти технологии не только способствуют восстановлению почвенной микрофлоры, но и создают условия для повышения урожайности на длительный срок. Генетическая инженерия и создание культур, устойчивых к болезням и вредителям, снижают зависимость от пестицидов, что играет важную роль в сохранении экологического баланса агроэкосистем.

Одним из важнейших аспектов внедрения биотехнологий является их роль в адаптации сельского хозяйства к изменяющимся климатическим условиям. Генетически модифицированные культуры с устойчивостью к засухе, засолению и экстремальным температурам позволяют расширить возможности возделывания сельскохозяйственных культур в регионах с неблагоприятными природными условиями. Это открывает новые перспективы для стран с засушливым климатом, таких как Узбекистан, где рациональное использование биоресурсов имеет стратегическое значение.

Несмотря на высокую стоимость разработки и внедрения биотехнологических решений, долгосрочные выгоды от их применения очевидны. Увеличение урожайности, снижение затрат на удобрения и пестициды, а также улучшение качества почвы делают биотехнологии незаменимым инструментом в развитии сельского хозяйства будущего. Опыт ведущих аграрных стран показывает, что комплексный подход к внедрению биотехнологий и активная информационная работа среди фермеров и потребителей способствуют преодолению скептицизма и широкому распространению инновационных методов земледелия.

Таким образом, биотехнологии являются важным фактором обеспечения продовольственной безопасности и устойчивого развития сельского хозяйства. Их внедрение в аграрную практику позволит минимизировать ущерб окружающей среде, сохранить плодородие почв и обеспечить стабильное производство продовольствия для будущих поколений.

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ОПРЕДЕЛИТЬ И УСТАНОВИТЬ КОМПЛАЕНТНОСТЬ У БОЛЬНЫХ С ХРОНИЧЕСКОЙ СЕРДЕЧНОЙ НЕДОСТАТОЧНОСТЬЮ

Актуальность. *Несмотря на прогресс, достигнутый в мире за последние годы, подтверждено, что ХСН по-прежнему является тяжелым финансовым бременем для экономики здравоохранения всех стран мира. Согласно эпидемиологическим данным, ХСН развивается в большинстве случаев в результате артериальной гипертензии (95 %) и ИБС (69,7 %) в Российской Федерации и странах Европы. В нашей стране основной причиной этого серьезного осложнения зачастую являются два упомянутых выше заболевания. Известно, что при ХСН происходят изменения во всех органах и ремоделирование сердца играет отдельную важную роль.Среди них ведущее место занимает поражение почек.*

Хроническая сердечная недостаточность (ХСН) является одной из актуальных медико-социальных проблем в мировой медицине. Её высокая распространенность, приводящая к серьезным последствиям и требующая значительных затрат на лечение, делает эту проблему крайне важной.[88] *Смертность в результате заболевания в 4-8 раз выше, чем в общей популяции, а половина больных умирает в течение 5 лет после постановки диагноза. В IV функциональном классе ожидаемая продолжительность жизни сокращается на 44% в течение полугода. В связи с увеличением продолжительности жизни населения, положительными результатами, достигнутыми в лечении сердечно-сосудистых заболеваний, а также распространенностью факторов риска ишемической болезни сердца (ИБС) и гипертонической болезни (ГБ), вызывающими ХСН, которое являются серьезными осложнениями, и становится все более распространенным среди населения мира. В стадии декомпенсации ХСН средства, затрачиваемые на стационарное лечение больных, составляют от 2/3 до ¾ всех затрат на здравоохранение.*

Перед медицинскими работниками нашей республики поставлены ряд задач в этой области, среди которых раннее выявление коморбидности сердечно-сосудистой системы и заболеваний сердца, оптимизация лечения и соответствия её к международным стандартам. Сегодняшнее время отмечены такие задачи «...в нашей стране предпринимаются масштабные комплексные меры по решению задач по улучшению качества оказываемой медицинской помощи, повышению доступности и качества оказываемых в

стране медицинских и социальных услуг, формированию здорового образа жизни среди населения, внедрение в практику современных методов диагностики и лечения». Выполнение этих задач среди населения с ХСН включает в себя изучение изменений, характерных для других органов, которые происходят в ходе этого состояния.

Ключевые слова: *сердечная недостаточность, медикаментозная терапия, микробиологическая диагностика.*

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TO DETERMINE AND ESTABLISH COMPLIANCE IN PATIENTS WITH CHRONIC HEART FAILURE

Relevance. *Despite the progress made in the world in recent years, it is confirmed that CHF is still a heavy financial burden on the health economy of all countries of the world. According to epidemiological data, CHF develops in most cases as a result of arterial hypertension (95%) and coronary heart disease (69.7%) in the Russian Federation and European countries. In our country, the main cause of this serious complication is often the two diseases mentioned above. It is known that with CHF, changes occur in all organs and remodeling of the heart plays a separate important role. Kidney damage occupies a leading place among them.*

Chronic heart failure (CHF) is one of the urgent medical and social problems in world medicine. Its high prevalence, which leads to serious consequences and requires significant treatment costs, makes this problem extremely important. Mortality as a result of the disease is 4-8 times higher than in the general population, and half of the patients die within 5 years after diagnosis. In functional class IV, life expectancy is reduced by 44% within six months. Due to the increase in life expectancy of the population, the positive results achieved in the treatment of cardiovascular diseases, as well as the prevalence of risk factors for coronary heart disease (CHD) and hypertension (HD), which cause CHF, which are serious complications, and are becoming more common among the world's population. At the stage of CHF decompensation, the funds spent on inpatient treatment of patients account for 2/3 to ¾ of all healthcare costs.

The medical workers of our republic are faced with a number of tasks in this area, including early detection of comorbidity of the cardiovascular system and heart diseases, optimization of treatment and its compliance with international standards. Today, the following tasks are noted: "... in our country, large-scale comprehensive measures are being taken to solve the problems of improving the quality of medical care, increasing the availability and quality of medical and social services provided in the country, forming a healthy lifestyle among the population,

introducing modern methods of diagnosis and treatment into practice." Performing these tasks among the population with CHF includes studying the changes characteristic of other organs that occur during this condition.

Keywords: *heart failure, drug therapy, microbiological diagnostics.*

Цель исследования - анализ комплаентности у больных с ХСН после выписки из стационара.

Материалы и методы исследования. Участие в исследовании приняли 48 пациентов с диагнозом ХСН. Все больные были ранжированы тремя способами в соответствии с:

полом: женщины – 22 человека (45,8%), мужчины – 26 человек (54,2%);

возрастом: до 59 лет (12 больных - 25%), 60-69 лет (25 пациентов - 52%) и 70 лет и более (11 человек - 23%);

сопутствующей патологией: у 26 человек (54,17%) – патологии органов желудочно-кишечного тракта, у 13 (27,08%) - метаболические нарушения, у 9 пациентов (18,75%) – нарушения со стороны дыхательной системы.

При распределении по стадиям и функциональным классам (ФК) ХСН установлено, что у 12,5% больных ХСН I стадии, у 66,7% - ХСН IIа стадии, и у 20,8% - ХСН IIб стадии; у 56,25% пациентов – ХСН II ФК, у 41,75% - III ФК, и у 2% - IV ФК.

Для определения уровня комплаентности применялась шкала оценки уровня приверженности Мориски - Грина [2]. Приверженными считались пациенты, набравшие 4 балла.

Результаты исследования показали, что из 48 опрошенных соблюдают назначенную терапию лишь 37%. Среднее количество набранных пациентами баллов составило 2,6. Более подробный анализ показал, что 50% больных невнимательно относятся к времени приема препарата и пропускают его прием в случае, если связывали предыдущий прием с ухудшением самочувствия, 41,67% опрошенных отмечают, что минимум 1 раз забывали принять препарат, а 39,6% больных при хорошем самочувствии пропускают прием.Уровень приверженности составил 45,5% и 30,8% среди мужчин и женщин соответственно. Привержены к терапии 41,7% опрошенных возрастом до 59 лет, 48% больных в возрасте от 60 до 69 лет и 3 пациентов старше 70 лет. При анализе связи сопутствующей патологии и уровня приверженности установлено, что полностью следуют назначениям 18 пациентов (69,23%) с заболеваниями желудочно-кишечного тракта, 7 обследуемых (77,8%) с заболеваниями дыхательной системы и 5 опрошенных (38,46%) с метаболическими нарушениями.

Выводы. Проведенное исследование показало, что в большинстве своем после выписки из стационара пациенты не придерживаются назначений врача: из 48 опрошенных лишь треть комплаентны. Мужчины более привержены к терапии (45,5%). Лица старше 70 лет оказались наименее комплаентными, что можно объяснить когнитивными нарушениями у лиц старшего возраста.

Среди больных с различными сопутствующими заболеваниями пациенты с метаболическими нарушениями наименее привержены терапии.

Полученные данные свидетельствуют о необходимости повышения уровня осведомленности пациентов относительно важности приверженности медикаментозной терапии путем проведения соответствующих бесед с ними и с их семьями. Результаты исследования могут помочь врачам в формировании «групп риска» пациентов, склонных нарушать назначения лечащего врача.

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ИССЛЕДОВАНИЕ ОКИСЛЕННЫХ И БЕДНЫХ РУД АКТОГАЙСКОГО ГОК НА ПОДАТЛИВОСТЬ ВЫЩЕЛАЧИВАЕМОСТИ МЕДИ С ПОМОЩЬЮ БАКТЕРИЙ И ПОСЛЕДУЮЩЕЕ ВНЕДРЕНИЕ ПРОЕКТА «КУЧНОЕ БИОВЫЩЕЛАЧИВАНИЕ НА АГОК»

Аннотация: *В настоящей статье рассматривается комплекс работ по исследованию и внедрению технологии биовыщелачивания на Актогайском ГОК для увеличения извлечения меди из окисленных медных руд. Бактериальное выщелачивание (Биовыщелачивание) - гидрометаллургический процесс извлечения химических элементов или их соединений из руд, концентратов, техногенного сырья с помощью микроорганизмов*[1].

Ключевые слова: *Горнорудная промышленность, гидрометаллургия, кучное выщелачивание, управление проектами.*

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RESEARCH OF OXIDIZED AND POOR ORES OF AKTOGAY MINE ON THE PLIABILITY OF COPPER LEACHABILITY USING BACTERIA AND SUBSEQUENT IMPLEMENTATION OF THE HEAP BIOLEACHING PROJECT AT THE AKTOGAY MINE

Synopsis: *This article discusses a complex of works on research and the implementation of bioleaching technology at the Aktogay mine to increase copper recovery from oxidized copper ores. Bacterial leaching (Bioleaching) is a hydrometallurgical process of extracting chemical elements or their compounds from ores, concentrates, technogenic raw materials with the help of microorganisms*[1].

Key words: *Mining industry, hydrometallurgy, heap leaching, project management.*

История Биовыщелачивания[2]. Биовыщелачивание сульфидов металлов в настоящее время является общепринятой технологией, но его история начинается гораздо раньше, чем можно себе представить. В Китае, согласно записям, бактерии использовались для извлечения меди более 2 000 лет назад, в третьем веке до нашей эры. Известно также, что в доримские времена извлекали серебро, а римляне - медь из месторождения минералов, расположенного в провинции Уэльва на юге Испании. Позднее на этом месте был построен знаменитый рудник Рио-Тинто. Река Рио-Тинто (Красная река) получила свое название из-за красного цвета воды, вызванного высокой концентрацией железа. Этот растворенный гидроксид железа возникает в результате естественного воздействия микроорганизмов на сульфидные минералы, которые встречаются в холмах, являющихся источником Рио-Тинто.

Рис.1 Река Рио-Тинто

Введение. Коммерсанты-эксплуататоры меднорудных месторождений, не зная того использовали микроорганизмы на протяжении веков, но только в середине прошлого века их вклад был признан. Это началось с открытия и выделения (из кислотного дренажа угольной шахты) в 1947 году серно- и железоокисляющей бактерии Acidithiobacillus ferrooxidans и продолжилось в следующем десятилетии, когда было установлено, что эта бактерия ответственна за ускоренное выщелачивание меди из отвалов пустой породы.

Большинство крупных технологических достижений в этой области произошло за последние 40 лет. К началу 1980-х годов основные

гидрометаллургические технологии, такие как экстракция растворителем и электролиз (SX-EW) для извлечения меди, кислотное кучное выщелачивание медно-оксидных руд и т.д. были коммерчески хорошо отработаны. Однако, применение микроорганизмов для кучного, отвального и выщелачивания в естественной среде урановых и медных минералов до сих пор оставалось несколько второстепенным. Роль бактерий в окислительном выщелачивании была признана и изучена, но использование технических возможностей для усиления и контроля бактериальной активности в экстрактивных процессах не было распространено. За последние 40 лет можно выделить несколько основных вех в развитии процессов биовыщелачивания.

Первым из них стала разработка и коммерциализация процесса биовыщелачивания сульфидных концентратов в резервуаре с перемешиванием на золотом руднике Fairview в Южной Африке в 1986 г.

Тонкослойное выщелачивание, при котором измельченная и обработанная кислотой руда укладывается в штабель высотой 2-3 метра, а затем промывается, было впервые применено на медном руднике Ло-Агирре в Чили в 1980 году и считается первым примером кучного биовыщелачивания.

Еще одной важной вехой в развитии кучного биовыщелачивания стало внедрение принудительной аэрации для кучного биовыщелачивания вторичных медных сульфидных руд на медном руднике Гириламбон в Австралии в 1993 году. Кучное биовыщелачивание вторичных сульфидных медных руд практиковалось, в основном в Чили, с 1980 года, но предприятие Girilambone стало первым, где в конструкцию установки была включена принудительная аэрация. Многие существующие предприятия вскоре последовали этому примеру.

В последние годы применение современных микробиологических методов позволило идентифицировать и понять десятки различных микроорганизмов биовыщелачивания, способных функционировать в широком диапазоне условий, и это остается предметом постоянного развития в данной области. По мере того, как растет понимание роли и функций микроорганизмов биовыщелачивания, растет и потенциал использования преимуществ этого микробиологического разнообразия.

Table II

Commercial refractory gold tank bioleaching operations

Plant	Location	Current owner	Current capacity (t/d)	Years of operation
Fairview	Barberton, South Africa	Barberton Mines Limited	65–80	1986-present
São Bento	Brazil	Eldorado Gold Corporation	380	1991-present
Harbour Lights	Western Australia	-	40	1991-1994
Wiluna	Western Australia	Agincourt Resources Limited	158	1993-present
Ashanti	Obuasi, Ghana	AngloGold Ashanti Limited	960	1994-present
Youanmi Deeps	Western Australia	Goldcrest Resources	120	1994-1998
Tamboraque	San Mateo, Peru	Iamgold Corporation and Minera Lizandro Proano SA	60	1998-2003 (restarted 2006)
Beaconsfield	Tasmania, Australia	Beaconsfield Gold NL	70	2000-present
Laizhou	Shandong, PR China	Sino Gold Mining Limited	100	2001-present
Olympiada	Krasnoyark, Russia	Polyus Gold	1,000	2001-present
Suzdal	Kazakhstan	Celtic Resources Holdings Limited	196	2005-present
Fosterville	Victoria, Australia	Perseverance Corporation, Limited	211	2005-present
Bogoso	Ghana	Golden Star Resources	820	2006-present
Jinfeng	PR China	Sino Gold Mining Limited & Guizhou Lannigou Gold Mine Limited	790	2006-present
Kokpatas	Uzbekistan	Navoi Mining and Metallurgy	1,069	2008-present

Выше приведён список предприятий, использующих технологию чанового биовыщелачивания тугоплавкого золота. Одними из первых предприятий на территории СНГ, применивших бактериальное выщелачивание, это Олимпиадинское месторождение компании «Полюс», расположенное в Красноярском крае и месторождение Суздаль компании «NordGold», расположенное на востоке Казахстана неподалёку от г. Семей.

Суздальский завод, использующий технологию бактериально-химического окисления Outotec BIOX®, расположенный недалеко от города Семей в Казахстане, показал, что процесс биовыщелачивания может переносить экстремальные и переменчивые климатические условия. Температура на этом заводе может колебаться от 38°C летом до минус 45°C зимой. Несмотря на такие экстремальные климатические условия, завод расположен на открытой местности.

Известно еще одно промышленное применение биовыщелачивания тугоплавкого золота, расположенное на Олимпиадинском руднике в Енисейском районе Красноярского края в Сибири. Рудник принадлежит компании "Полюс", а фабрика по переработке сульфидов состоит из двух отдельных фабрик, включающих измельчение, флотацию и биовыщелачивание, с общей проектной мощностью 8 млн т/год руды. Установки биовыщелачивания перерабатывают около 1 000 тонн в день сложного концентрата, содержащего пирит, пирротин, арсенопирит и стибнит. Предприятие расположено в экстремальных условиях, где зимние температуры достигают около минус 40°C, поэтому завод (включая реакторы биовыщелачивания) находится в здании, изолирующем его от этих суровых условий. На предприятии используется разработанная местными специалистами технология биовыщелачивания, известная как BIONORD.

Table III

Industrial heap bioleaching operations for secondary copper ores and mixed oxide/sulfide ores (copper dump bioleach operations are not included)[73]

Industrial heap bioleach plant and location/owner	Cathode copper production (t/a)	Years of operation
Lo Aguirre, Chile/Sociedad Minera Pudahuel Ltda.	15 000	1980-1996 (mine closure due to ore deposit depletion)
Mount Gordon (formerly Gunpowder), Australia/Western Metals Ltd.	33000	1991-Present
Mt. Leyshon, Australia/(formerly Normandy Poseidon)	750	1992-1995 (stockpile depleted)
Cerro Colorado, Chile/BHP Billiton	115 000	1993-present
Girilambone, Australia/Straits Resources Ltd & Nord Pacific Ltd.	14 000	1993-2003 (ore depleted)
Ivan-Zar, Chile/Compañía Minera Milpro	10 000–12 000	1994-Present
Punta del Cobre, Chile/Sociedad Punta del Cobre, S.A.	7 000-8 000	1994-Present
Quebrada Blanca, Chile/Teck Cominco Ltd.	75 000	1994-present
Andacollo Cobre, Chile/Aur Resources, del Pacifico & ENAMI	21 000	1996-present
Dos Amigos, Chile/CEMIN	10 000	1996-present
Skouriotissa Copper Mine (Phoenix pit), Cyprus/Hellenic Copper Mines	8 000	1996-present
Zaldivar, Chile/Barrick Gold Corp.	150 000	1998-present
Lomas Bayas, Chile/XSTRATA plc	60 000	1998-present
Cerro Verde, Peru/FreeportMcMoran & Buenaventura	54 200	1997-present
Lince II, Chile	27 000	1991-present (sulfide leaching since 1996)
Monywa, Myanmar/Ivanhoe Mines Ltd, Myanmar No.1 Mining Enterprise	40 000	1998-present
Nifty Copper, Australia/Straits Resources Ltd.	16 000	1998-present
Equatorial Tonopah, Nevada/Equatorial Tonopah, Inc.	25 000 (projected)	2000-2001 Failed
Morenci, Arizona/FreeportMcMoran	380 000	2001-present
Lisbon Valley, Utah/Constellation Copper Corporation	Projected at 27 000	2006-present
Jinchuan Copper, China/Zijin Mining Group Ltd.	10 000	2006-present
Spence, Chile/BHPBilliton	200 000	Commissioned 2007
Whim Creek and Mons Cupri, Australia/Straits Resources	17 000	2006-present

В таблице выше приведён список предприятий, использующих технологию кучного Биовыщелачивания для вторичных медных руд и смешанных оксидных/сульфидных руд. Предприятия, использующие технологию отвального биовыщелачивания не включены.

Инициация применения технологии Биовыщелачивания на Актогайсском ГОК. В связи с окончанием запасов окисленной руды Актогайского ГОК, Оксидный завод (SX-EW) подлежал остановке и прекращению операционной деятельности по получению катодной меди методом кучного выщелачивания с помощью орошения ПКВ (Панели Кучного Выщелачивания, ПКВ1 и ПКВ2) раствором рафината, дальнейшими экстракцией и электролизом в цехах SX-EW.

Для продления жизни Оксидного завода и в целом Актогайского ГОКа руководством завода и компании было решено рассмотреть современные технологии извлечения меди из различных типов сырья – исходная окисленная руда, отходы выщелачивания, руды с низким содержанием меди. Одним из таких методов является бактериальное выщелачивание или Биовыщелачивание с помощью живых организмов (бактерий).

Для этого компания KAZ Minerals Актогай наняла компанию «Global Resource Engineering» (GRE) для исследований по применению кучного Биовыщелачивания на Актогайском ГОК.

Актогайский ГОК компании «KAZ Minerals», расположенный в восточном Казахстане, является одним из первых месторождений на территории СНГ, внедрившим технологию кучного Биовыщелачивания. Климат Актогая континентальный, летом температура доходит до +40 °С, зимой до -40 °С.

Далее будет подробнее рассказано о проведении испытатльных работ и реализации проекта Биовыщелачивания на Актогайском ГОК.

Цель испытательных работ - определить, может ли применение Биовыщелачивания улучшить извлечение меди как с ПКВ1, так и с ПКВ2, и поддаётся ли бедная руда бактериальному выщелачиванию (для дальнейшего использования).

Для проведения исследований Актогайский ГОК предоставил компании GRE пробы руды законченного цикла выщелачивания (ПКВ1), активного выщелачивания (ПКВ2) и бедную руду для будущего кучного выщелачивания:

ПКВ1. Материал был отобран с поверхности отработанной кучи выщелачивания ПКВ1. Данная куча более не орошается.

ПКВ2. Материал из ПКВ2 был использован в качестве источника свежей шихты к существующему кучному выщелачиванию на ПКВ2. Эта куча уложена и орошается.

Бедная руда. Источником бедного материала являлся свежий материал со склада бедной крупнодроблёной руды. Этот материал представляет собой новое будущее сырье для кучного выщелачивания.

Этапы испытаний. Испытательные работы разбиты на два этапа:

- 1 этап разработан, чтобы получить исходные данные по податливости Биовыщелачиванию,
- 2 этап — это проведение испытаний по Биовыщелачиванию колонного формата.

В первый этап входили следующие виды работ:

- Качественный анализ образцов руды (10 дней),
- Прогнозное выщелачивание (10 дней),
- Статическое выщелачивание (6 дней),
- Адаптация микроба и минералогия (44 дня),
- Испытание на восприимчивость (42 дня).

Второй этап состоял из:

- Испытания на малых колоннах (90 дней),
- Колонные испытания исходной руды (90 дней),
- Испытания образцов растворов PLS и рафината на токсичность (85 дней).

Колонные испытания были проведены как на дроблёном, так и на материале горной массы.

Этапы 1 и 2 проводились компанией SGS Южная Африка под надзором GRE. Дополнительные испытания, связанные с разработкой инокулянта проводились компанией GRE напрямую в лаборатории в Денвере, Колорадо.

Первоначальное исследование.

ppm – миллионная доля, ppm=0,0001%

Этап1 - Первоначальное исследование

Результаты прогнозных испытаний на выщелачивание

Тип выщелачивания	Минералогия	ПКВ1	ПКВ2	НС
Уксусная кислота	Малахит, азурит	20.9%	30.2%	8.3%
NaCN	Халькоцит, борнит, самородная медь, хризоколла, Энаргит, тетраэдрит, ~ 8% халькопирита	13.3%	10.3%	22.1%
H_2SO_4 (+ 6 g/L Ferric)	Малахит, азурит, тенорит, хризоколла, Ковеллит, ~50% куприт	18.2%	18.5%	3.6%
Царская водка	Халькопирит	23.8%	15.2%	40.2%
Общий	Вся медь в руде, не содержащая кремнезема	76.1%	74.2%	74.2%

- Образцы ПКВ2 предположительно содержат больше малахита и азурита
- Бедная руда предположительно содержит больше халькопирита
- Возможно, потребуется проведение дополнительных минералогических исследований (2-й этап испытаний)

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ПКВ1 и ПКВ2 характеризуются высоким содержанием халькопирита, связанного с материалом мельче 40 мкм в диаметре, в то время как образец бедной руды с низким содержанием в подавляющем большинстве случаев характеризуется высоким содержанием халькопирита, связанного с материалом крупнее 80 мкм.

Колонные исследования.

Этап 2 - Окончательные результаты Колонн измельчения

- Окончательные результаты извлечения меди из колонны измельчения приведены в таблице ниже.

Поток	Ед.изм.	Общее количество Cu(t)			Кислоторастворимая медь Cu(as)		
		ПКВ1	ПКВ2	НС	ПКВ1	ПКВ2	НС
Cu(t) Содержание в исходной массе	%	0.2260%	0.3220%	0.3310%	0.1670%	0.2400%	0.0580%
Cu(t) Содержание в хвостах	%	0.0707%	0.0563%	0.1221%	0.0278%	0.0251%	0.0048%
Растворение на основе исходного анализа и остаточного анализа	%	68.7	82.5	63.1	83.3	89.6	91.8
Растворение на основе исходного анализа и анализа раствора	%	74.8	72.3	76.1	N/A	N/A	N/A
Закрытие массового баланса	%	106	89	113	N/A	N/A	N/A
Рассчётное содержание в Исходной массе	%	0.2399%	0.2890%	0.3739%	N/A	N/A	N/A
Растворение на основе расчётных исходного анализа и анализа раствора	%	70.5	80.5	67.3	N/A	N/A	N/A

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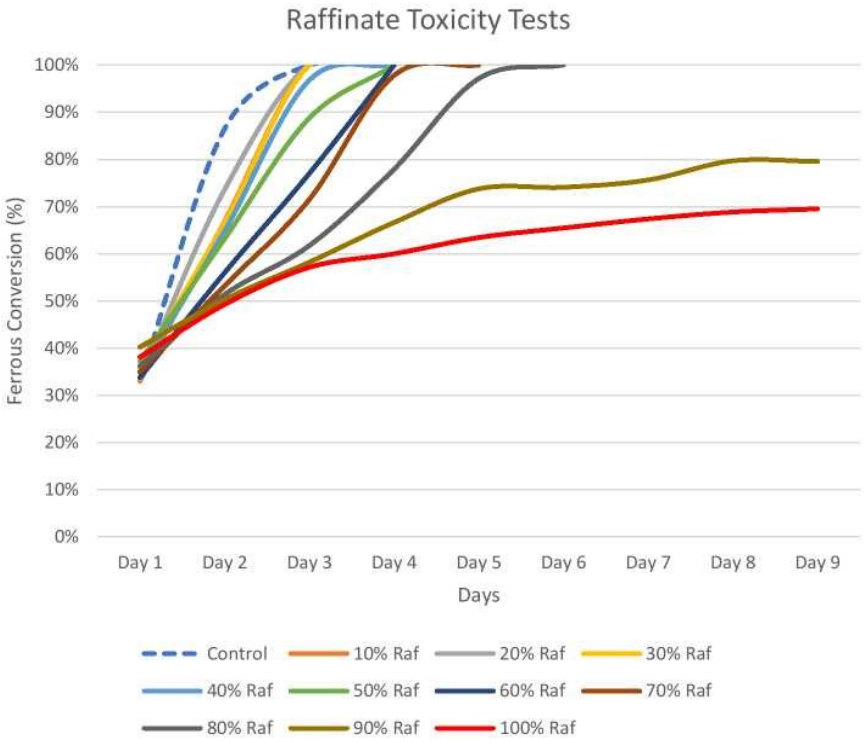
Поток	Ед.изм.	Общая медь Cu(t)		
		ПКВ1	ПКВ2	НС
Cu(t) Содерж. в Исходной массе	%	0.33	0.41	0.29
Cu(t) Содерж. в хвостах	%	0.15	0.13	0.22
Растворение на основе анализа Исходной массы и анализа раствора	%	80.8	82.4	46.7
Расчётная Исходная масса vs Анализ исходной массы	%	145	126	120
Расчётное содержание в Исходной массе	%	0.33	0.41	0.29
Растворение на основе расчетной пробы исходной массы и пробы раствора	%	58.1	68.6	32.2

Результаты экстракции показывают, что извлечение меди из ПКВ1, ПКВ2 и бедных руд ниже, чем из измельчённых образцов. Для ПКВ1 и ПКВ2 разница примерно одинакова и составляет 12%. Извлечение меди из бедных руд было значительно ниже, но этот материал имеет гораздо более высокое содержание сульфидов.

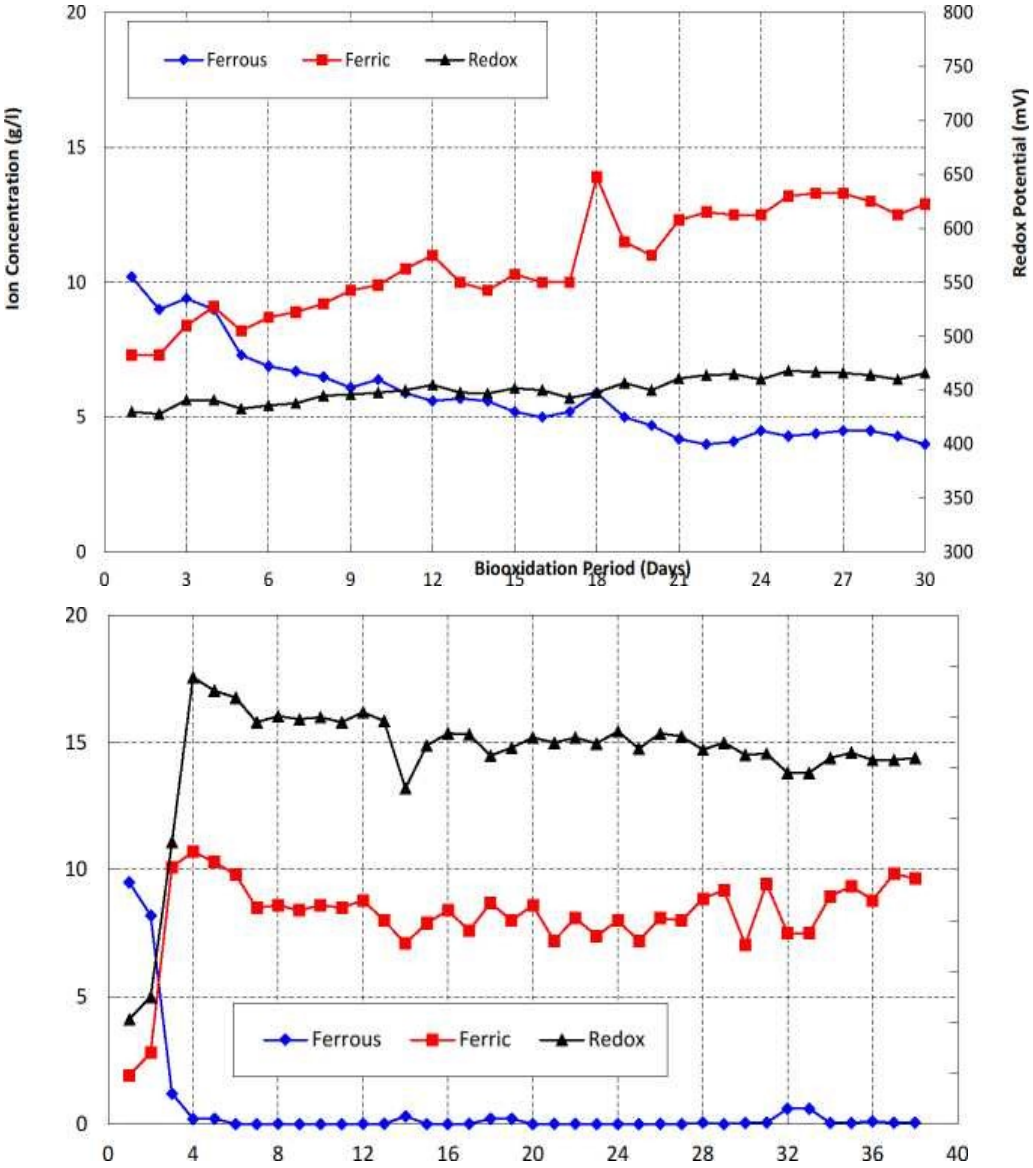
Исследование на токсичность. Был проведён набор испытаний на токсичность для исследования рафината и токсичности выщелачивающего раствора для популяции микроорганизмов компании GRE (используемых для колонных испытаний). Затем было изучено влияние повышенного содержания кислоты.

Во время испытаний рафината были опробованы изменяющиеся концентрации рафината в сочетании с увеличением содержания питательных веществ. Было замерено влияние концентрации рафината на контрольную популяцию, питаемую только двухвалентным железом и питательными веществами. Первичным показателем здоровья популяции является коэффициент преобразования двухвалентного железа. На рисунке ниже показаны результаты токсичности рафината.



Исследование по адаптации. GRE завершили испытания по адаптации в попытке увеличить жизнеспособность популяции микроорганизмов путём природной адаптации. Было проведено два испытания: в первом применялся чистый рафинат, а во втором увеличивали концентрацию рафината постепенно (в обоих случаях с питательными веществами).

Результаты первых испытаний (высокая исходная концентрация рафината) и результаты второго испытания (увеличение концентрации рафината) показаны на рисунках ниже.



В ходе испытаний по адаптации в GRE изучали влияние добавления питательных веществ на инокулянт. Во время первого испытания добавляли стандартный питательный раствор 0К, а во время второго испытания применялся питательный раствор 0,1Х 0К. 0,1Х 0К – это одна десятая силы стандартного раствора 0К. Бактерии собирались из пробы инокулянта SGS путём пропускания через центрифугу, скатывания биомассы и распульпирования в 0,1Х растворе. Адаптация 0,1Х - 0К показала схожую тенденцию с 1Х - 0К питательными веществами и продемонстрировала приемлемые показатели.

Заключение по испытательным работам.

ПКВ1. Колонные испытания на данном материале показали, что извлечение меди варьирует от 71% у дроблёного материала и до 58% у материала исходной руды. Для кучного выщелачивания был использован исходный рудный материал и расчётное извлечение равнялось 50,2% (общей меди). Согласно результатам проведённых испытаний, применение Биовыщелачивания даёт 29% потенциального дополнительного извлечения из

существующей ПКВ1, что потенциально может дать 79,1% конечного извлечения.

ПКВ2. Колонные испытания на данном материале показали, что извлечение меди варьирует от 81% у дроблёного материала и до 69% у материала рядовой руды. Для кучного выщелачивания был использован исходный рудный материал и прогнозируемое расчётное извлечение должно было равняться 50,5% (общей меди). Применение Биовыщелачивания потенциально может увеличить извлечение меди на 18% в зависимости от результатов испытаний.

Бедная руда. Колонные испытания на данном материале показали, что извлечение меди варьирует от 67% у дроблёного материала и до 32% у материала рядовой руды.

Результаты извлечения меди приведены в таблице ниже:

Поток	Дроблёная руда			Исходная руда		
	ПКВ1	ПКВ2	бедная руда	ПКВ1	ПКВ2	бедная руда
Гранулометрический состав (P80)	25 мм	25 мм	25 мм	50 мм	52 мм	38 мм
Колонное извлечение меди	70,5%	80,5%	67,3%	58,1%	68,6%	32,2%
Исходное извлечение Cu	**50,2%**	**50,5%**	Не применимо	**50,2%**	**50,5%**	Не применимо
Общее извлечение меди после применения Биовыщелачивания	**85,3%**	**80,5%**	Не применимо	**79,1%**	**68,6%**	Не применимо
Увеличение конечного извлечения	35,1%	30,0%	Не применимо	29%	18,1%	Не применимо

Базовый инжиниринг. После проведения исследований GRE разработали базовый инжиниринг внедрения проекта Боивыщелачивание на Оксидном заводе. Реализация данного проекта была необходима в связи со снижением содержания меди в исходной руде с 0.32% от общей меди в 2017 годе до 0,24% кислоторастворимой меди в 2019 году. Данное снижение меди в руде не было предусмотрено первоначальным проектом ГОК и было обнаружено в середине 2019 года, что повлияло на пересмотр производственного плана и его снижение с 25000 до 22000 тонн катодной меди. Технология биовыщелачивания позволяет окислять и переводить в раствор медь из переходных сульфидных руд, некондиционных сульфидных минералов. Успешное внедрение данной технологии позволит продлить жизнь Оксидного завода. Также внедрение технологии биовыщелачивания позволит повысить извлечение меди из площадки кучного выщелачивания №2 минимум на 10%, позволит укладывать некондиционные переходные руды и производить катодную медь высшего качества.

Базовый инжиниринг выполнен компанией Global Resource Engineering (GRE) после проведения исследований переходной руды и руды с низким содержанием меди АГОК на предмет выщелачивания с помощью бактерий.

Базовый инжиниринг включил в себя:

- Критерии проектирования
- Схемы PFD и P&ID
- Лист электрооборудования и нагрузок
- Чертежи трубопроводов для системы аэрации
- Перечень оборудования, включая КП и спецификации
- Концепция системы инокуляции
- Детали для лаборатории – Руководство, лист оборудования, доставка бактерий, программы для испытаний низкосортной руды (концепция, рекомендуемое оборудование, прочие рекомендации)

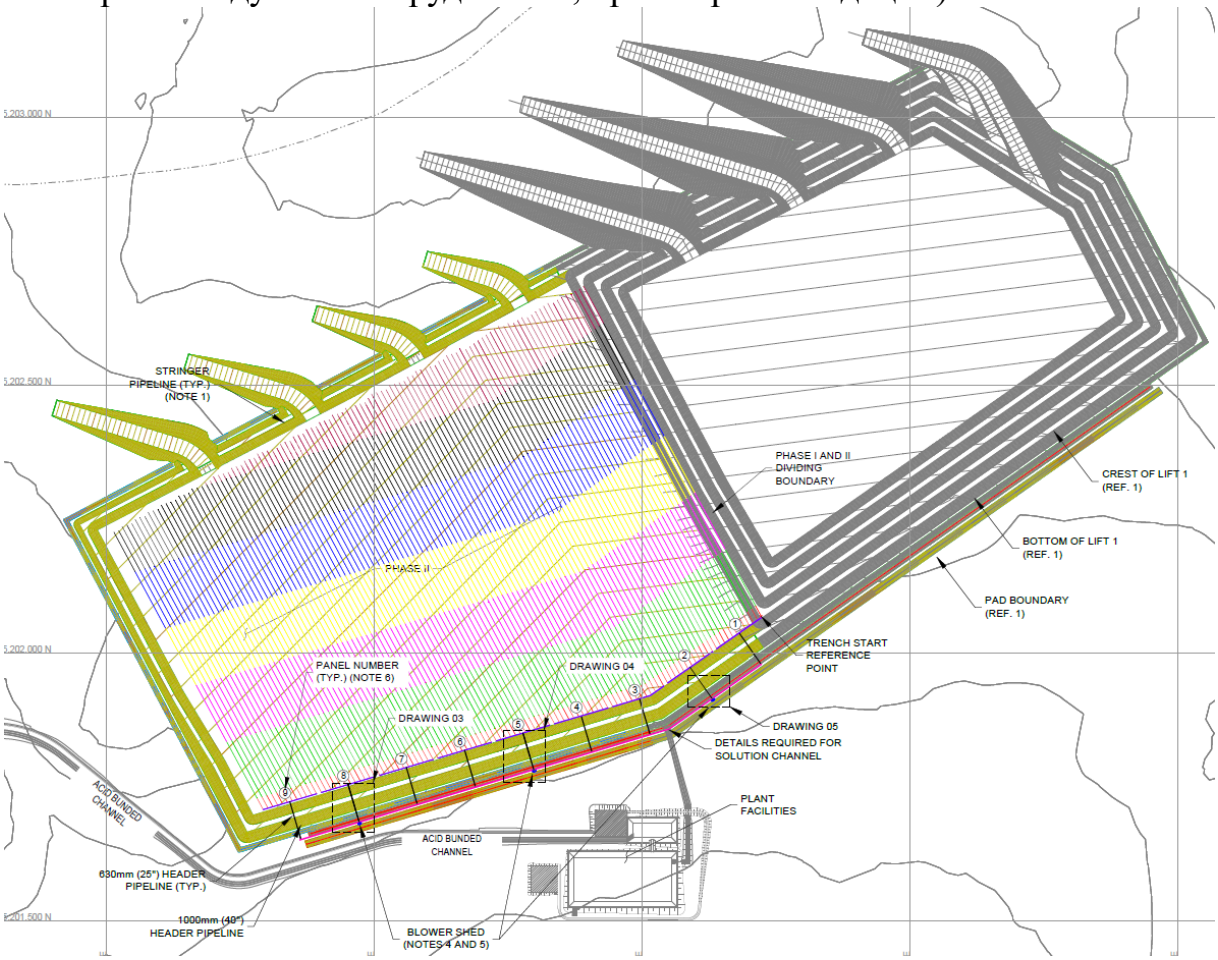


Рис.2 Общий вид системы аэрации ПКВ2

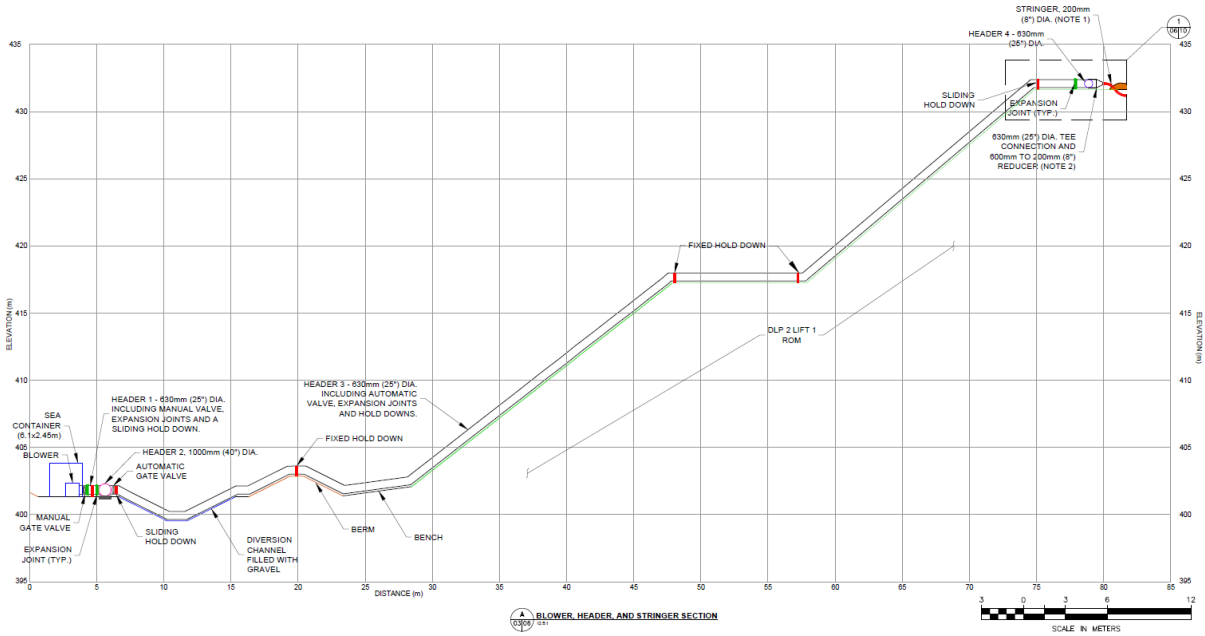


Рис.3 Общий вид системы аэрации ПКВ2. От воздухонагнетателя через систему воздухопроводов воздух подаётся в стрингерные трубы (трубы с множеством выпускных отверстий диаметром от 7,5 до 12 мм), уложенные внутри панели.

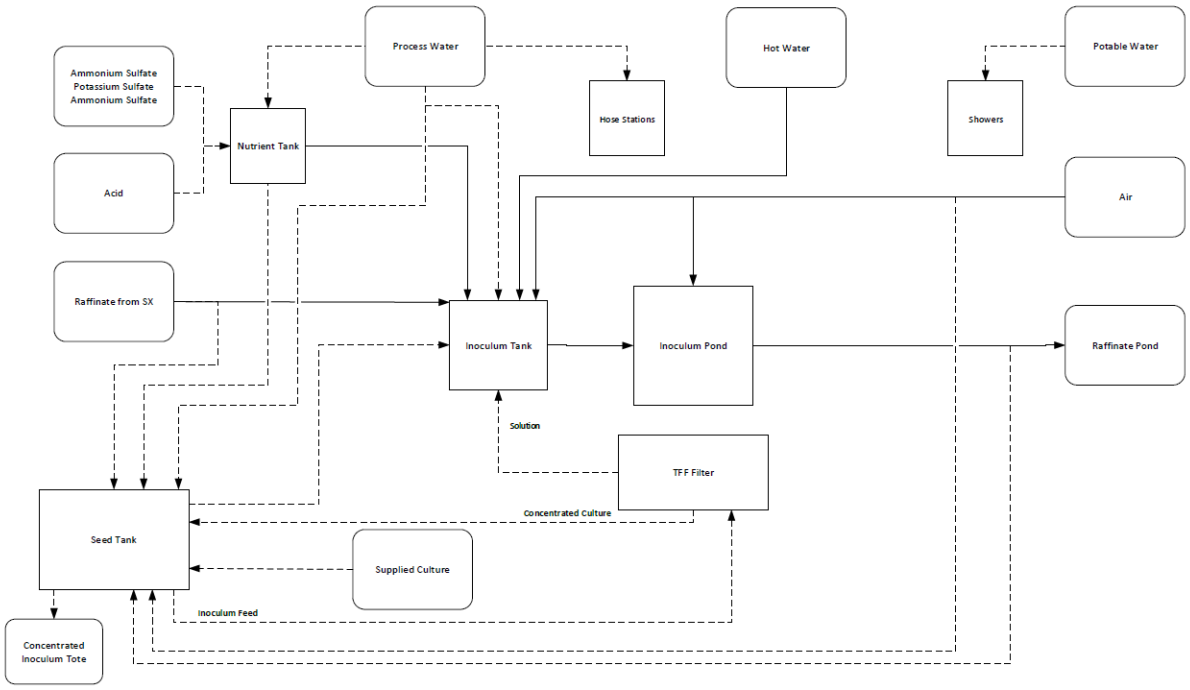


Рис.4 Разработанная Карта технологического процесса Системы Инокуляции.

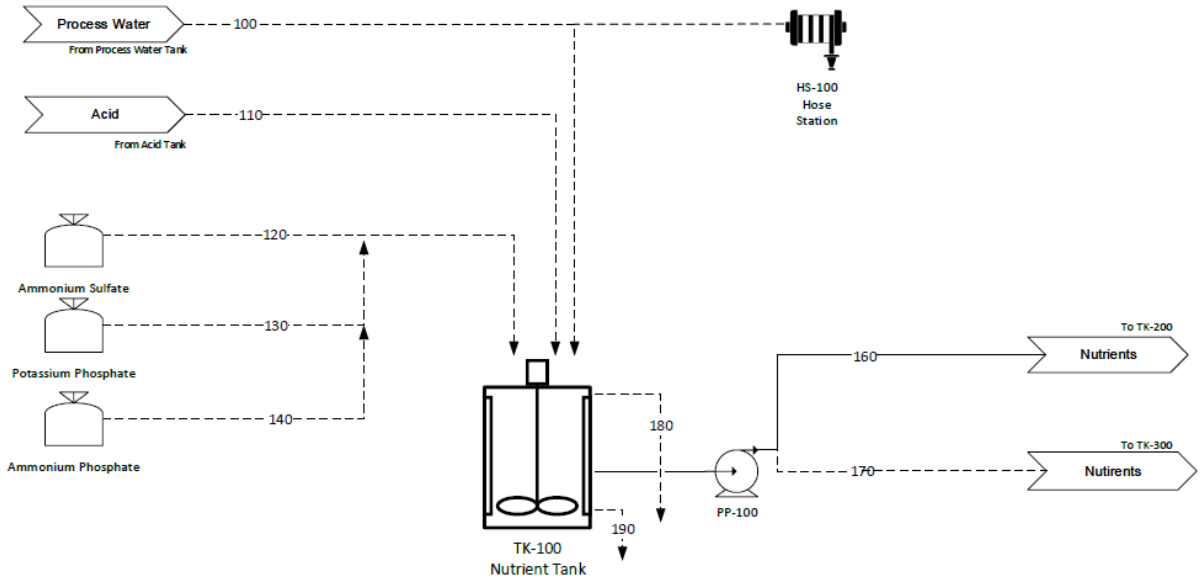


Рис.5 Технологическая схема участка реагентов (ТК-100 – резервуар для питательных веществ)

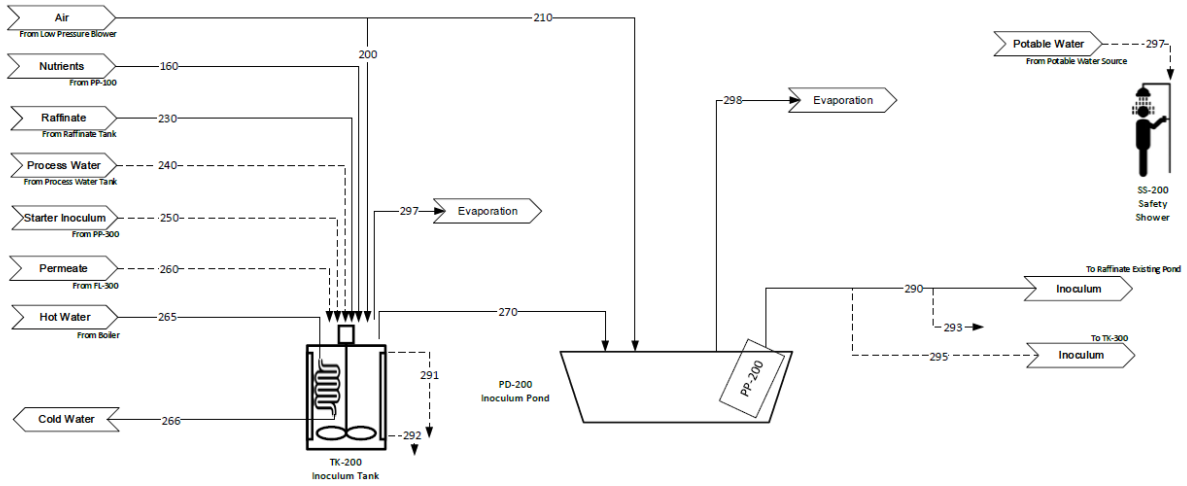


Рис.6 Технологическая схема участка выращивания культуры (ТК-200 – резервуар инокулята, в котором происходит смешивание начального инокулята, питательных веществ и рафината для роста бактерий, РР-200 – пруд инокулята)

Из пруда инокулята РР-200 раствор насыщенный бактериями, перекачивается в существующий пруд рафината. А уже из пруда рафината по существующей схеме раствор рафината с бактериями идёт на орошение панели кучного выщелачивания ПКВ2.

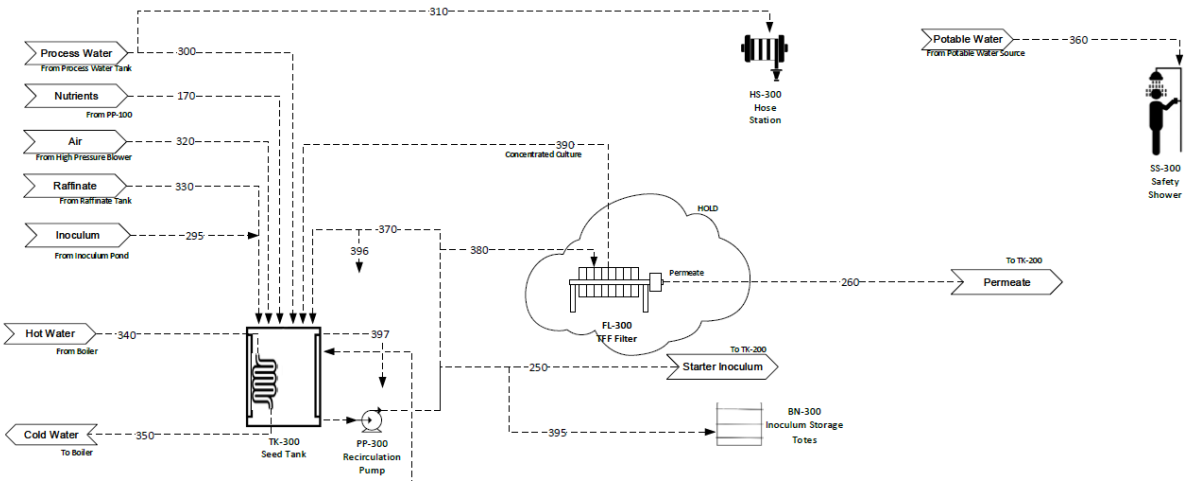


Рис.7 Технологическая схема участка начальной культуры (ТК-300 – семенной резервуар, в котором происходит смешивание питательных веществ, рафината и инокулята из пруда инокулята для получения начального инокулята)

Заключение EPC контракта. EPC контракт заключен с казахстанской компанией Ostara Group со следующим объёмом работ:

– Выполнение адаптации проекта GRE в соответствии с требованиями стандартов, норм и правил РК, прохождение комплексной экспертизы проекта с получением положительного заключения экспертизы;

– Закуп всех необходимых материалов для осуществления СМР, за исключением позиций, поставляемых Заказчиком, таких как, трубопроводы для системы аэрации, комплектные трансформаторные подстанции;

– Выполнение СМР в полном объёме, включая ПНР и проведение испытаний совместно с представителями KAZ Minerals и GRE.

Рис.8 ПКВ-2. Укладка стрингерных труб системы принудительной аэрации

Рис.9 ПКВ-2. Коллектор подачи воздуха

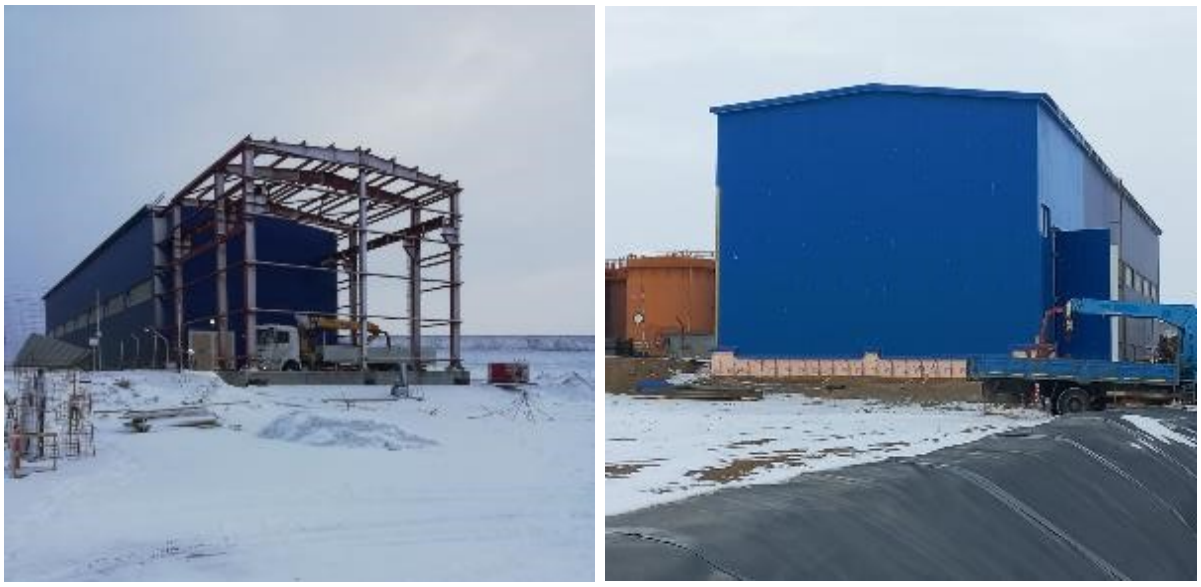


Рис.10 Инокуляция. Расширение насосной станции рафината для размещения питательного и семенного баков с насосами, а также склада хранения питательных веществ.

Рис.11 Инокуляция. Расширение насосной станции рафината для размещения питательного (ТК-100) и семенного (ТК-300) баков с насосами, а также склада хранения питательных веществ.

Рис.12 Инокуляция. Строительство пруда инокулята с использованием теплоизоляционного материала Пеноплекс и геомембраны.

Рис.13 Инокуляция. Строительство ТК-200 – резервуара инокулята, в котором происходит смешивание начального инокулята, питательных веществ и рафината для роста бактерий.

Заключение. ПКВ1 - решено не внедрять проект Биовыщелачивания на панели кучного выщелачивания ПКВ1, так как она уже полностью отработана методом кучного выщелачивания. Для реализации проекта необходимо установить систему аэрации, что будет проблематично выполнить, так как отсыпано 5 ярусов с высотой каждого яруса в среднем 12 м.

ПКВ2 - строительно-монтажные работы выполнены в полном объёме. Проектирование по всем разделам завершено и получено положительное заключение комплексной экспертизы рабочего проекта. Система аэрации

внедрена на ПКВ2 во время отсыпки ярусов рудой с содержанием кислоторастворимой меди на момент реализации проекта. После внедрения проекта, извлечение меди с DLP2 увеличилось в среднем на 15%. Руководитель проекта – Мурат Кожек. Приняли активное участие – операционная команда Оксидного завода, операционная команда Горного управления, Инженерная служба АГОК.

ПКВ3 (LG) – в будущем руководством KAZ Minerals возможно будет рассмотрен проект панели кучного выщелачивания №3, которая будет отсыпана рудой с низким содержанием меди. Так как лабораторные испытания показывают, что извлечение меди из измельчённой руды с помощью выщелачивания микроорганизамами даёт лучшие результаты, то рекомендовано перед отсыпкой ярусов ПКВ3 (LG) измельчать руду. Также по опыту реализации проекта Биовыщелачивания на ПКВ2 рекомендуется уделить особое внимание системам принудительной аэрации, так как для нормальной жизнедеятельности бактерий требуется обеспечение достаточным количеством кислорода.

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АНАЛИЗ ПРИМЕНЕНИЯ МЕЖДУНАРОДНОГО СТАНДАРТА АУДИТА 300 «ПЛАНИРОВАНИЕ АУДИТА» В УСЛОВИЯХ СОВРЕМЕННОЙ ЭКОНОМИЧЕСКОЙ СРЕДЫ

Аннотация*: Данная статья анализирует Международный стандарт аудита (МСА) 300 «Планирование аудита», рассматривая его актуальность в контексте современных экономических вызовов, таких как глобализация, цифровизация и возрастающая сложность бизнес-процессов. В статье рассматриваются ключевые аспекты планирования аудита, описанные в МСА 300, и их практическое применение, а также обсуждаются потенциальные трудности и риски, с которыми сталкиваются аудиторы в процессе планирования.*

Ключевые слова*: Международный стандарт аудита 300, планирование аудита, риск аудита, материальность, аудиторская выборка, современная экономическая среда.*

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ANALYSIS OF THE APPLICATION OF THE INTERNATIONAL AUDITING STANDARD 300 "AUDIT PLANNING" IN THE MODERN ECONOMIC ENVIRONMENT

Abstract: *This article analyzes the International Standard on Auditing (ISA) 300 "Audit Planning", considering its relevance in the context of modern economic challenges such as globalization, digitalization and the increasing complexity of business processes. The article examines the key aspects of audit planning described in ISA 300 and their practical application, as well as discusses the potential difficulties and risks faced by auditors in the planning process.*

Keywords: *International Standard on Auditing 300, audit planning, audit risk, materiality, audit sample, modern economic environment.*

Введение

Международный стандарт аудита 300 «Планирование аудита» (МСА 300) устанавливает основополагающие принципы и процедуры, необходимые для эффективного планирования аудита финансовой отчетности. Правильное планирование является критическим фактором для обеспечения качества аудита и снижения аудиторского риска. В условиях современной экономической среды, характеризующейся быстрыми изменениями, технологическим прогрессом и ростом глобализации, применение МСА 300 приобретает особую актуальность. Данная статья направлена на анализ применения МСА 300 в современных условиях, с акцентом на вызовы и возможности, которые возникают перед аудиторами в процессе планирования.

Ключевые аспекты МСА 300

МСА 300 подчеркивает необходимость всестороннего понимания аудируемого лица, его бизнеса и окружающей среды. Ключевыми аспектами планирования, описанными в стандарте, являются:

Определение целей аудита: Аудитор должен четко определить цели аудита, которые должны быть согласованы с требованиями соответствующих стандартов аудита.

Оценка рисков: Систематическая оценка рисков существенного искажения финансовой отчетности, включая риски, связанные с управлением, контролем и окружающей средой. Этот этап включает в себя анализ природы бизнеса, его структуры, уровня контроля, а также внешних факторов, которые могут повлиять на финансовую отчетность.

Определение уровня материальности: Установление пороговых значений материальности, определяющих величину искажений, которые могут повлиять на экономические решения пользователей финансовой отчетности.

Разработка плана аудита: Разработка подробного плана аудита, который охватывает все необходимые процедуры, сроки и назначение персонала. План должен быть гибким и адаптируемым к изменениям, которые могут возникнуть в ходе аудита.

Назначение персонала: Назначение опытного и квалифицированного персонала для проведения аудита, с учетом специфики аудируемого лица и сложности аудиторских процедур.

3. Вызовы и возможности в современной экономической среде

Современная экономическая среда ставит перед аудиторами ряд новых вызовов в процессе планирования аудита:

Цифровизация: Быстрое развитие цифровых технологий, включая облачные вычисления и большие данные, требует от аудиторов новых подходов к планированию и проведению аудиторских процедур. Необходимо учитывать риски, связанные с кибербезопасностью и защитой данных.

Глобализация: Глобализация бизнес-процессов увеличивает сложность аудиторской работы, требуя понимания международных стандартов и различных юридических норм.

Увеличение сложности бизнес-моделей: Современные бизнес-модели часто характеризуются высокой сложностью и неопределенностью, что требует более глубокого анализа рисков и более тщательного планирования аудита.

Увеличение регулирования: Возрастающее количество нормативных актов и требований регулирующих органов усложняет процесс планирования аудита и требует от аудиторов более глубокого знания законодательства.

Заключение

МСА 300 предоставляет фундаментальные принципы эффективного планирования аудита, которые остаются актуальными несмотря на изменения в современной экономической среде. Однако, аудиторам необходимо постоянно адаптироваться к новым вызовам, используя инновационные технологии и подходы для минимизации рисков и обеспечения высокого качества аудита. Особое внимание должно уделяться оценке рисков, связанных с цифровизацией и глобализацией, а также постоянному совершенствованию плана аудита в зависимости от изменений в деятельности аудируемого лица. Дальнейшие исследования должны быть направлены на разработку более эффективных методик планирования аудита в условиях быстро меняющейся экономической среды.

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БУХГАЛТЕРСКИЙ УЧЕТ: ОБЪЕКТЫ, ЗАДАЧИ И РОЛЬ В СОВРЕМЕННОМ МИРЕ

Аннотация: *Данная статья рассматривает фундаментальные аспекты бухгалтерского учета, включая его объекты, основные задачи и значимость в современном экономическом контексте. В статье анализируется эволюция бухгалтерского учета, его принципы и методология, а также роль в принятии управленческих решений и обеспечении прозрачности финансовой деятельности организаций.*

Ключевые слова: *бухгалтерский учет, объекты учета, задачи учета, финансовая отчетность, управленческий учет, МСФО, ФСБУ.*

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ACCOUNTING: OBJECTS, TASKS AND ROLE IN THE MODERN WORLD

Abstract: *This article examines the fundamental aspects of accounting, including its objects, main tasks and importance in the modern economic context. The article analyzes the evolution of accounting, its principles and methodology, as well as its role in making managerial decisions and ensuring transparency of financial activities of organizations.*

Keywords: *accounting, accounting objects, accounting tasks, financial reporting, management accounting, IFRS, FSB.*

Введение

Бухгалтерский учет – это упорядоченная система сбора, обработки, обобщения и хранения информации о хозяйственной деятельности предприятия. Он является неотъемлемой частью функционирования любой

организации, независимо от ее размера и организационно-правовой формы. В современном мире, характеризующемся высокой динамикой и глобализацией, роль бухгалтерского учета приобретает особое значение, обеспечивая прозрачность финансовых операций, принятие обоснованных управленческих решений и контроль за эффективностью бизнеса.

Объектами бухгалтерского учета являются все хозяйственные средства организации, их состав и движение. К ним относятся:

Основные средства: долгосрочные активы, используемые в производственной деятельности (здания, оборудование, транспорт). Учет основных средств включает в себя отражение их стоимости, амортизации и выбытия.

Материальные оборотные средства: запасы сырья, материалов, готовой продукции, которые используются в течение короткого периода. Учет этих средств предполагает контроль за их поступлением, расходом и остатками.

Нематериальные активы: бескорпусные активы, имеющие нематериальную форму (патенты, лицензии, программное обеспечение). Учет нематериальных активов сложен и требует специфических методов оценки.

Денежные средства: наличные и безналичные денежные средства организации. Учет денежных средств обеспечивает контроль за их поступлением, расходованием и остатками.

Капитал и резервы: собственные средства организации, сформированные из уставного капитала, прибыли и других источников. Учет капитала и резервов необходим для оценки финансовой устойчивости предприятия.

Задолженность: дебиторская и кредиторская задолженность организации. Учет задолженности важен для оценки ликвидности и платежеспособности.

Финансовые вложения: инвестиции в другие компании, ценные бумаги. Учет финансовых вложений позволяет отслеживать доходность инвестиций.

Учет всех перечисленных объектов позволяет получить полное и объективное представление о финансовом состоянии организации.

Основные задачи бухгалтерского учета можно сгруппировать следующим образом:

Формирование информации о финансовом состоянии организации: Определение активов, обязательств и капитала организации на определенную дату. Это является основой для составления баланса – одного из главных финансовых отчетов.

Определение финансовых результатов деятельности: Расчет прибыли или убытка организации за определенный период. Эта информация отражается в отчете о прибылях и убытках.

Контроль за движением имущества: Отслеживание поступления, расхода и остатков имущества организации. Это позволяет предотвратить нецелевое использование активов и потери.

Обеспечение достоверности финансовой информации: Применение принятых стандартов бухгалтерского учета и внутреннего контроля для минимизации ошибок и искажений в финансовой отчетности.

Обеспечение информацией пользователей: Предоставление финансовой информации различным пользователям: инвесторам, кредиторам, государственным органам, менеджерам.

Повышение эффективности управления: Предоставление информации для принятия обоснованных управленческих решений. В этом контексте важную роль играет управленческий учет, дополняющий традиционный бухгалтерский учет.

Принципы бухгалтерского учета

Для обеспечения достоверности и сопоставимости финансовой информации бухгалтерский учет руководствуется определенными принципами:

Принцип начисления: доходы и расходы отражаются в том периоде, к которому они относятся, независимо от факта поступления или оплаты денежных средств.

Принцип последовательности: одинаковые операции отражаются одинаковыми методами в течение всех периодов.

Принцип существенности: в учете отражаются только существенные факты, оказывающие значительное влияние на финансовое положение организации.

Принцип полноты: в учете отражаются все хозяйственные операции без исключения.

Роль бухгалтерского учета в современном мире

В условиях глобализации и развития рыночных отношений роль бухгалтерского учета возрастает. Он обеспечивает:

Прозрачность финансовой деятельности: доступность финансовой информации для всех заинтересованных сторон.

Принятие обоснованных инвестиционных решений: инвесторы используют финансовую отчетность для оценки перспектив вложения средств.

Контроль за эффективностью деятельности: менеджеры используют данные бухгалтерского учета для оценки производительности и принятия решений по совершенствованию бизнеса.

Соблюдение законодательства: правильное ведение бухгалтерского учета необходимо для соблюдения налогового и другого законодательства.

Заключение

Бухгалтерский учет – это сложная, многогранная система, играющая ключевую роль в функционировании современных организаций. Постоянное совершенствование методов учета, внедрение новых технологий и применение международных стандартов (МСФО) способствуют повышению достоверности и полезности финансовой информации, обеспечивая прозрачность и эффективность бизнеса.

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“ДЕХҚОНОБОД КАЛИЙ ЗАВОДИ” АЖДА КАЛИЙ ЎҒИТЛАРИ ИШЛАБ ЧИҚАРИШ БИЛАН БОҒЛИҚ ЭКОЛОГИК МУАММОЛАР ХУСУСИДА

Аннотация. Мақолада дунё мамлакатларида калий маъданларини қазиб чиқариш кўрсаткичлари келтирилган. *“Деҳқонобод калий заводи” АЖда ишлаб чиқариш кўрсаткичларининг ортиши билан атроф-муҳит салбий таъсир доирасининг кенгайиши муҳокама қилинган. Корхонанинг ишлаб чиқариш объектлари учун ўзига хос тадқиқот усуллари ва экологик мониторинг юритиш методикаси ишлаб чиқилиши лозимлиги таъкидланган.*

Калит сўзлар: *экология, маъдан, захиралар, кон, чиқинди, атроф-муҳит, шахта, карер, мониторинг, калий тузлари, қазиб чиқариш, бойитиш.*

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ABOUT ENVIRONMENTAL PROBLEMS RELATED TO THE PRODUCTION OF POTASH FERTILIZERS IN JSC «DEHKANABAD POTASH PLANT»

Annotation. *The article presents the indicators of production at potash mines in the countries of the world. The expansion of the sphere of negative impact on the environment in connection with the increase in production indicators of JSC «Dehkanabad Potash Plant» is being discussed. It is emphasized that specific research methods and methods of environmental monitoring should be developed for the production facilities of the enterprise.*

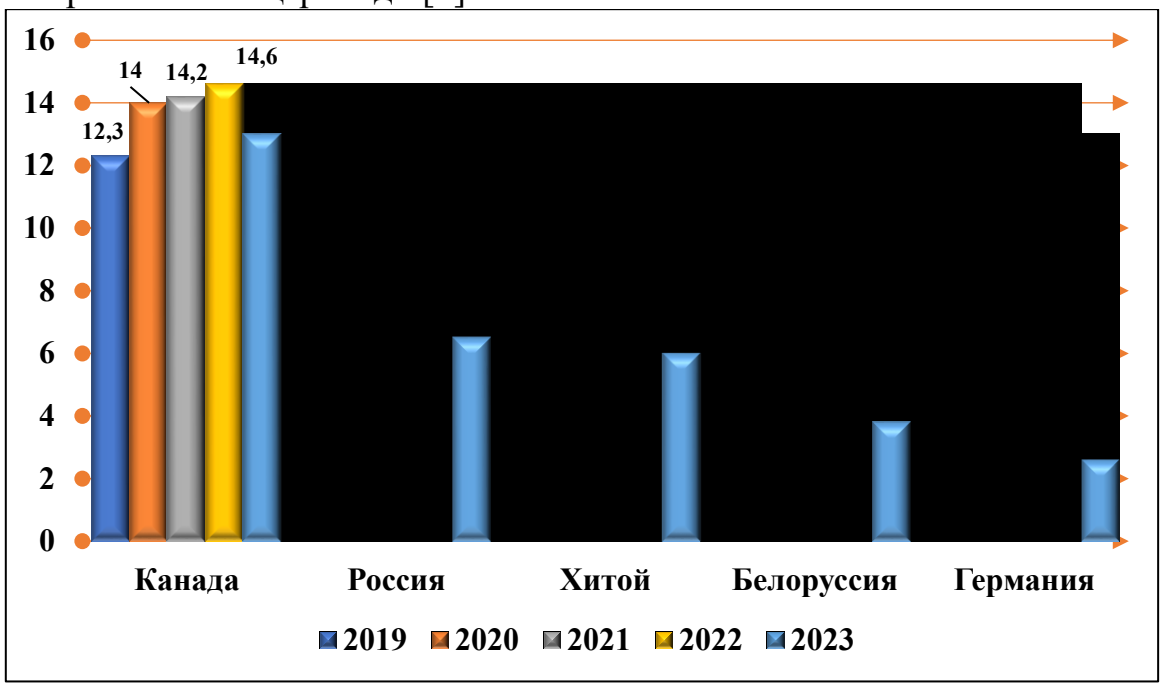
Key words: *ecology, ore, reserves, deposits, waste, environment, mine, quarry, monitoring, potash salts, mining, enrichment.*

Калий ўғитлари ишлаб чиқариш саноати корхоналарининг фаолияти натижасида атроф-муҳитга салбий антропоген таъсир кўрсатадиган катта миқдордаги суюқ ва қаттиқ чиқиндилар ҳосил бўлади. Калий ишлаб чиқаришнинг доимий ривожланиши, ишлаб чиқариш қувватининг ошиши ва

маъдан қазиб олишнинг янги технологияларини пайдо бўлиши туфайли калийли ўғитлари ишлаб чиқариш чиқиндилари миқдори ортиб бормоқда.

Калий маъданларини қазиб олиш ва қайта ишлаш корхоналари атроф-муҳитга салбий таъсир кўрсатадиган комплекс манба бўлганлиги сабабли, ушбу таъсирнинг минтақадаги экологик вазиятга таъсирини баҳолаш долзарб илмий ва амалий вазифа ҳисобланади.

Дунё бўйича калий тузларининг умумий захиралари 26819 млн.т. ва олинадиган захиралари 7616 млн.т. миқдорида баҳоланган. Захиралар бўйича Канада (K_2O га қайта ҳисоблаганда 1,1 млрд. т.), Белоруссия (750 млн. т.), Россия (650 млн. т.), АҚШ (220 млн. т.) ва Хитой (180 млн. т.). U.S. Geological Survey маълумотларига кўра, 2023-йилда жаҳонда калий маъданлари қазиб чиқариш 39,0 млн. тоннани ташкил этган (1-расм). МДҲ мамлакатларидан Ўзбекистон, Туркманистон ва Қозоғистонда ҳам калий ўғитлари ишлаб чиқарилади [1].



1-расм. 2019-2023 йилларда дунёнинг асосий калий маъданлари қазиб чиқарувчи мамлакатларида қазиб чиқариш кўрсаткичлари (млн. т.).

“Деҳқонобод калий заводи” АЖ Ўзбекистонда ягона ва йирик калий маъданларини қазиб олиш ва қайта ишлаш корхонаси ҳисобланади. Калий ўғитлари ишлаб чиқаришнинг хом ашё базаси сифатида Тепақўтон калий тузлари кони ишлатилмоқда. Коннинг асосий фойдали қазилмаси галит ($NaCl$) ва сильвиндан (KCl) такил топган сильвинитли маъданлар ҳисобланади. Фойдали минерал сильвин саналади. Тепақўтан калий тузлари конининг захиралари 235,9 млн. тоннани ташкил этади, маъдан калий хлорга бой (ўртача 36,11%). Кондан минерал хом ашёни қазиб чиқариш тоғ-қазиб чиқариш ускуналаридан фойдаланган ҳолда шахта усулида амалга оширилади. Қайта ишлаш мажмуасида калийли ўғитлар ишлаб чиқариш технологияси қуйидаги босқичлардан иборат: “хом ашё маъданни бўлаклаш –

майдалаш ва классификациялаш – флотация – сувсизлантириш – қуритиш – совутиш – қадоқлаш” [2-5].

“Деҳқонобод калий заводи” АЖ 2010-йил июль ойида фойдаланишга топширилган, 2020-йилга келиб ишлаб чиқариш қуввати йилига 1500 минг тонна сильвинит маъдани ва шундан калий ўғитлари ишлаб чиқариш қуввати 350 минг тоннадан ошди. Бугунги кунда корхонанинг ишлаб чиқариш қувватларини ошириш бўйича бир қатор ишлар амалга оширилмоқда. Ишлаб чиқилган ишчи лойиҳага мувофиқ, коннинг марказий қисмининг жануби-ғарбий қисмида захираларни ўзлаштириш 2017-2029 йилларга мўлжалланган. Ушбу участкаларда шахта майдонидан маъдан қазиб олиш фақат 2029 йилгача режалаштирилган ва 2029 йилдан кейин конни қазиб олиш конни ўзлаштиришнинг янги ишчи лойиҳасига мувофиқ давом этади [6].

Табиий ресурсларнинг замонавий чекланган шароитида, шу жумладан экологик муаммоларни ҳал қилиш учун, технологик ёки ташкилий ечимнинг экологик хавфсизлиги даражасини объектив баҳолаш барча корхоналарнинг устивор вазифаларидан ҳисобланади. Сўнгги ўн йилликларда табиатни оқилона бошқариш ва атроф-муҳитни муҳофаза қилиш масалаларига катта эътибор берилганига қарамай, атроф-муҳитни муҳофаза қилиш самарадорлигини назорат қилиш ва ўз вақтида баҳолаш муаммоси ҳозирги пайтда, айниқса тоғ-кон мажмуаси корхоналари учун долзарб масалалардан бири бўлиб қолмоқда.

“Деҳқонобод калий заводи” АЖнинг тоғ-кон қазиб чиқариш мажмуаси ва қайта ишлаш мажмуасида атроф-муҳитга салбий таъсир кўрсатадиган учта асосий объект мавжуд: калий маъданларини қазиб чиқариш мажмуаси, калий маъданларини қайта ишлаш (бойитиш) мажмуаси, туз ташламалари ва қайта ишлаш чиқиндиларини сақлаш омбори ҳамда калий маъданларини ва бойитиш чиқиндиларини ташиш тизими. Мазкур объектларда атроф-муҳитга салбий таъсир кўрсатадиган асосий манбалар қуйидагилар ҳисобланади: а) туз ташламалари ва қайта ишлаш чиқиндиларини сақлаш омборида: туз ташламалари ва чиқиндилар учун қишлоқ хўжалиги ер майдонларини ажратилиши ва йирик майдонларни узоқ муддат эгаллаб қолиши, иқлим шароитларига боғлиқ ҳолда атмосфера ҳавосининг ифлосланиши, туз ташламалари ва чиқиндилар остидаги пойдевор жинсларнинг зичлашиши, ер юзасининг рельефи ва табиий ландшафтни ўзгариши, туз ташламалари ва чиқиндилар омборидан сувнинг сизилиши натижасида ер усти ва ер ости сувларининг сифатини ёмонлашиши, грунт сувлар сатҳининг кўтарилиши ва тупроқнинг шўрланиши, ҳайвонот ва ўсимликлар дунёсининг зарарланиши, ўрмон, дашт ва сув флораси ва фаунасининг яшаш шароитларини ёмонлашиши, ёввойи ҳайвонларнинг миграцияси ва сонининг камайиши, ўсимлик турларини камайиши, ҳосилдорликнинг пасайиши, чорвачилик ва ўрмон хўжалиги маҳсулдорлигининг пасайиши; б) калий маъданларини қазиб чиқариш мажмуасида: шахтада турли хил таркибли чанг ва газларни ажралиши, туз таркибли чангларни кўтарилиши ва атрофга тарқалиши, шахтани шамоллатиш тизимидан атмосферага газларнинг тарқалиши, ер усти

ва ер ости сувлари режимининг бузилиши, ер ости сувларининг захираларини камайиши, ер усти сувларининг ҳолати ва сифатининг аҳамиятли ёмонлашиши, шахтанинг ер юзаси майдонида грунт сувларнинг сатҳини пасайиши, ер юзасининг деформацияланиши, дарзликлар ва ер ёриқларини ҳосил бўлиши, кўчкиларни юзага келиши, шахтанинг устки майдонида депрессион воронка ҳосил бўлиши; в) калий маъданларини қайта ишлаш (бойитиш) мажмуаси ҳамда калий маъданларини ва бойитиш чиқиндиларини ташиш тизимида: чанг ва газларни ҳосил бўлиши, газчанг аралашмасининг атмосферага чиқиши, сув манбаларининг шўрланиши, ҳаракатдаги технологик машина ва механизмлардан иссиқлик ажралиши, катта миқдордаги галит чиқиндиларининг ҳосил бўлиши, шлам тўплагичларнинг атроф-муҳитни таркибий қисмларига таъсири, газчанг таъсирида ишчиларнинг ишлаш шароитларини мураккаблашиши, ҳавога чанг кўтарилиши, ҳавога ички ёнув двигателларидан (ИЁД) чиққан ёқилғи газларнинг тарқалиши, атмосфера ҳавосида чанг ва ёқилғи газларнинг тарқалиши, чанг ва ёқилғи газлар, товушнинг таъсирида ўсимлик ва ҳайвонот дунёсининг камайиб бориши.

Тоғ-кон корхоналарида экологик самарадорликни ошириш уларнинг табиий ресурслардан оқилона фойдаланиш, саноатда замонавий техника ва технологияларни жорий этиш, иқлим ўзгариши шароитларига мослашиш ва фаолият юритиш билан боғлиқ. Тоғ-кон саноатининг ривожланишига атроф-муҳитга таъсирини камайтириш ва жамоатчилик иштирокини таъминлашга қаратилган такомиллаштирилган ва кучли меъёрий-ҳуқуқий база ёрдам беради ва шу билан бирга оқилона режалаштирилган лойиҳаларни амалга ошириш учун шароит яратади, бу ўз навбатида минтақада иқтисодий ўсишга имкон яратади [7-9].

Тоғ-кон саноатида турли геологик шароитларга ва физик-кимёвий хусусиятларга эга бўлган ҳамда минерал хом ашёни қазиб чиқаришнинг мақсади турлича бўлган фойдали қазилма конлари ишлатилади. Шу билан бир қаторда, кон жойлашган ҳудуднинг географик-иқлим шароитлари ва бошқа табиий хусусиятлари бир-биридан фарқ қилади. Буларнинг барчаси конларни ўзлаштириш ва ишлатиш жараёнини, шунингдек қазиб чиқарилган хом ашёни қайта ишлаш жараёнларининг атроф-муҳитга салбий таъсирини белгиловчи омиллар ҳисобланади. Шундан келиб чиққан ҳолда, экологик тадқиқот усулларининг кўплигига қарамасдан, ҳар бир ишлаб чиқариш объектлари учун ўзига хос тадқиқот усуллари ва экологик мониторинг юритиш методикаси танланиши лозим.

Ишлаб чиқариш объектларининг атроф-муҳитга салбий таъсир кўрсатадиган асосий омиллари, уларнинг таъсирида атроф-муҳитнинг зарарланиш белгилари ва оқибатлари, тадқиқот усуллари ва табиий муҳитга салбий таъсирларни олдини олиш ва бартараф қилишни ўз ичига олган атроф-муҳитнинг зарарланишини баҳолаш ва оқибатларини камайтириш мезонлари тоғ-кон қазиб чиқариш мажмуаси ва қайта ишлаш мужмуаси обектларида экологик ҳолатни доимий назорат қилиш ва барқарорлаштиришга, шунингдек

келажакда калий маъданларини қазиб олиш ва бойитиш корхоналарини лойиҳалаш ва ишлатишда маълум бир йўналишда асос бўлиб хизмат қилади.

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ВЛАСТЬ И РЕЛИГИЯ В КАРАКАЛПАКСТАНЕ В 1917-1941 ГОДАХ: ВОПРОСЫ ИСТОРИОГРАФИИ

Аннотация. *В данной статье представлены вопросы историографии, связанные с Исламской религией и советской властью в Каракалпакстане в 1917-1941 гг, а также роль данной историографии в подробном разъяснении проблемы.*

Ключевые слова: *Каракалпакстан, Ислам, религия, историография,*

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POWER AND RELIGION IN KARAKALPAKSTAN IN 1917-1941: ISSUES OF HISTORIOGRAPHY

Abstract. *This article presents issues of historiography related to the Islamic religion and Soviet power in Karakalpakstan in 1917-1941, as well as the role of this historiography in a detailed explanation of the problem.*

Key words: *Karakalpakstan, Islam, religion, historiography*

Введение. Историография этой проблемы насчитывает сотни книг и статей по различным отраслям исторической, архивоведческой, философской, политологической, юридической наук и ряда отраслей публицистики.

Основная часть. Политика советской власти и религия ислама соприкасались в первые годы в области просвещения. В начале 30-х годов в журнале “Просвещение национальностей” были даны сведения об общей грамотности народов Средней Азии: 3,9 % грамотных среди таджикского, 2 % - среди узбекского, 1 % - среди казахского, 0,7 % - среди туркменского, 0,6 % - среди киргизского, 0,2 % - среди каракалпакского населения [1,27]. Этот уровень грамотности каракалпаков долгие годы наложил отпечаток на

содержание государственной политики в области просвещения. Одной из причин отсталости и сплошной неграмотности видели в системе религиозного мусульманского обучения.

Член коллегии народного комиссариата просвещения Каракалпакской АССР В.И.Вертегов в докладе на первой конференции по изучению производительных сил края (18-25 марта 1933 г.) утверждал о том, что “в 1909 году по всей Средней Азии насчитывалось до 6000 старых медресе и мектебов, с общим количеством учащихся около 80 000 человек, причем на территорию Каракалпакии приходилось около 3000 медресе” [2,161]. Вышло таким образом, что половина конфессиональных учебных заведений находилась в Каракалпакстане, что не соответствовало реальной действительности.

Таким образом, в начальный период историографии переосмысление взаимоотношений власти и религии ислама произошло через призму политики правящей партии, основной принцип которой было лозунг «Религия – опиум для народа». С другой стороны, отметим, что настоящего исторического исследования в то время не было, и проблема затрагивалась в работах государственных чиновников.

В 30-40-е годы XX века в историко-партийной литературе Каракалпакстана были изданы обобщающие труды государственных деятелей К.Авезова, П.Варламова, А.Досназарова, которых при всей декларативности и наличии юбилейного характера, можно использовать в качестве историографического источника. К этой группе примыкают и труды по хозяйственному и культурному строительству в Каракалпакстане [3].

Впервые в историографии вопрос о взаимоотношении власти и религии затрагивал Я.М.Досумов. Изучая процесс “культурной революции” в Каракалпакстане через призму деятельности в области просвещения Я. М. Досумов, естественно, охарактеризовал специфические условия края, где приходилось “вести борьбу с пережитками средневековья и с патриархально - феодальной идеологией” [4].

Тем не менее, в 20-30-е годы проблема соотношения власти и религии ислама не нашла достаточного отражения в историографии. Это обусловливалось, прежде всего, состоянием и уровнем развития самой науки - недостатков квалифицированных кадров историков, не разработанностью источниковой базы [5,65]. Большое внимание уделялось археолого-этнографическому изучению края, разработке проблемы этногенеза каракалпакского народа, которые дают ценный фактический материал по истории распространения ислама.

В начале и середине 1950-х годов прослеживается волна защищенных докторских и кандидатских диссертаций по истории “культурной революции” в Каракалпакстане, где обязательным компонентом объекта исследования был, естественно, религиозный вопрос в прошлом и настоящем [6]. Однако исследователи односторонне осветили взаимоотношение власти и религии.

Новый всплеск в историографии исследуемой проблемы

прослеживается в конце 1950-х годов.

Первым опытом специального изучения истории культурного строительства в Каракалпакстане является книга У.Х.Шалекенова [7]. Отвергая сведения В.И.Вертегова, он пишет, что в 1903 г. в Хорезме существовало 70 религиозных медресе и 2313 мектебов, из них 5 медресе и 873 мектебов находились в Амударьинском отделе. Отмечая, мероприятия советской власти в области просвещения У.Х.Шалекенов подчеркивает, что правящая партия встречалась двумя препятствиями: во-первых, сплошной неграмотностью каракалпакского народа, во-вторых, представители мусульманского духовенства старались помешать широкому распространению советских школ.

В другой его книге [8], несмотря на идеологические оболочки высказываний типа “ислам служил интересам эксплуататорских классов, насаждал схоластику, суеверие и невежество”, имеются весьма ценные данные о возникновении святых мест — “Кара-Кум ишан”, “Ишан кала”, “Султан - Увейс”, “Тохмах - ата”. “Шбыли - Ашык”, “Назлымхан сулыу”, “Багдат”, “Аимбет ишан”, “Караойдын бес ишаны”, подкрепленные легендами, собранными во время работы Хорезмской археолого-этнографической экспедиции. Заслуживает внимания уточнение автора, сделанные во время этнографической экспедиции 1956-1958 гг. о том, что на территории Кегейлинского и Чимбайского районов Каракалпакстана было зарегистрировано 8 медресе: Матмурат ахуна, Емберген ахуна, Калила ахуна, Аякаулие, Аимбет ишана, Шернияз ахуна, Кара - кум ишана, Ишан калы. Весьма ценны данные о существовании новометодных (“усули джадид”) мектебах и медресе на территории Каракалпакстана - Кунграде, Чимбае, Турткуле, Ходжейли, Шаббазе, Шурахане в 1912-1920 гг.

У.Х.Шалекеновым был введен в научный оборот материалы совещания духовенства в январе 1926 г., где было принято решение о передаче специального наказа духовенству и судьям насчет регистрации гражданских браков. Здесь же введены в оборот сведения об убийстве активистки женского движения Наурызбаевой. У.Х.Шалекенов прослеживает этапы осуществления декрета СНК РСФСР “Об отделении церкви от государства и школы” в Каракалпакстане, которые начались с 21 января 1919 г. в Амударьинском отделе с организации новометодных школ (“тоте окыу”). Весьма ценны введенные У.Х.Шалекеновым данные о распространении в Каракалпакстане устава и агитационной литературы центрального духовного управления “Мухтасибиаты” (Уфа).

Касаясь наследия каракалпакской культуры, А.Панабергенов заявляет, что “конфессиональные школы в Каракалпакии были рассадниками религиозного мракобесия”[9]. Такой подход не позволил специалисту определить роль мектебов и медресе в системе народного просвещения. В работе дана динамика численности конфессиональных школ за 1908-1913 гг. Анализируя положения женщины, народного здравоохранения через призму определения “религия - это опиум для народа” автор ввел в научный оборот

только негативные данные о роли религии ислама в обществе. Тем не менее, А.Панабергенов ввел в научный оборот большой фактический материал при освещении создания советских школ, переписи детей школьного возраста, компромиссе новой власти, допустившего преподавание мусульманского вероучения в школе. Также огромное значение имеют материалы о женском движении и маневрах духовенства по сохранению действий законов шариата в 20-е годы. Освещен процесс латинизации каракалпакского алфавита. Даны первичные материалы о движении "Топылыс" ("Худжум").

Освещая культуру нашего народа в прошлом, Я.М.Досумов отмечает два антагонистических направления: реакционная линия царизма, помещиков, торговцев, баев, духовенства и прогрессивная линия социал-демократических групп. "Политика царизма по отношению к мектебам выражалась формулой: "Старая магометанская школа должна быть предоставлена себе" [10]. Автор констатирует, что если в 1911 г. в Амударьинском отделе было 516 мектебов с 10901 учащимися (из них 3182 девочки), то в 1914 г. - 433 с 4212 учащимися (из них 1128 девочек). Конфессионные школы, по мнению Досумова, насаждали религиозный фанатизм и воспитывали местное население в духе рабской преданности существующему строю.

В то же время Досумов подчеркивает, что выпускники мектебов и медресе поэты Бердах Гаргабай улы, Отеш Алшынбай улы, Омар Сугиримбет улы, Аяпберген Муса улы сочувствовали тяжелому положению трудящихся и воспевали в своих поэмах их чаяния и думы, а некоторые рядовые муллы, например Аббаз Дабылов, в связи с усилением национально-освободительных тенденций, примкнули к трудовому народу. Приводя численность мечетей Амударьинского отдела в 1914 г. (553) автор заключает, что "сотни мулл и ишанов служили опорой царизма и байства".

Освещая народное восстание 1916 г., Досумов отмечает, что среди ишанов Амударьинского отдела, совершавших хадж, были сторонники панисламистского и пантюркистского движения. Огромное значение имеет воссоздание Досумовым истории организации Петроалександровского комитета "Союза мусульман" во главе с А. Равиловым в 1917 г., хотя эта организация в соответствии с требованием времени была названа "реакционной националистической буржуазной организацией".

Досумов зафиксировал такие мероприятия советской власти, как приказ Совдепа Амударьинского отдела "Об отделении церкви от школы" (23 мая 1918 г.), упразднение Петроалександровского комитета "Союза мусульман" в конце 1918 г.

Процесс выборов в Советы Амударьинского отдела в 1919-1920 гг. освещен в работе Досумова, который отмечает, что "избирательных прав лишались все нетрудовые элементы, в том числе улемисты, как члены контрреволюционной партии и ишаны как паразитический элемент". В то же время, автор отмечает, что, учитывая местные условия, большевистская власть временно допустила существование казийских судов под непосредственным контролем волостных исполкомов. Досумовым отмечено также парадоксы

времени: преподавание мусульманского вероучения в советской школе, существование до 1927 г. конфессиональных школ.

Таким образом, в трудах Досумова мы находим ценнейшие материалы по истории взаимоотношений власти и религии ислама, которые, к сожалению, были интерпретированы в угоду правящей идеологии.

К началу 60-х годов был накоплен богатый конкретно-исторический материал, который был положен в основу первой коллективной монографии историков Каракалпакстана [11].

Описывая культурный уровень уральского казачества поселка Заир, автор раздела коллективной монографии Я.Досумов не преминул указать, что “сектанты - староверы с их религиозным фанатизмом внушали населению страх перед всем новым, покорность старейшинам”. Был введен в научный оборот приказ Петроалександровского гарнизона от 24 февраля 1920 г., где были изложены условия мирного договора, одним из важнейших пунктов была свобода вероисповедания.

Один из авторов коллективной монографии Г.Н.Непесов в разделе “Совместная борьба каракалпакских, узбекских и туркменских трудящихся за победу народной революции в Хивинском ханстве” констатирует факт издания одного их важнейшего декрета Хорезмской республики об учреждении Управления вакфными землями при Назирате культуры и просвещения. Непесов в другом разделе коллективной монографии также отмечает специфическую особенность духовной жизни, культуры и быта народов Хивы, которая “состояла в их безраздельном подчинении религиозным догмам ислама: неравноправное положение женщины, засилье ишанов, мулл, ахунов и других служителей мусульманской религии”.

Освещая историю Каракалпакстана в период индустриализации и коллективизации, авторы разделов Я.Досумов и А.Бекимбетов ввели в научный оборот данные о том, что к началу 1926 г. “1709 танапов посевов в Турткульском районе принадлежали мечетям. В Шаббазском районе было 130 мечетей, которые имели в своем распоряжении огромные земельные участки. Только у одного Каракум ишана в местности Ишан - калы Кегейлинского района было учтено 6999 десятин посевов”. Авторы подчеркивали, что “духовенство агитировало население аулов против мероприятий советской власти, призывало дехкан не записываться в союз “Кошчи”, не вступать в кооперацию, пугало дехкан тем, что их будут переселять в пустынные места”. Были введены в научный оборот важные судебные документы участников мщения за притеснение духовенства, которые были уверены, что гонение на духовенство безнаказанным не останется”.

У.Х.Шалекенов в разделе “Победа культурной революции в Каракалпакии”, используя материалы диссертационных работ и экспедиционные данные Дж.Урумбаева, Р.Т.Тимашевой, А.Панабергенова, К.Максетова, И.В.Савицкого, Т.Баяндиева, Д.Сабуровой, сумел обобщить огромный материал об этом процессе в нашем крае, естественно, затронув вопрос о взаимоотношении политики и религии. Он отмечает, что одной из

серьезных причин, мешавших развитию народного образования в области, было сопротивление со стороны ярых противников советской школы - духовенства". Отмечено изменение противоборства властей и служителей религии: в ответ на создание "красной юрты" и "красной чайханы" муллы и ишаны идут из мечетей в кишлаки и занимаются пропагандой в кибитках".

Таким образом, первая коллективная работа историков, хотя и не лишена недостатков, вводя в научный оборот огромный комплекс источников, показал процесс наращивания исторических знаний по истории родного края, в том числе и по истории отношений советской власти и служителей ислама.

С.У.Татыбаев, ссылаясь на доклад ревкома Амударьинской области правительству Туркестанской АССР в 1920 г., отмечает, что "отчуждение земель нетрудовых хозяйств в полной мере не производилось, так как применить декреты советской власти в местных специфических условиях не было возможным" [12].

С.Татыбаев впервые в историографии затронул важнейшие кампании новой власти по раскрепощению женщин, советизации. Татыбаев обобщая огромный исторический материал по истории перехода народов Каракалпакстан "к социализму, минуя капиталистическую стадию развития" отметил: новое государство на первых порах нуждалось в услугах конфессиональных школ, однако не оказывало какой-либо поддержки (материальной, юридической, денежной) им.

Историки опубликовали обобщающие монографии [13], в которых в той или иной мере были затронуты вопросы взаимоотношений религии и политики. Исторические контуры актуальных проблем советской истории, в том числе взаимоотношений власти и религии намечались в фундаментальной работе "История Каракалпакской АССР" [14]. Большая группа исторической литературы, посвященной процессу "раскрепощения женщин" Каракалпакстана подчеркивала, что в период развертывания кампании "Топылыс" политике советской власти противодействовало мусульманское духовенство. В своей деятельности против атеистической пропаганды среди населения оно прибегало к проповеди вечности и неизменности, семейного уклада, положения женщины в быту [15].

Т.И.Изимбетов отвечает на вопросы: насколько прочно сегодня сплетаются религия и политика, каковы объективные и субъективные основания этого симбиоза и сколь продолжительным будет это сосуществование? [16].

Имея, одни и те же объекты и носители религия и политика неизбежно перекрещиваются, как история, так и современность убедительно показывают, что так оно и было, так оно и есть. Эта мысль проходит через монографии и социологические исследования Ж. Б. Базарбаева [17].

С.А.Абаев в историко-философском плане осветил политические, социально - экономические и идеологические предпосылки вторжения атеизма в Каракалпакстан, специфику процесса противоборства ислама и

антирелигиозной пропаганды, деятельность организации Союза воинствующих безбожников в республике [18].

В коллективной монографии ученых Каракалпакстана «Қарақалпақстанның жаңа тарийхы» [19] всесторонне проанализированы основные аспекты общественно-политической и социально-экономической жизни Каракалпакстана, в том числе истории взаимоотношений советской власти и религиозных учреждений. На примере анализа политики царизма и советской власти коллектив авторов сумел доказать, что религия и политика на протяжении долгих веков, так или иначе, соприкасались друг с другом. При этом степень и характер воздействия религиозного фактора на политику различны, (на примере восстаний 1919 и 1929 г. это подчеркнуто), но его присутствие в политических действиях и народных движениях далеко не случайное явление.

Новаторским является монография М.А.Карлыбаева, восстановившая картину существования и деятельности, мусульманских мектебов и медресе на территории Каракалпакстана накануне большевистского переворота [20]. Огромное значение имеет приведенный список ишанов, проживавших в Амударьинском отделе в начале XX века. Частное обучение накануне октябрьского переворота в Амударьинском отделе свидетельствовало о стремлении национальной интеллигенции к просвещению. Словом, исследование М.Карлыбаева существенным образом изменило наше воззрение о системе мусульманского образования и ее роли в политической и культурной отраслях жизни Каракалпакстана в начале XX века.

Огромное значение имело издание монографии Ш.Бабашева о жертвах репрессий в Каракалпакстане [21]. Изучена судьба религиозных мусульманских деятелей, подвергших репрессии в 20-50-е годы XX века.

Анализ историографии по проблеме позволяет выявить недостатки и упущения по следующим вопросам:

- В литературе специально не освещено воздействие религии на политику на примере Каракалпакстана. Между тем это воздействие неизменно ощущается в первую очередь в том, что религия как таковая, в качестве одного из видов идеалистического мировоззрения, в качестве определенной идеологической системы, довольно активно вторгается в политическую жизнь. Идеологическое противоборство все время шло и будет идти между сторонниками секуляризма, свободомыслия, рационализма, атеизма, науки и религии.
- В исторической литературе до сих пор не обращалось внимания на аппарат и руководителей религиозных организаций. Каракум ишан, Хан максым и другие знатные люди выделялись в качестве лидеров народа. Отметим, что религиозные мусульманские организации представляли собой не узкий круг заинтересованных людей, это были разветвленные учреждения, которые брали под контроль человека, начиная с рождения кончая смерти. Формы вмешательства религиозных деятелей в социально-политическую сферу

изменялись в зависимости от общественного прогресса, активизации освободительной борьбы.

- Суть народных восстаний 1919 и 1929 годов только сейчас начинает анализироваться в литературе. Всестороннее изучение этих исторических событий показывает, что присутствие религиозного фактора в политике имело место, когда в силу конкретных условий сами верующие, участники восстаний, обращались к религии для обоснования своих действий, для идеологического оформления своих интересов, надежд, чаяний. Подобные случаи следовало отличить от тех, когда участникам восстаний навязывали религиозные идеи и лозунги. В исторической литературе на конкретных фактах не анализировано использование лозунга ислама, как джихад, или священная война. Поэтому трудно согласиться с мнением, что в 1917-1920 годы под этим лозунгом выступала махровая реакция.
- Крупным недостатком историографии является отсутствие анализа зарубежной историографии по проблеме. Многие зарубежные трактовки взаимоотношения религии и политики значительно отличаются от отечественной. За рубежом понимание свободы совести стало трактоваться как свобода религии. Для понимания многих существенных характеристик зарубежного толкования взаимоотношения религии и политики обратимся к одной изданной в 1984 году в США книге. В ней довольно обстоятельно раскрываются как механизм использования в наши дни «религии в политических целях и политики в делах религиозных», так и современный, гибкий – искомый, по мнению автора, - вариант их переплетения. Ричард Джон Нейхаус подчеркивает, что его книга посвящена анализу «религиозной политики и политической религии» [22]. «Политика и религия, - пишет он, - это разные области, и понятно стремление многих к тому, чтобы они оставались как можно более разделенными. Но они постоянно смыкаются и переплетаются друг с другом. В этом нет ничего нового. Вполне возможно, что так было во всех обществах».

Выводы. Таким образом, анализ историографии по проблеме свидетельствует о наличии богатого комплекса документальных источников, мемуаров, публицистики. Актуальность изучения взаимоотношений религии и политики связана и тем, что высокая оценка науки причудливо сочетается с широким распространением суеверий и современных мифов.

В настоящее время создана основа для плодотворного изучения истории государственно-религиозных отношений, открыты и введены в научный оборот ранее недоступные источники. К ним прежде всего относятся материалы Политбюро ЦК РКП(б) и документы ГПУ-ОГПУ, раскрывающие ключевые звенья политики партии в отношении религии. В то же время анализ историографии позволяет прийти к выводу, что в отечественной и зарубежной историографии пока нет работ обобщающего характера о политике советской власти в отношении мусульманского духовенства Каракалпакстана в 1917-1941 годов.

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ПРОБЛЕМЫ СРЕДИ НЕСОВЕРШЕННОЛЕТНИХ И МЕТОДЫ ПРОФИЛАКТИКИ: НАРКОЛОГИЯ, АЛКОГОЛИЗМ И СОЦИАЛЬНАЯ РЕАБИЛИТАЦИЯ

Абстракт: *В статье уделяется внимание профилактике подростковых проблем, особенно злоупотребления наркотиками и алкоголем. Проведен анализ роста наркозависимости среди подростков и ее социальных, биологических и психологических причин, а также информация о проблемах и необходимых мерах по их коррекции. В статье рассматриваются вредные последствия употребления наркотиков и алкоголизма среди подростков, значение семьи, образовательных учреждений и социальных служб в их профилактике. Подчеркивается, что необходимо помочь безнадзорным детям и подросткам, обеспечить им социально-педагогическую реабилитацию и образование и профессиональную подготовку. Также в статье подчеркивается профилактическая работа инспекторов и их роль в борьбе с преступностью, воспитательный эффект и важность профилактических мероприятий.*

Ключевые слова*: несовершеннолетние, профилактика, наркомания, алкоголизм, социальная реабилитация, воспитание, семейные проблемы.*

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PROBLEMS AMONG MINORS AND METHODS OF PREVENTION: NARCOLOGY, ALCOHOLISM, AND SOCIAL REHABILITATION

Abstract: *The article focuses on preventing adolescent issues, particularly drug and alcohol abuse. It analyzes the growing dependency on drugs among teenagers, its social, biological, and psychological causes, as well as measures necessary for addressing these problems. The article examines the harmful consequences of drug use and alcoholism among adolescents and emphasizes the role of families, educational institutions, and social services in prevention. It highlights the importance of supporting homeless children and adolescents, ensuring their socio-pedagogical rehabilitation, education, and professional training. The preventive work of inspectors, their role in combating crime, and the educational impact and significance of preventive measures are also emphasized.*

Keywords: *minors, prevention, drug addiction, alcoholism, social rehabilitation, education, family issues.*

Некоторые категории несовершеннолетних требуют разработки собственных профилактических методов. Поскольку проблемы в семьях не одинаковы и у каждого человека есть свои особенности, в каждом случае необходимо смотреть на ситуацию индивидуально.

Инспектор занимается выявлением подростков, употребляющих наркотики, и разработкой стратегии работы с ними. В современном обществе подростковая наркомания стала крупной социальной проблемой, угрожающей здоровому развитию всей нации.

При определении причин наркозависимости подростков инспектор должен учитывать, что такое поведение связано с социальными, биологическими и психологическими факторами.

Необходимо привлекать медицинские организации и психологические службы к борьбе с подростками, употребляющими наркотики или распространяющими их, поскольку при высокой степени зависимости очень сложно повторить такое поведение, скорректировать подростка и удержать его в нормальном состоянии. в обществе.

Наркомания – один из самых распространенных и опасных видов зависимости. В последние годы потребность в наркозе в обществе возрастает. Проблема употребления наркотиков несовершеннолетними стала одной из важнейших проблем государства. Рост наркозависимости – это не просто показатель, а серьезная угроза социальной стабильности общества. Наркомания разрушает нацию, разрушает здоровье молодежи и будущего поколения, ведь люди, употребляющие наркотики, склонны к различным заболеваниям, особенно СПИДу, венерическим заболеваниям, гепатиту и другим. Подростки тянутся к употреблению наркотиков в поисках новых впечатлений и чувственных переживаний. Их интерес к наркотикам в основном развивается благодаря групповому влиянию, желанию подражать кумиру или авторитетной фигуре. Это приводит к наркомании и желанию их неоднократного употребления, что может привести к преступлениям и противоправному поведению.

Можно назвать следующие факторы, проливающие свет на рост наркомании во всем мире:

- Цены на лекарства снижаются;
- Рост синтетических наркотиков и появление новых видов не позволит правильно их классифицировать и внести в реестр запрещенных наркотиков;
- Можно легко купить лекарства через Интернет;
- Правоохранительные органы испытывают трудности с поимкой торговцев наркотиками;
- Есть проблемы с отслеживанием маршрута доставки и выявлением иной противоправной деятельности;

- В стрессовых ситуациях люди стараются дистанцироваться от реальной жизни, в результате чего наркотики используются как средство ухода от проблем.

Употребление алкогольных напитков несовершеннолетними также является одним из факторов риска. Алкоголизм – одно из многих отклонений, и в современном мире алкогольные напитки легко доступны, их можно купить в магазинах повседневного спроса или продуктовых магазинах. К сожалению, иногда подростки могут покупать и употреблять эти напитки бесплатно, поскольку в большинстве случаев продавцы не требуют подтверждения возраста покупателя, поэтому несовершеннолетние кажутся старше возраста, указанного в паспорте, и могут покупать алкогольные напитки в неограниченном количестве. Эти случаи связаны с попытками подростков проявить свою самостоятельность и возраст, зачастую они употребляют алкоголь на улицах, в скверах, парках и других местах.

Алкоголь быстро вошел в жизнь человека и стал неотъемлемой частью повседневных событий, что в ряде случаев становится средством ухода от личных проблем. Когда подростки употребляют алкоголь, семейные проблемы, недоразумения с близкими или антисоциальные компании обращаются за помощью, эти ситуации могут привести их к алкоголизму.

По статистике, более половины преступлений и административных правонарушений совершаются людьми, находящимися в состоянии алкогольного опьянения. Примерно в 50% случаев распавшихся семей пьян один из супругов, а зачастую и оба. В настоящее время принято считать, что алкоголизм связан со сложным поведением не только у взрослых, но и у подростков.

Алкоголь отрицательно влияет на нервную систему, мозговую деятельность, снижает работу головного мозга, а также вредит здоровью всего организма. Нарушение функции печени, разрушение белкового и углеводного обмена, проблемы в пищеварительной системе, возникновение панкреатита и диабета, негативное влияние на репродуктивную систему – все это очень плохо сказывается на здоровье молодого поколения.

Сотрудникам сложно работать с несовершеннолетними, особенно в случаях сексуальных отклонений. Каждый подросток мечтает скорее стать взрослым, но не всегда это приводит к лучшим результатам. Подростковая беременность – обычное явление в XXI веке, и вопрос о том, кто виноват в этом случае, связан с безответственностью родителей, недостаточным опытом школы и учителей.

Профилактическую работу должны проводить не только государственные органы и работники, но и школы, учреждения профессионального образования и родители. Многие девушки занимаются проституцией из-за финансовой или сексуальной неудовлетворенности. Эта проблема существует с давних времен и многие люди выбирают этот способ легкого заработка. В некоторых случаях путем обмана и манипуляций

молодые люди вовлекаются в проституцию не по своей воле, а зачастую лишаются других возможностей и становятся жертвами этой профессии.

Проблема беспризорности и безнадзорности детей неразрывно связана с распадом семьи и социальной среды. Данная ситуация означает полное отделение несовершеннолетнего от семьи, то есть утрату постоянного места жительства и занятий. Наиболее серьезной формой безнадзорности является ослабление заботливого и воспитательного воздействия на несовершеннолетних со стороны родителей, опекунов и других ответственных лиц. В этом случае отсутствует контроль над развлечениями, отношениями, поведением и другими важными аспектами.

Беспризорность и безнадзорность препятствуют правильному формированию личности детей и подростков, вызывают у них развитие негативных социальных навыков и поведения, не соответствующего их возрасту. Это, в свою очередь, может привести к утрате факторов, которые ведут к их социальной интеграции и успешной жизни в будущем.

Анализ роста безнадзорности среди детей и подростков показывает, что основные ее причины находятся в семье (аморальная семейная обстановка, пьянство, ссоры, длительное пренебрежение родителями интересами и проблемами растущего ребенка, употребление алкоголя, наркотиков и других вредных факторов). привычки подростка).

Также важную роль играет организация и проведение профилактических мероприятий и оказание других услуг в образовательных и социальных учреждениях по месту жительства несовершеннолетнего.

Безнадзорные дети и подростки нуждаются в особом внимании и внимании, для чего необходимы не только центры временной изоляции и реабилитации в системе МВД, но и учреждения, предоставляющие им социально-воспитательные приюты и длительное обучение и консультирование. В этих учреждениях специалисты предоставляют им образование, трудоустройство, общие и профессиональные знания, а также отдых и другие необходимые услуги.

Уличные дети или подростки отличаются от своих сверстников тем, что у них может быть инстинкт самосохранения, чувство волнения, чувство изоляции от общества, сильная ориентация на справедливость и эмоциональная открытость. В этих случаях наблюдаются сексуальные расстройства и раннее формирование сексуальности, низкая осведомленность и проблемы с обучением.

В целях профилактики безнадзорности, беспризорности, правонарушений и асоциального поведения несовершеннолетних важно выявлять и устранять причины и условия, защищать их права и интересы, обеспечивать социально-педагогическую реабилитацию, выявлять и пресекать случаи причастности к преступлению.

Несовершеннолетние, приговоренные к тюремному заключению, зачастую не понимают сути своих преступлений и не чувствуют при этом вины. Основная цель наказания – перевоспитание, но на практике этот

процесс неэффективен. Лица, вернувшиеся из воспитательной колонии или другого учреждения, часто возвращаются к преступлению. Эти случаи поднимают вопросы об эффективности исправительных учреждений.

Одной из задач сотрудника также является продолжение профилактической работы с подростками, относящимися к этим категориям. Важнейшая задача – не допустить повторного совершения подростком серии преступлений или административных правонарушений. Инспектор обязан в обязательном порядке проводить профилактическую работу с несовершеннолетними, совершившими преступление или обвиняемыми в его совершении. Это особенно важно в тех случаях, когда адаптивные меры принимаются в ходе разбирательств, не связанных с лишением свободы. Если эта линия профилактики будет эффективно реализована, она будет иметь образовательное значение.

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ИҚЛИМ ЎЗГАРИШИ ФАРҒОНА ВИЛОЯТИ ЛАНДШАФТЛАРИГА ТАЪСИРИНИ БАҲОЛАШ ВА ПРОГНОЗЛАШТИРИШ

Аннотация:*Иқлим ўзгариши оқибатида ландшафт комплексларини ўзгариши оқибатида қишлоқ хўжалик махсулотларига таъсири, ландшафт комплексларидаги хар бир компонентга таъсири, тупроқ деградатцияси, ерларни шўрланиши, ер ости сув сатҳини кўтарилиши ва охир оқибат қишлоқ хўжалик махсулотларини сифати ва сонига таъсир этиши ёритилган.*

Таянч сўзлар: *Иқлим ўзгариши, дегредатция, шўрланиш, эрозия, меёрий харорат*

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ASSESSMENT AND FORECASTING OF THE IMPACT OF CLIMATE CHANGE ON THE LANDSCAPES OF THE FERGANA REGION

Annotation:*The impact on agricultural products as a result of the change in landscape complexes as a result of climate change, the impact on a stream component in landscape complexes, soil degradation, land salinity, groundwater level rise and, ultimately, the impact on the quality and number of agricultural products are covered.*

Keywords: *climate change, degradation, salinity, erosion, critical temperature*

Кириш Бугунги кунда табиий география фанлари олдида турган муаммоларнинг кўпчилиги унинг ўрганиш объекти ва предметининг мураккаблиги, уни тадқиқ қилишнинг ўзига хослиги, ландшафтшунослик ва табиий география фани қишлоқ хўжалиги ва ахоли истемол саватчани тўлдириш ва қондириш, турмуш тарзини яхшилаш учун хизмат қилади. Лекин, аҳоли табиий ландшафтларни ўзлаштириш жараёнида ундан оқилона фойдалана оляптими? Ёки ландшафтларни ўзлаштиришда уларни барқарорлиги сақланиб қолганми? Деган саволлар бутун инсоният олдида турган энг мухим муаммолардан бири саналади. Бугунги кунда юз бераётган

иқлим ўзгариши ҳам ўздан-ўзи юзага келгани йўқ. Уни юзага келишида ҳам 2 хил сенарий кўриб чиқилаётган бўлса, 2-чиси бу албатта инсон омили эканлигини кўришимиз мумкин. Бугунги кунда иқлим ўзгариши ландшафт компонентлари ва комплексларигиўз таъсирини кўрсатиб ўлгурди. Масалан: унумдор тупроқ қатламини деградатцияланишига, ер ости ва ер усти сув захиралари миқдори ва сифатига, ёғин миқдори ва ҳарорат кўрсатгичларига, био-хилмахилликка ўз салбий натижасини кўрсатиб келмоқда.Шундай экан инсониятнинг бугунги кундаги асосий вазифаси ландшафт компонентларини ўзлаштиришда эхтиёткорона бўлишиш ва улардан самарали фойдаланишни талаб этади.

Республикамизда иқлим ўзгариши барча ландшафт компонентларига ўз таъсир кучини кўрсатиб бормоқда. Хар бир худуднинг иқлим ўзгариши ўртача ҳарорат меёрий кўрсатгичларидан ортиб кетиши ёки кескин совиши(анамал), ёғин миқдорини ортиши ёки жуда хам камайиб кетиши, шамоллар кучи, тезлиги ва такрорланиб туриши, тупроқ унумдорлиги кўрсатгичларига, тупроқ шўрланиш ҳолатига, ер ости ва ер усти сувларига , умумлаштириб айтадиган бўлсак Ер ландашфт қобиғининг барча компонент ва комплексларига ўз таъсир кучини кўрсатиб бормоқда.

Мавзуга оид адабиётлар тахлили Ландшафт комплексларини тадқиқ этиш ва улардан оқилона фойдаланиш бўйича Республикамиз бир қанча олимларини кўрсатиб ўтишимиз мумкин. Ш.Зокировнинг, “Кичик худудлар табиий географияси”, “Ландшафтшунослик”, Ю.Султоновнинг “Ландшафтшунослик асослари”, А.Абдулқосимов ва бошқалар томонидан яратилган “Зарафшон ботиғи воха ландшафтлари ва геоэкологияси” номли монографияларини таҳлил қилсак барчаси ландшафтшуносликни ривожланиши, ландшафтлардан оқилона фойдаланиш ва уларни геоэкологик холатини сақлаш каби масалалар ёритилганлигини кўришимиз мумкин.

Республикамиз иқлимий шароитига кўра географик ўрнига мослиги, яъни океан ва денгизлардан узоқдалиги, ёғинга нисбатан потенциал буғланишнинг юқорилиги, иқлимининг кескин континенталлиги билан характерланади. Бу эса бугунги кундаги иқлим ўзгариши юз беришида ўз аксини кўрсатиб келмоқда.

Тадқиқот методологияси :Ҳозирги кунда иқлим ўзгариши шароитини юмшатиш Яшил иқтисодиётга ўтишнинг аҳамияти ортиб бормоқда. Иқлим ўзгариши оқибатини юмшатиш ва унга мослашиш учун қишлоқ хўжалик махсулотларини етиштиришга ўз таъсирини кўрсатиб бораётганлиги сабабли уларни сальбий таъсири юмшатиш мақсадида керакли бўлган чора тадбирлар режаси ишлаб чиқилмоқда. Жуда кўп тадқиқотчиларнинг фикрига кўра иқлим ўзгариши натижасида табиий офатлар : жахон мамлакатларининг баъзиларида сув тошиши, ўрмон ёнғинлари, қурғоқчилик, экин майдонларининг дегредатцияланиши, ҳароратнинг меёрий кўрсатгичидан ортиши ёки совуши оқибатида табиий талофатлар 5-6 % ўсиб бормоқда Бунинг натижасида ҳозирги кунда аҳоли сонини ортиб бораётган бир вақтда, аҳолини озиқ овқат га бўлган талабини ҳам қондириш инновацион ёндашувни талаб этади. Буниг

учун қишлоқ хўжалик махсулотларини етказиш ва уларни аҳоли истемол босқичигача бўлган талабини қондириш ва экспортга йўналтиришни талаб этади.

Бу борада Президентимизнинг 2019 йил 23 октябрдаги ПФ-5853- сонли “Ўзбекистон Республикаси Қишлоқ хўжалигини ривожлантиришнинг 2020-2030 йилларга мўлжалланган стратегиясини тасдиқлаш тўғрисида” ги фармони қишлоқ хўжалик махсулотларини ва озиқ овқат саноатини ривожлатниш учун асос бўлади.

Хулоса ва таклифлар:Статистиқ маълумотларни таҳлил қилишимизда ҳозирги кунда озиқ-оқват махсулотлотлари интенсиқ ёндашув ва интенсив ҳосил олишга қаратилганлиги сабабли истемол бозорида аста секин ўсиб бораётганлигини кўришимиз мумкин. Лекин бу кўрсатгич бир неча йилдан кейин ўзини оқлолмай қолиши мумкин. Баъзи бир тадқиқотчиларнинг фикрига кўра Сўх конуссимон ёйилмасида 50 йиллардан ўтиб озиқ –овқат хавфсизлиги кучайиб бориши башорат қилинмоқда. Бу асосан чучук сув етитишмаслиги билан юз бериши мумкин. Сабаби Жанубий Фарғонада жойлашган тоғ музликларини эриши билан боғлиқлигини кўришимиз мумкин.

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РЕАЛИЗАЦИЯ ЭПИТЕТОВ В СИНТАКСИЧЕСКИХ СТРУКТУРАХ

Аннотация: *В статье рассматривается возникновение эпитетов в синтаксических структурах. Также рассматриваются возможности эпитетов образовывать фразеологизмы и выражается реакция на их синтаксический статус в предложении. Цель этой статьи - пролить новый свет на синтаксическую и семантическую природу эпитетов.*

В ходе этой работы мы продемонстрируем, что это свойство эпитетов засвидетельствовано в ряде языков и что оно связано со сложным взаимодействием синтаксических, семантических и прагматических факторов.

Ключевые слова*: эпитет, синтаксический прием, фразеология, семантическая функция.*

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REALIZATION OF EPITHETS IN SYNTACTIC STRUCTURES

Abstract: *The article examines the emergence of epithets in syntactic structures. It also examines the ability of epithets to form phraseological units and expresses a reaction to their syntactic status in a sentence. The purpose of this article is to shed new light on the syntactic and semantic nature of epithets.*

In the course of this work, we will demonstrate that this property of epithets is attested in a number of languages and that it is associated with a complex interaction of syntactic, semantic and pragmatic factors.

Keywords: *epithet, syntactic device, phraseology, semantic function.*

Эпитет рассматривается как стилистический прием, подчеркивающий какие-то особенности, качество вещи, человека, явления или идеи. Его функция состоит в том, чтобы выявить субъективное отношение автора к описываемой вещи, человеку или идее. Таким образом, эпитеты также могут основываться на сходстве характеристик, на близости квалифицируемых объектов и на их сравнении соответственно. Эпитет может быть основан на взаимодействии логического и эмоционального значений в атрибутивном слове, словосочетании или даже предложении, используемом для характеристики объекта и указывающем читателю на некоторые свойства или

отличительные черты объекта с целью дать индивидуальное восприятие и оценку этим признакам или свойствам.

Как известно, языковые синтаксические словообразовательные формы теряют свое значение в литературе, в том числе это касается и эпитетов. Ведь не всегда на место эпитета приходит определение и определяемое, наоборот, аспекты его реализации через дополнение и подлежащее объяснимы в науке термином “отвлекающий эпитет”. К таким эпитетам можно отнести: *Как только я поднялся на крышу, снизу раздался* ***тревожный крик*** *мамы; Девчонки бурно танцуют, но у них* ***в глазах уныние, печаль****...* (примеры взяты из произведения Уткира Хашимова “Надписи на полях тетради”). То есть сочетание *тревожный крик*, которое приходит в функции подлежащего в первом примере, возлагает на себя семантическую функцию предикативного сочетания *мама обеспокоена*. Во втором примере где эпитето-предикативное сочетание ***в глазах уныние, печаль*** приняло на себя смысловую нагрузку предикативных сочетаний как *девочки грустные, девочки расстроены* (аналогичная ситуация также встречается в предложении *В его глазах была радость. Было удивление*. При этом, значение *он был рад* выводит на поверхность эпитеты, применявшиеся параллельно). В результате в этих предложениях возникает образное выражение, повышается изобразительность текста. На самом деле, *тревожный крик* в первом примере должен считаться определением. Однако тот факт, что это структура, созданная путем согласования, на самом деле относится к определяемому *мать*, которое в конечном итоге затрагивает расширенное подлежащее, побуждает интерпретировать это сочетание в форме подлежащего, как мы уже отмечали, а не определения.

Рассматривая другие примеры *Государства изменились,* ***сильные государства разрушились,*** *а на их месте возвели другие. Изменились житьё, мировоззрение людей.* ***Мир*** *был* ***залит кровью*** *из-за больших и малых войн. Войны продолжаются и сейчас, даже сейчас* ***человеческая кровь течет рекой*** *(*Тахир Малик, Закоулки Сатаны) можно прийти к выводу, что такие сочетания ***сильные государства,*** ***залит кровью*** являются подлежащим и дополнением по синтаксическому статусу.

Однако не все выражения образованные иным способом формирования образа или тропа, стилистически считаются эпитетами. Сравним: *Когда женщина выставляет себя в зеркало понапрасну, будьте бдительны: в ней что-то есть...* (Уткир Хашимов “ Надписи на полях тетради”) структуру дополнения *выставляет себя в зеркало* трудно считать эпитетом, потому что в нем нет акцента на знаке предмета, отраженный в нем метафорический смысл привел эту структуру в состояние фразеологической единицы, в этом предложении есть образность, но эта образность не служит для разблокировки знака действия, предмет или явление.

Обстоятельства образования фразеологических сочетаний эпитетов вполне соответствуют картине формирования фразеологизмов в узбекском языке. В частности, *тыкать пальцем, раздирать душу, разорвать (связь с*

кем.л), сердце кровью обливается, человек за две копейки (в смысле "потерявший своё достоинство") [1]. В приведенных выше примерах показан дополнительная функция эпитета.

Трансформация эпитета из функции дополнения в подлежащее часто бросается в глаза в узбекской фразеологии. Например, *сделать волосы дыбом, волосы стали дыбом (злиться)*. Идиоматизация эпитетов также часто встречается в английском языке. Например, on the ball (быстро реагировать) , so far so good (пока всё хорошо), the best of both worlds (в двойном выигрыше), under the weather (нездоровый, больной), make a long story short (короче говоря) [3].

Точно так же, *Если бы сердце слушало разум, а разум - сердце, всё было бы в шоколаде*. Обычно при разделении подлежащего и сказуемого ставится цель различить признак того или иного предмета и явления. Однако в этой ситуации, *если сердце слушает разум, а разум- сердце* тире в структурах, реализующих метафорических тропы, служит не для выделения признака, а для подчеркивания и усиления смысла, так что эту часть предложения в условном отношении нельзя рассматривать как эпитет. Но поскольку существует качественный признак того, что сказуемое приобретает значение с помощью части *было бы* в структуре *в шоколаде*, то теперь эту часть предложения можно считать эпитетом.

Согласно определению, данному эпитету в научной литературе, это определяющая структура или прилагательное, существительное, наречие и глагол. Однако слово, выделяемое как эпитет, в основном является составной единицей, имеющей либо свой определитель (если мы имеем в виду функцию эпитета по выделению качественного признака), либо в отношении между подлежащим и сказуемым (если выделяется признак действия, выражается словами из категории глагола). На самом деле, метафорический тип эпитета выявляется в составных сочетаниях как минимум из двух слов, а его метафорическо-эпитетическое значение будет зависеть от контекста [2]. Это означает, что семантическая целостность, приписываемая эпитету, обеспечивается за счет смысловой связи как минимум двух слов. Поскольку он в основном участвует в предложении в качестве определителя, его и в семантике ищут в статусе определителя. Но бывают и случаи, когда определяющая эпитетическая структура расширяется за счет части первого и второго порядка. Например, *Сердце-это одновременно и дверь, и окно человеческой души* (Тахир Малик, Закоулки Сатаны), эпитеты, употребляемые параллельно и однородно, расширяются в обмен обстоятельства времени и связаны между собой предикативной связью.

Следовательно, реализация эпитетов происходит не только с помощью определительных структур, но и необходимо будет проверить подлинный стилистический статус эпитетов, привязав их к контексту.

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ВЛИЯНИЕ ПРОМЫШЛЕННЫХ ПРЕДПРИЯТИЙ САМАРКАНДСКОЙ ОБЛАСТИ НА ЗДОРОВЬЕ ЧЕЛОВЕКА

Аннотация: *В данной статье описано влияние промышленных предприятий города Самарканда на здоровье жителей города и пути его устранения.*

Ключевые слова: *экология, здравоохранение, токсичные газы, вредные отходы, технологии производства.*

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IMPACT OF INDUSTRIAL ENTERPRISES IN SAMARKAND REGION ON HUMAN HEALTH

Annotation: *This article describes the impact of industrial enterprises in the city of Samarkand on the health of city residents and ways to eliminate them.*

Key words: *ecology, public health, toxic gases, harmful waste, production technologies.*

Со дня независимости Республика Узбекистан уделяет большое внимание вопросам охраны природы. Главный закон государства – Конституция – также уделяет особое внимание вопросам охраны природы. Взаимоотношения природы и общества с каждым днем приобретают все большее значение. В Республике Узбекистан разработан ряд законов об охране природы, основной задачей которых является повышение экологического сознания и экологической культуры в природопользовании.

Известно, что все природные объекты земли, подземные и наземные ресурсы, вода, атмосферный воздух, представители флоры и фауны являются государственной собственностью. Существуют законы и правила использования этих ресурсов, и использование природных ресурсов целесообразно на основе контракта со специальным разрешением государства. Согласно правовым нормам государства, каждый житель страны имеет право брать в аренду и пользоваться чистой, здоровой и красивой природой и ее элементами, землей, водой, лесом, растительным покровом и представителями животного мира. Бесценные дары природы, воздуха, воды, почвы и земель находятся под контролем государства и его законных организаций. Использование каждого природного ресурса с экологической и экономической точки зрения проводятся и контролируются на основе

запланированной программы. Устанавливаются правовой и организационный государственный контроль за состоянием природы и управлением ею, формы экологического контроля, межпредприятия экологического контроля, санитарно-экологического контроля и общественного (районных организаций) контроля [1]. В результате ухудшения экологического состояния природы, загрязнения почвы, воздуха и воды вредными для жизни веществами, сокращения видов растений и животных, вырубки кустарников и деревьев на лугах, садах и склонах гор охрана природы является Современное состояние охраны природы остается одной из наиболее актуальных задач.

Развитие различных отраслей народного хозяйства свидетельствует о быстром изменении природных ландшафтов, появлении новых деревень и городов, росте населения, повышении потребности в энергии, воде и продовольствии. При этом, живя в этом светлом мире, человек все получает от природы. Эти социальные, производственные и экономические проблемы вызывают радикальное изменение среды обитания человека. Ухудшение экологического состояния небольшого участка природы вызывает ухудшение природного состояния прилегающих к нему крупных территорий и как следствие влияет на население различных регионов.

По данным областного управления статистики мы видим, что количество субъектов малого предпринимательства, действующих в городе Самарканд, за последние 10 лет увеличилось на 9910 (3925 в 2014 году, 13775 в 2024 году). Также доля города Самарканда в объеме промышленной продукции, произведенной в области в 2023 году, следующая: объем производства продовольственных товаров – 20,9%, производство табачных изделий – 93,8%, производство текстильных изделий. составляет 28,7%, а производство одежды 52,2%, производство кожи и сопутствующих товаров 11,1%, дерево и кожаные изделия (кроме мебели) 28,0%, соломка и текстильные материалы. производство изделий 44,1%, производство бумаги и бумажных изделий 66,5%, издание и экспонирование письменных материалов 0,9%, производство кокса и продуктов нефтепереработки 39,0%, производство химической продукции 89,3%, производство основных фармацевтических продуктов и препаратов 8,7%, производство резиновых и пластмассовых изделий 31,1%, производство прочих неметаллических минеральных продуктов 82,0%, металлургическая промышленность 17,9%, производство готовых металлических изделий кроме машин и оборудования 40,2%, производство компьютеров, электронной и оптической продукции, производство электрооборудования 44,5%, производство машин и оборудования, не включенных в другие группировки 41,7%, автотранспортные средства 60,2%, производство прицепов и полуприцепов 96,4%, производство прочей транспортной техники 16,5%, производство мебели 15,3%, прочие готовые изделия производство товаров составило 58,2%.

Работа всех предприятий и производств, начиная с субъектов малого предпринимательства, созданных в Самарканде, важна для потребления

качественной продукции жителями не только города, но и региона является показателем увеличения дохода. Однако по мере увеличения количества промышленных предприятий возрастает влияние вредных отходов от них на здоровье населения.

Поэтому проводятся различные природоохранные мероприятия. В Узбекистане каждый регион имеет свои природные условия и природные ресурсы, а экологическое состояние Самаркандской области отличается от экологического состояния других регионов. В области расположены такие важные отрасли промышленности, как машиностроение, легкая и пищевая промышленность, промышленность строительных материалов и стройиндустрия. В Самаркандской области выбросы транспортных сетей особенно вредны для погоды областного центра, причиняя большие неудобства здоровому образу жизни населения.

Фактор численности населения также следует учитывать при размещении промышленных предприятий в регионе. Предприятия, выбрасывающие токсичные газы и вредные отходы в окружающую среду, желательно размещать вдали от города. Предприятия, производящие продукцию, необходимую для повседневных нужд населения, строятся вблизи жилых массивов. Однако другие промышленные предприятия (машиностроение, нефтехимия, стройматериалы, биохимия, нефть и др.) должны располагаться несколько дальше от жилых массивов [2].

Только в городе Самарканде жители вблизи завода страдают от всевозможных запахов, исходящих от маслозавода. Учитывая, что завод производит масло, мыло и корм для скота для повседневных нужд населения, данное предприятие имеет важное значение для региона. Однако текущий цикл работы завода, на наш взгляд, не соответствует потребностям. Очевидно, что технологии производства завода нуждаются в обновлении. Если такие практические меры реализовать на предприятиях с устаревшим производственным циклом в городе, можно предотвратить заболеваемость населения.

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ХРОНИЧЕСКОЕ ВОСПАЛИТЕЛЬНОЕ ЗАБОЛЕВАНИЕ КОЖИ – ПСОРИАЗ

Аннотация. *В данной статье рассматривается хроническое воспалительное заболевание кожи, характеризующееся ускоренной пролиферацией клеток эпидермиса – псориаз. Это одно из наиболее распространенных дерматологических заболеваний, затрагивающее до 2-3% населения мира. Псориаз имеет многообразные клинические проявления, от легких форм с ограниченными высыпаниями до тяжелых состояний, затрагивающих значительные участки кожи, а также суставы. Заболевание имеет генетическую предрасположенность и может быть связано с различными иммунологическими и воспалительными процессами.*

Ключевые слова*: псориаз, стрептоккок, воспалительными, клобетазола пропионат, глюкокортикостероид*

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CHRONIC INFLAMMATORY SKIN DISEASE – PSORIASIS

Abstract. *This article discusses a chronic inflammatory skin disease characterized by accelerated proliferation of epidermal cells – psoriasis. This is one of the most common dermatological diseases, affecting up to 2-3% of the world's population. Psoriasis has a variety of clinical manifestations, from mild forms with limited rashes to severe conditions affecting large areas of the skin, as well as joints. The disease has a genetic predisposition and can be associated with various immunological and inflammatory processes.*

Keywords: *psoriasis, streptococcus, inflammatory, clobetasol propionate, glucocorticosteroid*

Псориаз является многогенным заболеванием с наследственной предрасположенностью. На основе многочисленных исследований выделяются два основных фактора, играющих ключевую роль в развитии заболевания: генетический и иммунологический.

Генетические факторы. Существует несколько генов, ассоциированных с развитием псориаза, включая гены, расположенные в области HLA (человеческий лейкоцитарный антиген), что говорит о важности иммунной системы в патогенезе заболевания. Например, ген HLA-Cw6 является одним из наиболее изученных и часто встречающихся в популяции пациентов с псориазом.

Иммунологический патогенез. Псориаз связан с нарушением иммунной системы, в частности с гиперактивацией Т-лимфоцитов. Они начинают продуцировать цитокины, такие как TNF-α, IL-17, IL-23, которые приводят к воспалению и усиленной пролиферации клеток эпидермиса. Эти молекулы играют ключевую роль в патогенезе псориаза, стимулируя воспалительный процесс и ускоряя обновление клеток кожи.

Экологические и внешние факторы. Помимо генетической предрасположенности, на развитие псориаза могут влиять различные внешние факторы, такие как инфекции (например, стрептококковые инфекции), травмы кожи (так называемый феномен Кебнера), стресс, курение, употребление алкоголя и даже определенные медикаменты.

Псориаз проявляется различными клиническими формами, которые могут варьировать от небольших очагов воспаления до обширных поражений. Наиболее распространенными являются следующие формы псориаза:

1. Обыкновенный (плакковый) псориаз — это наиболее частая форма, которая характеризуется появлением четко очерченных покраснений, покрытых серебристыми чешуйками. Эти поражения обычно локализуются на коленях, локтях и в области волосистой части головы.

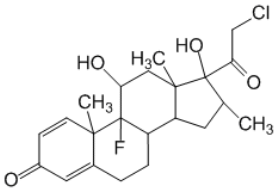
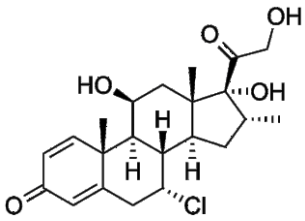
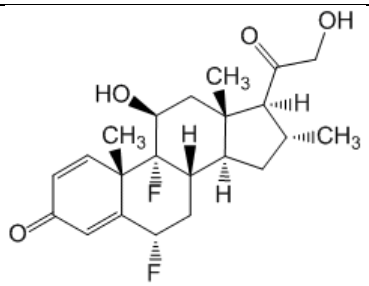
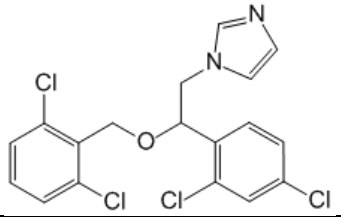
2. Гуттата — форма псориаза, при которой на коже появляются многочисленные маленькие каплевидные пятна. Часто эта форма возникает после стрептококковой инфекции (например, ангина).

3. Пустулезный псориаз — редкая, но тяжелая форма псориаза, при которой на коже возникают пустулы (гнойнички), которые могут быть локализованы или генерализованы.

4. Эритродермический псориаз — тяжелая форма псориаза, при которой воспаление охватывает большие участки кожи, сопровождается выраженным зудом, шелушением и нарушением терморегуляции. Это состояние требует немедленной медицинской помощи.

5. Псориатический артрит — воспаление суставов, которое часто встречается у людей с псориазом. Это заболевание может вызывать боль, скованность и деформацию суставов, и оно тесно связано с кожными проявлениями псориаза.

Таблица 1. Некоторые препараты, используемые при псориазе

№	Название препарата	Форма выпуска	Действующие вещества	Химическая структура	Действие
1	«Дермовейт» или «Пауэркорт»	крем	Клобетазола пропионат		уменьшает воспалительные проявления, обладает антиэкссудативным и, противоаллергическом и явлениями, снимает зуд. Длительность лечения обычно составляет от 3 до 4 недель.
2	«Афлодерм»	мазь	Алклометазона дипропионат.		Обладает местными противозудными, глюкокортикоидными, противовоспалительными действиями. Максимальная длительность лечения составляет 3 недели. К противопоказаниям к применению относятся вирусные инфекции кожи, ветряная оспа, открытые раны, детский возраст до 6 месяцев.
3	«Травокорт»	крем	дифлукортолон		Оказывает противогрибковое и антибактериальное действие. Действует фунгицидно и бактерицидно
			изоканазол		

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НАМАНГАН МЕХМАШ М.Ч.Ж. ИШЛАБ ЧИҚАРИШ КОРХОНАСИ ЧИҚИНДИ СУВЛАРИНИ ТАРКИБИДАГИ ОРГАНИК БИРИКМАЛАРНИ АЖРАТИБ ОЛИШ ВА КАЙТА ИШЛАШ

Аннотация: *Ушбу мақолада саноат чиқинди сувларнинг таркибини физик – кимёвий ҳоссаларини ўрганиш натижасида таркибидаги механик аралашмалардан тозалаш, юмшатиш саноат учун қайта ишлаш системаси назарий асосларини ишлаб чиқишдан иборат. "МЕХМАШ" МЧЖ ишлаб чиқариш корхонаси ҳосил бўлаётган чиқинди сув таркибидаги сузиб юрувчи ҳамда еритма муҳитидаги органик бирикмаларни ажратиб олиш, қайта ишлаш ва саноатга йўналтириш. корхона чиқинди сувнинг таклиф етилаётган технологик схемаси асосида тозалаш жараёни оптимал технология тўғрисида сўз юритилган. Бундан ташқари қайта ишланган органик бирикмалар саноат ишлаб чиқаришга жорий етиш саноат иқтисодиётига жуда катта фойда келтириши ҳамда екология, хайвонот олами, инсон саломатлигига келтириши мумкин бўлган зарарни олдини олишга хизмат қилади. Қайта ишланган органик моддалар синов жараёнидан ўтказилди ва саноат учун ишлаб чиқариш жараёни йўлга қўйилди.*

Калит сўзлар: *чиқинди сувлар, "МЕХМАШ" МЧЖ, оқава сувлар, фосфатлаш, мойсизлантириш, дисперс системалар, тозалаш, ифлословчи компонент, органик бирикмалар, мойлар, ёғ, оҳак сути.*

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NAMANGAN MEKHMASH LLC. SEPARATION AND PROCESSING OF ORGANIC COMPOUNDS IN THE COMPOSITION OF WASTEWATER

Abstract: *This article is a study of the physical and chemical properties of industrial wastewater, as a result of which the theoretical foundations of the processing system for industrial wastewater purification from mechanical impurities in its composition, softening are developed. The purpose of the "MEKHMASH" LLC production enterprise is to separate, process and direct to industry organic compounds in the composition of wastewater in the floating and dissolved environment. The optimal technology of the purification process based on*

the proposed technological scheme of the enterprise wastewater is discussed. In addition, the introduction of recycled organic compounds into industrial production will bring significant benefits to the industrial economy and prevent possible harm to the environment, wildlife, and human health. Recycled organic substances have been tested and the production process for industry has been launched.

Keywords: *wastewater, "MEKHMASH" LLC, wastewater, phosphating, degreasing, dispersed systems, cleaning, polluting component, organic compounds, oils, fat, milk of lime.*

Кириш. Хозирги кунда саноат окова сувларини қайта ишлаш корхоналари техник сувларни юмшатиш ва механик аралашмалардан тозалаш долзарб муаммолардан бири ҳисобланади. Ушбу сувлар бурама мих ишлаб чиқариш заводларида метал юзасига кимёвий ишлов бериш (галваника) жараёнида кимйовий бирикмалар махсулот билан бирга ўтиб кетмаслиги мақсадида сув билан ювиш натижасида хосил бўлад. Шунинг учун саноат оқова сувларини юмшатиш ва уларни механик аралашмалардан тозалашнинг кенг қамровли комплекс технологиясини ишлаб чиқиш муҳим аҳамиятга эгадир.

Республикада саноат оқова сувларини механик аралашмалардан тозалаш ва юмшатиш соҳасида маълум назарий ва амалий натижаларга эришилмоқда. Ўзбекистон Республикасини янада ривожлантириш бўйича ҳаракатлар стратегиясида "соҳани сифат жиҳатидан янги даражага кўтариш, маҳаллий хомашёни чуқур қайта ишлаш асосида тайёр маҳсулот ишлаб чиқаришни янада жадаллаштириш, маҳсулот ва технологияларнинг янги турларини ишлаб чиқиш орқали ошириш" вазифалари кўзда тутилган. Ушбу соҳада, хусусан, саноат оқова сувларини механик аралашмалардан тозалаш ва юмшатиш таркибидаги қўшимча моддаларни ажратиб олиш, ишлаб чиқаришга тадбиқ етиш, тежамкор технологик линияни яратиш ва ишлаб чиқиш бўйича илмий тадқиқотлар муҳим аҳамият касб этади.

Олиб борилган назарий ва амалий тадқиқотлар кимёвий технология, коллоид ва мембрана кимёси, нефт кимёси, нефтни қайта ишлаш, нефт ва газни қайта ишлаш жараёнларининг назарий асослари жараёнларни жадаллаштиришга, технологик қурилмаларни лойиҳалаш асосларини яратиш тавсия этилган.

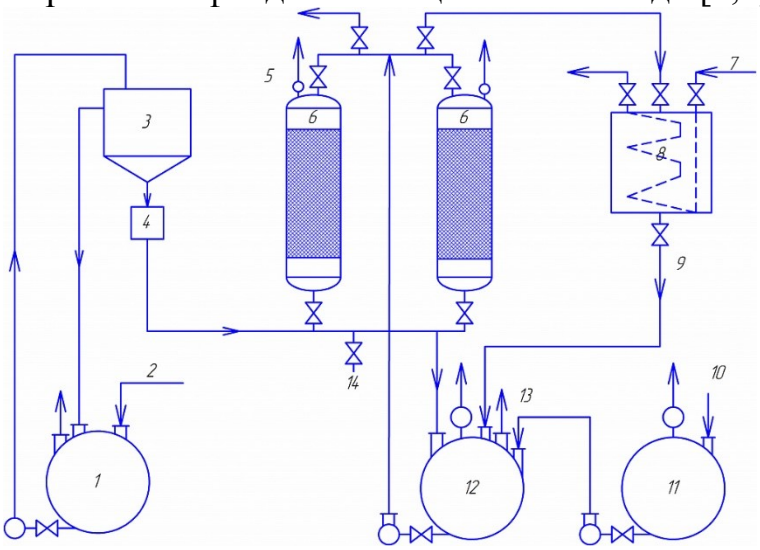
Шу билан бирга саноат оқова сувларини механик аралашмалардан тозалаш ва юмшатиш таркибидаги органик моддаларни ажратиб олиш, ишлаб чикаришга тадбик етиш ва ажратиб олиган мойни кайта ишлаш технологиясини жорий етиш ва саноат оқова сувларини механик аралашмаларнинг коллоид кимёвий таркиби муҳим аҳамиятга эга. Лекин, саноат оқова сувларини юмшатилиши, механик қаттиқ заррачаларни ажралишга самарадорлигига суюқ оқимларнинг гидродинамик режимларининг таъсири, саноат оқова сувларини механик аралашмалардан тозалаш учун энергия сарф-харажатлар бўйича тадиқотлар олиб борилмоқда.

Экспериментал қисм. Оқова сув таркибидаги майда дисперс қаттиқ ёки суюқ моддаларни ажратиб олиш учун қўлланилади**.** Чунки уларни тиндириш усули билан ажратиб олиш қийин.

- Оқова сувларни физик-кимёвий тозалашга коагуллаш, флокуллаш, адсорблаш, ионалмашиниш, екстраклаш, ректификлаш, буғлатиш, дистиллаш, қайтар осмос, ултрафилтрлаш, кристаллаш, десорблаш каби усуллар киради. Бу усуллар оқова сувлар таркибидаги майда дисперс заррачалардан (қаттиқ ва суюқ), ериган газлардан, минерал ва органик моддалардан тозалашда қўлланилади. Физиккимёвий усулларни қўллаш биокимёвий усулларга нисбатан бир қатор афзалликларга ега [1,5]:

1. Оқова сув таркибидаги заҳарли биокимёвий оксидланмайдиган органик ифлослантирувчиларни йўқотиш мумкин.
2. Анча чуқур ва барқарор даражада тозалашга еришилади.
3. Қурилмалар оичам и кичик.
4. Босимлар ўзгаришигатаъсирчанлиги кам.
5. Тўлиқ автоматлаштириш мумкин.
6. Баъзижараёнларнинг кинетикаси чуқур ўрганилган, моделлаштириш, математик изоҳлаш ва оптималлаштириш имконияти бор.
7. Турли моддаларни рекупирлаш имкони бор.

Оқова сувларни тозалашда санитария ва технология талабларига амал қилган ҳолда усул танланади. Бунда оқова сувнинг миқдори, ифлословчи моддаларнинг консентрацияси, моддий ва енергетик ресурсларнинг мавжудлиги ва жараённинг фойдалилиги ҳисобга олинади [2,6].



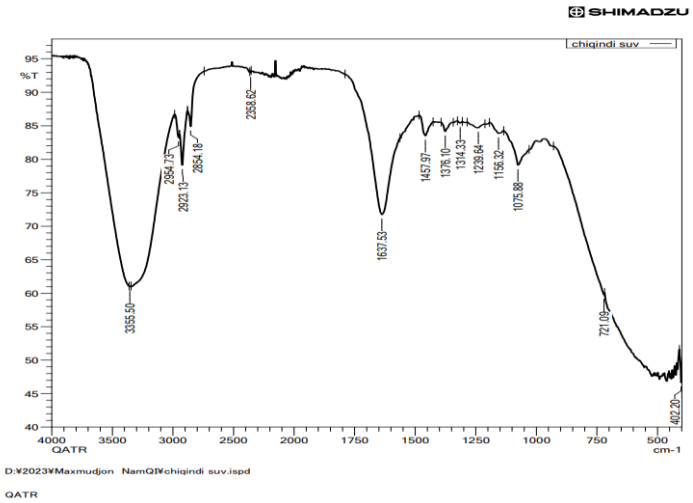
1-расм. Нефт маҳсулотларини сувдан фаол углерод билан сорбсиялаш схемаси

1 - оқава сувларни йиғиш; 2 - чиқинди сув таъминоти; 3 - босимли танк; 4 - босим тезлиги регулятори; 5 - тозаланган сув; 6 - устун; 7 - совутиш суви таъминоти; 8 - кондансатор; 9 - конденсат; 10 - эритувчи; 11 - эритувчи йиғиш; 12 - экстракти йиғиш; 13 - тузатиш учун экстракт; 14 - жонли буг

Сорбсион тозалаш - ифлослантирувчи моддаларни қаттиқ моддалар - сорбентлар билан сингдириш жараёни [3].

Сувни органик аралашмалардан, шу жумладан бошқа усуллар билан олиб ташлаб бўлмайдиганлардан тозалаш имконини беради.

Нозик эмулсияланган ва эриган шаклларда мавжуд бўлган нефт маҳсулотларини сувдан чуқур олиб ташлаш учун, шунингдек кимёвий кислород талаби (СОД) ва металл катионлари билан тавсифланган барқарор органик бирикмалар учун зарур. Бугунги кунда турли хил материаллар қўлланилади: кўмир, кенгайтирилган лой, зеолитлар. Сорблаш элементи бир ёки бир нечта қатламларда махсус блокларга юкланади. Гранул фаоллаштирилган углерод кўпинча нефтни қайта ишлаш заводларининг оқава сувларини тозалаш учун ишлатилади [4].



2-расм. ИК спектор ёрдамида Наманган чиқинди сувининг дастлабки таркиби:

Саноат чиқинди сувини ИК спектор ёрдамида текширилганда чиқинди сувнинг таркибидаги бирикмаларнинг нуқтасини аниқ кўришимиз мумкин. 3350,50 нуқтада нитратлар чиқинди сув таркибида жуда юқори, 2923 P_2O_5 ҳамда органик бирикмалар ва натрий миқдори юқори эканлиги кўринади. Бундан ташқари металлар юзасига кимёвий ишлов беришда темир билан бирикиб қолган нитрат ва орта фосфат кислота тузлари ва комплекс бирикмалари эритма муҳитида концентрацияси жуда юқори эканлиги акс этади [9].

Саноат ишлаб чиқариш ҳолатини ўрганиш натижасида термик ишлов бериш совутиш жараёнлари учун қўлланиланадиган мойларни метал билан биргаликда чиқиши натижасида сув билан 130-140^{0}C да ювилади, бунда метал юзасидаги мойлар сув билан қўшилиб чиқинди сув тозалаш иншоотига ташланади. Чиқинди сувни қайта ишлаб чиқаришга тадбиқ этиш учун аввал органик бирикмаларни ажратиб олишимиз лозим. Бундан ташқари қоплама қилиш жараёнида метал юзасида қўшимча чиқаётган мойларни ишқор билан тозаланади, Na метали органик мойлар билан реакцияга киришади:

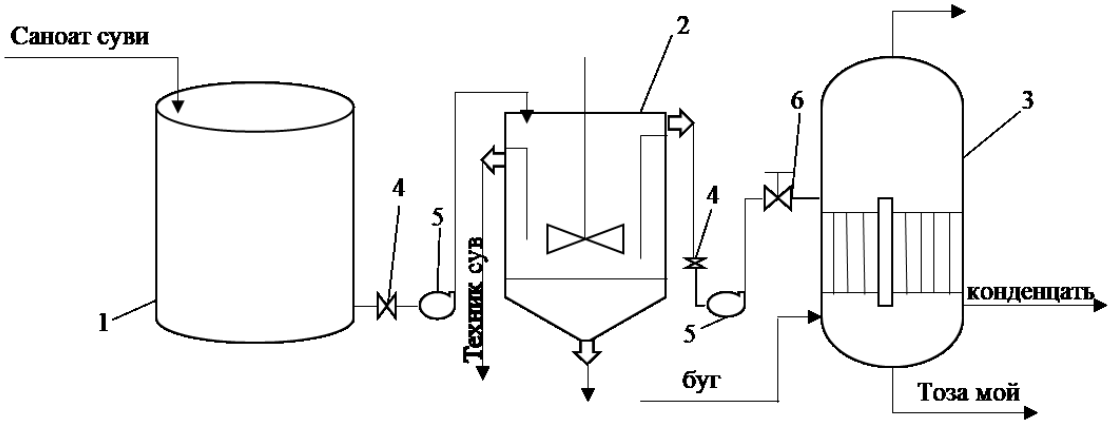
$$HOOC\text{-}(CH_2)_n\text{-}COOH + NaOH \rightarrow NaOOC\text{-}(CH_2)_n\text{-}COONa$$

ҳосил қилади.

Органик бирикмаларни NaOH ёрдамида тозалаш натижасида ҳосил бўлган мойни натрийли бирикмалари ($NaOOC\text{-}(CH_2)_n\text{-}COONa$) суюқлик тубига чўкмайди аксинча бу жараён экстракторда олиб борилади. Экстакторда

температура 60-70 ^{0}C да мой ва мой маҳсулотлари кўпик билан юқорига чиқади ва дискли ротор ёрдамида ажратиб олинади.

Муҳокама ва натижалар. “МЕХМАШ” МЧЖ ишлаб чиқариш корхонасида самарез (бурама мих) ишлаб чиқаришда термик қайта ишлов берилади. Термик ишлов бериш жараёнида хом ашё углерод билан тўйинтирилади ва тақсимланиш бўлимига берилади, ушбу жараён оралиғида хом ашёни кескин совутиш натижасида углеродни структураси сақлаб қолинади. Совутиш жараёнида И 20 мойдан фойдаланамиз. Хом ашё мойга ботирилиб кегинги жараёнга берилганда метал юзаси мой билан чиқади. Углерод тақсимлаш бўлимига киришдан олдин 60 - 70 ^{0}C температурада сув билан ювилади ва сув тозалаш бўлимига берилади.



1-йиғгич, 2- аралаштиргич, 3-буғлатгич, 4-флянс, 5- насос, 6-винтел

3-расм. Наманган саноат суви таркибидаги мойларни тозалаш лаборатория қурилмаси

Термик қайта ишлов жараёнидан чиқаётган саноат суви таркибида мой ювилиш билан чиқади ва сувни қайта ишлаш бўлимига тушади. Дастлаб сув қувурлар ёрдамида йиғгич *1* га тўпланади ва насос *5* лар билан аралаштиргич – тиндиргич *2* га берилади. Тиндиргичда мойнинг қовушқоқлиги ва зичлиги сувга нисбатан юқори бўлганлиги ҳиссобига юзага чиқади, мойни ажратиш учун қўшимча каогулянт ёки эритувчи қўшиш шарт эмас. Тиндиргич юқори қисмидан 80 % намлик билан мой ковуш ёрдамида ажратиб олинади, пастки қисмда техник сув қолади. Мойдан тозаланган сув ишлаб чиқаришдан чиқаётган сув билан биргаликда тозалаш бўлимига берилади. Ажратиб олинган мой насос *5* ёрдамида буғлатгич *3* га берилади ва мой таркибидаги сув буғлатилиб мойни концентрацияси кўтарилади. Тозаланган мой идишларга қуйилиб ишлаб чиқаришга юборилади.

Наманган саноат чиқинди сувидан (термик қайта ишлаш) ажратиб олинган мойнинг буғлатиш вақти (мин)

1-жадвал

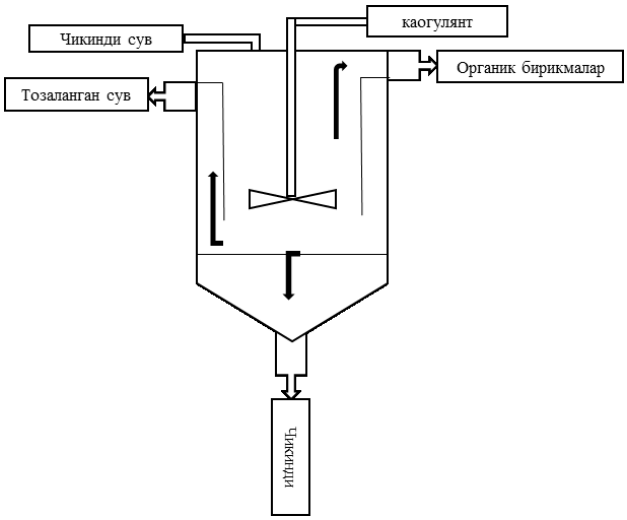
3.1-жадвалда буғлатгичда мой

№	Вакти(мин)	H_2O	мой
1	30	40	60
2	40	20	80
3	50	15	85
4	60	10	90

таркибидаги сувни чиқариб юбориш натижасида мойни тозалаш ва мой концентрацияси кўтарилиши кўриш мумкин. Бунга кўра 110 – 120 ^{0}C да 30 минутдан 60 минут оралиғида кўриб чиқилди ва 30 минутда мой таркибидаги намлик 40 % ни 60 минутда эса 10 % ни ташкил этади. Ишлаб чиқариш ҳоссасидан келиб чиқиб 10 - 15 % намликдаги мой ишлаб чиқариш жараёнига салбий та’сир кўрсатмаслиги тажриба – синов натижалари асосида ўрганиб чиқилди.

Органик бирикмаларни NaOH ёрдамида тозалаш натижасида ҳосил бўлган мойни натрийли бирикмалари ($NaOOC-(CH_2)_n-COONa$) лаборатория шароитида буғлатилди ва таркибидаги углерод бирикмалари консентрацияси кўтарилади. Лаборатория қурилмасида экстрактордан ажратиб олинган мойни дастлаб тиндирилди ва сентрафугада 2-3 дақиқа айлантирилди, бунда қисман сув ва чўкма ажратиб олинди. Мой қисман тоза ҳолда ажратиб олиниб буғлатгичда 110-120 ^{0}C ҳароратда буғлатилди.

Саноат корхоналарида ишлаб чиқариш шароитида келиб чиққан ҳолда ишлаб чиқариш жараёнлари ҳиссоб китоб қилиш натижасида корхона жихозлари (стаконлар) ўрнатилади. Таклиф қилинаётган лаборатория қурилмасининг конструктив ҳисоб китоблар асосида саноатни ишлаб чиқариш жараёнига ҳамда ишлаб чиқариш жараёнига яқин бўлган ҳудуд танлаш жуда муҳум ҳиссобланади.



4-расм. Техник сувларни тозалаш ва юмшатиш қурилмаси.

Таклиф этилаётган лаборатория қурилмасининг ишчи параметри ва конструктив ўлчамлари ишлаб чиқариш кўламидан келиб чиқилган ҳолда бўлади. 3.3-расмда келтирилган лаборатория қурилмаси чиқинди сув таркибидаги органик ва неорганик бирикмалардан сувни тозалаш ва кегинги жараён учун тайёрлаш вазифасини бажаради. Бу қурилмада органик бирикмаларни ажратиб олиб қайта ишлаш бўлимига юборилади.

Ажратиб олинган мой ва органик бирикмалар:

$$HOOC-(CH_2)_n-COOH + NaOH \rightarrow NaOOC-(CH_2)_n-COONa$$

Оҳак сути билан ишлов бериш эмулгирланган мойни дестабилизация қилишга имконият яратади, эркин мойлардан эримайдиган калцийли совун ҳосил қилади ва ҳосил бўладиган чўкиндилар юзасида мойларни сорбсиясини таъминлайди:

$NaOOC–(CH_2)n–COONa + Ca(OH)_2 \rightarrow (CH_2)n–(COO)_2Ca \downarrow + 2NaOH$

Хулоса Саноат чиқинди сувининг физик-кимёвий таркиби ИК спектор, рентгенофлюросент ёрдамида ўрганилди. Бунга кўра саноат чиқинди суви нитратлар чиқинди сув таркибида жуда юқори, P_2O_5 ҳамда органик бирикмалар ва натрий миқдори юқори эканлиги кўринади. Рентгенофлюросент ёрдамида чўкмани таркиби элементар анализ қилинди.

Саноат сувларининг таркибидаги органик бирикмалар физик-кимёвий хоссалари ўрганилди. Бунга кўра органик бирикмаларни NaOH ёрдамида тозалаш натижасида ҳосил бўлган мойни натрийли бирикмалари ($NaOOC-(CH_2)_n-COONa$) ажратиб олинди.

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БИОЛОГИЧЕСКИЕ МЕТОДЫ ЗАКРЕПЛЕНИЯ ПОДВИЖНЫХ ПЕСКОВ

Аннотация: *В статье рассматриваются биологические методы закрепления подвижных песков, которые являются важным инструментом борьбы с деградацией земель в засушливых регионах. Основное внимание уделено использованию растений, микроорганизмов и органических материалов для стабилизации песчаных почв. Описаны их экологические и экономические преимущества, ограничения, а также примеры успешного применения в различных регионах мира. Представлены перспективы использования биологических методов для повышения устойчивости экосистем.*

Ключевые слова: *подвижные пески, биологическое закрепление, растения, микроорганизмы, экологическая устойчивость, борьба с эрозией.*

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BIOLOGICAL METHODS OF STABILIZING MOVING SANDS

Abstract: *This article discusses biological methods for stabilizing moving sands, which are an essential tool in combating land degradation in arid regions. The focus is on the use of plants, microorganisms, and organic materials to stabilize sandy soils. The ecological and economic benefits, limitations, and examples of successful application in different regions of the world are described. The prospects of using biological methods to enhance ecosystem resilience are presented.*

Keywords: *moving sands, biological stabilization, plants, microorganisms, ecological sustainability, erosion control.*

Введение. Подвижные пески представляют собой серьезную экологическую проблему, связанную с деградацией земель, потерей плодородного слоя и ухудшением условий для жизни человека и животных. Особенно остро эта проблема стоит в регионах с засушливым климатом, таких как пустыни, полупустыни и степные зоны. Традиционные методы борьбы с перемещением песков, включая механическое и химическое закрепление, часто оказываются недостаточно эффективными или экологически небезопасными. В этой связи особое значение приобретают биологические методы, основанные на использовании растений, микроорганизмов и органических материалов. пески представляют собой серьезную экологическую проблему, связанную с деградацией земель, потерей плодородного слоя и ухудшением условий для жизни человека и животных. Особенно остро эта проблема стоит в регионах с засушливым климатом, таких как пустыни, полупустыни и степные зоны. Традиционные методы борьбы с перемещением песков, включая механическое и химическое закрепление, часто оказываются недостаточно эффективными или экологически небезопасными. В этой связи особое значение приобретают биологические методы, основанные на использовании растений, микроорганизмов и органических материалов.

Биологические методы закрепления подвижных песков. Одним из наиболее устойчивых подходов к стабилизации подвижных песков является использование живых организмов, которые воздействуют на песчаные почвы, улучшая их структуру, способность удерживать влагу и сопротивляться эрозии. Засаживание растений одним из наиболее распространенных методов является высадка растительности, способной эффективно закреплять пески. Растения, такие как саксаул, песчаный овес, чий, джузгун, отличаются мощной корневой системой, способной проникать глубоко в песчаные отложения. Они не только укрепляют пески, но и способствуют формированию микроклимата, уменьшающего скорость ветра и предотвращающего эрозию. Растения, такие как саксаул, песчаный овес, чий, джузгун, отличаются мощной корневой системой, способной проникать глубоко в песчаные отложения. Они не только укрепляют пески, но и

способствуют формированию микроклимата, уменьшающего скорость ветра и предотвращающего эрозию.

Использование мхов и лишайников. На ранних этапах стабилизации песков применяют мхи и лишайники. Эти организмы быстро приживаются в экстремальных условиях, формируя плотный покров, защищающий поверхность песков от ветровой эрозии. Кроме того, они способствуют накоплению органического вещества, улучшая условия для роста других растений. Бактерии и грибы, такие как представители рода Bacillus, играют важную роль в стабилизации песков. Они выделяют биополимеры, которые формируют тонкие плёнки, склеивающие песчинки между собой. Эти биополимеры создают пористую, но устойчивую структуру, которая улучшает водоудерживающие свойства песков, снижает их подвижность и уменьшает вероятность ветровой эрозии. Кроме того, микробиологическая активность способствует накоплению органического вещества, обогащая почву питательными элементами. Исследования показали, что использование таких технологий позволяет добиться повышения устойчивости почвы к механическим нагрузкам и значительного уменьшения вымывания песка [1].

Использование органических материалов. Органические остатки, такие как солома или мульча, часто применяются для защиты песков от выветривания. Они создают барьер, уменьшающий воздействие ветра, и служат источником питательных веществ для растений. Примером успешного применения является использование мульчи в странах Северной Африки для предотвращения опустынивания [2].

Интродукция азотфиксирующих растений. Растения, способные фиксировать азот из воздуха, такие как люцерна и клевер, активно используются для обогащения песчаных почв. Это не только улучшает их структуру, но и создает условия для развития других видов растительности.

Преимущества и ограничения. Биологические методы имеют ряд преимуществ по сравнению с механическими и химическими способами. Они экологически безопасны, способствуют улучшению биоразнообразия и восстановлению экосистем. Одним из главных экономических преимуществ является их относительная дешевизна на долгосрочной основе, так как использование растений и микроорганизмов снижает потребность в регулярных повторных обработках.

Однако их применение требует времени, поскольку эффект от таких методов проявляется не сразу. Краткосрочные затраты на внедрение биологических методов могут быть выше, чем на механические, особенно если учитывать необходимость закупки семян, обучения персонала и создания условий для роста растений. Кроме того, они зависят от климатических условий и требуют постоянного ухода на начальных этапах, что может увеличить операционные расходы. Тем не менее, по сравнению с механическими методами, которые зачастую оказываются неустойчивыми и требуют постоянных вложений, биологические подходы в долгосрочной перспективе могут обеспечить значительное снижение расходов, особенно в

регионах с подходящими природными условиями. Биологические методы имеют ряд преимуществ по сравнению с механическими и химическими способами. Они экологически безопасны, способствуют улучшению биоразнообразия и восстановлению экосистем.

Заключение. Биологические методы закрепления подвижных песков представляют собой эффективный и устойчивый подход к решению проблемы деградации земель. Они способствуют восстановлению экосистем, улучшению качества почв и предотвращению опустынивания. Особое внимание заслуживают перспективы использования инновационных технологий, таких как генная инженерия растений. Например, создание генетически модифицированных растений с усиленной корневой системой и повышенной устойчивостью к засухе может значительно повысить эффективность закрепления песков. Такие подходы требуют дальнейших исследований и испытаний, но обладают огромным потенциалом для применения в условиях изменения климата.

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ИСПОЛЬЗОВАНИЕ МЕТОДА СОРЕВНОВАНИЯ ДЛЯ ПОВЫШЕНИЯ АКТИВНОСТИ УЧАЩИХСЯ НА УРОКАХ ХИМИИ

Аннотация. *В данной статье даны методические рекомендации по использованию метода соревнования на примере темы «Физические и химические свойства водорода» на уроках химии 7 классов. Метод соревнования активизирует учащихся, укрепляет их знания, умения и навыки, помогает им развиваться.*

Ключевые слова: *метод соревнования, кроссворд, сильное кольцо, активность учеников, форма активного обучения, работа в группах*

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USING THE COMPETITION METHOD TO INCREASE STUDENTS' ACTIVITY IN CHEMISTRY LESSONS

Annotation. *This article provides methodological recommendations for using the competition method using the example of the topic "Physical and chemical properties of hydrogen" in chemistry lessons in 7th grade. The competition method activates students, strengthens their knowledge, skills, and abilities, and helps them develop.*

Key words: *competition method, crossword puzzle, strong ring, student activity, form of active learning, group work*

Одной из приоритетных задач современной школы является создание необходимых и полноценных условий для личностного развития каждого ребёнка, формирование активной позиции каждого учащегося в учебном процессе. Поэтому использование активных форм обучения является основой развития познавательной компетентности школьника. Активные познавательные способности формируются и развиваются в процессе познавательной деятельности. Когда ученик не просто слушатель, а активный участник в познавательном процессе, своим трудом добывает знания. Эти знания более прочные. Именно форма активного обучения – это первая искорка, зажигающая факел любознательности. Учитель отказывается от авторитарного характера обучения в пользу демократического поисково-творческого. В качестве основных неоспоримых достоинств выступают:

высокая степень самостоятельности, инициативности, развитие социальных навыков, сформированность умения добывать знания, развитие творческих способностей. Чувство свободы выбора делает обучение сознательным, продуктивным и более результативным.

Для решения задач, стоящих перед системой образования в инновационных процессах, происходящих в настоящее время, необходимо наличие независимых и свободомыслящих личностей, способных самостоятельно усваивать новую информацию и оценивать полученные знания, умеющих принять необходимые решения.

Поэтому роль и значение современных методов обучения в образовательном процессе образовательных учреждений несравнимы. Ниже приведен пример организации и проведения урока химии в 7 классе общеобразовательной школы с использованием интерактивных методов обучения – метода соревнования.

7 класс. Химия

Тема: Физические и химические свойства водорода.

Цель занятия: а) образовательная: сообщить учащимся о физических и химических свойствах водорода и сферах его использования;

б) воспитательные: воспитание учащихся в духе взаимного уважения и трудолюбия, работа в группах;

г) развивающие: расширение научного мировоззрения учащихся посредством химических знаний, повышение способности к самостоятельному мышлению.

Метод урока: Соревнования

Учебное оборудование: Zn, HCl, H_2SO_4, набор быстрых вопросов, раздаточный материал, кроссворд, маркеры.

Ход урока:

I. Организационная часть. Приветствие. Проверка посещаемости. Контроль по подготовки к уроку.

Девиз урока: «Если ты сначала не нырнешь с головой, найдешь ли ты свою жизнь под водой?»

Учитель для активации учеников разделяет их на 3 группы и наименуют их.

1-группа – Кислород, 2- группа – Водород, 3-группа – Вода

Мы играем в игру сильное кольцо, чтобы проверить и повторить то, что мы узнали по химии. При этом группам задаются быстрые вопросы, участники группы отвечают по очереди. Какая группа отвечает правильно, без ошибок, образует сильное кольцо и становится победителем.

Игра. Сильное кольцо– быстрый вопрос, быстрый ответ. Каждой группе по очереди задаются следующие вопросы

1-группа.

1. Кто и когда ввёл в науку понятие валентности? Франкленд (1853 г.)
2. На сколько типов делятся химические реакции? (4 типа)
3. Какой процент кислорода содержится в воде? (11,11%)

4. Сколько существует аллотропных форм кислорода? (2 вида)
5. Какова валентность водорода в соединениях? (2.)

2-группа.

1. Когда и кем был открыт закон сохранения массы вещества? (1748, М. В. Ломоносов.)
2. К какому типу реакций относится разложение воды? (Разложение.)
3. Соединения кислорода со всеми элементами (Оксиды)
4. Самые распространенные элементы во Вселенной (Водород и гелий.)
5. Когда вы поднимаетесь на вершину горы, почему у вас болит голова и идет кровь из носа,? (Увеличение количества водорода.)

3-группа.

1. Закон, открытый Ж. Прустом. (Закон постоянства содержания)
2. Какие элементы наиболее распространены в земной коре? (Кремний и кислород)
3. Сколько видов изотопов водорода существует? (3 вида.)
4. Каково латинское название и произношение водорода? (Hydrogenium, Аш)
5. Что такое число Авогадро? ($6.02 \cdot 10^{23}$)

Учитель: Итак, мы повторили знания, полученные по химии. Давайте, расскажите, с какой темой мы познакомились на прошлом уроке? «Общая характеристика и получение водорода». Итак, сейчас мы будем закреплять знания по этой теме.

II. Повторение предыдущую тему.

Учащимся раздаются раздаточные материалы со следующими вопросами. Группы по очереди отвечают на вопросы.

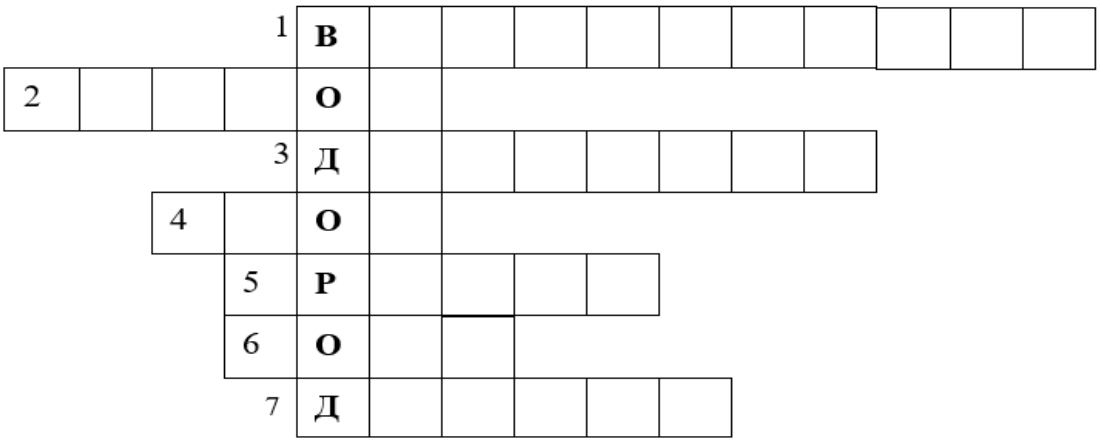
1. Дайте общую характеристику водорода.
2. Как распространен водород в природе?
3. Как распределен водород во Вселенной?
4. Какие соединения с водородом вы знаете?
5. Как получают водород в лаборатории?
6. Какими способами получают водород в промышленности?

Затем, каждой группе раздаются кроссворд с семью вопросами, участники группы вместе найдут ответ на вопросы и заполняют кроссворд.

Вопросы кроссворда

1. Величина которая вырыжается римскими цифрами. (валентность)
2. Заряды ядер одинаковы, атомная масса различная (изотоп)
3. Один из изотопов водорода. (дейтерий)
4. Аллотропический вид изменения кислорода (озон).
5. Частица в ядре атома (протон)
6. Количество вещества. (моль)
7. Ученый, который ввёл в науку понятие атома (Дальтон)

Кроссворд



Итак, сегодня мы продолжим наш разговор о водороде.

III. Изложение новой темы

Урок объясняется учащимся по следующему плану:

1. Физические свойства водорода
2. Химические свойства
3. Использование водорода

Учитель объясняет новую тему по данному плану, знакомит учеников с физическими и химическими свойствами, со сферами применениями водорода. После полного объяснения темы учителем соревнование между группами продолжается.

IV. Закрепление

Учитель дает группам примеры по теме. По одному ученику с каждой группы выходит к доске и составляет уравнения реакций. Участник группы выполнивший первым это задание, эта группа станет победителем. Остальные учащиеся записывают примеры в свои тетради.

1-группа	2-группа	3-группа
$2H_2 + O_2 = 2H_2O$ $HgO + H_2 = Hg + H_2O$	$H_2 + Cl_2 = 2HCl$ $Fe_3O_4 + 4H_2 = 3Fe + 4H_2O$	$3H_2 + N_2 = 2NH_3$ $WO_3 + 3H_2 = W + 3H_2O$

После этого учитель знакомит учащихся с полезными советами по интересной химии.

1. Если ложка или нож заржавели, зажгите свечу и вылейте на нее жидкость свечи, затем протрите тряпкой.
2. Если протереть появившиеся пятна на алюминиевом контейнере ватой, смоченной уксусом, а затем постирать, он будет совершенно чистым.
3. Чтобы убрать остатки под чайником, посыпьте их пищевой содой, а затем полейте уксусом, смешанным с водой. Через некоторое время эти остатки убираются простой щеткой.

V. Оценивание. Затем учитель оценивает работы групп, объявляет накопленные баллы и поощряет активность учащихся. Называет группы с разными номинациями в зависимости от их участия и активности на уроке.

Например, как «Самая ловкая группа», «Самая активная группа», «Самая умная группа».

VI. Итог урока Учитель объявляет домашнее задание, подводит итог к уроку.

Использование метода соревнования на уроках химии повышает активность, знания, интерес учащихся к предмету, побуждает их действовать интересах группы, работать над собой и нести ответственность за себя.

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СФЕРА ПРИМЕНЕНИЯ МСФО 41: СЕЛЬСКОЕ ХОЗЯЙСТВО

Аннотация:*МСФО (IAS) 41 "Сельское хозяйство" регулирует учет и раскрытие информации о сельскохозяйственной деятельности, охватывая все аспекты, связанные с производством сельскохозяйственной продукции. Основная цель стандарта заключается в обеспечении прозрачности и точности финансовой отчетности агропредприятий путем оценки биологических активов по справедливой стоимости. Статья подчеркивает важность применения МСФО (IAS) 41 для повышения прозрачности и сопоставимости финансовой отчетности в сельском хозяйстве, что в свою очередь способствует более обоснованным решениям для инвесторов и других заинтересованных сторон.*

Ключевые слова: *сельское хозяйство, стандарт, биологические активы, учет, справедливая стоимость, финансовая отчетность, продукты сельского хозяйства, оценка.*

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SCOPE OF APPLICATION OF IFRS 41: AGRICULTURE

Abstract: *IAS 41 "Agriculture" regulates the accounting and disclosure of information on agricultural activities, covering all aspects related to the production of agricultural products. The main purpose of the standard is to ensure transparency and accuracy of the financial statements of agricultural enterprises by evaluating biological assets at fair value. The article highlights the importance of applying IAS 41 to increase transparency and comparability of financial statements in agriculture, which in turn contributes to more informed decisions for investors and other stakeholders.*

Keywords: *agriculture, standard, biological assets, accounting, fair value, financial statements, agricultural products, valuation.*

Международный стандарт финансовой отчетности (МСФО) 41 "Сельское хозяйство" был принят в 2001 году и регулирует учет и раскрытие информации о сельскохозяйственной деятельности. Этот стандарт обеспечивает единые принципы учета биологических активов и продуктов

сельского хозяйства, повышая прозрачность и сопоставимость финансовой отчетности компаний в агросекторе.

МСФО 41 охватывает широкий спектр сельскохозяйственной деятельности, включая:

- Выращивание растений. Производство сельскохозяйственных культур, таких как зерновые, овощи, фрукты и лесные ресурсы.
- Разведение животных. Включает в себя разведение скота, птицы и других животных для получения мяса, молока, яиц и других продуктов.
- Управление биологическими активами. Это активы, которые являются живыми организмами, подлежащими учету в соответствии с МСФО 41.

Стандарт определяет биологические активы как активы, которые являются живыми животными или растениями, а продукты сельского хозяйства как продукты, полученные от этих активов.

Одним из ключевых аспектов МСФО 41 является оценка биологических активов. Стандарт требует, чтобы биологические активы оценивались по справедливой стоимости за вычетом затрат на продажу на дату оценки. Это означает, что компании должны определять текущее рыночное значение своих активов, что может включать в себя как рыночные цены, так и затраты на их продажу.

В случаях, когда справедливая стоимость не может быть надежно определена, компании могут использовать затраты на приобретение или производство активов. Однако это должно быть обосновано, и компании должны раскрывать информацию о методах оценки.

Продукты сельского хозяйства, полученные от биологических активов, должны оцениваться по справедливой стоимости на дату сбора урожая за вычетом затрат на продажу. Это включает в себя такие продукты, как урожай, мясо, молоко и другие продукты, полученные от сельскохозяйственной деятельности.

При оценке продуктов сельского хозяйства важно учитывать рыночные условия, которые могут изменяться в зависимости от сезона, спроса и предложения. Это требует от компаний постоянного мониторинга рыночной ситуации и адаптации своей стратегии.

МСФО 41 требует от компаний раскрывать информацию о своих биологических активах, методах оценки и рисках, связанных с сельскохозяйственной деятельностью. Это включает в себя:

- Методы, используемые для определения справедливой стоимости.
- Информацию о любых значительных изменениях в оценке.
- Риски, связанные с сезонностью, климатическими условиями и рыночными колебаниями.

Раскрытие этой информации способствует повышению доверия со стороны инвесторов и других заинтересованных сторон.

Сельское хозяйство имеет уникальные особенности, такие как сезонность, климатические условия и ценовые колебания на рынке, что необходимо учитывать при применении МСФО 41.

МСФО 41 применяется ко всем компаниям, занимающимся сельским хозяйством, включая:

- Фермерские хозяйства - компании, занимающиеся производством сельскохозяйственных культур и разведением животных.
- Агрокомпании - компании, занимающиеся переработкой и продажей сельскохозяйственной продукции.
- Государственные и частные организации - организации, занимающиеся научными исследованиями в области сельского хозяйства и экологии.

Применение МСФО 41 может оказать значительное влияние на финансовую отчетность компаний, занимающихся сельским хозяйством. В частности, это может привести к:

1) Увеличению прозрачности.

Стандарт способствует более прозрачной оценке биологических активов и продуктов, что позволяет инвесторам и другим заинтересованным сторонам лучше понимать финансовое положение компании.

2) Улучшению сравнительности.

Единые принципы учета позволяют сравнивать финансовые результаты различных компаний в сельском хозяйстве, что способствует более обоснованному принятию инвестиционных решений.

3) Учет рисков и неопределенностей.

Компании должны учитывать риски, связанные с изменениями в погодных условиях, рыночными ценами и другими факторами, что может повлиять на их финансовые результаты. Это требует от компаний разработки стратегий управления рисками и адаптации к изменяющимся условиям.

В заключении можно отметить, что МСФО 41 "Сельское хозяйство" является важным стандартом для учета и раскрытия информации о сельскохозяйственной деятельности. Он обеспечивает единые принципы оценки биологических активов и продуктов, что повышает прозрачность и доверие к финансовой отчетности компаний в этой сфере. В условиях глобализации и роста интереса к устойчивому развитию соблюдение стандартов МСФО 41 становится особенно актуальным для эффективного управления активами и рисками.

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ФУНКЦИОНАЛЬНЫЕ ИЗМЕНЕНИЯ ПИЩЕВАРИТЕЛЬНОЙ СИСТЕМЫ ПРИ ПИЛОРОСПАЗМЕ У МЛАДЕНЦЕВ

Резюме:

Цель: *Изучить функциональные изменения пищеварительной системы у младенцев с пилороспазмом, провести сравнительный анализ с контрольной группой здоровых младенцев, а также оценить эффективность диагностических методов.*

Результаты: *Младенцы с пилороспазмом чаще страдали от частых срыгиваний (в среднем 4,3±1,1 эпизода в сутки) по сравнению с контрольной группой (0,8±0,4 эпизода в сутки, p<0,001). У 58% детей наблюдались признаки гипотрофии, связанной с замедлением набора веса. Средняя прибавка массы тела у младенцев с пилороспазмом составила 2,5±0,7 кг за три месяца, тогда как в контрольной группе этот показатель достиг 3,8±0,6 кг (p<0,001).*

Ключевые слова: *Пилороспазм, пищеварительной системы, гастроэзофагеальный рефлюкс новорожденные, младенцы.*

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FUNCTIONAL CHANGES IN THE DIGESTIVE SYSTEM IN INFANTS WITH PYLOROSPASM

Abstract:

Objective: *to study functional changes in the digestive system in infants with pylorospasm, conduct a comparative analysis with a control group of healthy infants, and evaluate the effectiveness of diagnostic methods.*

Results: *Infants with pylorospasm more often suffered from frequent regurgitation (on average 4.3±1.1 episodes per day) compared to the control group (0.8±0.4 episodes per day, p<0.001). Signs of hypotrophy associated with slow weight gain were observed in 58% of children. The average weight gain in infants with pylorospasm was 2.5±0.7 kg over three months, while in the control group this figure reached 3.8±0.6 kg (p<0.001).*

Keywords: *Pylorospasm, digestive system, gastroesophageal reflux, newborns, infants.*

Введение:

Актуальность: Пилороспазм представляет собой временное нарушение функции пищеварительной системы, которое чаще всего встречается у младенцев первых месяцев жизни. Этот функциональный спазм пилорического сфинктера приводит к затруднению эвакуации содержимого из желудка в двенадцатиперстную кишку. Такое состояние сопровождается клиническими симптомами, включая рвоту, срыгивания и замедление набора веса.

Согласно современным данным, пилороспазм занимает одно из первых мест среди причин функциональных расстройств пищеварения у новорожденных [2]. Однако его патофизиологические механизмы до конца не изучены, что осложняет диагностику и выбор методов лечения. В условиях отсутствия своевременного вмешательства пилороспазм может приводить к осложнениям, включая гастроэзофагеальный рефлюкс, электролитные нарушения и дефицит массы тела.

Цель исследования: изучить функциональные изменения пищеварительной системы у младенцев с пилороспазмом, провести сравнительный анализ с контрольной группой здоровых младенцев, а также оценить эффективность диагностических методов.

Объект исследования:

В исследовании приняли участие 24 младенца с пилороспазмом (группа исследования) и 20 здоровых младенцев (контрольная группа), госпитализированные в педиатрическое отделение. Возраст младенцев варьировал от 1 до 6 месяцев. Основными критериями включения являлись наличие симптомов пилороспазма (частые срыгивания, рвота, недостаточный набор веса) и подтверждение диагноза с помощью инструментальных методов.

Методы исследования:

1. **Клинический анализ**

- Частота и объем срыгиваний фиксировались на основе дневников наблюдения, заполняемых родителями.
- Динамика набора массы тела оценивалась путем еженедельного взвешивания младенцев.

2. **Инструментальные методы**

- Ультразвуковое исследование (УЗИ): выполнялось для оценки толщины пилорической мышцы и определения скорости эвакуации содержимого желудка. Специальное внимание уделялось пилорическому каналу и степени его гипертонуса.

- Контрастная рентгенография желудка: оценивалась эвакуация бариевой смеси из желудка, а также наличие застойных явлений.

3. **Лабораторные исследования**

-Анализ электролитного состава крови для выявления признаков метаболического алкалоза (гипохлоремия, гипокалиемия).
-pH-метрия пищевода проводилась для исключения гастроэзофагеального рефлюкса.

Статистический анализ

-Данные обработаны в SPSS версии 25.0.
-Для анализа количественных переменных использован критерий Стьюдента (t-тест).
- Для анализа качественных переменных применялся критерий χ^2. Уровень значимости принят за $p<0,05$.

Результаты

Клинические признаки пилороспазма

Младенцы с пилороспазмом чаще страдали от частых срыгиваний (в среднем 4,3±1,1 эпизода в сутки) по сравнению с контрольной группой (0,8±0,4 эпизода в сутки, $p<0,001$). У 58% детей наблюдались признаки гипотрофии, связанной с замедлением набора веса. Средняя прибавка массы тела у младенцев с пилороспазмом составила 2,5±0,7 кг за три месяца, тогда как в контрольной группе этот показатель достиг 3,8±0,6 кг ($p<0,001$).

Инструментальные данные

1. **УЗИ желудка и пилорической области**

- У младенцев с пилороспазмом толщина пилорической мышцы составила 3,5±0,4 мм, что превышало показатели контрольной группы (2,1±0,3 мм, $p<0,001$).
- В 83% случаев выявлены признаки замедленной эвакуации содержимого из желудка.

2. **Контрастная рентгенография**

- В 75% случаев у младенцев с пилороспазмом наблюдалась задержка бариевой смеси в желудке более чем на 1 час, в то время как у младенцев из контрольной группы эвакуация происходила в пределах нормы.

Лабораторные показатели

- У 62% младенцев с пилороспазмом выявлена гипохлоремия (<96 ммоль/л), у 45% — гипокалиемия (<3,5 ммоль/л).
- У 40% младенцев pH-метрия выявила умеренный гастроэзофагеальный рефлюкс.

Сравнительный анализ

Таблица 1 иллюстрирует различия между группами:

Параметр	**Группа пилороспазма**	**Контрольная группа**	**p-значение**
Частота срыгиваний (эп./сут.)	4,3±1,1	0,8±0,4	<0,001
Масса тела (кг)	2,5±0,7	3,8±0,6	<0,001
Толщина пилорической мышцы (мм)	3,5±0,4	2,1±0,3	<0,001

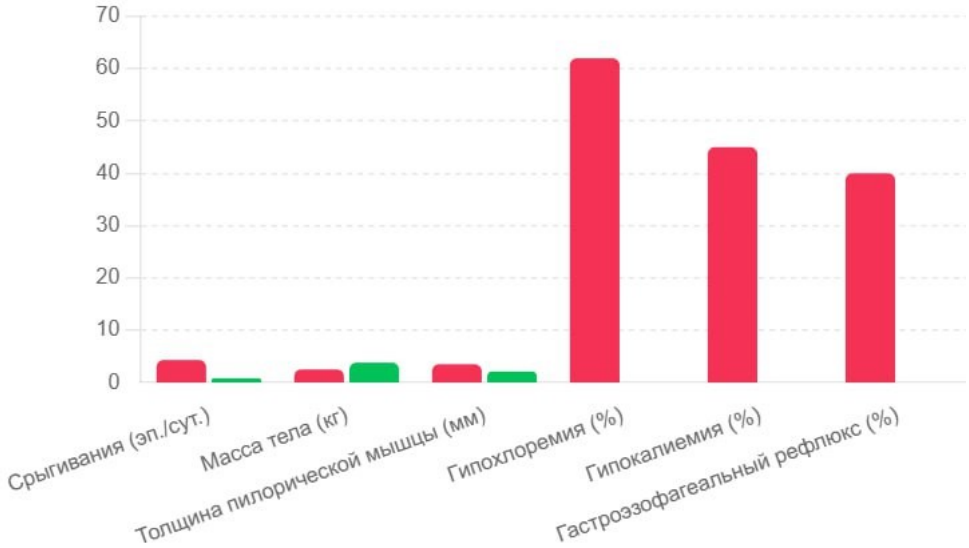

График иллюстрирует ключевые различия между группой младенцев с пилороспазмом и контрольной группой по следующим параметрам:

Частота срыгиваний (эпизодов в сутки):

У младенцев с пилороспазмом наблюдается значительно большая частота срыгиваний (в среднем 4,3 эпизода в сутки), что указывает на нарушение эвакуации содержимого желудка.

В контрольной группе этот показатель существенно ниже (0,8 эпизода в сутки), что соответствует нормальным функциональным процессам.

Масса тела (кг):

В группе пилороспазма средняя прибавка массы тела ниже (2,5 кг за три месяца), что связано с нарушением переваривания и всасывания пищи.

В контрольной группе нормальный показатель составляет 3,8 кг, что соответствует возрастным нормам.

Толщина пилорической мышцы (мм):

У младенцев с пилороспазмом наблюдается утолщение пилорической мышцы (3,5 мм), что указывает на её гипертонус.

В контрольной группе толщина пилорической мышцы остаётся в пределах нормы (2,1 мм).

Гипохлоремия (%):

У 62% младенцев с пилороспазмом отмечается низкий уровень хлоридов в крови, что связано с частыми рвотами и потерей желудочного сока.

В контрольной группе таких нарушений не наблюдается.

Гипокалиемия (%):

У 45% младенцев с пилороспазмом выявляется снижение уровня калия, что является следствием обезвоживания и метаболических нарушений.

В контрольной группе показатели остаются в пределах нормы.

Гастроэзофагеальный рефлюкс (ГЭР) (%):

У 40% младенцев с пилороспазмом диагностирован ГЭР, что связано с повышенным давлением в желудке.

В контрольной группе рефлюкс отсутствует.

Обсуждение:

Результаты исследования подтверждают, что пилороспазм приводит к значительным функциональным изменениям пищеварительной системы у младенцев. Основными патофизиологическими механизмами являются:

- Замедление эвакуации содержимого желудка, что подтверждено данными УЗИ и рентгенографии.
- Развитие гастроэзофагеального рефлюкса, что обусловлено повышенным внутрижелудочным давлением.
- Нарушение водно-электролитного баланса, связанное с частыми рвотами.

Эти данные согласуются с результатами современных исследований [3]. Важность своевременной диагностики и консервативной терапии пилороспазма, включая изменение режима кормления и применение прокинетиков, подчеркивается многими авторами.

Заключение:

Пилороспазм у младенцев сопровождается выраженными функциональными изменениями пищеварительной системы, включая нарушение эвакуации содержимого желудка, развитие гастроэзофагеального рефлюкса и электролитный дисбаланс. Ультразвуковое исследование является ключевым методом диагностики, а ранняя коррекция состояния позволяет предотвратить развитие осложнений.

Выводы:

У младенцев с пилороспазмом наблюдаются выраженные функциональные нарушения пищеварительной системы, включая нарушение эвакуации содержимого желудка, гастроэзофагеальный рефлюкс и электролитный дисбаланс.

Контрольная группа демонстрирует нормальные параметры по всем показателям, что подчёркивает серьёзность выявленных изменений у пациентов с пилороспазмом.

Данные подтверждают необходимость ранней диагностики и комплексного подхода к лечению, чтобы предотвратить долгосрочные осложнения.

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ПРАВОВАЯ ОСНОВА ДЕЯТЕЛЬНОСТИ НАЦИОНАЛЬНО-КУЛЬТУРНЫХ ЦЕНТРОВ В УЗБЕКИСТАНЕ

Аннотация. *В статье рассматривается правовая основа деятельности национально-культурных центров (НКЦ) в Узбекистане как важнейшего инструмента сохранения межэтнической стабильности и гармонизации общественных отношений. Анализируются основные законодательные акты, регулирующие деятельность НКЦ, их роль в развитии культурного многообразия и укреплении национальной идентичности различных этносов. Особое внимание уделяется законам "О государственной национальной политике" и "О культурных центрах", а также международным обязательствам Узбекистана в сфере защиты прав национальных меньшинств.*

Ключевые слова: *национально-культурные центры, правовая основа, межэтнические отношения, культурное наследие, Узбекистан, национальная идентичность, законодательство.*

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LEGAL BASIS FOR THE ACTIVITIES OF NATIONAL CULTURAL CENTERS IN UZBEKISTAN

Abstract. *The article examines the legal basis for the activities of national cultural centers (NCC) in Uzbekistan as the most important tool for maintaining interethnic stability and harmonizing public relations. The main legislative acts regulating the activities of NCCs, their role in the development of cultural diversity and strengthening the national identity of various ethnic groups are analyzed. Particular attention is paid to the laws "On State National Policy" and "On Cultural Centers", as well as Uzbekistan's international obligations in the field of protecting the rights of national minorities.*

Key words: *national cultural centers, legal basis, interethnic relations, cultural heritage, Uzbekistan, national identity, legislation.*

Введение. Актуальности темы. Главный путь к достижению межнационального согласия и солидарности развитие и усиление важности национальных и общечеловеческих ценностей. Защита прав меньшинств в Конституции не только служит гарантией равенства, но и способствует

социальной стабильности. Она способствует развитию мировоззренческой терпимости, сближению различных культур и созданию единого общества, где каждый гражданин чувствует себя уважаемым и важным. «Особо следует отметить, что на сегодняшней день в республике успешно функционируют Республиканский интернациональный культурный центр, 138 национальных культурных центров, Совет обществ дружбы и культурно-просветительских связей Узбекистана с зарубежными странами, а также 34 общества дружбы, деятельность которых строится на принципах бережного сохранения и всестороннего развития истории, культуры, духовных ценностей, национальных традиций и обычаев всех народов и этнических диаспор, проживающих в Узбекистане, путем укрепления дружественных отношений и культурно-духовных связей с зарубежными странами, налаживания регулярных и взаимополезных отношений с нашими соотечественниками за рубежом на основе активной «народной дипломатии».[1]

Степень изученности и методы исследования. Правовая основа деятельности национально-культурных центров в Узбекистане достаточно подробно освещена в работах отечественных исследователей и государственных отчетах. Однако комплексные исследования, учитывающие как законодательную базу, так и практическую деятельность национально-культурных центров, остаются ограниченными. Внимание уделяется как историко-правовому анализу, так и сопоставлению с международной практикой.

В работе использованы такие методы, как сравнительный анализ нормативно-правовых актов, контент-анализ официальных документов и программ национально-культурных центров, а также метод интервьюирования представителей НКЦ. Применяется историко-правовой подход для анализа эволюции законодательства в данной сфере. Также проводится социологический опрос участников мероприятий национально-культурных центров для оценки их эффективности.

Результаты обсуждения. Анализ законодательства показал, что правовая база Узбекистана создает благоприятные условия для деятельности национально-культурных центров, обеспечивая права этнических меньшинств и поддерживая культурные инициативы. Национально-культурные центры играют важную роль в сохранении языков, традиций и обычаев различных этносов. Кроме того, выявлено, что активное участие национально-культурных центров способствует укреплению общественного согласия и формированию гражданской идентичности.

В основе деятельности каждого национального культурного центра - нормативно-правовая база, созданная во имя усиления роли гражданских институтов в процессе модернизации общества, решения актуальных социально-экономических проблем населения. Принято более двухсот нормативно-правовых актов. Так, в Законе «О социальном партнерстве» [2] укрепление идей межнационального, межкультурного и гражданского согласия, возрождение и сохранение многовековых, традиционных духовно-

нравственных и историко-культурных ценностей закреплены как одни из направлений деятельности субъектов социального партнерства. В пяти приоритетных направлениях в развитии Узбекистана особенно подчеркнуто, что царящие в нашей стране мир и спокойствие, дружба, единство и взаимное межнациональное уважение являются бесценным богатством и главным достижением независимости [3].

Важным шагом в этом направлении стал Указ Президента Узбекистана от 19 мая 2017 года о мерах по дальнейшему совершенствованию межнациональных отношений и дружественных связей с зарубежными странами. В нем одним из важнейших приоритетов государственной политики является развитие культуры толерантности и гуманизма, укрепление межнационального, межконфессионального и гражданского согласия в обществе, а также укрепление дружеских, равноправных и взаимовыгодных отношений с зарубежными странами [4].

15 ноября 2019 года подписан Указ Президента «Об утверждении Концепции государственной политики Республики Узбекистан в сфере межнациональных отношений». Это - мощный импульс в масштабной работе, направленной на реализацию приоритетов государственной политики страны: обеспечение межнационального согласия и толерантности в обществе, укрепление атмосферы дружбы и чувства единой большой многонациональной семьи, воспитание молодежи в духе любви и преданности Родине, уважения к национальным и общечеловеческим ценностям. Данный Указ направлен на развитие международного сотрудничества и дружественных связей с зарубежными странами в целях укрепления межнациональных отношений, защиту прав, свобод и законных интересов граждан на территории страны и за ее пределами, поддержку соотечественников и осуществление тесного сотрудничества с узбекскими диаспорами за рубежом, повышение авторитета и имиджа Узбекистана на мировой арене [5].

Возникновение и укрепление национальных государств не происходят без национальных интересов, без самопознания титульной нации. Значит осознание титульной нацией свое место, свою позицию в социальной жизни и свою ответственность за судьбы страны является условием формирования независимого государства. В Конституции Республики Узбекистан всем нациям, каждой личности гарантируют создания всех необходимых условий для осуществления этой деятельности [6]. Сегодня в Центральной Азии формируется этнополитика-межгосударственная и международная обобщенность, солидарность, согласованность в формировании национальных, этносоциальных отношений и в управлении ими. Сейчас эта политика является составной частью социальных, экономических, политических, культурных, гуманитарных и дипломатических связей.

Согласно Закону «Об установлении Дня дружбы народов» принятый 10 февраля 2021 года, в Узбекистане ежегодно 30 июля, отмечается День дружбы народов [7]. В связи с праздником, каждый год по Указу Президента Шавката

Мирзиёева награждаются группа активистов, внёсших достойный вклад в укрепление в стране межнационального согласия и дружбы, атмосферы толерантности, доброты и взаимопонимания между представителями разных наций и народностей, сохранение и развитие национальных культур, обычаев и традиций, расширение взаимовыгодных двусторонних отношений и культурно-гуманитарных связей с зарубежными странами, широкую пропаганду миролюбивой и гуманной политики нового Узбекистана на международной арене, а также за воспитание молодого поколения в духе патриотизма и уважения общечеловеческих ценностей.

В настоящее время, как и во всей стране, так и в Хорезме национальные диаспоры имеют свою место в социально-экономическом развитии Хорезмской области. Национальные культурные центры, созданные в годы независимости, занимают достойное место в развитии Узбекистана. В области в мире и согласии проживают представители разных национальностей, которые совместно вносят достойный вклад во всестороннее развитие социально-экономической сферы Узбекистана, осуществление творческих и созидательных работ, реализацию перспективных проектов и дальнейшему развитию других отраслей.

По данным на 2021 год в национальном составе населения области представители казахской диаспоры составляют 0,6 процента или 10,7 тысячи человек. Также туркмены составляют 0,5 процента или 9,9 тысячи человек, русские - 0,3 процента или 5,8 тысячи человек, корейцы - 0,2 процента или 4,2 тысячи человек, татары - 0,2 процента или 3,5 тысячи человек. Кроме них в Хорезмской области проживают также молдаване, таджики, белорусы, азербайджанцы, армяне и представители других национальностей [8].

На сегодняшний день в Хорезмской области представители более 20 различных национальностей, пользуясь равными правами и возможностями, эффективно работают в органах государственного управления и в различных отраслях экономики, в сферах науки и культуры. В целях обеспечения межнационального согласия и толерантности, укрепления атмосферы дружбы и чувства единой многонациональной семьи в области действуют русский, казахский, корейский, татарский национальные культурные центры и общество дружбы “Узбекистан-Туркменистан”. Культурные центры с большим воодушевлением организуют множество таких культурно-просветительских мероприятий, как “Узбекистан – наш общий дом!”, “Вечно процветай, наша страна!”, “Да здравствует дружба!”.

Выводы. Правовая основа деятельности национально-культурных центров в Узбекистане является важным фактором в обеспечении межнационального мира и стабильности. Законодательство Узбекистана обеспечивает необходимую поддержку для развития культурного многообразия, что способствует укреплению общественного единства. Тем не менее, требуется дальнейшая работа по совершенствованию механизмов реализации правовых норм и расширению участия национально-культурнқх центров в образовательных и просветительских программах.

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ОРГАНИЗАЦИОННЫЕ ИЗМЕНЕНИЯ В КОНТЕКСТЕ МОДЕРНИЗАЦИИ СОВРЕМЕННОЙ ШКОЛЫ

Аннотация. *В статье рассматриваются современные тенденции в управлении организационными изменениями, выражающиеся в стремлении к демократическим, гибким и опосредованным методам управления. Основная идея заключается в разработке структуры, способствующей эффективному пониманию и управлению процессами организационных изменений. Особое внимание уделяется роли школьного образования в успешной реализации реформ и развитии общества. Аргументируется, что прогресс современной школы обеспечивается инновационными процессами, обладающими уникальной структурой и характеристиками. Таким образом, статья подчеркивает важность организационных изменений для адаптации образовательной системы к современным вызовам и требованиям.*

Ключевые слова: *организационные изменения, модернизация, управление, современная школа, инновации, механизмы внедрения.*

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ORGANIZATIONAL CHANGES IN THE CONTEXT OF MODERNIZATION OF THE MODERN SCHOOL

Abstract. *The article examines current trends in the management of organizational changes, characterized by a shift towards democratic, flexible, and mediated management methods. The central idea revolves around the development of a framework that facilitates effective understanding and management of organizational change processes. Particular emphasis is placed on the role of school education in the successful implementation of reforms and the advancement of society. It is argued that the progress of modern schools is driven by innovative processes that possess unique structures and characteristics. Thus, the article underscores the significance of organizational changes for the adaptation of the educational system to contemporary challenges and demands.*

Keywords*: organizational transformation, modernization, management, contemporary schools, innovations, implementation mechanisms.*

ВВЕДЕНИЕ

Современная образовательная система претерпевает глубокую трансформацию, характеризующуюся сдвигами в парадигмах, ценностных установках и интенсивной интеграцией инноваций. Решение задач модернизации образования напрямую связано с реорганизацией образовательных систем, внедрением инновационных практик и оптимизацией организационных структур. Школа сегодня сталкивается с необходимостью постоянных организационных изменений, что требует проведения глубоких научных исследований. Актуальными задачами становятся разработка теоретических концепций, позволяющих обосновать и спроектировать эффективные модели школьного управления; определение оптимальных методологических подходов для изучения и моделирования образовательных процессов; создание инструментария для диагностики и оценки изменений; а также разработка механизмов внедрения инновационных образовательных программ.

ОБЗОР ЛИТЕРАТУРЫ

На сегодняшний день вопросом организационных изменений в современной школе занималось ряд отечественных и зарубежных ученых.

Немало исследований посвящено проблеме модернизации отечественной современной школы. Авторы А.С Джураев (2019), А.Г.Муминов (2019), М.Т Мирсолиева (2018), А.Б. Раджиев (2020), Г.Т Хакимова (2024), Н.Х. Хакимов (2021) приходят к общим выводам, что Узбекистан рассматривает качественное образование как залог устойчивого развития.

Исследования И. И Колисниченко, О.А Назарчук (2018), О.Г Тринитатской (2021) подчеркивают, что стратегический менеджмент в организационных изменениях является фундаментальным, потому что вектор развития в образовательной организации в итоге определяет, что можно изменить и какую это принесёт пользу.

МЕТОДОЛОГИЯ

В ряде развитых стран мира проводятся научные исследования, которые сосредоточивают свое внимание на организационные изменения в образовании и их взаимодействия с традиционными формами обучения. Они рассматривают организационные изменения в современной школе как решение двух взаимосвязанных задач. Во-первых, это управление технологическими, управленческими, правовыми и экономическими инновациями. Во-вторых, это управление процессом разработки и внедрения новых высокоэффективных педагогических технологий, а также новых методов воспитания и развития личности учащихся [10].

РЕЗУЛЬТАТЫ

Одной из приоритетных задач отечественной системы образования является внедрение инновационных педагогических подходов, направленных на формирование у обучающихся компетенций XXI века. Осуществляемые в системе образования Республики Узбекистан реформы, связанные с тенденциями модернизации в этой сфере, диктуют существенные изменения в процессе управления общеобразовательной школой. В Узбекистане объявлено о том, что страна к 2030 году должна входить в число 30 передовых стран мира по качеству среднего образования. Поэтому в стране реализуется четкая, ясная и продуманная программа действий, поднимающая систему образования на новый, более высокий уровень, согласно стратегии «Узбекистан-2030». Президент констатировал, что образование является одним из важнейших аспектов широкомасштабных реформ, реализуемых в нашей стране, и высказал по этому поводу следующие мысли: «Сегодня в построении Нового Узбекистана основное внимание мы уделяем пяти приоритетным направлениям. Это прежде всего формирование системы качественного образования, развитие бизнеса, создание свободной от коррупции справедливой судебной системы, кардинальное улучшение здравоохранения, обеспечение экологической устойчивости.

Решение всех наших проблем, ответы на все вопросы – только в образовании. Ключ, открывающий все двери, – это образование и воспитание.

Мы приняли большую программу по реформированию школьного образования. Отдельное внимание уделяем глубокому изучению родного языка и литературы. В целях качественного обучения детей иностранным языкам приглашаем из-за рубежа носителей языков. Учащиеся школ обеспечиваются современными учебниками, созданными на основе передового мирового опыта» [1]. Эти идеи, озвученные главой нашего государства, обязывают сотрудников системы образования пересмотреть подходы к обучению в общеобразовательных школах с учетом современных требований. Повышение качества и доступности образования, формирование личности с высокими нравственными ценностями, а также принятие научно обоснованных решений в этом процессе, от которых зависит будущее страны и нации, требуют глубокого теоретического исследования данной проблемы.

ОБСУЖДЕНИЕ

В мире многие современные исследователи сосредоточивают свое внимание на проблемах организационных изменений в образовании и их взаимодействия с традиционными стратегиями обучения. Речь идет о процессе прогнозирования, проектирования, постановки целей, определение путей их достижений; организации образовательного процесса и мотивации всех его субъектов на внедрение инноваций, новшеств; контроля как процесса выявления отклонений от целей и мониторинга – системы отслеживания изменений в функционировании, развитии; регулирования и анализа результатов. Также необходимо разработать механизмы внедрения обновленных интегральных курсов, развития рациональных междисциплинарных связей, расширения горизонтов методических поисков, технологий самообучения, содействующих созданию образовательной среды, стимулирующей развитие творческого и критического мышления, способствующей формированию навыков самоорганизации, сотрудничества и коммуникации. Важным аспектом является также актуализация индивидуального потенциала каждого ученика, создание условий для его самореализации. Реализация этих задач предполагает использование современных педагогических инструментов и организационных изменений таких как проектные методы, геймификация, цифровые технологии и другие. В конечном счете цель состоит в подготовке подрастающего поколения к жизни в динамично меняющемся мире, где востребованы не только предметные знания, но и универсальные навыки, позволяющие адаптироваться к новым условиям и решать комплексные задачи.

Специфика организационных изменений в контексте современного образования определяется тем, что его развитие происходит в тесной взаимосвязи с формированием и эволюцией рынка образовательных услуг и продуктов. В условиях динамично меняющегося образовательного ландшафта школы должны адаптироваться к новым требованиям, возникающим как со стороны общества, так и со стороны образовательных стандартов. Это требует от образовательных учреждений не только внедрения инновационных подходов, но и пересмотра существующих управленческих практик, что в свою очередь способствует созданию более гибкой и эффективной образовательной среды. Процесс организационного изменения – это улучшение работы всей педагогической системы школы, и ее отдельных подразделений в условиях инновационной среды и угроз, воздействующих на них. [10]

ЗАКЛЮЧЕНИЕ

Таким образом, очевидно, что в настоящее время реформы в сфере общего образования невозможно осуществить без внедрения организационных изменений. Эти изменения открывают широкие возможности как в содержательном, так и в технологическом аспектах, позволяя уточнять образовательные стратегии, переосмысливать ценности и определять перспективные направления развития образовательной системы.

Они также способствуют изучению международного опыта в области образования и подчеркивают, что процесс становления и развития системы организационных изменений имеет эволюционный характер. Достижение успеха в этом процессе возможно лишь при условии согласованных действий всего педагогического коллектива и разумного внедрения изменений, учитывающих потребности общества и вызовы современности.

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ЦИФРОВОЕ БУДУЩЕЕ ОБРАЗОВАНИЯ, ПРИМЕНЕНИЕ ИИ ДЛЯ ПОЗНАВАТЕЛЬНОГО РАЗВИТИЯ ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА В УЗБЕКИСТАНЕ

Аннотация: *В данной работе рассматривается использование искусственного интеллекта (ИИ) для познавательного развития детей дошкольного возраста в Узбекистане. Основное внимание уделяется методике «Цифровое обучение через адаптивные ИИ-сценарии», которая направлена на индивидуализацию образовательного процесса и развитие когнитивных навыков у детей. Анализируются ключевые аспекты внедрения ИИ-технологий в дошкольное образование, включая подготовку педагогов, оснащение образовательных учреждений и эффективность применения адаптивных ИИ-платформ.*

Ключевые слова: *искусственный интеллект, дошкольное образование, когнитивное развитие, цифровые технологии, адаптивные сценарии, индивидуализация, познавательные навыки, Узбекистан, образовательная среда, методика*

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DIGITAL FUTURE OF EDUCATION, APPLICATION OF AI FOR COGNITIVE DEVELOPMENT OF PRESCHOOL CHILDREN IN UZBEKISTAN

Abstract: *This paper examines the use of artificial intelligence (AI) for the cognitive development of preschool children in Uzbekistan. The main focus is on the "Digital learning through adaptive AI scenarios" methodology, which is aimed at individualizing the educational process and developing cognitive skills in children. Key aspects of the introduction of AI technologies in preschool education are analyzed, including teacher training, equipping educational institutions, and the effectiveness of adaptive AI platforms.*

Key words: *artificial intelligence, preschool education, cognitive development, digital technologies, adaptive scenarios, individualization, cognitive skills, Uzbekistan, educational environment, methodology*

Введение: Цифровизация образования становится ключевым направлением развития образовательных систем во всём мире, включая Узбекистан. Использование искусственного интеллекта (ИИ) открывает новые горизонты для познавательного развития детей дошкольного возраста. В условиях растущего спроса на интерактивные и адаптивные технологии перед системой дошкольного образования стоит задача интеграции современных цифровых решений. Эти технологии не только стимулируют развитие когнитивных навыков, но и способствуют индивидуализации обучения, что особенно важно для успешной подготовки детей к школьному обучению. Однако процесс внедрения ИИ сталкивается с рядом вызовов, включая нехватку кадров и ограниченные технологические ресурсы, требующие системного подхода к их решению.

Одной из ключевых проблем применения ИИ в дошкольном образовании Узбекистана является недостаточная подготовленность педагогов к использованию цифровых технологий. Многие воспитатели не обладают достаточными навыками работы с ИИ-платформами, что ограничивает их способность эффективно использовать потенциал таких инструментов для познавательного развития детей. Для устранения этой проблемы необходимо развивать образовательные программы для воспитателей, направленные на обучение использованию ИИ-технологий. Государство и образовательные учреждения должны инвестировать в создание специализированных курсов повышения квалификации, которые включают как теоретическую, так и практическую подготовку. Кроме того, важно обеспечить детские сады необходимым оборудованием, включая планшеты, интерактивные доски и доступ к качественным интернет-ресурсам.

Методология: Методика «Цифровое обучение через адаптивные ИИ-сценарии». Данная методика направлена на познавательное развитие детей дошкольного возраста с использованием адаптивных технологий искусственного интеллекта (ИИ). Основная идея заключается в создании индивидуализированных образовательных траекторий для каждого ребёнка на основе анализа его когнитивных особенностей, интересов и уровня подготовки. Для реализации методики используются платформы с интеграцией ИИ, которые способны анализировать ответы, скорость выполнения заданий и уровень вовлечённости ребёнка. Программа формирует персонализированные задания в интерактивной игровой форме, направленные на развитие ключевых навыков: логического мышления, внимания, памяти и речевых умений. Например, ИИ может предложить ребенку решить логическую головоломку, подобрать слова в интерактивной истории или выполнить виртуальную миссию в команде с другими детьми. Важной частью методики является роль педагога, который выступает в качестве наставника. Воспитатель не только контролирует процесс взаимодействия ребёнка с ИИ, но и интерпретирует результаты, полученные от системы. На основе аналитики педагог корректирует задания, чтобы поддерживать интерес ребёнка и избегать его перегрузки. Методика предполагает использование

гибкой программы обучения, состоящей из модулей: когнитивные игры, развитие речи через интерактивные истории, основы математики в виртуальной среде. Занятия проводятся в небольших группах или индивидуально, чтобы обеспечить максимальную эффективность. Эффективность методики оценивается с помощью регулярного мониторинга прогресса детей, который осуществляется автоматически через платформу. Это позволяет своевременно вносить изменения в сценарии обучения и учитывать индивидуальные потребности каждого ребёнка.

Результат: Результаты проведённого исследования по методике «Цифровое обучение через адаптивные ИИ-сценарии». В ходе исследования методика была апробирована на выборке из 60 детей дошкольного возраста (4–6 лет) в трёх дошкольных образовательных учреждениях Узбекистана. Эксперимент проводился в течение двух месяцев, где дети участвовали в занятиях по ИИ-программам 3 раза в неделю по 30 минут. Анализ результатов проводился на основе наблюдений, опросов воспитателей и родителей, а также данных, собранных ИИ-платформой.

По итогам исследования было выявлено, что внедрение методики значительно повысило уровень когнитивного развития детей. 85% участников показали улучшение логического мышления, что было отмечено в результатах выполнения адаптивных задач: среднее время решения головоломок снизилось с 2,5 минут до 1,6 минуты. У 78% детей улучшились показатели внимания, что выражалось в более длительном удержании интереса к выполнению заданий (средняя продолжительность сосредоточенности выросла с 18 минут до 26 минут). Особенно заметные результаты были достигнуты в развитии речевых навыков. У 72% детей наблюдалось расширение словарного запаса, а 63% стали использовать более сложные грамматические конструкции в речи. Воспитатели также отметили рост интереса к занятиям у 90% детей, что свидетельствует о высокой мотивационной привлекательности метода. Родители участников дали положительные отзывы о методике: 88% отметили, что дети стали чаще проявлять инициативу в обучении, задавать вопросы и предлагать свои идеи в играх. Проведённое исследование подтверждает, что методика «Цифровое обучение через адаптивные ИИ-сценарии» является эффективным инструментом для познавательного развития детей дошкольного возраста.

Заключение: Применение ИИ в дошкольном образовании Узбекистана представляет собой перспективное направление, способное значительно улучшить качество познавательного развития детей. Однако для успешной реализации этой задачи необходимо решить проблему подготовки кадров и оснащения образовательных учреждений. Внедрение методики «Игровое взаимодействие с ИИ» может стать шагом к созданию инклюзивной и инновационной образовательной среды, которая отвечает современным вызовам и готовит детей к жизни в цифровую эпоху.

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ПОРЯДОК УЧЕТА НА ПРЕДПРИЯТИЯХ НА ОСНОВЕ МЕЖДУНАРОДНЫХ СТАНДАРТОВ ФИНАНСОВОГО УЧЕТА

Аннотация: *В государственном описании приказа о ведении бухгалтерского учета на предприятиях на основе международных стандартов бухгалтерского учета.*

Ключевые слова: *международный стандарт, финансовый актив, финансовое обязательство, финансовый инструмент, амортизированная стоимость, справедливая стоимость, прочие доходы от приобретения.*

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ACCOUNTING PROCEDURE AT ENTERPRISES BASED ON INTERNATIONAL FINANCIAL ACCOUNTING STANDARDS

Abstract: *In the state description of the order on accounting at enterprises based on international accounting standards.*

Keywords: *international standard, financial asset, financial liability, financial instrument, amortized cost, fair value, other income from acquisition.*

На предприятиях бухгалтерский учет аккаунт MXHS (локальный Стоимость , Услуги и Купить Выручка) на основании руководить заказ , то есть местный затраты и купить брать в соответствии с бухгалтерский учет счет руководство предприятия финансовый деятельность верно контроль делать , расходы определить и налог обязательства в расчете важный важный иметь

Ниже показано на основе MXXS. бухгалтерский учет счет руководить заказ о некоторый важный правила цитируется :

По данным MX HS бухгалтерский учет счет в соответствии с каждым расходы тип о отдельно отчеты и классификации нуждаться будет Затраты тип глядя на них следующее отдельный может :

- **Местный расходы** : Это затраты собственный работа выпускать и услуги сделанный в повышении использовал материалы , работа затраты , энергия , освещение и другой услуги для платежи .
- **Услуги** : Бухгалтерский учет счет , предприятие к внешний услуги (например , транспорт , реклама , консалтинг) услуги) для сделанный повысился платежи слишком показать нужен
- **Купить приобретения** : Продукция , материалы , оборудование. или другой продукты купить получать затраты .
- **Затраты разделение** : Бухгалтерский учет за счет затраты разделенный быть нужен Например , работа выпускать в процессе потраченный сырой материал , работа верно и другой затраты .
- **Затраты в соответствии с бухгалтерский учет записи** : Расходы в соответствии с все записи , обязательны журнал или документы с подтверждение Это необходимо Их правильность и вовремя введение важный
- **Купить поступления** : Предприятие к сделанный повысился купить приобретения (материалы , оборудование и другие) для бухгалтерский учет за счет отдельно разделенный договор и оплата документы быть нужен

Затраты классификация На основе MXXS затраты тип в классификации каждый один расходы типа полный и четко включено доверять урожай делать нужен Затраты следующее классифицируется как :

- **Напрямую затраты** (материалы , работа) верно и другие).
- **Сменный расходы** (к доходам зависит от был затраты).
- **Постоянный затраты** (постоянные расходы , такие как аренда правда , налог и другой вроде сборы).
- **Налог обязательства расчет** : Затраты и купить получать в соответствии с платежи налог законы в соответствии с считать и отчеты подготовка необходимо Это налог платежей точность предоставлять для необходимо
- **Затраты в соответствии с отчеты** : каждые один в квартале или в затраты в соответствии с отчет подготовка нужен Этот в отчете затраты разделенный категории в соответствии с отображается .

Бухгалтерский учет счет информация система На основе MXXS бухгалтерский учет счет руководить для предприятие внутри информация система или программное обеспечение из поставки использовать может Этот системы затраты и купить брать быстрый и эффективный контроль делать давать возможность дает

Так на базе MXXS бухгалтерский учет счет руководить заказ предприятия затраты и купить получать в соответствии с четко и верно отчет подготовить помощь дает Этот и не только внутренний управление улучшить

, возможно налог и другой финансовый обязательства собственный вовремя сделал это без компании финансовый стабильность предоставить услуга делает

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ПЕДАГОГИЧЕСКАЯ ДИАГНОСТИКА УРОВНЯ ТОЛЕРАНТНОСТИ В ПРОЦЕССЕ ДЕТСКОЙ ИГРЫ

Аннотация: *В данной статье рассматриваются различные педагогические подходы к диагностике уровня развития толерантности у детей дошкольного возраста в процессе игровой деятельности. Анализ различных видов игр, таких как ролевые, сюжетно-ролевые, строительные, позволяет выявить наиболее эффективные игровые ситуации для оценки таких проявлений толерантности, как умение уступать, делиться игрушками, принимать иные точки зрения. Полученные данные могут быть использованы для разработки индивидуальных и групповых программ развития толерантности у детей, включающих в себя специальные игровые упражнения, ролевые игры, дискуссии и другие формы работы.*

Ключевые слова*: образование, толерантность, игра, дети дошкольного возраста.*

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PEDAGOGICAL DIAGNOSTICS OF THE LEVEL OF TOLERANCE IN THE PROCESS OF CHILDREN'S GAMES

Abstract: *This article examines various pedagogical approaches to diagnosing the level of tolerance development in preschool children in the process of play activities. Analysis of various types of games, such as role-playing, role-playing, construction, allows us to identify the most effective game situations for assessing such manifestations of tolerance as the ability to give in, share toys, and accept other points of view. The data obtained can be used to develop individual and group programs for the development of tolerance in children, including special game exercises, role-playing games, discussions and other forms of work.*

Keywords: *education, tolerance, game, preschool children.*

Формирования толерантности у дошкольников приобретает все большую актуальность в условиях глобализации дети сталкиваются с представителями различных культур, национальностей и религий. Формирование толерантного отношения к различиям становится ключевым навыком для успешной социализации. Повышение мобильности населения приводит к тому, что в детских коллективах возрастает разнообразие культурных и этнических групп. Это создает как новые возможности для

обогащения опыта детей, так и риски возникновения конфликтов на почве различий. Интернет и социальные сети расширяют возможности для общения и обмена информацией, но одновременно создают новые угрозы, такие как кибербуллинг и распространение ненависти.

Социальные неравенство, дискриминация и насилие остаются актуальными проблемами во многих обществах. Формирование толерантных установок у подрастающего поколения является одним из способов противодействия этим негативным явлениям. Толерантный ребенок более уверен в себе, открыт к новым впечатлениям, легче адаптируется к изменениям и строит позитивные отношения со сверстниками.

Почему важно начинать формирование толерантности именно в дошкольном возрасте? Дошкольный возраст – сенситивный период для развития социальных навыков, в этом возрасте особенно восприимчивы к социальному обучению и легко усваивают новые нормы и правила поведения. В дошкольном возрасте закладываются основы личности, ее ценностных ориентаций и мировоззрения. Формирование толерантности помогает предотвратить возникновение конфликтов на межличностном уровне и способствует созданию благоприятной атмосферы в детском коллективе.

Формирование толерантности у дошкольников – это не просто воспитательная задача, а инвестиция в будущее. Толерантные дети вырастают в толерантных взрослых, способных строить гармоничные отношения в многообразном мире.

Понятие комплексного подхода к диагностике толерантности действительно подчеркивает важность многостороннего анализа и оценки развития этого важного качества у детей.

Основные компоненты комплексного подхода:

1. Многообразие методов диагностики:

- Систематическое наблюдение за поведением ребенка в различных игровых ситуациях, взаимодействии со сверстниками и взрослыми.
- Рисунки, лепка, рассказы, игры – все это может служить источником информации о ценностях, установках и отношении ребенка к другим людям.
- Проведение опросов как детей, так и педагогов, родителей.
- Использование специальных методик (например, рисуночных тестов), позволяющих выявить скрытые чувства, переживания и установки ребенка.
- Анализ межличностных отношений в группе детей.

2. Учет различных аспектов толерантности:

- Когнитивный компонент, знания ребенка о культурном разнообразии, стереотипах, предрассудках.
- Эмоциональный компонент, способность ребенка испытывать сочувствие, эмпатию, принимать чувства других людей.
- Поведенческий компонент, наблюдение за реальными поступками ребенка в ситуациях, требующих проявления толерантности (например, разрешение конфликтов, взаимодействие с детьми другой национальности).

3. Системный подход:

- Взаимосвязь различных факторов: учет влияния семьи, социума, образовательной среды на формирование толерантности.
- Анализ динамики развития, отслеживание изменений в уровне толерантности ребенка в течение определенного периода времени.

Комплексный подход раскрывает полноту картины представление о уровне развития толерантности у ребенка. Использование различных методов повышает надежность результатов диагностики. Комплексный анализ позволяет выявить индивидуальные особенности развития толерантности у каждого ребенка и разработать соответствующие рекомендации.

Примеры конкретных действий в рамках комплексного подхода:

Создание атмосферы толерантности в группе, организация совместных игр и проектов, направленных на знакомство с различными культурами, традициями, обычаями.

Проведение тематических бесед и обсуждений актуальных социальных проблем, связанных с толерантностью.

Использование сказок, историй, примеров из жизни, демонстрация моделей толерантного поведения на конкретных примерах.

Включение в образовательный процесс элементов различных культур, музыка, танцы, игры разных народов.

Сотрудничество с родителями, проведение родительских собраний, консультаций, совместных мероприятий, направленных на формирование толерантности у детей.

Проведенный обзор позволил выявить важность игровой деятельности в формировании толерантности у детей дошкольного возраста. Разработанные педагогические механизмы могут быть использованы в практике дошкольных образовательных организаций для создания условий, способствующих развитию толерантной личности. Дальнейшие исследования могут быть направлены на изучение долгосрочных эффектов использования этих механизмов, а также на адаптацию их для работы с детьми старшего возраста.

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СОВЕРШЕНСТВОВАНИЕ ТЕХНИКО-ТАКТИЧЕСКОЙ ПОДГОТОВКИ ДЕВУШЕК-ВОЛЕЙБОЛИСТОК 15-16 ЛЕТ

Аннотация: *В статье рассматривается проблема совершенствования технико-тактической подготовки девушек-волейболисток в возрасте 15-16 лет. Описываются современные подходы к тренировочному процессу, включая развитие индивидуальных навыков, отработку игровых тактик и психологическую подготовку. Исследование основано на анализе литературы, наблюдении, анкетировании и экспериментальных тренировках. Результаты показывают, что внедрение комплексных методов подготовки значительно улучшает игровые показатели спортсменок, способствует формированию командного духа и повышает уверенность в себе. Статья подчеркивает необходимость индивидуального подхода и постоянного мониторинга тренировочного процесса.*

Ключевые слова: *волейбол, технико-тактическая подготовка, девушки, 15-16 лет, индивидуальные навыки, тактические схемы, психологическая подготовка, физическая подготовка, спортивная карьера, молодежный спорт.*

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IMPROVING THE TECHNICAL AND TACTICAL TRAINING OF FEMALE VOLLEYBALL PLAYERS AGED 15-16

Abstract: *The article deals with the problem of improving the technical and tactical training of female volleyball players aged 15-16 years. Modern approaches to the training process are described, including the development of individual skills, the development of game tactics and psychological training. The study is based on literature analysis, observation, questionnaires and experimental training. The results show that the introduction of comprehensive training methods significantly improves the performance of athletes, promotes the formation of team spirit and*

increases self-confidence. The article emphasizes the need for an individual approach and constant monitoring of the training process.

Keywords: *volleyball, technical and tactical training, girls, 15-16 years old, individual skills, tactical schemes, psychological training, physical training, sports career, youth sports.*

Введение

Волейбол является одной из наиболее популярных командных игр, требующих от спортсменов высоких технико-тактических навыков. Подготовка юных волейболисток, особенно в возрасте 15-16 лет, имеет особое значение, так как в этот период происходит формирование спортивной карьеры и психологической готовности к соревнованиям. Целью данной статьи является анализ и разработка эффективных методов совершенствования технико-тактической подготовки девушек-волейболисток в указанной возрастной группе.

Методы

Исследование проводилось в рамках подготовки юных спортсменок, обучающихся в волейбольной секции. Основными методами исследования стали:

1. Анализ литературы – изучение современных подходов к технико-тактической подготовке в волейболе.

2. Наблюдение – анализ тренировочного процесса и соревнований.

3. Анкетирование – сбор данных о психологической и физической подготовленности спортсменок.

4. Экспериментальные тренировки – внедрение новых методик и оценка их эффективности.

Результаты

В результате проведенного исследования были выделены ключевые аспекты технико-тактической подготовки:

1. **Развитие индивидуальных навыков** – акцент на улучшение подачи, приема и атакующих действий. Внедрение тренировок с использованием видеоанализа для самоконтроля.
2. **Тактические схемы** – разработка и отработка игровых комбинаций, учитывающих особенности соперника. Упражнения, направленные на повышение читаемости игры.
3. **Психологическая подготовка** – внедрение методов психологической подготовки, направленных на повышение уверенности в себе и командного духа.
4. **Физическая подготовка** – улучшение общей и специальной физической подготовки через силовые и скоростные тренировки.

Экспериментальные тренировки продемонстрировали значительное улучшение игровых показателей спортсменок. Так, в контрольной группе, где применялись новые методики, показатели успешности выполнения техник увеличились на 20%, а командное взаимодействие на 15%.

Обсуждение

Результаты исследования подтверждают, что комплексный подход к технико-тактической подготовке позволяет достигнуть значительных результатов в обучении волейболисток. Важным аспектом является баланс между технической и тактической подготовкой, который способствует формированию полноценного игрового мышления.

Кроме того, психологическая подготовка помогает спортсменкам справляться с давлением соревнований, что является критически важным в условиях высокой конкуренции. Разработка индивидуальных планов тренировок с учетом особенностей каждой спортсменки также способствует более эффективному обучению.

Заключение

Совершенствование технико-тактической подготовки девушек-волейболисток 15-16 лет требует комплексного подхода, включающего развитие индивидуальных навыков, отработку тактических схем, психологическую поддержку и физическую подготовку. Предложенные методы показали свою эффективность и могут быть рекомендованы для дальнейшего применения в тренировочном процессе. Настоящее исследование подчеркивает необходимость постоянного мониторинга и корректировки тренировочных программ в соответствии с индивидуальными потребностями спортсменок.

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ПРОБЛЕМЫ РАЗВИТИЯ ТВОРЧЕСКИХ СПОСОБНОСТЕЙ У ДОШКОЛЬНИКОВ

Аннотация: *В данной статье рассматривается подробный анализ принципов, способов и методов формирования у детей дошкольного возраста творческих и инновационных способностей.*

Ключевые слова: *творческие способности, нравственные нормы, способность к творчеству, ведущий вид деятельности, развитие эмоциональной сферы детей.*

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PROBLEMS IN THE DEVELOPMENT OF CREATIVE ABILITIES IN PRESCHOOLERS

Abstract: *This article discusses a detailed analysis of the principles, methods and methods of developing creative and innovative abilities in preschool children.*

Key words: *creative abilities, moral standards, ability to create, leading type of activity, development of the emotional sphere of children.*

В соответствии с постановлением Президента Республики Узбекистан Шавката Мирзиёева от 30 сентября 2017 года «О мерах по коренному совершенствованию управления системой дошкольного образования» и «Организация Министерства дошкольного образования Республики Узбекистан» в этой сфере была создана новая система с коренными изменениями, которые требуют разработки и реализации единой государственной политики в сфере дошкольного образования, расширения государственной и негосударственной сети дошкольных образовательных учреждений и укрепления материально-технической базы, обеспечения их квалифицированными педагогическими кадрами, поставлены задачи резкого увеличения охвата детей, внедрения современных образовательных программ и технологий в образовательные процессы, интеллектуального, духовно-эстетического, физического развития детей, коренного повышения качества их школьной подготовки.

На всех этапах развития человеческого общества, начиная с детства, были эталоном развития такие качества, как добро, благородство, человечность, человеколюбие, ум, порядочность, трудолюбие, патриотизм, честность, чистота, красноречие. Потому что духовность совершенного человека высока. Человек, обладающий высокой духовностью, глубоко знает

и следует истории, обычаям, ценностям и традициям своего народа. Дошкольный период – это период, когда у ребенка сильное стремление к росту, развитию, самовыражению, обучению и знаниям. Именно в этот период создается основа для развития человеческих качеств и умственного потенциала ребенка. Чем раньше начнется обучение ребенка дошкольного возраста, тем раньше проявится эффект и положительно отразится на всей жизни ребенка. Поэтому развитие детского мышления становится одной из главных задач. Для этого необходимо развивать его крупную и мелкую моторику. Потому что в человеческих руках и пальцах есть нервные волокна. Человек получает информацию через пальцы. Мелкая моторика детей влияет на формирование их речи и логического мышления. Если моторика рук и запястий у детей развита правильно, мозговая деятельность будет развиваться лучше.

Личность дошкольника состоит из многих качеств, среди которых важное место занимают творческие способности. Ведь не только ребенок, освоивший программу дошкольного образовательного учреждения, но и дошкольник, способный творчески ее переработать, может стать собственником современного общества и требовать полноценного образа жизни.

Актуальность данной темы заключается в том, что стремительно развивающееся современное общество требует от человека уникальных и новаторских идей, не однотипности, привычных действий, а подвижности, гибкости мышления, быстрой ориентации и приспособления к новым условиям, творческого подхода к решению а Это значит, что детей нужно учить позитивным сторонам своевременного решения проблем и умения выходить из ситуации с раннего возраста. Творческая деятельность не только развивает личность ребенка, но и помогает ему научиться самообладанию и нравственным нормам. Создавая творческие произведения со школьного возраста, ребенок отражает в них свое понимание жизненных ценностей и личностных особенностей.

Поэтому начинать формирование творческих способностей с дошкольного возраста - очень важный процесс, как основа всестороннего интеллектуального развития ребенка. Новые государственные образовательные стандарты дошкольного образования и принципы ориентированного на ребенка воспитания показывают, что в процессе личностного развития ребенок постепенно обретает самостоятельность как способность к самостоятельной жизни и общественной деятельности, что не только улучшает отношения с окружающей средой. считается важным как способность сохранять, но и создавать новое обучение.

Творческие способности человека проявляются в его способности находить особый взгляд на знакомые, незнакомые и повседневные явления и предметы. Обязательными компонентами творческих способностей являются творческое воображение и творческое мышление. Дошкольный возраст – наиболее благоприятное время для формирования в ребенке творческой и

активной личности. Именно в этот период происходит развитие, т. е. рост-изменение во многих сферах, совершенствуются психические процессы (внимание, память, восприятие, мышление, речь, воображение), активно развиваются личностные качества и на их основе способности и задатки.

Развитие моторики пальцев рук вызывают следующие ситуации:
- развитие мышления;
- развитие координации движений;
- повышение памяти и внимания;
- формирование навыков письма;
- беглость речи.

Воображение есть развитие мышления. Одной из основных задач в деятельности дошкольников является представление в мозгу ребенка информации о предметах и явлениях. Например, ребенок вырабатывает эту информацию в своем мышлении через рисование, различные игры, изготовление чего-либо из кубиков. Этот тип мышления является основой для других типов мышления, помогает в формировании словарного запаса, логического мышления, отличном усвоении будущих школьных уроков.
Дети от природы любознательны. Для них очень важно все знать: пробовать, трогать, придумывать свои объяснения непонятным и новым вещам, экспериментировать и проверять свои гипотезы. Каждый родитель должен помочь своему ребенку познать окружающий мир.

К 3 годам ребенок в основном усваивает названия предметов и действий. Названия в основном означают его функцию, и даже если внешний вид этого предмета или действия меняется, его название не меняется. Именно поэтому ребенок быстро усваивает употребление названий предметов, связывая их со своими задачами.

В возрасте дошкольного образования также совершенствуется процесс аналитического восприятия ребенка. На 3-м году жизни ребенка непроизвольное восприятие переходит в целенаправленное, избирательное, у старшего ребенка дошкольного возраста формируется наблюдательность. Роль слова в восприятии возрастает, теперь ребенок сообщает качества и характеристики вещей. Процесс восприятия развивает мышление ребенка и все больше совершенствуется в процессе его деятельности и в процессе мышления. Расширение воображения ребенка дошкольного возраста и увеличение знаний меняют характер его мыслительной деятельности. Расширение речевого роста создает условия для новых форм мышления.

Ребенок 5-6 лет описывает, затем обсуждает и обобщает. Мышление ребенка этого возраста отличается ярко выраженной эмоциональностью и ясностью мышления. Обсуждение напрямую связано с объектом. Ребенок усваивает обобщенные понятия, мыслительные операции опираются не только на восприятие, но и на воображение.

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РОЛЬ СОВРЕМЕННЫХ ИНФОРМАЦИОННО-РЕСУРСНЫХ ЦЕНТРОВ В ОБРАЗОВАНИИ

АННОТАЦИЯ:*В статье представлена информация об информационно-ресурсных центрах в высших учебных заведениях и их деятельности, о методах привлечения студентов, как пользоваться ресурсами библиотеках. Информационно-ресурсный центр считается важным фактором обучения и для самостоятельной работы студентов. Благоприятные условия для обучения студентов создаются в каждом высшем учебном заведении.*

Ключевые слова: *информационно-ресурсный центр, современное образование, Интернет, учебной процесс, библиотекарь, культура, внеаудиторных занятиях, технология, электронный каталог, студент.*

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THE ROLE OF MODERN INFORMATION RESOURCE CENTERS IN EDUCATION

ABSTRACT:*The article provides information about information resource centers in higher educational institutions and their activities, methods for attracting students, and how to use library resources. The information and resource center is considered an important factor in learning and for students' independent work. Favorable conditions for student learning are created in every higher education institution.*

Key words: *Information resource center, modern education, Internet, educational process, librarian, culture, extracurricular activities, technology, electronic catalog, student.*

Современное образование требуют наличия не только хороших учебных программ, эрудированных преподавателей, технической оснащённости, но и хорошо укомплектованных библиотечных фондов, ведь если в образовательной организации не будет информационно-ресурсного центра, откуда студенты смогут получить литературу по профилю учебного заведения, узнать интересные исторические факты о выдающихся писателях, поэтах, учёных, как смогут разобраться в огромном море информации.

Образование через всю жизнь – это главная концепция развития современного образования. А для эффективной реализации этой концепции необходимо, чтобы студенты научились самостоятельно искать необходимую информацию. Не просто бездумно скачивать с Интернета, чаще всего не совсем верную информацию. Не просто бездумно скачивать с Интернета, чаще всего не совсем верную информацию, а именно самостоятельно искать необходимые сведения, спокойно перелистывая страницы книг в поисках знаний, так как это было всегда. И информационно-ресурсный центр, конечно, играет здесь не последнюю роль. Для привлечения студентов есть множество способов и методов работы – это обзоры литературы, регулярное оформление книжных выставок, тематические дискуссии, викторины, литературные праздники, приуроченные к важным историческим датам и к юбилеям различных деятелей искусства, культуры и науки.

И образовательное учреждение, и информационно-ресурсный центр преследует единую цель: способствовать формированию мотивации человека к саморазвитию, самообразованию через предоставление необходимых информационных ресурсов, через обеспечении открытого и полноценного доступа к информации.

Информационно-ресурсный центр рассматривается как важнейший компонент учебного процесса, а также как одно из условий его реализации.

В соответствии со стандартом нового поколения задачи информационно-ресурсные центры стали более конкретными:

-совместно с преподавателями библиотекарь через книгу, чтение обязан способствовать получению личностных результатов профессионального образования;

- совместно с преподавателями библиотекарь всеми формами и методами работы должен содействовать «активному использованию речевых средств и средств информационных и коммуникационных технологий для решения коммуникативных и познавательных задач»;

- библиотекарям необходимо активизировать обучении студентов использованию различных способов поиска (в справочных источниках и открытом учебном информационном пространстве Интернета), сбора, обработки, анализа, организации, передачи информации. При этом необходимо соблюдать нормы информационной избирательности, этики и этикета;

- активное участие во внеаудиторных занятиях студентов(работа в читальном зале, электронном учебном зале, массовые мероприятия);

- создание максимально комфортных условий для читателей библиотеки.

Информационно-ресурсному центру принадлежит особое место в библиотечном пространстве. Прежде всего, он является учебной библиотекой, поскольку обязан обеспечивать информацией и соответствующими документами учебный процесс. В то же время он выполняет функции специальной библиотеки, обслуживая педагогический коллектив института, и

публичной, предоставляя студентам и преподавателям внепрограммные материалы ,поддерживая внеаудиторную работу. При этом информационно-ресурсный центр является структурным подразделением института.

В информационно - ресурсном центре практикуется дифференцированний подход к каждому читателю, библиотекарь помогает в формировании направленности разных читательских интересов. Наиболее тесно библиотекарь работает с преподавателями. Совместными усилиями нужно добиваться осознания значимости чтения для личного развития, формирование представлений о мире, истории и культуре, понятий о нравственности, формирования потребности в систематическом чтении, понимании роли чтения и другие. Это и «деловое чтение» учебной литературы, чтение художественной литературы. Помимо этого, в информационно-ресурсном центре имеются электронные варианты учебной

литературы, часть из которой создана преподавателями института.

Библиотекарь должен приложить максимум усилий для выработки у студентов умения самостоятельно выбирать интересующую литературу, для этого используется справочно-поисковой аппарат библиотеки (алфавитный и систематический каталоги, знакомство с электронным каталогом КАРМАТ, обучение поиску книг по ключевым словам, справочные издания), экскурсии в областную библиотеку, проведение цикла библиотечных уроков по темам: «Книга в жизни человека», «Периодические издания», «О книге и библиотеке», «Информационно-поисковые системы» и другие.

Внеаудиторная деятельность в институте организуется по направлениям развития личности(спортивно-оздоровительное, духовно-нравственное, социальное, общеинтеллектуальное, общекультурное). Формы могут быть разными: экскурсии, кружки, секции, круглые столы, конференции, диспуты и другие.

Активное участие во внеаудиторных занятиях студентов может послужить повышению статуса библиотеки и будет способствовать продвижению качественного чтения. Информационно-ресурсный центр, как правило,- место тихое, оживлённое и востребованное. В библиотеке студенту должны оказать квалифицированную помощь в подборе информации и работе ней. Но главное то, что для студента информационно-ресурсный центр – свой. Он находится там, где он каждый день бывает, и даже если и туда почти не ходит, но библиотекаря, как и других работников, знает в лицо. Значит, любому студенту обратиться в информационно-ресурсный центр легче. Хотя бы за учебником или другой обязательной книжкой, но до неё дойдут все.

Многие студенты в библиотеку часто идут совсем за другим. Часто это единственная возможность сменить обстановку, перевести дух от заорганизованности учебного дня. В группе студентов много, а в читальном зале он один, единственный, хотя бы потому, что пришёл сюда не со всеми.

Всё это обогащает воспитательно-образовательный процесс, а также позволяет выйти за рамки учебного материала и показать студентам всё

многообразие книжного мира, а библиотекарь как раз и является посредником между читателем и книжным миром.

Библиотекари оказывают неоценимую помощь педагогическим работником в формировании культурного, эстетического развития студентов, а всё это вместе поможет сделать из студента человека целостного, эрудированного, образованного.

В нашей стране во все времена большое внимание уделялось развитию науки и культуры. Это подтверждает и принятое 12 января 2017 года постановление Президента Республики Узбекистан Ш.М.Мирзиёева «О создании комиссии по развитию системы издания и распространения книжной продукции, повышению и пропаганде культуры чтения», и Указ Президента от 20 апреля 2017 года «О создании Аллеи литераторов в Национальном парке Узбекистана имени Алишера Навои».

Современная система образования в своей работе вынуждена преодолевать много трудностей и препятствий. И задача сотрудников информационно-ресурсного центра оказать посильную помощь в нелёгком труде педагогических работников. Ведь только совместными усилиями мы можем подготовить высококвалифицированного специалиста, которой легко и свободного войдёт во взрослую жизнь.

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ПЕРСПЕКТИВЫ РАЗВИТИЯ ЛОГИСТИКИ И ТРАНСПОРТНОЙ ЛОГИСТИКИ В УЗБЕКИСТАНЕ

Аннотация: *В статье рассматриваются перспективы развития логистики и транспортной логистики в Узбекистане как ключевых факторов устойчивого экономического роста и интеграции в международные рынки. Анализируются современные тенденции, влияющие на логистический сектор, такие как цифровизация, оптимизация транспортных маршрутов и внедрение инновационных технологий. Особое внимание уделено стратегическим инициативам и государственным программам, направленным на модернизацию инфраструктуры и укрепление экспортного потенциала. Обозначены основные проблемы, препятствующие эффективному развитию логистической системы, и предложены пути их преодоления для повышения конкурентоспособности экономики Узбекистана.*

Ключевые слова: *Логистика, транспортная логистика, Узбекистан, экономическое развитие, инфраструктура, международная торговля, цифровизация.*

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PROSPECTS FOR THE DEVELOPMENT OF LOGISTICS AND TRANSPORT LOGISTICS IN UZBEKISTAN

Abstract: *The article considers the prospects for the development of logistics and transport logistics in Uzbekistan as key factors for sustainable economic growth and integration into international markets. Modern trends influencing the logistics sector, such as digitalization, optimization of transport routes and the introduction of innovative technologies, are analyzed. Particular attention is paid to strategic initiatives and government programs aimed at modernizing infrastructure and strengthening export potential. The main problems hindering the effective development of the logistics system are identified, and ways to overcome them to increase the competitiveness of the economy of Uzbekistan are proposed.*

Keywords: *Logistics, transport logistics, Uzbekistan, economic development, infrastructure, international trade, digitalization.*

Введение

Логистика и транспортная логистика играют важнейшую роль в современной экономике, обеспечивая эффективное перемещение товаров, материалов и услуг как внутри страны, так и за её пределами. Для Узбекистана, расположенного в центре Евразийского континента, развитие логистической инфраструктуры является стратегически важной задачей, поскольку это способствует укреплению экспортного потенциала, интеграции в международные цепочки поставок и повышению конкурентоспособности на глобальных рынках.

В последние годы в Узбекистане наблюдается значительный рост интереса к развитию логистики, чему способствует активная государственная политика в области инфраструктурных реформ. Создание современных транспортных коридоров, развитие железнодорожных, автомобильных и авиационных сообщений, а также внедрение цифровых технологий в логистические процессы направлены на повышение эффективности и снижение издержек. Такие инициативы, как программа по развитию транзитного потенциала и строительство международных транспортных узлов, нацелены на превращение Узбекистана в важный логистический хаб региона.

Одной из ключевых тенденций является цифровизация логистики, которая позволяет автоматизировать процессы управления цепочками поставок, улучшать прозрачность и ускорять принятие решений. Введение интеллектуальных транспортных систем, платформ для управления перевозками и онлайн-трекеров груза создаёт условия для более точного планирования и повышения уровня обслуживания клиентов. Цифровизация становится важным инструментом для повышения конкурентоспособности, особенно в условиях растущей конкуренции на международных рынках.

Тем не менее, развитие логистической системы Узбекистана сталкивается с рядом вызовов. Среди них можно выделить недостаточную развитость транспортной инфраструктуры в некоторых регионах, сложность бюрократических процедур, а также нехватку квалифицированных специалистов в сфере логистики. Эти проблемы требуют системного подхода и координации усилий между государством, бизнесом и международными партнёрами.

Важным аспектом является развитие устойчивой логистики, которая учитывает экологические аспекты и способствует снижению углеродного следа. Для этого необходимы инвестиции в современные технологии, такие как энергоэффективные транспортные средства, «зелёные» склады и возобновляемые источники энергии. Узбекистан, обладая значительным транзитным потенциалом, может стать лидером в применении устойчивых логистических решений в Центральной Азии.

Таким образом, развитие логистики и транспортной логистики в Узбекистане представляет собой комплексную задачу, включающую модернизацию инфраструктуры, внедрение цифровых технологий и создание

благоприятной нормативно-правовой базы. Эффективная реализация этих мер позволит повысить экспортный потенциал страны, улучшить условия для международного сотрудничества и обеспечить устойчивое экономическое развитие.

Развитие логистики и транспортной логистики в Узбекистане играет ключевую роль в обеспечении устойчивого экономического роста и интеграции страны в глобальные рынки. Учитывая стратегическое географическое положение страны, расположенной на пересечении важнейших международных транспортных коридоров, развитие этой сферы является приоритетной задачей государственной политики.

В последние годы в Узбекистане реализуются масштабные инфраструктурные проекты, направленные на модернизацию транспортной системы и повышение её эффективности. Среди них — строительство новых автомобильных и железнодорожных магистралей, модернизация аэропортов и создание логистических центров. Эти меры направлены на повышение транзитного потенциала страны, что особенно важно в условиях растущей роли региона в международной торговле.

Одной из ключевых тенденций является цифровизация логистики, которая позволяет значительно сократить время на обработку грузов, оптимизировать маршруты и повысить прозрачность процессов. Внедрение современных информационных систем, таких как платформы для управления цепочками поставок и автоматизированные складские комплексы, создаёт дополнительные преимущества для участников рынка. Например, использование технологии трекинга грузов в реальном времени улучшает взаимодействие между поставщиками, перевозчиками и клиентами, минимизируя риски и повышая качество обслуживания.

Особое значение имеет развитие транзитного потенциала Узбекистана. Реализация проектов по созданию международных транспортных коридоров, таких как «Китай — Центральная Азия — Европа», способствует увеличению грузопотока через территорию страны. Это не только укрепляет позиции Узбекистана как логистического хаба, но и способствует привлечению инвестиций в экономику. Важным шагом является также упрощение таможенных процедур, что позволяет ускорить прохождение грузов через границу и снизить затраты для бизнеса.

Однако развитие логистической системы Узбекистана сопряжено с рядом вызовов. Основными проблемами остаются недостаточная развитость инфраструктуры в некоторых регионах, сложность бюрократических процедур и нехватка квалифицированных кадров. Эти проблемы требуют комплексного подхода, включающего инвестиции в обучение специалистов, совершенствование нормативно-правовой базы и привлечение международных партнёров для обмена опытом и технологий.

Существенное внимание уделяется вопросам экологической устойчивости. В условиях глобальных вызовов, связанных с изменением климата, развитие экологически чистой логистики становится всё более

актуальным. Использование энергоэффективного транспорта, снижение углеродных выбросов и внедрение «зелёных» технологий в логистические процессы могут стать важными конкурентными преимуществами для Узбекистана на международной арене.

Таким образом, перспективы развития логистики и транспортной логистики в Узбекистане связаны с модернизацией инфраструктуры, внедрением цифровых технологий, развитием транзитного потенциала и решением существующих проблем. Комплексный подход к этим задачам позволит стране не только укрепить свои позиции в международной логистике, но и создать условия для устойчивого экономического развития и повышения качества жизни населения.

Заключение

Развитие логистики и транспортной логистики в Узбекистане представляет собой стратегическую задачу, направленную на укрепление экономического потенциала страны и её интеграцию в международные транспортные и торговые сети. Учитывая выгодное географическое положение и растущую роль Центральной Азии в мировой экономике, Узбекистан обладает значительным потенциалом для превращения в ключевой логистический хаб региона.

Модернизация транспортной инфраструктуры, внедрение цифровых технологий и развитие устойчивой логистики создают условия для повышения эффективности логистических процессов, снижения затрат и улучшения качества предоставляемых услуг. Эти меры способствуют увеличению транзитного потока, привлечению инвестиций и укреплению позиций страны на международной арене.

Однако для достижения этих целей требуется преодоление существующих вызовов, включая недостаточную развитость инфраструктуры в ряде регионов, сложности административных процедур и нехватку квалифицированных кадров. Решение этих проблем возможно за счёт привлечения международного опыта, совершенствования нормативно-правовой базы и активного взаимодействия государства и частного сектора.

Таким образом, перспективы развития логистики и транспортной логистики в Узбекистане напрямую связаны с комплексным подходом к модернизации отрасли. Реализация намеченных реформ позволит не только повысить конкурентоспособность экономики, но и создать основу для устойчивого экономического роста и повышения уровня жизни населения.

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РАЗВИТИЕ КООРДИНАЦИОННЫХ СПОСОБНОСТЕЙ У ДЕТЕЙ 11–12 ЛЕТ, ЗАНИМАЮЩИХСЯ ХОККЕЕМ С ШАЙБОЙ

Аннотация. *В статье рассматривается методика развития координационных способностей у детей 11–12 лет, занимающихся хоккеем с шайбой. Проанализированы возрастные особенности, специфика проявления координационных навыков в хоккее и основные средства их совершенствования. Предложена экспериментальная программа, включающая комплексы упражнений, направленных на развитие координации. В ходе эксперимента установлено, что использование специализированных упражнений существенно повышает уровень координационной подготовки хоккеистов.*

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DEVELOPMENT OF COORDINATION IN CHILDREN 11-12 YEARS OLD ENGAGED IN ICE HOCKEY

Abstract: *The article discusses methods for improving coordination in children 11-12 years old who play ice hockey. It analyzes age-related characteristics, specific features of coordination skills in hockey, and main methods for their improvement. An experimental training program is proposed that includes a set of exercises aimed at improving coordination. The results of the experiment showed that the use of specialized exercises significantly improves the level of coordination in hockey players.*

Актуальность. В хоккее с шайбой развитие координационных способностей имеет ключевое значение для успешного овладения техническими и тактическими навыками. Умение быстро адаптироваться к изменяющимся условиям игры, эффективно взаимодействовать с партнёрами и своевременно реагировать на действия соперников требует от игроков высокой степени координации.

Цель исследования. Повышение уровня развития координационных способностей у детей 11–12 лет, занимающихся хоккеем с шайбой.

Задачи исследования:

1. Изучить научно-методическую литературу по проблеме развития координационных способностей.
2. Разработать программу упражнений для совершенствования координации.
3. Экспериментально проверить эффективность программы.

Возрастные характеристики. Подростковый возраст (11–12 лет) характеризуется активным ростом и развитием двигательной системы. В этот период дети обладают высокой пластичностью нервной системы, что создаёт благоприятные условия для совершенствования координационных навыков. Однако необходимо учитывать индивидуальные особенности, связанные с разным темпом физического развития.

Основные средства и методы. В ходе исследования были использованы следующие группы упражнений:

1. **Общие координационные упражнения:** акробатические элементы, челночный бег, упражнения на баланс и равновесие.
2. **Специальные упражнения:**
   - старты из различных исходных положений;
   - ведение шайбы с ограниченной видимостью;
   - броски шайбы в движении по мишеням.
3. **Игровые упражнения:** эстафеты с препятствиями, мини-игры с изменяющимися правилами.

Пример тренировочного комплекса Таблица 1:

Упражнение	Длительность	Повторы	Интенсивность
Челночный бег 6×10 м	2 мин	3–4	Высокая
Ведение шайбы с обводкой конусов	3 мин	3	Средняя
Прыжки через барьер с поворотом на 180°	2 мин	2–3	Высокая
Броски шайбы в мишень	4 мин	5	Средняя
Кувырки и ускорение	3 мин	3	Средняя

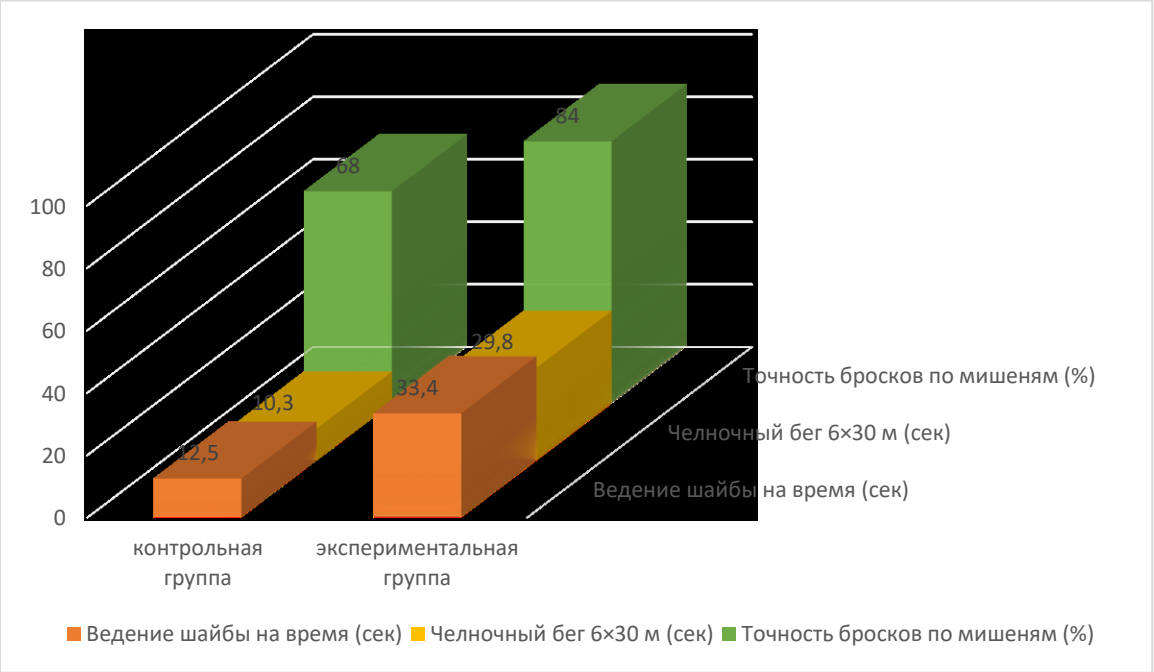
Используемые методы:

- вариативность выполнения упражнений (изменение исходного положения, скорости выполнения);
- выполнение заданий с закрытыми глазами для активизации вестибулярного аппарата;
- создание соревновательной атмосферы для повышения мотивации.

Организация исследования. Эксперимент проводился в течение 6 месяцев в хоккейной команде БИНОКОР города Ташкент. В исследовании

участвовали 20 хоккеистов 11–12 лет, разделённых на контрольную и экспериментальную группы.

Результаты тестирования Диаграмма 1



Обсуждение результатов. Внедрение специализированных упражнений позволило улучшить показатели координации в экспериментальной группе на 15–25% по сравнению с контрольной. Это подтверждает эффективность предложенной программы.

Заключение

Разработанная методика продемонстрировала высокую эффективность в развитии координационных способностей у хоккеистов 11–12 лет. Внедрение комплекса упражнений позволило улучшить такие показатели, как скорость ведения шайбы, точность бросков и время выполнения челночного бега. Это подчёркивает важность использования специализированных методов для совершенствования координационных навыков.

Эффективность программы заключается в её комплексном подходе, который включает общефизические, специальные и игровые упражнения, адаптированные под возрастные и физиологические особенности детей. Результаты исследования подтверждают, что регулярное выполнение предложенных упражнений способствует не только улучшению координации, но и общему физическому развитию юных хоккеистов.

Практическая значимость. Разработанная методика может быть рекомендована для использования в детских клубах, занимающихся подготовкой хоккеистов. Она легко адаптируется для других возрастных групп и уровней подготовки.

Перспективы исследования. В дальнейшем целесообразно изучить влияние методики на другие аспекты спортивной подготовки, включая выносливость и тактическое мышление, а также провести длительный мониторинг её эффективности на различных этапах подготовки хоккеистов.

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НАЛОГОВЫЕ РИСКИ В СИСТЕМЕ ЭКОНОМИЧЕСКОЙ БЕЗОПАСНОСТИ И ИХ ОПТИМИЗАЦИЯ ПРИ КАМЕРАЛЬНЫХ НАЛОГОВЫХ ПРОВЕРКАХ

Аннотация:*В статье рассматриваются основные налоговые риски, влияющие на экономическую безопасность предприятия, а также методы их минимизации при проведении камеральных налоговых проверок. Освещены ключевые аспекты управления рисками, включая автоматизацию процессов, внутренний аудит и обучение сотрудников. Сделан акцент на значении профилактических мер и эффективного взаимодействия с налоговыми органами для обеспечения устойчивости предприятия.*

Ключевые слова : *налоговые риски, экономическая безопасность, камеральные налоговые проверки, автоматизация учета, внутренний аудит, оптимизация налогов.*

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TAX RISKS IN THE ECONOMIC SECURITY SYSTEM AND THEIR OPTIMIZATION DURING DESK TAX AUDITS

Annotation:*The article discusses the main tax risks affecting the economic security of an enterprise, as well as methods for minimizing them during desk tax audits. Key aspects of risk management are highlighted, including process automation, internal audit, and employee training. The emphasis is placed on the importance of preventive measures and effective interaction with tax authorities to ensure the sustainability of the enterprise.*

Keywords : *tax risks, economic security, desk tax audits, accounting automation, internal audit, tax optimization.*

Налоговые риски являются одной из ключевых составляющих системы экономической безопасности предприятия. Эти риски напрямую связаны с возможными финансовыми потерями, штрафами и санкциями, вызванными ошибками в налоговом учете, изменениями в законодательстве или

некорректным взаимодействием с налоговыми органами. Камеральные налоговые проверки, как один из основных инструментов контроля налоговых органов, играют важную роль в выявлении и минимизации налоговых рисков. В данной статье рассмотрены основные аспекты налоговых рисков, их влияние на экономическую безопасность и способы оптимизации при проведении камеральных проверок.

Налоговые риски можно классифицировать по следующим основным направлениям:

1. Риски несоответствия законодательству: изменения в налоговом законодательстве, которые предприятие не успевает учесть в своей деятельности.

2. Ошибки в налоговом учете: ошибки в расчете налоговой базы, занижение или завышение налогов.

3. Риски взаимодействия с контрагентами: использование недобросовестных контрагентов может привести к доначислениям и штрафам.

Каждый из этих видов рисков требует особого подхода к управлению и контроля для обеспечения устойчивости предприятия.

Камеральная налоговая проверка проводится на основании налоговой отчетности, поданной налогоплательщиком. Основные задачи проверки:

- Выявление ошибок в отчетности.
- Проверка полноты и достоверности представленных данных.
- Пресечение попыток уклонения от уплаты налогов.

Эффективное управление налоговыми рисками при камеральных проверках включает в себя предварительный аудит налоговой отчетности, использование автоматизированных систем контроля и взаимодействие с налоговыми органами для урегулирования спорных вопросов.

Для минимизации налоговых рисков в рамках экономической безопасности предприятия предлагаются следующие меры:

1. Автоматизация процессов учета: внедрение программных решений, обеспечивающих точность расчетов и соответствие законодательству.

2. Проведение внутреннего аудита: регулярные проверки отчетности до подачи в налоговые органы.

3. Обучение сотрудников: повышение квалификации персонала, ответственного за налоговый учет.

4. Прогнозирование изменений законодательства: мониторинг нормативно-правовой базы и своевременная корректировка внутренних процедур.

Налоговые риски являются неотъемлемой частью системы экономической безопасности, однако их можно эффективно минимизировать с помощью правильной организации процессов и взаимодействия с налоговыми органами. Камеральные налоговые проверки выступают инструментом контроля, который может быть использован для оптимизации налоговых рисков при условии грамотного подхода. Применение современных технологий и профилактических мер позволяет значительно

снизить вероятность возникновения налоговых рисков и повысить экономическую безопасность предприятия.

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РЕЖИМ ОРОШЕНИЯ МОЛОДЫХ ИНТЕНСИВНЫХ САДОВ НА ТЕРРАСИРОВАННОМ СКЛОНЕ И МЕТОДИКА ЕГО РАСЧЕТА

Аннотация. *В работе излагается упрощенная методика составления режимов орошения интенсивных садов на террасированных склонах Андижанской области, позволяющая определить необходимые элементов техники нетрадиционной технологии орошения.*

Ключевые слова: *Террасированный склон, режим орошения, полотна террасы, оросительная сеть, интенсивный сад, поливной трубопровод, борозда, нетрадиционная технология орошения.*

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IRRIGATION REGIME FOR YOUNG INTENSIVE ORCHARDS ON A TERRACED SLOPE AND THE METHODOLOGY OF ITS CALCULATION

Abstract. *This paper presents a simplified method for developing irrigation regimes for intensive orchards on terraced slopes in the Andijan region. The proposed method makes it possible to determine the necessary technical elements for a non-traditional irrigation technology.*

Keywords: *terraced slope, irrigation regime, terrace surface, irrigation network, intensive orchard, irrigation pipeline, furrow, non-traditional irrigation technology.*

Режим орошения интенсивных садов на террасированных склонах Андижанской области не был изучен. Автором проведены исследования по изучению режима орошения молодого интенсивного яблоневого сада на опытно-производственном участке.

Поливам по одиночным бороздам, также как капельному и внутри почвенному способам орошения, присуще локальное увлажнение почвы. При поливах по одиночным бороздам почва увлажняется только на узкой полосе шириной 1,1…1,4 м, вытянутой вдоль борозды. В связи с этим почва в поперечном направлении имеет различную увлажненность. В контурах увлажнения подвижность и доступность воды для растений выше, чем за их

пределами. Это в свою очередь, изменяет характер потребления воды растениями, испарение с поверхности почвы.

Доля увлажняемой площади при локальном орошении садов в условиях аридной зоны по данным многих исследователей должна быть не менее площади горизонтальной проекции кроны деревьев в плодоносящем саду которая соответствует площади распределения основной массы корней деревьев. В слаборослых интенсивных садах с плоской кроной площадь распространения основной массы корней составляет 30…..40 % от площади питания, что при схеме посадки сада 4 х 1.5 м равно 1,8 ….2,4 м^2 /№90/

На орошаемых землях аридной зоны составляющими водного баланса на неорошаемой площади можно пренебречь из-за малой их величины. Учитывая это обстоятельство, а также большие глубины залегания УГВ на адырных землях, запишем уравнение водного баланса для молодых интенсивных садов на террасированном склоне в следующем виде

$$\Delta W=W_н- W_к=E- M-O_C+C_б+g, \text{ л/ дерево} \quad (1)$$

Где: E- суммарное водопотребление; M – оросительная норма, м^3/га ; Q_c- осадки за вегетационных период, ; $W_н$ и $W_к$ – начальный и конечный запасы влаги в почве, ; $C_б$- поверхностный сброс оросительной воды, ; g- просачивание части влаги ниже корнеобитаемого слоя почвы

Расчет значений составляющих водного баланса (M и $C_б$) на одно дерево произведен путем деления общего объема подданной и сбросной воды на количество деревьев, орошаемых этой водой.

Одним из положительных факторов террасирования является то, что все выпавшие осадки, как правило, впитываются в почву на полотне террасы. Небольшие осадки хотя и не создают запаса влаги в почве, но улучшают микроклимат и снижают испаряемость. Поэтому в водно-балансовых расчетах учитывали все атмосферные осадки, выпавшие в период вегетации. Среднее значение атмосферных осадков за апрель-сентябрь в годы исследований составили 128мм.

Количество поданной воды из трубчатой оросительной сети замеряли при каждом поливе и на каждой террассе объемным способом.

Поливы начинали при предполивной влажности активного слоя почвы 70…75 % НВ . Мощность активного слоя, где располагается основная масса корневой системы многолетних интенсивных насаждений, рекомендуется принимать равной 1 м / №90 /. Данные о подаче воды на опытно-производственный и контрольный участки приведены в отчетах НИР, МГМИ.

Расходные элементы водного баланса включают: суммарное водопотребление, потери воды на просачивание ниже корнеобитаемого слоя почвы (глубинный сброс) и поверхностный сброс. Потери воды ниже корнеобитаемого слоя почвы в сумме с испарением с переувлажненной почвы в дни поливой и в первые дни после их окончания устанавливали по разности между объемом поданной на участок воды и прибавки влаги после полива в расчетном слое (1 м) почвы. Прибавку влаги определяли по влажности почвы перед поливом и через сутки после его окончания. Потери воды ниже

корнеобитаемого слоя почвы в межполивной период определяли по формуле /80/

$$g = K_ф \cdot \theta_0^n \cdot T, м \quad (2)$$

Где: $K_ф$ – коэффициент фильтрации, м/сут;

$\Theta_0 = \frac{W_{орт} - W_0}{\sigma - W_0}$ - насыщенность почвы водой;

$W_{орт}$ - средняя влажность, поддерживаемая в расчетном слое почвы в течение вегетации, в долях от объема;

σ – пористость почвы или полная влагоемкость, в долях от объема;

W_0 – - влажность почвы, при которой влагопроводностъ близкой к нулю (или максимальная молекулярная влагоемкость по А.Ф.Лебедеву) ; Т- продолжительность вегетационного сезона, сут; n - показатель степени.

Потери воды на поверхностный сброс на контрольном участке происходил в виде прорывов и утечек ее через ходы землероев. На опытном участке при новой технике полива рассредоточенной струей потери отсутствовали.

Суммарное водопотребление вычисленное из уравнения водного баланса сравнивали с вычисленным по формуле

$$E = KE_0 = K \cdot 0{,}0018(25+t)^2 \cdot (100-\alpha) \cdot 0.8. \text{ мм} \quad (3)$$

Где: E_0 - испаряемость за месяц, мм; К - коэффициент, характеризующий культуру ; t - среднемесячная температура воздуха, α - среднемесячная относительная влажность воздуха, %. В расчетах значения (К) для молодого яблоневого сада принимали в зависимости от суммы температур расчетных периодов в переделах 0,66….0,75 (Укрупненные нормативы водопроницаемости…,1984).

При расчете суммарного водопотребления по формуле (3) использованы данные метеостанции « Савай» находящейся на расстоянии 10 км от опытно производственного участка (агрометеорологические декадные бюллетени за 1986….1988 гг.)

Сравнение результатов расчета показывает что разница между значениями суммарного водопотребления, вычисленными из уравнения водного баланса и по формуле Н.Н. Иванова, небольшая, не более 5….12 %

При разработке режима орошения интенсивных садов на террасированном склоне использована методика, предложенная для капельного орошения на склоновых землях адырных массивов ферганской долины / 25.90 / . Возможность использования этой методики обоснована тем, что при поливах садов на террасах по одиночной борозде рассредоточенной поливной струей орошаемая площадь включает, также как и при капельном орошении, увлажняемую и не увлажняемую части.

Рассматриваемая методика расчета основывается на учете дефицита водопотребления единичного фруктового дерева и водно- физических свойства почвы на конкретном участке орошения. Все расчеты по

определению дефицита водопотребления и поливной нормы проводятся для единичного дерево . Такую поливную норму обычно называют элементарной. Затем определяются все технологические параметры в расчете на 1 га путем умножения полученных данных на количество деревьев на этой площади при принятой схема посадки.

Для расчета режима орошения интенсивных садов на террасированных склонах необходимы следующее данные:

_ параметры элементов террасированного склона;

_ водно-физических свойства почвы;

_ метеорологические данные года расчетной обеспеченности или данные многолетних наблюдений;

_ характеристики сада – сорт, подвой, возраст и схема посадки.

В примере расчета по данной методике использованы параметры полученные при полевых исследованиях на опытно производственном участке. Ниже излагается методика расчета режима орошения сада на террасированном склоне.

1.Определяется площадь возможного увлажнения под единичным фруктовым деревом

$$S= A \cdot a, \quad м^2$$

Где: А- расстояние между деревьями в ряду, м; а- ширина контура увлажнения при расчетном значении удельного расхода водоподачи ($q_{уд}$),

Равная 1.1….1.45 м .

2. Определяется элементарная поливная норма (для одного дерева) , исходя из водоудерживающей способности расчетного слоя почвы

$$m_э=10^3 \, Sh \, (w-w_0), \; л / дерево$$

Где: h – глубина расчетного слоя, м; W – влажность почвы, соответствующая НВ, в долях от объема ; W_0- предполивная влажность, принимаемая равной 70….75 % НВ ; S- площадь увлажнения под единичным фруктовым деревом, $м^2$.

Поливная норма принимается одинаковой для всех вегетационных поливов.

3.Определяется дефицит водопотребления для одного дерева из уравнения водного баланса для каждой декады по формуле

$$M= E \pm G – O_c – (W_н - W_к), \quad л/ дерево$$

4.Определяются число , сроки и продолжительность межполивных периодов. Для этого строится кривая дефицита суммарного водопотребления. По оси абсцисс откладывается продолжительность вегетационного периода. весь период разбивается на декады. По оси ординат откладываются значения суммарного дефицита водопотребления. Датой первого вегетационного полива для условий Ферганской долины по многолетним данным является первая декада апреля. Для определения сроков следующего полива проводят линию параллельную оси абсцисс от точки на оси ординат, соответствующей элементарной поливной норме (для одного дерева), до пересечения с интегральной кривой дефицита водопотребления. Абсцисса этой точки

является началом следующего полива. В таком же порядке осуществляется определение сроков и число всех поливов, продольжительность каждого поливного периода.

5. Определяются поливные и оросительная нормы в расчете на 1 га полотна террасы по формулам

$$m=N\cdot m_э=\frac{10m_э}{A(nB-B+B_н+B_б)}\ ,\ м^3/га$$

$$M=j\cdot m\ ,\quad м^3/га$$

Где: N- число деревьев на 1 га полотна террасы при заданной схеме посадки сада и в зависимости от ширины полотна (B_t), шт; $m_э$- элементарная поливная норма, л/дерево ; A- расстояние между деревьями в ряду , м; B- расстояния между рядами деревьев, м; *n* -количество рядов на полотне террасы $в_н$ и $в_в$ – расстояния от насыпного и выемочного откосов до рядов деревьев, м; j-число поливов, шт.

6. Определяются ординаты графика гидромодуля по формуле

$$q=\frac{m}{86{,}4\bullet T}\ ,\quad л/сек\ .га$$

Где: T- продолжительность поливного периода , сут.

По вышеизложенной методике составлен расчетный режим орошения интенсивных садов на террасированном склоне для условий опытно производственного участка.

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БИОЭКОЛОГИЯ ЛЮЦЕРНЫ, ЭКОЛОГИЧЕСКОЕ ЗНАЧЕНИЕ ВЫРАЩИВАНИЯ

Аннотация:*В статье описаны биоэкология люцерны, этапы её формирования, рост и развитие, урожайность, продуктивность, значение возделывания люцерны с целью повышения и поддержания плодородия почвы, оптимизации водно-физических и агрохимических свойств почвы, получения экологически чистой продукции в мировом сельском хозяйстве.*

Ключевые слова и выражения:*люцерна, растение, саженцы, семена, корень, стебель, лист, урожай*

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BIOECOLOGY OF ALLFALFA, ECOLOGICAL IMPORTANCE OF CULTIVATION

Annotation:*The article describes the bioecology of alfalfa, the stages of its formation, growth and development, yield, productivity, the importance of cultivating alfalfa in order to increase and maintain soil fertility, optimize the water-physical and agrochemical properties of the soil, and obtain environmentally friendly products in global agriculture.*

Key words and expressions:*alfalfa, plant, seedlings, seeds, root, stem, leaf, crop*

Актуальность темы. В мировом сельском хозяйстве люцерна возделывается с целью повышения и поддержания плодородия почвы, оптимизации водно-физических и агрохимических свойств почвы, получения экологически чистой продукции. Это, в свою очередь, восполняет гумус в почве и создает условия для получения высокого и качественного урожая последующей культуры, а также способствует защите окружающей среды от загрязнения. “В мировом сельском хозяйстве площадь выращивания люцерны составляет 32 млн.гектара, валовый сбор в США 22,1, в Аргентине 11,6, в Китае 7,0, в Канаде 6,8, в Иране 5,2, в Мексике 4,6, в Перу 4,0, в Узбекистане 3,5 млн.тонн”[89].

[1] http://www/agro.uz/services/useful/

Люцерну выращивали в Средней Азии на протяжении многих веков как питательный корм для скота и культуру повышающую плодородие земли. Родиной люцерны считается азиатская зона, и в настоящее время она широко засажена примерно на 30 млн га земли. Распространена в Средней Азии, на Кавказе, в Китае, Индии, Иране, Греции, Италии, Северной и Южной Америке и Австралии.

Литературный обзор и методология. Известно, что в климатических условиях Средней Азии, в том числе Узбекистана, рост и развитие растения люцерны очень хорошее, с одного гектара земли урожайность составляет 80-140 т/га в первый год, 170-200 т/га во второй год, 210-245 т/га в третий год [5; 76-78-б.].

В исследованиях С.Х.Юлдашева [4; 224-б.] при посадке люцерны в растущую кукурузу 1 августа-368 т/га за 3 года, 334 ц/га при посадке 20 августа, при посадке 29 марта было заготовлено 242 т/га сена.

Результат и обсуждение. Люцерна принадлежит к семейству Бобовые, роду Medicago. Всего насчитывается 50 видов этого рода, из них 20 многолетних, 16 одно-двулетних растений и 5 видов культивируемых. Наиболее широко культивируемый вид люцерна голубая-M. sativa, клевер желтый-M. falcata, гибрид люцерны-M. Media, клевер голубой-M. Coerulae, люцерна хмельной – M. lupulina.

Голубой клевер наиболее широко культивируется в сельском хозяйстве. Это многолетнее травянистое растение, форма куста при выращивании различная. Главный стебель известен только в травяной сезон. После сбора люцерны из корневища вырастают новые стебли. В зависимости от возраста люцерны, толщины рассады и условий выращивания на одном кусте образуется от 3-5 до 20-30 стеблей.

Корень люцерны 1-го года уходит на глубину до 2-3 метров, а 2-3-летнего уходит на глубину 10 метров и более. В верхней части корня расположена корневая шейка. Он образуется из семядоли и является частью главного стебля. Он содержит почки, из которых вырастают новые стебли. Стебель травянистый, ветвистый, на каждом стебле может быть 10-20 члеников. Люцерна первого года дает 3 стебля, второго года 15-17 стеблей и третьего года 20 стеблей. Высота растения будет 30-50 см в первый год, 100 и более сантиметров в 2-3 года. Рисунок-1.

1-рисунок. Этапы формирования из семян люцерны

Для прорастания семян люцерны температура должна быть не ниже +1-2 С, средняя +15-20 С, максимальная +25-30 С. Молодые травы люцерны выдерживают морозы -5-6°С в течение одного нормального листового периода. Зрелое растение люцерны выдерживает температуру до -40°С под толстым слоем снега и до -15-20°С без слоя снега. Для получения высокого урожая при агротехнике возделывания необходимо обратить внимание на следующие требования люцерны.

С точки зрения биологии, люцерна является весенним растением. Развиваясь семя дает один стебель. Затем из почек на корневище появляются новые стебли, эти стебли живут за счет питательных веществ, запасенных в корне предыдущего стебля в начальный период роста, новые стебли люцерны запасают органические вещества в корневой головке для стеблей, которые появляются во время роста и развития, и это новые стебли, которые появляются ранней весной и после сбора урожая. Рисунок-2.

2-рисунок. Люцерна. 1,2- растения на продвинутых стадиях прорастания и цветения; 3- листовая и луковичная часть стебля; 4-цветок; 5- фрукты (слева увеличеная форма).

Когда на новых стеблях образуется нормальный уровень листвы, питательные вещества снова накапливаются. Каждый стебель живет год, даже если его не срезать. Рост и развитие стебля у люцерны с многократным скашиванием занимает 25-45 дней. Когда старые стебли засыхают, отмирает часть корня и боковых ветвей. Появление новых стеблей приводит к образованию в корне новых боковых корней. Появление новых стеблей у растения зависит от деятельности корневой головки и побегов в ней, поэтому на их сохранение необходимо обращать внимание при скашивании люцерны и кормлении животных в поле. Люцерна дает большую площадь листьев, по мнению ученых, среднеразвитая люцерна дает 50 гектаров площади листьев

на гектар, поэтому из люцерны испаряется много воды. Люцерна второго и последующего года проходит следующие основные фазы развития: начало весеннего роста, образование стебля, кущение, цветение, образование стручков и потемнение. Цветение довольно продолжительное, то есть длится две-три недели. У люцерны, используемой на сено, период роста каждого стебля соответствует времени между сборами урожая, то есть 25-45 дней.

Люцерна играет важную роль в засолении почвы. Люцерна нетерпима к засолению почвы, но при правильном уходе за растением она может снизить засоление почвы. Это обусловлено его следующими характеристиками:

- люцерна разрастается густо и покрывает поверхность земли, что предотвращает нагревание почвы и уменьшает испарение воды. Чем ниже температура поверхности почвы, тем ниже подъем вредных солей. Температура почвы понизится на 6-8°C.

- за вегетацию несколько раз поливают, в результате соли смываются.

- его собирают несколько раз за сезон, чтобы соли вышли вместе с синей массой растения.

- поскольку люцерна высокая и широколистная, она испаряет много воды через листья. Коэффициент транспирации люцерны различен в зависимости от погоды, почвы, климата, фаз роста растений и продолжительности скашивания, он высокий за 2-3 укоса..

- корневая система люцерны развивается очень хорошо и даже помогает снизить ее уровень, вытягивая просачивающуюся воду из нижних слоев..

На орошаемых землях люцерну можно сажать после любой культуры. В засушливых землях не рекомендуется сажать после сахарной свеклы, поскольку эта культура не сохраняет влажность почвы даже в ее глубоких слоях. При посадке люцерны ранней весной ее закрывают зерновыми культурами (пшеницей, ячменем).

При посадке в августе люцерну следует сажать в чистом виде. Его также выращивают на хлопковых полях отдельно или вместе с сорго, сорго и кукурузой. В данных С.Х.Юлдашева отмечено, что посадка люцерны в чистом виде в августе приведет к умеренному количеству всходов на люцерновом поле, меньшему количеству сорняков и более высокой урожайности.

Выводы:Люцерна позволяет получать высокие урожаи сена на орошаемых землях. От люцерны первого года можно получить до 12 т сена с гектара, а от люцерны второго и третьего года до 24-25 т сена. Средняя урожайность люцерны 1-го года составляет 2,3-2,6 т, а люцерны 2-3-летнего года может дать 7,0-8,0 т сена.

При возделывании люцерны агрофизические и агрохимические свойства почвы, гумус определяющий плодородие, в значительной степени способствуют высокой урожайности культур, посаженных после люцерны.

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МЕТОДИЧЕСКИЕ ОСНОВЫ ПОВЫШЕНИЯ УПРАВЛЕНЧЕСКИХ КОМПЕТЕНЦИЙ ГОСУДАРСТВЕННЫХ СЛУЖАЩИХ

Аннотация: *в данной статье проанализированы методические основы повышения управленческих компетенций государственных служащих, включая ключевые принципы обучения, необходимые навыки и подходы к их развитию, а также оценку эффективности этих методик.*

Ключевые слова: *компетентность, принцип, государственная служба, ответственность, подотчетность, лидер, стратегическое мышление, планирование, образование.*

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METHODOLOGICAL FOUNDATIONS FOR IMPROVING THE MANAGERIAL COMPETENCIES OF CIVIL SERVANTS

Abstract: *this article describes the methodological basis of improving the management skills of civil servants. In particular, the main principles of teaching, the necessary skills and the best approaches and techniques for their development are researched. In addition, the system for evaluating the effectiveness of these methods and techniques was analyzed.*

Key words: *competence, principle, public service, responsibility, accountability, leader, strategic thinking, planning, education.*

Управленческие компетенции государственных служащих играют ключевую роль в эффективном функционировании государственного органа и организации, а также флагманом экономического и социального развития страны в целом. В современном динамично развивающем мире требования к государственным служащим становятся все более сложными и разнообразными. Управленческие компетенции, включающие в себя не только знание законодательства и подзаконных актов, но и способность эффективно управлять ресурсами, принимать стратегические решения и взаимодействовать с различными заинтересованными сторонами, становятся

необходимыми для обеспечения эффективного исполнения функций государственных органов.

Основные аспекты, связанные с управленческими компетенциями в государственной службе, включают в себя не только умение координировать работу коллектива и управлять процессами, но и способность адаптации к переменам, оперативному принятию решений в сложных ситуациях и реализации стратегического видения.

Анализ существующих методологий повышения управленческих компетенций. Анализ существующих методологий повышения управленческих компетенций является ключевым этапом в обеспечении эффективного развития государственных служащих. Разнообразие подходов и методик позволяет выбрать наиболее успешные подходя к конкретным потребностям государственного служащего. Ниже перечислены несколько аспектов, которые обычно учитываются при таком анализе:

1. **Традиционные образовательные программы**: Это включает в себя учебные курсы, семинары, тренинги, проводимые как внутри государственных органов, так и с привлечением внешних специалистов и образовательных учреждений. Анализируются их структура, содержание, адаптированность к текущим вызовам государственной службы.
2. **Онлайн-ресурсы и курсы**: Растущее количество онлайн-платформ предлагает курсы по управленческим навыкам. Анализируются их доступность, структура, содержание и возможность персонализации обучения.
3. **Индивидуальное обучение и коучинг**: Программы, направленные на индивидуальные потребности государственных служащих, включая менторство, коучинг, развитие персональных стратегий.
4. **Проектные и практические задания**: Эффективное обучение часто включает в себя решение реальных кейсов и задач, позволяя применить полученные знания на практике.
5. **Моделирование и симуляции**: Создание сценариев, симуляций для тренировки реакции на кризисные ситуации или сложные управленческие задачи.
6. **Самообучение и саморазвитие**: Способы стимулирования самостоятельного изучения и развития управленческих компетенций государственных служащих вне формальных образовательных программ.
7. **Оценка эффективности обучения**: Важно проанализировать методы оценки результатов обучения и их связь с повышением управленческих компетенций.

При анализе этих методик важно учитывать их применимость к конкретным ситуациям в государственной службе, потребности различных уровней должности государственных служащих и возможность интеграции в повседневную деятельность органов управления. Только глубокий анализ

существующих методологий позволит выбрать оптимальные подходы для повышения управленческих компетенций государственных служащих.

Обучение управленческим навыкам в государственной службе базируется на нескольких ключевых принципах и подходах, обеспечивающих эффективное развитие компетенций у государственных служащих:

1. **Контекстуальность и адаптация**: Обучение должно быть адаптировано к специфике работы государственных служащих, учитывая особенности законодательства, процедур и основных направлений работы.
2. **Практическая направленность**: Успешное обучение управлению требует большого участия в практических сценариях, кейсах, симуляциях и решении реальных задач.
3. **Индивидуализация обучения**: Различные уровни и потребности государственных служащих требуют индивидуального подхода к обучению, включая возможность выбора программ и форматов обучения.
4. **Непрерывность и постоянное совершенствование**: Управленческие компетенции развиваются постоянно, и обучение должно быть непрерывным, включая периодическое совершенствование знаний, умений и навыков.
5. **Применение разнообразных методик**: Эффективное обучение управлению часто базируется на комбинации методов: от традиционных курсов до использования современных инновационных технологий, таких как онлайн-платформы и симуляции.
6. **Оценка и обратная связь**: Системы оценки позволяют оценить прогресс слушателей и адаптировать программы обучения, а также предоставить обратную связь для улучшения результатов.
7. **Развитие мягких навыков**: Помимо технических навыков, важно развивать коммуникационные способности, лидерские и управленческие качества, навыки стратегического и аналитического мышления, а также умение эффективно работать в команде.
8. **Использование реальных кейсов из практики**: Обучение должно включать в себя анализ и решение реальных ситуаций, с которыми государственные служащие могут столкнуться в своей профессиональной и личной (в рамках закона «О государственной гражданской службе») деятельности.

Эти принципы и подходы составляют основу успешных программ обучения управленческим навыкам для государственных служащих, позволяя им эффективно справляться с вызовами и требованиями современной государственной службы.

Государственные служащие должны обладать рядом ключевых управленческих компетенций, позволяющих им эффективно выполнять свои обязанности и обеспечивать качественное функционирование государственных структур. Некоторые из них включают:

1. **Лидерство и личная эффективность**: Умение вдохновлять, мотивировать и руководить коллективом для достижения общих целей, эффективное управление конфликтами и способность формировать эффективные команды.

2. **Стратегическое мышление и планирование**: Способность разрабатывать долгосрочные стратегии, устанавливать приоритеты и разрабатывать планы действий для достижения целей организации.

3. **Коммуникации и взаимодействие с окружающими**: Государственные служащие должны быть способными четко и эффективно общаться как внутри организации, так и с общественностью, представителями других государственных учреждений и заинтересованными сторонами.

4. **Принятие решений, ответственность и результативность**: Оценка альтернатив и принятие обоснованных и эффективных решений даже в сложных ситуациях, умение коллегиально принимать решения и брать за низ полную ответственность, достижение и направленность на получение максимального результата от выполняемых задач.

5. **Успешная организация деятельности (в том числе дистанционно)**: Глобальные вызовы современного общества, включающие в себя такие явления как пандемия, разные виды противостояний между странами, экономические и политические кризисы требуют от государственных служащих способности к эффективной организации собственной деятельности и деятельности команды в целом.

6. **Управление изменениями, инновациями и адаптация**: Гибкость в реагировании на изменения в политике, экономике и обществе, способность адаптироваться и внедрять инновации.

7. **Аналитические способности**: Умение анализировать данные, оценивать ситуацию, выявлять причины проблем и разрабатывать стратегии их решения.

8. **Этические и профессиональные стандарты**: Соблюдение высоких этических стандартов, ответственность, прозрачность и соблюдение законности в действиях.

9. **Развитие и эффективное управление человеческими ресурсами**: Эффективное планирование использования человеческих ресурсов, оптимизация процессов, создание благоприятных условий работы и саморазвития сотрудников, умение управлять временем для достижения оптимальных результатов.

10. **Умение работать в многонациональной и многокультурной среде**: В ходе своей деятельности государственные служащие имеют дело с разнообразными культурными и национальными особенностями, их способность работать в такой среде является одним из основных элементов тенденций развития государственной службы.

По нашему мнению, эти компетенции являются основой для успешной работы в государственной службе и способствуют эффективному управлению, адаптации к изменениям и достижению поставленных целей.

Эффективное управление в государственной сфере требует особых компетенций, учитывая специфику этой области. Некоторые ключевые компетенции для успешного управления в государственной сфере включают:

1. **Понимание политического, экономического и социального контекста**: Государственные служащие должны быть знакомы с политической, экономической и социальной системой, процессами и влиянием их на его деятельность. Понимание политической, экономической и социальной динамик помогает эффективно выполнять поставленные задачи и организовывать деятельность подразделения и организации исходя из данных приоритетов.

2. **Умение работать в сложных организационных структурах**: Государственные учреждения часто имеют сложные организационные структуры, а также тенденции к изменению их. Умение навигировать в них, находить пути сотрудничества и координации между различными уровнями и подразделениями важно для достижения целей.

3. **Эффективное управление ресурсами**: Управление бюджетом, финансовыми и другими ресурсами является ключевой компетенцией для государственных служащих. Умение распределять ресурсы таким образом, чтобы максимизировать их использование в интересах общества, критически важно.

4. **Публичные коммуникации и взаимодействие с обществом**: Государственные служащие должны быть способны эффективно общаться с разнообразными заинтересованными сторонами и представлять интересы государства перед обществом.

5. **Этичность и ответственность**: Высокие стандарты этики, открытости и ответственности за принятые решения необходимы для поддержания доверия общества к государству в целом.

6. **Управление изменениями и инновациями**: Государственная сфера подвержена постоянным изменениям. Гибкость в принятии изменений и способность внедрять инновации в работу организации необходимы для эффективного развития.

7. **Умение принимать решения в сложных ситуациях**: В государственной сфере часто возникают сложные ситуации, требующие быстрого, обоснованного и эффективного решения задач. Управленцы должны быть способными принимать такие решения, учитывая политические, социальные и экономические факторы.

Эти компетенции помогают государственным служащим эффективно управлять в сложной и динамичной среде государственной сферы, обеспечивая качественное выполнение своих обязанностей и достижение стратегических целей организации.

Методические подходы к развитию управленческих навыков в государственной службе могут включать различные методы и техники, направленные на систематическое и эффективное обучение. Перечислим некоторые из них:

1. **Традиционные образовательные программы**: Проведение специализированных курсов, семинаров и тренингов, охватывающих широкий спектр управленческих тем и методов.
2. **Интерактивное обучение**: Создание интерактивных образовательных платформ, где слушатели могут участвовать в дискуссиях, делиться опытом и решать задачи вместе со специалистами в данной области.
3. **Онлайн-обучение**: Использование специализированных онлайн-курсов и платформ для изучения управленческих знаний, умений и навыков, обеспечивающих гибкость в расписании и доступность.
4. **Менторство и коучинг**: Организация программ, где опытные управленцы консультируют и помогают в развитии навыков менее опытным коллегам.
5. **Решение кейсов и симуляции**: Использование реальных или вымышленных ситуаций для анализа, обсуждения и принятия решений, позволяющих применить теоретические знания на практике.
6. **Групповые проекты и задания**: Работа в группах над проектами, где участники могут развивать навыки командной работы, решать задачи и обмениваться опытом.
7. **Экспертные лекции и презентации**: Приглашение специалистов в сфере, экспертов и практиков для проведения лекций, дискуссий и предоставления практических советов.
8. **Самостоятельное обучение и чтение литературы**: Предоставление доступа к рекомендованной литературе и ресурсам для самостоятельного изучения и развития навыков.
9. **Оценка и обратная связь**: Систематическая оценка знаний, умений и навыков, а также обратная связь по результатам обучения для улучшения результатов.

Эффективное сочетание различных методов позволяет создать комплексные программы, адаптированные к конкретным потребностям и контексту государственной службы, обеспечивая разностороннее и эффективное развитие управленческих компетенций у государственных служащих.

Применение современных образовательных технологий играет важную роль в процессе повышения управленческих компетенций государственных служащих, учитывая динамичность и разнообразие требований к ним. Вот несколько ключевых технологий:

1. **Онлайн-платформы и курсы**: Платформы, такие как Coursera, edX, Khan Academy, FutureLearn, LinkedIn Learning предоставляют доступ к курсам

по управлению, позволяя слушателям изучать материалы и получить практический опыт в удобное для себя время.

2. **Вебинары и онлайн-тренинги**: Интерактивные обучающие мероприятия, позволяющие государственным служащим участвовать в дискуссиях, задавать вопросы экспертам и обсуждать актуальные темы.

3. **Мобильные приложения**: Специализированные приложения предоставляют доступ к коротким курсам, упражнениям и материалам для обучения в любое время и в любом месте.

4. **Геймификация**: Использование игровых элементов в обучении, таких как кейсы, задачи, достижения и баллы, для улучшения мотивации и вовлеченности слушателей.

5. **Виртуальная реальность (VR) и дополненная реальность (AR)**: Технологии позволяют создавать иммерсивные сценарии для тренировок и симуляций, помогая погрузить слушателей в реалистичные ситуации.

6. **Адаптивное обучение**: Технологии, основанные на искусственном интеллекте, анализируют уровень знаний, умений, а также навыков слушателей и предоставляют персонализированные материалы и задания.

7. **Социальное обучение и сети**: Платформы для общения, обмена опытом и совместной работы, такие как Slack, предоставляют возможность общения и обучения в коллективе.

Применение современных технологий в процессе обучения управленческим навыкам позволяет государственным служащим получать актуальные знания и умения находить инновационные подходы к решению проблем и развивать свои навыки в удобной и доступной форме.

Оценка развития управленческих компетенций у государственных служащих – это важный этап в процессе обучения и развития персонала. Ниже представлены некоторые методы и техники, которые могут использоваться для этой цели:

1. **360-градусная обратная связь**: Этот метод предполагает сбор обратной связи от коллег, подчиненных, руководства и других заинтересованных сторон по поводу управленческих компетенций государственного служащего.

2. **Оценка по результатам выполнения задач**: Анализ результатов работы сотрудника, достижений, выполнения проектов и достижения поставленных целей для определения уровня управленческих компетенций.

3. **Самооценка и индивидуальные планы развития**: Государственные служащие могут самостоятельно оценивать свои управленческие компетенции и разрабатывать индивидуальные планы развития.

4. **Кейс-стади и симуляции**: Задания, где сотрудникам предлагается анализировать и решать реальные или вымышленные кейсы и симуляции,

оценивая их способности применять управленческие компетенции на практике.

5. **Ассесмент-центры**: Специальные центры, где проводятся оценки управленческих компетенций с использованием различных тестов, игровых ситуаций, ролевых игр и других методов личной и профессиональной оценки.

6. **Обзоры эффективности и проведение интервью**: Регулярные обзоры работы и проведение индивидуальных бесед для оценки развития управленческих компетенций.

7. **Использование ключевых показателей производительности (KPI)**: Оценка уровня достижения ключевых целей и показателей, связанных с управленческими функциями.

Эти методы и техники могут быть использованы в комбинации или отдельно друг от друга в зависимости от специфики организации и целей оценки. Комбинирование различных подходов обеспечивает более полное и объективное представление о текущем уровне управленческих компетенций у государственных служащих.

Повышение управленческих компетенций государственных служащих требует комплексного подхода, учитывающего их специфику работы и общественной значимости. Вот основные методические подходы, способствующие эффективному повышению этих навыков:

1. **Индивидуальный подход**: Различные уровни государственных служащих требуют индивидуального подхода к развитию компетенций в соответствии с их потребностями и сфере их ответственности.

2. **Разнообразие методов обучения**: Комбинация традиционных образовательных программ, онлайн-курсов, тренингов, практических заданий и менторства для более полного и глубокого понимания материала.

3. **Применение современных технологий**: Использование онлайн-платформ, виртуальной реальности, мобильных приложений для доступа к обучающим материалам.

4. **Систематический мониторинг и обратная связь**: Регулярное оценивание прогресса и эффективности обучения с последующей обратной связью для корректировки образовательных программ.

5. **Особое внимание к мягким навыкам**: Развитие навыков коммуникации, лидерства, управления временем, стратегического мышления, критического анализа, которые важны для успешного управления в государственной сфере.

6. **Использование практических кейсов и симуляций**: Обучение на реальных или моделируемых сценариях, которые помогают применять управленческие компетенции на практике.

7. **Сотрудничество с внешними экспертами**: Приглашение специалистов извне для проведения лекций, тренингов и предоставления практического опыта.

8. **Культура постоянного обучения**: Поддержка и стимулирование сотрудников к саморазвитию и постоянному обучению в течение всей карьеры.

Обобщая эти подходы, можно сказать, что эффективное повышение управленческих компетенций государственных служащих требует гибкости, инноваций и постоянного развития методик обучения, адаптированных к специфике должности государственного служащего для достижения наилучших результатов в деятельности.

Непрерывное обучение и развитие управленческих навыков играют решающую роль в оптимизации работы государственных органов по нескольким причинам:

1. **Актуализация знаний и навыков**: Государственная сфера постоянно меняется под воздействием новых технологий, законодательных изменений и социальных трендов. Непрерывное обучение позволяет служащим быть в курсе последних изменений и применять актуальные методы работы.

2. **Улучшение эффективности и результативности**: Развитие управленческих компетенций способствует улучшению принятия решений, оптимизации процессов и росту производительности, что в свою очередь повышает эффективность работы государственного аппарата.

3. **Способствует инновациям и современным практикам**: Постоянное обучение способствует внедрению инноваций и современных практик управления, позволяя государственным органам быть более гибкими и адаптированными к изменяющейся среде.

4. **Повышение квалификации и профессионализма**: Развитие управленческих навыков способствует повышению уровня профессионализма и квалификации государственных служащих, что важно для эффективного выполнения обязанностей.

5. **Укрепление лидерства и командной работы**: Обучение способствует развитию лидерских качеств и умению эффективно работать в команде, что необходимо для руководителей и сотрудников на всех уровнях.

6. **Соответствие стандартам и требованиям**: Непрерывное обучение позволяет государственным органам и их сотрудникам соответствовать современным стандартам профессиональной деятельности и требованиям законодательства.

Таким образом, непрерывное обучение и развитие управленческих компетенций необходимо для эффективного функционирования государственных органов, обеспечивая их готовность к изменениям, улучшение работы и более качественное выполнение своих обязанностей перед обществом.

Заключение

Повышение управленческих компетенций в государственной сфере – это ключевой аспект развития эффективности и качества функционирования государственных органов. Оно требует постоянного внимания, инноваций и специальных подходов, учитывающих специфику государственной службы.

Методические основы повышения управленческих компетенций государственных служащих должны быть ориентированы на индивидуальные потребности, контекстуальность и эффективность. Основные принципы обучения, такие как разнообразие применяемых методов, инновационные и современные образовательные технологии, а также системы оценки играют важную роль в данном процессе.

Непрерывное обучение и развитие управленческих навыков имеют фундаментальное значение для оптимизации работы государственных органов. Это не только способствует повышению профессионализма и эффективности государственных служащих, но и обеспечивает адаптацию к новым вызовам, современным требованиям и инновационным практикам управления.

Систематическое развитие управленческих компетенций, является необходимостью для государственных служащих на всех уровнях должности – от исполнителя до руководителя. Это позволяет не только улучшить функционирование государственной организации, но и повысить качество производящих продуктов и услуг для общества и государства в целом.

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ЎЗБЕКИСТОНДА ХУСУСИЙ ТАДБИРКОРЛИК ВА КИЧИК БИЗНЕСНИНГ РОЛИ

Аннотация: *Мақолада камбағалликни қисқартиришда хусусий тадбиркорлик ва кичик бизнеснинг роли очиб берилган. Ўзбекистонда камбағаллик ва унинг ижтимоий оқибатларидан азият чекувчи қатламларнинг турмуш даражасини ошириш ва барқарор ҳаётий шарт-шароитлар билан таъминлаш борасидаги давлат сиёсати ёритилган. Камбағалликни қисқартириш ишсизлик, кам таъминланганлик каби омиллар билан узвий боғлиқликда кечувчи жараён сифатида тавсифланган.*

Калит сўзлар: *камбағаллик, турмуш даражаси, глобал тараққиёт, хусусий тадбиркорлик, кичик бизнес, истеъмол саватчаси, яшаш минимуми, ўсиш нуқталари, ишсизлик, кам таъминланганлик, давлат дастури.*

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THE ROLE OF PRIVATE ENTREPRENEURSHIP AND SMALL BUSINESS IN UZBEKISTAN

Annotation: *The role of private entrepreneurship and small business in poverty reduction is revealed. Analyzed the state policy to improve the standard of living and to ensure stable living conditions for people suffering from poverty and its social consequences. The essence of poverty is revealed as a process of a closely interconnected process with such social risks as unemployment, low security.*

Key words: *poverty, standard of living, global development, private entrepreneurship, small business, consumer basket, subsistence minimum, growth point, unemployment, low income, government program.*

Кириш. Замонавий жамиятларда камбағаллик – бу кўп қиррали мураккаб муаммо бўлиб, унинг сабаб ва оқибатлари биргина миллий давлатлар доираси билан чекланмайди. Камбағаллик ва унинг ижтимоий оқибатларидан азият чекувчи қатламларнинг турмуш даражасини ошириш ва барқарор ҳаётий шарт-шароитлар билан таъминлаш борасидаги саъий-ҳаракатлар дунё ҳамжамияти диққат марказидаги долзарб масала бўлиб келмоқда.

Шиддатли ижтимоий-иқтисодий ривожланиш шароитида аҳолининг муайян қатламлари орасида камбағаллик даражаси ошиб бормоқда. Дунё

аҳолисининг 10% (700 млн.) Африка ва Осиё давлатлари аҳолисини ташкил қилади. Улардан 17.2% қишлоқ аҳолисини ташкил қилмоқда. Меҳнат қилаётган аҳолининг иш билан бандлигини таъминлаш ҳам қашшоқликни буткул бартараф эта олмаётгани, 8% ишловчи аҳоли қашшоқликда кун кечираётганлиги билан исботланди[1]. БМТнинг Бош Ассамблеясининг 2015 йилда “Барқарор тараққиёт соҳасидаги Мақсадлар” қабул қилиниб янги минг йиллик остонасида турган дунёда тинчлик, фаровон ҳаёт ва адолат тамойилларини янада мустаҳкамлаш мақсадларини илгари сурди. Ушбу Декларациянинг бош мақсади 2030 йилгача “қашшоқликнинг барча кўринишларини секин-аста бартараф қилиб бориш” назарда тутилган[2]. Дунёда 2020 йилгача эса ноқобил ва иқтисодий қолоқ аҳоли пунктларида яшаётган 100 миллиондан ортиқ кишилар ҳаётини сезиларли тарзда яхшилаш чораларига старт берилди[3].

Мавзуга оид адабиётларнинг таҳлили. Жаҳон тажрибасини кўрсатишича, айнан кичик бизнес ва хусусий тадбиркорлик янги иш ўринларини яратади. Йирик корхоналар учун айрим зарурий ва бутловчи маҳсулотларни ишлаб чиқаришда, янги товар ва хизматлар турларини оширишда, товарлар ишалаб чиқариш харажатларини камайтиришда, рақобатбардош ва экспортга мўлжалланган маҳсулотларни ишалб чиқариш ҳажмини оширишдаги роли ошиб бормоқда. Биргина АҚШда сўнгги ўн йилликларда амалга оширилган инновацияларнинг 55% айнан кичик бизнес соҳасида яратилди[4]. Шу сабабли иқтисодчи олим Л.Гуров фикрича, кичик бизнес иқтисодий ўсиш суръатларини белгилайди, моддий, молиявий ва кадрлар ресурсларини самарали тақсимланишига ёрдам беради, иш ўринларини вужудга келтиради, янги иш жойларини ташкил этишда йирик корхоналарга қараганда анча кам харажат талаб қилади[5]. Хусусан, кичик бизнес ва хусусий тадбиркорлик соҳасида фаолият юритувчи субъектларнинг фойда солиғидан озод этилганлиги, уларга кредит ва молиявий ёрдамларнинг имтиёзли тарзда амалга оширилаётганлиги, бунда илмий-техникавий потенциалдан фойдаланиш орқали эришилди.

Ўзбекистонда турли ҳисоб-китобларга кўра, камабағаллик даражасида бўлганлар мамлакатимиз жами аҳолисининг таҳминан 12-15 фоизини, яъни, 4-5 млн. кишини ташкил этмоқда. Бу уларнинг бир кунлик даромади 10-13 минг сўмдан ошмайди. Ёки бир оилада машина ҳам, чорва ҳам бўлиши мумкин, лекин бир киши оғир касал бўлса, оила даромадининг камида 70 фоизи уни даволатишга кетади.

Ўзбекистон Республикаси Президентининг 2020 йил 26 мартдаги “Ўзбекистон Республикаси иқтисодий тараққиёт ва камбағалликни қисқартириш вазирлиги ҳамда унинг тизим ташкилотлари фаолиятини ташкил этиш тўғрисида”ги ПҚ-4653-сонли Қарорига мувофиқ Ўзбекистон Иқтисодиёт ва саноат вазирлиги Иқтисодий тараққиёт ва камбағалликни қисқартириш вазирлиги сифатида қайта ташкил этилди[6].

Тадқиқот методологияси. Ўтказилган илмий тадқиқотлар натижасида мамлакатда камбағалликни қисқартиришда хусусий тадбиркорлик ва кичик бизнеснинг роли ошириш, камбағаллик мезонини аниқлаш орқали аҳоли бандилигини таъминлашнинг янги йўналишлари ва кисик бизнес ва хусусий

тадбиркорлик фаолият кўрсатувчи корхоналарини ташкил этишдаги бугунги кундаги ҳолати, келгусида аҳоли турмуш даражаси ва сифатини ошириш, уларнинг даромадлари ўсишини ва харид қилиш қобилиятини оширишни таъминлаш мақсадида аҳолининг ишсиз ва ижтимоий ҳимояга муҳтож қатламини ҳар бир маҳалла кесимида ўрганилиб, уларда тадбиркорлик кўникмасини шакллантириш чоралари ривожлантириш масалалари келтирилган. Тадқиқот жараёнида тизимли ёндашув, абстракт-мантиқий фикрлаш, гуруҳлаш, таққослаш, омилли таҳлил, танланма кузатиш усулларидан фойдаланилган.

Таҳлил ва натижалар. Камбағаллик мезонини аниқлаш учун эса, аввало, “истеъмол саватчаси”нинг ҳуқуқий асосларини белгилаб олиш талаб этилади. Кўмак пуллари ва пенсия миқдорини белгилашда муҳим аҳамиятга эга бўлган “истеъмол саватчаси” ва “яшаш минимуми”ни белгилаш ва жорий этиш, ривожланган тараққиёт шароитида ҳар бир давлат ички сиёсатининг асосида ётувчи ушбу индексларнинг мамлакатимизга хос кўрсаткичлари ва меъёрларига аниқлик киритиш ҳаётий заруратга айланди. Маълумки, аҳоли турмуш даражасини аниқлашда “истеъмол саватчаси” тушунчасидан яъни муайян истеъмол даражасини таъминловчи товарлар ва хизматлар мажмуидан фойдаланилади. Халқаро амалиётда аҳоли яшаш минимумини ҳисоблашнинг статистик, социологик, ресурс, норматив усуллари бор. Яшаш минимуми энг кичик миқдори таркиби турли давлатларда турлича қилиб белгиланган. Масалан, АҚШда “истеъмол саватчаси”га 300 номдаги, Германияда 475 номдаги, Англияда 350 номдаги, Россияда 156 номдаги товар ва хизматлар киритилган. “Истеъмол саватчаси”ни учта асосий таркибий қисм – озиқ-овқат, ноозиқ-овқат ва хизматларга ажратиш мумкин. Ундаги озиқ-овқатлар миқдори улуши аҳолининг турмуш даражаси қай даражада эканлигини белгилайди.

Ўзбекистон аҳолисининг аксарият қисми “истеъмол саватчаси”да озиқ-овқат маҳсулотларининг улуши зиёд. Худди шуни бартараф этиш ва “истеъмол саватчаси”да ноозиқ-овқат маҳсулотлари ва хизматлари миқдорини ошириш мақсадида ижро ҳокимияти олдига бир қатор вазифалар қўйилди. Бунда, асосий эътибор аҳолини тадбиркорликка ўргатиш, мавжуд имкониятдан самарали фойдаланишга қаратилди. Худди шу мақсадда аҳоли даромадини оширишнинг энг самарали йўли – бу фуқароларни боқимандалик кайфиятидан холос этиш, уларнинг бандлигини таъминлаш, тадбиркорликка йўналтиришдан иборат бўлиши лозим.

Мамлакатимизда камбағалликни қисқартириш ва тадбиркорликни ривожлантириш соҳасида, тегишли корхона, ташкилот ва муассасалар билан ҳамкорликда мақсадли дастурлар ишлаб чиқилмоқда. Аҳоли турмуш даражаси ва сифатини ошириш, уларнинг даромадлари ўсишини ва харид қилиш қобилиятини оширишни таъминлаш мақсадида аҳолининг ишсиз ва ижтимоий ҳимояга муҳтож қатламини ҳар бир маҳалла кесимида ўрганилиб, уларда тадбиркорлик кўникмасини шакллантириш чоралари ривожлантирилади. Ҳозирги кунда мамлакатда расман иш билан банд бўлмаган 1 миллион 400 мингга яқин аёллар ва ёшлар бор. Хотин-қизлар ўртасида ишсизлик даражаси 13 фоиз, ёшларда эса 15

фоизни ташкил этмоқда. Фарғона, Самарқанд, Андижон, Қашқадарё ва Тошкент вилоятларида бу кўрсаткич юқорилигича қолаётганлиги аниқланди[7].

Маҳаллаларда тадбиркорликни ривожлантириш, аҳоли бандлигини таъминлаш ва камбағалликни қисқартириш мақсадида маҳалла фаоллари ҳар куни битта маҳаллага чиққан ҳолда камида ўнта хонадонга шахсан ташриф буюриб, мавжуд ҳолатни ҳоким ёрдамчилари билан бирга ўрганмоқда. Аҳолига амалга оширилаётган давлат сиёсати ва ислоҳотларнинг мазмун-моҳиятини тушунтириб, аниқланган муаммоларни жойида ҳал қилиш чораларини кўрилмоқда. Ҳоким ёрдамчилари, ҳудудларни ижтимоий-иқтисодий ривожлантириш масалалари бўйича сектор раҳбарлари билан биргаликда ҳар бир маҳаллани ижтимоий-иқтисодий ривожлантириш йўналишларини белгилаб, хонадонбай рўйхат асосида ҳар бир маҳалла кесимида ҳақиқий ижтимоий вазиятни аниқлайди ҳамда ойма-ой амалга ошириладиган чора-тадбирлар режасини ишлаб чиқади.

Ҳар бир маҳалланинг “ўсиш нуқтаси”дан келиб чиқиб, етакчи тадбиркорлар ва ҳоким ёрдамчилари таклиф этаётган янги лойиҳаларни амалга оширишга кўмаклашади, маҳаллаларда аҳолининг кундалик эҳтиёжлари учун зарур бўлган хизматлар турларини ривожлантиради. Аҳолини, биринчи навбатда ишсиз ёшлар ва аёлларни касб-ҳунар ва тадбиркорликка ўқитиш ҳамда уларнинг бандлигини таъминлаш ишларини ташкил қилади. Аҳолининг кенг қатламини тадбиркорликка жалб қилиш ва уларнинг даромад манбаларини кенгайтиришга қаратилган “Ҳар бир оила – тадбиркор”, “Ёшлар келажагимиз” ва бошқа ижтимоий дастурлар доирасида жами 13 трлн. сўмдан зиёд имтиёзли кредитлар ажратилиб, 600 мингдан зиёд оилаларни қамраб олишга эришилди.

Ҳукуматимиз томонидан кичик бизнес ва хусусий тадбиркорликни қўллаб-қувватлашга йўналтирилган сиёсатга қарамасдан, амалда ёшларнинг кичик бизнес ва тадбиркорликка жалб қилиш, бошланғич тадбиркорларни қўллаб-қувватлаш, уларнинг тадбиркорлик фаолиятида юзага келаётган муаммоларини ўз вақтида ўрганиш ва бартараф қилиш соҳасида қатор муаммолар сақланиб қолмоқда:

8. ¬ аҳолида тадбиркорлик соҳасида зарурий кўникмаларни шакллантиришга қаратилган ўқитиш тизимини жорий этиш, мазкур жараёнга халқаро ташкилотлар, нодавлат нотижорат ташкилотлари ва нодавлат таълим ташкилотларини кенг жалб қилиш;

9. ¬ тадбиркорлик кўникмаси ва тажрибасига эга бўлган аҳолини ва бошқа кичик бизнес вакиллари салоҳиятини рўёбга чиқариш орқали улар фаолиятини кенгайтириш ва ривожлантиришга қаратилган тўлақонли тизимни яратиш;

10. ¬ тадбиркорликни қўллаб-қувватлаш бўйича яхлит тизимни ташкил этиш ва ягона давлат ташкилоти томонидан амалга оширилишини ва мувофиқлаштириб борилишини йўлга қўйиш.

Бугунги кунда 2021-2030 йилларда Ўзбекистонда камбағалликни қисқартириш стратегияси ишлаб чиқилиб мазкур стратегия икки босқичда – қисқа ва ўрта (2021-2025 йй.) ҳамда **у**зоқ (2026-2030 йй.) муддатларда амалга

оширилиши белгиланмоқда. Ушбу босқичларда назарда тутилган масалалар доирасида қуйидаги мақсадли индикаторларга эришиш белгиланган:

1. ¬ камбағал аҳолининг иш билан бандлигига тўлиқ эришиш, бунда босқичма-босқич ошириш орқали йилига 100 мингдан ортиқ эҳтиёжманд ва меҳнат бозорида тенг шартларда рақобатлаша олмайдиган фуқаролар учун иш ўринларини квоталаш;

2. ¬ ўзини ўзи банд қилиш истагида бўлган камбағал аҳоли қатламларининг 50 минг нафарини рўйхатга олиш, фаолиятини бошлаш, меҳнат қуроллари сотиб олиши ва бошқа мақсадлар учун субсидиялар ажратиш;

3. ¬ камбағал аҳоли қатламини касб-ҳунар, хорижий тил ва тадбиркорлик кўникмаларига ўқитиш ҳамда танлаган йўналиши бўйича микрокредитлар ажратиш орқали фаолиятини бошлаши ёрдамида 50 минг нафар камбағал аҳоли бандлигини таъминлаш.

Шунингдек, юқоридаги барча чора-тадбирларни ўз вақтида ва сифатли амалга ошириш орқали 2030 йилга бориб камбағаллик даражасини икки баробарга қисқартиришга эришиш назарда тутилмоқда. Стратегияда, жумладан, камбағал аҳолининг соғлиқни сақлаш хизматларидан 100 фоиз бепул фойдаланишига имконият яратиш масаласи ҳам ўрин олган.

Хулоса ва таклифлар. Демак, замонавий тараққиёт шароитида дунё аҳолисининг катта қисми камбағалликнинг ўта оғир даражаси саналган қашшоқликда ҳатто, инсон организмининг барқарор фаолиятини таъминлаш учун зарурий озиқ-овқат заҳиралари ва даромад манбаининг кескин танқислиги шароитида кун кечирмоқдалар. Қашшоқлик даражаси озиқ-овқат ва ичимлик суви хавфсизлиги даражасидаги ҳаётий зарур заҳираларнинг кескин танқислигини шакллантирмоқда. Ушбу муаммолар ўз ўрнида, таълим, соғлиқни сақлаш каби хизматлардан фойлана олмаслик, ижтимоий таҳқирловчи муносабат ва жамият ҳаётидан узилганлик каби ижтимоий муаммолар кўламини кенгайтирмоқда.

Агар камбағал қатламнинг ишлаб чиқариш фаолиятида қатнашиш имкониятлари кенгайтирилса, бу уларнинг ишчилар ёки тадбиркорлар сифатида иқтисодий ўсиш жараёнларидаги иштирокини ҳам таъминлайди. Бунинг учун аввало, зарур билим ва кўникмалар етишмаслиги муаммосини ҳал қилиш жоиз.

Мамлакатимизда камбағалликни қисқартиришда хорижий тажрибага таяниш ўринли. Бунда, айниқса, инклюзив бизнес моделларини ишлаб чиқиш катта аҳамият касб этади. Камбағалликни қисқартириш йўналишида хусусий тадбиркорлик ва кичик бизнесни ривожлантиришда Хитой тажрибасидан ўринли фойдаланиш мақсадга мувофиқ.

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ТИПЫ КАРЬЕРЫ, СОВРЕМЕННЫЕ ТЕНДЕНЦИИ И ХАРАКТЕРИСТИКИ СОТРУДНИКОВ В ОРГАНАХ ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ РЕСПУБЛИКИ УЗБЕКИСТАН

Аннотация. *В статье рассматриваются карьерные процессы на государственной гражданской службе, анализируются современные тенденции и особенности этого процесса. Также были разработаны предложения по созданию системы продвижения государственных служащих на государственной гражданской службе и системы резервной работы в организации.*

Ключевые слова. *профессиональный рост, виды карьеры, модель карьеры, кадровый резерв, государственная гражданская служба.*

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TYPES OF EMPLOYEES' CAREER, MODERN TRENDS AND CHARACTERISTICS IN PUBLIC ADMINISTRATION BODIES OF THE REPUBLIC OF UZBEKISTAN

Abstract. *The article studies the career processes in the state civil service, analyzes the current trends and features of this process. Also, proposals are developed on the creation of a system for promoting civil servants through the ranks of the state civil service and the system of working with the reserve in the organization.*

Keywords: *professional growth, types of careers, career model, personnel reserve, state civil service.*

Введение.

В последние годы решение социально-экономических проблем в нашей стране осуществляется в результате многоплановых реформ, инициированных Президентом Республики Узбекистан. Безусловно, отрадно, что комфортная жизнь населения, изменение плановых показателей в положительную сторону, а также реформы реализуются сегодня на наших глазах. Для достижения вышеуказанных целей с точки зрения качества большое значение, прежде всего, имеет уровень квалификации и способностей государственных служащих государства, непосредственно общающихся с населением и работающих с ним. Поэтому тот факт, что некоторые реформы, реализуемые в нашей стране, ориентированы на

развитие государственной службы, является одним из основных факторов, ведущих к достижению этой конечной цели.

Сегодня управление человеческими ресурсами в государственном секторе все больше становится стратегической задачей. Потому что страны признают, что самый важный ресурс и самое большое богатство – это человек и его интеллектуальный потенциал. Поэтому в развитых странах подбор кадров и формирование резерва высокопотенциальных управленческих кадров считаются первоочередными задачами.

Обзор литературы по теме

Поиск, отбор, изучение, оценка, подготовка и назначение специалистов на государственную гражданскую службу является одним из основных звеньев формирования состава управленческих кадров.

Проведен ряд исследований порядка, форм и методов формирования кадрового резерва на государственной гражданской службе. В «Городе добродетельных людей» великого ученого Абу Насра Фараби и «Темур тузуклари» Амира Темура на этот счет имеется ряд подходов.

Узбекские учёные А. Тохтабоев[1], К.Х.Абдурахманов, Ш.Р. Холмуминов, Н.К.Зокирова[2] и Д.С.Косимова[3] исследовали вопросы управления персоналом и формирования кадровых резервов.

Классические ученые экономической теории, такие как В. Петти, А. Смит, Д. Рикардо, Дж. Шумпетер, А. Маршалл, Т. Шульц[4], внесли свой вклад в разработку научных и методологических основ государственной службы, модели карьеры. Они всесторонне исследовали категории государственной службы и модели карьеры и попытались выявить специфические особенности этих категорий.

Методология исследования

Методологическую основу исследования составляют основные законы управления, система формирования кадровых резервов в органах государственного управления, а также зарубежные и узбекские ученые, проводившие исследования по вопросам формирования кадровых резервов на государственной гражданской службе, законы. Республики Узбекистан, указы и постановления Президента Республики Узбекистан. Значимость результатов исследования заключается в последовательной реализации карьерных процессов в органах государственного управления и, наконец, в возможности внедрения конкретных процедур рационального использования человеческих ресурсов.

Анализ и результаты

В нашей стране мы ведем большую работу в области развития государственной гражданской службы, внедрения современной системы управления персоналом, развития человеческих ресурсов. Прежде всего, применение принципа меритократии на государственной службе, то есть прием на государственную службу государства наиболее достойных и способных лиц на основе справедливой и объективной оценки их

профессиональных качеств и специальных заслуг, а также обеспечение их продвижения по службе. в рядах службы вопрос важный.

Во многих случаях человек в течение своей трудовой жизни выполняет не одну, а несколько обязанностей.

Карьера - в переводе с французского (carirere) оно означает успешное продвижение вперед и сегодня понимается как успешный рост по карьерной лестнице в социальной, экономической, государственной службе, научной и других видах деятельности.

Карьера в современном менеджменте оценивается с двух точек зрения. Прежде всего, карьера – это совокупность обязанностей и должностей, занимаемых человеком в течение жизни. Во-вторых, карьера – это изменение ценностей и интересов, происходящее на протяжении всей жизни человека. Эти две точки зрения признают, что человек обладает потенциалом контролировать свою судьбу и в определенной степени управлять своими возможностями, чтобы достичь максимально возможных достижений и удовлетворения от своей работы.

В менеджменте используется практическая концепция карьеры. Практическая карьера - продвижение работника в сфере деятельности, изменение суммы стимулов в связи с навыками, способностями, квалификацией и деятельностью, поступательное движение по выбранному жизненному пути, популярное - завоевание известности. Научные исследования подтверждают, что привлечение наиболее талантливых кадров на государственную гражданскую службу является мощным драйвером инноваций и инноваций, экономического роста и развития, а также конкурентоспособности.

В нашей республике реализуются меры по повышению престижа государственной гражданской службы всех уровней, устранению условий, способствующих коррупции, формализму и бюрократизму, обеспечению достойного уровня социальной защиты и финансового стимулирования государственных служащих.

Указы Президента Республики Узбекистан от 3 октября 2019 года № ПФ-5843 «О мерах по коренному совершенствованию кадровой политики и системы государственной гражданской службы в Республике Узбекистан» и «Государственное гражданство» от 8 августа 2022 года. Можно сказать, что принятие Закона «О государственной гражданской службе» привело к радикальному изменению вопроса о государственной гражданской службе и кадрах.

При полной реализации норм настоящего Закона государство находит решение ряда вопросов, ожидающих своего решения в сфере государственной службы. В частности, путем организации и реализации механизмов внедрения «Модели карьеры» на государственной гражданской службе будет создана система поэтапного продвижения государственного государственного служащего из рядов должностей, будет создана система резервной работы. будут созданы на государственной гражданской службе, повысятся

возможности привлечения потенциальных кадров на государственную службу, будет создана система подготовки студентов к государственной гражданской службе[5] .

В Республике Узбекистан формирование кадровых резервов играет важную роль как механизм системы карьерного роста работников органов государственного управления. Кадровый резерв важен в процессе стратегического развития каждой страны. В Узбекистане в последние годы повышение внимания к человеческому капиталу и повышение потенциала национальных кадров стало одним из приоритетов государственной политики.

Реализация Национальной электронной платформы «Модель карьеры» является важным фактором формирования национального кадрового резерва в сфере государственной службы. Платформа является инновационным инструментом внедрения современных методов и технологий и предназначена для внедрения в сферу государственной гражданской службы в целях повышения эффективности подбора, адаптации и развития кадров, а также улучшения качества и профессиональные навыки государственных служащих. Кроме того, этот процесс направлен на максимальное снижение участия человеческого фактора. Поскольку одной из основных целей платформы является профессиональное развитие и рост государственных служащих, она создаст для них такую среду, которая позволит кандидату разработать план развития профессиональных компетенций на основе рекомендаций, данных платформой.

Выводы и предложения

Управление карьерой сотрудников заключается в обеспечении удовлетворения внутренних потребностей предприятия в сильном управлении, в последовательном обеспечении обучения и опыта сотрудников, чтобы они могли достичь определенного уровня ответственности, которого они способны достичь, а также в успешном развитии потенциала. персонала с определенным потенциалом направлена на предоставление возможностей карьерного роста с учетом их усилий, стремлений, талантов и решимости.

Для совершенствования системы управления профессиональным ростом государственных гражданских служащих в Республике Узбекистан выдвигаются следующие предложения и рекомендации:

во-первых, разработать долгосрочную, среднесрочную и краткосрочную стратегию развития карьеры сотрудников государственных организаций;

во-вторых, установить регулярный зарубежный опыт государственных служащих;

в-третьих, установить систему «наставник-ученик» на государственной гражданской службе;

в-четвертых, цифровизация системы постоянного контроля за кадрами, назначенными на высокие должности и включенными в резерв .

Принципами развития роста работника по должности являются индивидуальная работа, заинтересованность организации и работника в карьерном росте, обеспечение финансирования развития карьеры работника в

планах предприятия. При этом предложенные подходы обеспечивают практические решения для профессионального развития потенциальных сотрудников организации и повышения их конкурентоспособности на рынке труда.

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ОРГАНИЗАЦИОННАЯ КУЛЬТУРА: ФОРМИРОВАНИЕ И РАЗВИТИЕ НА ПРЕДПРИЯТИИ

Аннотация. *В данной статье рассматривается различные подходы к оценке организационной культуры, включая наблюдение, интервью и качественный анализ. Организационная культура*

Один из основных элементов становления эффективности человеческого капитала компании, она способствует становлению единого духа всех сотрудников компании

Ключевые слова: *организационная культура, предприятие, управление персоналом.*

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ORGANIZATIONAL CULTURE: FORMATION AND DEVELOPMENT AT THE ENTERPRISE

Annotation. *This article examines different approaches to assessing organizational culture, including observation, interviews, and qualitative analysis. Organizational culture One of the main elements of becoming effective human capital of the company, it contributes to the formation of a single spirit of all company employees*

Key words: *organizational culture, enterprise, personnel management.*

Организационная культура — это мощнейший стратегический инструмент. Он позволяет объединить подразделения организации и их сотрудников вокруг единой цели. С одной стороны, это общепринятые всеми членами коллектива нормы и ценности, представления и подходы к постановке дела, с другой — социальный климат и атмосфера, а также доминирующие стили поведения и формы отношений.

Формирование и развитие организационной культуры позволяет компании выделиться на рынке, стать непохожей на конкурентов. Именно поэтому этот процесс так важен для современного бизнеса. Нежелание уделять всем нюансам время и средства может привести к хаосу внутри компании, а указания руководства не будут воспринимать работники. Поэтому целенаправленно внедряйте принципы и регламентируйте их. Общепринятые ценности и нормы дают возможность решать задачи:

Организационная культура в своем развитии проходит несколько этапов:

1. Преобладающая организационная культура – это организационная культура, которую разделяют большинство сотрудников компании. На этапе возникновения преобладающая организационная культура означает те правила и установки, которые даются руководителями организации. [1]

2. Субкультура организации – это культура профессиональных групп, которая существует в организации, и которая не идет вразрез с общими положениями организационной культуры. Она связана с региональными особенностями и спецификой отдельных подразделений. Различают вертикальную и горизонтальную субкультуру.

Когда производственное отделение организации обладает уникальной культурой, резко отличающейся от других отделений организации, то здесь имеет место вертикальная субкультура. Когда функциональный отдел организации имеет набор общепринятых понятий, то формируется горизонтальная субкультура.

3. Контркультура организации – это культура групп сотрудников, которая противоречит общим нормам организационной культуры. Если в организации существует множество групп, объединяемых культурой, то организации грозит кризис.

Организационная культура позволяет отличать одну организацию от другой, создает атмосферу идентифици-рованности для членов организации, генерирует приверженность ее целям, укрепляет социальную стабильность, служит контролирующим механизмом, который направляет и формирует отношения и поведение работников.

Построение эффективной организационной культуры является важным аспектом успешного управления организацией. Вот несколько причин, почему актуально строить эффективную организационную культуру:

1. Привлечение и удержание талантов. Культура организации имеет большое значение для привлечения и удержания талантливых сотрудников. Если организация создает подходящую и привлекательную культуру, то она

может привлечь лучших специалистов и удержать их в долгосрочной перспективе. [2]

2. Укрепление бренда и репутации. Организационная культура влияет на восприятие организации внешними стейкхолдерами, такими как клиенты, партнеры и инвесторы. Когда организация имеет положительную культуру, она может укрепить свой бренд и репутацию на рынке.

3. Приспособление к изменениям и инновациям. Гибкая и адаптивная организационная культура способствует приспособлению к изменениям внешней среды и стимулирует инновации и поиск новых возможностей.

В целом, построение эффективной организационной культуры актуально для достижения успеха и долгосрочной устойчивости организации. Это помогает создать благоприятную рабочую среду, повысить мотивацию сотрудников, укрепить взаимодействие и сотрудничество, а также улучшить репутацию на рынке.

Таким образом, организационная культура – это то, как работники относятся к выполнению своих обязанностей и что они говорят друг другу о компании и её руководстве, в то время, когда абсолютно уверены, что это руководство не контролирует их поведение. При благоприятно сформированной организационной культуре, каждый работник осведомлен о задачах, которые организация ставит конкретно перед ним и перед рабочей группой, в которую он включен. Организационная культура способствует формированию благоприятного имиджа организации, который в том числе включает в себя все перечисленные выше аспекты.

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ЮҚОРИ МАЛАКАЛИ БОКСЧИЛАРНИНГ ТЕХНИК ТАЙЁРГАРЛИГИ САМАРАДОРЛИГИНИ АНИҚЛАШ

Аннотация: *Ушабу мақолада юқори малакали боксчиларнинг жисмоний тайёргарлик жараёнларида техтик тайёргарлик самарадорлигини тадқиқ этиш, зарба кучи ва аниқлигига баҳо бериш ҳамда улардаги хато ва камчиликларни аниқлаш орқали натижадорлик сифатини юксалтириш чора тадбирлари олиб борилган. Текширув натижалари давомида тегишли кўрсатма ва тавсиялар ёритиб ўтилган.*

Калит сўзлар: *Жисмоний тайёргарлик, юқори малакали боксчилар, зарба, чидамкорлик, куч, тезкорлик.*

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DETERMINING THE EFFICIENCY OF TECHNICIAN TRAINING OF HIGHLY QUALIFIED BOXERS

Annotation: *This article examines the effectiveness of technical training in the physical training of highly skilled boxers, assesses their punching power and accuracy, and takes measures to improve the quality of their performance by identifying errors and shortcomings. The results of the study provide relevant recommendations and recommendations.*

Keywords: *Physical training, highly skilled boxers, punching, endurance, strength, speed.*

Кириш. Бокс спорти юксак даражадаги техник маҳоратни талаб қилувчи соҳалардан биридир. Юқори малакали боксчиларнинг техник тайёргарлиги жанг тактикасини самарали амалга ошириш, зарбаларнинг аниқлиги ва кучини ошириш, шунингдек, рақибнинг ҳаракатларига мослашишда ҳал қилувчи аҳамиятга эга. Бундай тайёргарлик спортчининг жанг натижаларига тўғридан-тўғри таъсир кўрсатади. Бокс – бу фақатгина жисмоний куч ва чидамлиликни талаб қилувчи спорт эмас, балки юқори даражада техник маҳорат ва тактик кўникмаларни ўз ичига олган мураккаб спорт тури ҳисобланади. Замонавий боксда юқори малакали спортчиларнинг

техник тайёргарлиги юксак натижаларга эришишнинг ажралмас қисми бўлиб, бу жараён илмий тадқиқотлар ва амалиёт билан мустаҳкам боғлиқ. Юқори малакали боксчиларнинг техник тайёргарлиги бўйича олиб борилган тадқиқотлар ва ишланмалар замонавий спорт фанининг муҳим йўналишларидан бири ҳисобланади. Бу йўналишда кўплаб олимлар, тадқиқотчилар ва спорт мутахассислари томонидан ишланган илмий ишлар техник тайёргарликни янада самарали қилиш ва спортчиларни юқори даражага олиб чиқиш учун янги ёндашувлар яратишга қаратилган. Қуйида ушбу йўналишда олиб борилган баъзи муҳим ишланмалар ва тадқиқотлар ҳақида маълумот берилади: Зарба кучи ва тезлигини ошириш мақсадида зарба механикаси ва мускул фаолиятини ўрганишга қаратилган илмий ишланмалар кенг кўламда амалга оширилган. Зарба пайтидаги қувватнинг максимал узатилишини таъминловчи механик моделни яратиш (Smith, 2018)[90]. Мускул фаоллигини таҳлил қилиш ва плёметрик машғулотлар орқали зарба кучини ошириш усуллари (Taylor, 2020)[91]. Боксчиларнинг оёқ ҳаракати ва умумий координатсиясини яхшилаш бўйича қилинган тадқиқотлар техникани оптималлаштириш имконини берди. Ҳаракатларни таҳлил қилиш учун видеотасвир асосида биомеканик моделлаштириш (Johnson, 2019)[92]. Юқори даражали боксчиларнинг оёқ ҳаракатларидаги координатсия ва мувозанатни ўрганиш (Williams, 2021)[93]. Зарбалар комбинатсиясини ишлаб чиқиш ва жанг давомида уларни тактик қўллаш усулларини ишлаб чиқиш бўйича қилинган тадқиқотлар рақобатбардошликни оширди. Зарба кучини ва техник ҳаракатларни таҳлил қилиш учун “Force Plate” технологияси (Brown, 2023)[94]. Спортчиларнинг жанг давомида руҳий босимга мослашуви ва техник кўникмаларни оптимал қўллашини ўрганишга бағишланган тадқиқотлар бу икки жиҳатнинг ўзаро боғлиқлигини тасдиқлади. Бу борада стресс остида техникани қўллаш самарадорлигини ўрганиш юзасида (Jones, 2021)[95] ками мутахасислар ўз изланишларини олиб боришган. Аммо мазкур тадқиқот давомида амалга оширилган ишларга қарамай замонавий боксда техник тайёргарликнинг муҳимлиги, спортчиларни рақобатбардош муҳитга тайёрлаш, илмий ёндашувнинг аҳамияти, психологик ва техник мослашувчанликнинг ахамияти, спортчиларнинг жароҳат олиш хавфини камайтириш каби масалалар ўз долзарблигини сақлаб қолмоқда. Юқори малакали боксчиларнинг техник тайёргарлиги замонавий боксда

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муваффақиятга эришишнинг асосий омилларидан биридир. Замонавий илмий тадқиқотлар ва технологик ривожланиш туфайли бу соҳада янги имкониятлар очилмоқда. Ушбу мақола техник тайёргарликнинг назарий ва амалий жиҳатларини ёритади ҳамда унинг боксдаги аҳамиятини илмий нуқтаи назардан тасдиқлайди. Шунингдек, техник тайёргарликнинг ривожи халқаро рақобатда муваффақиятли иштирок этиш, жароҳатлардан ҳимоя қилиш ва спортнинг умумий даражасини оширишга хизмат қилиши билан аҳамиятлидир. Бу мавзунинг чуқур ўрганилиши нафақат спортчилар ва мураббийлар учун фойдали, балки замонавий спорт фанида долзарб масалалардан бири ҳисобланади.

Тадқиқотнинг мақсади: Юқори малакали боксчиларнинг техник тайёргарлигини таҳлил қилиш, унинг замонавий боксда тутган ўрни ва аҳамиятини илмий асосланган ёндашувлар орқали ёритиш.

Тадқиқотнинг вазифаси: - Боксчиларнинг зарба, ҳимоя ва ҳаракат техникаси бўйича фундаментал тамойилларни ўрганиш.

- Техникани мукаммаллаштириш учун амалий машқлар ва инновatсион технологиялардан фойдаланиш имкониятларини кўрсатиш.

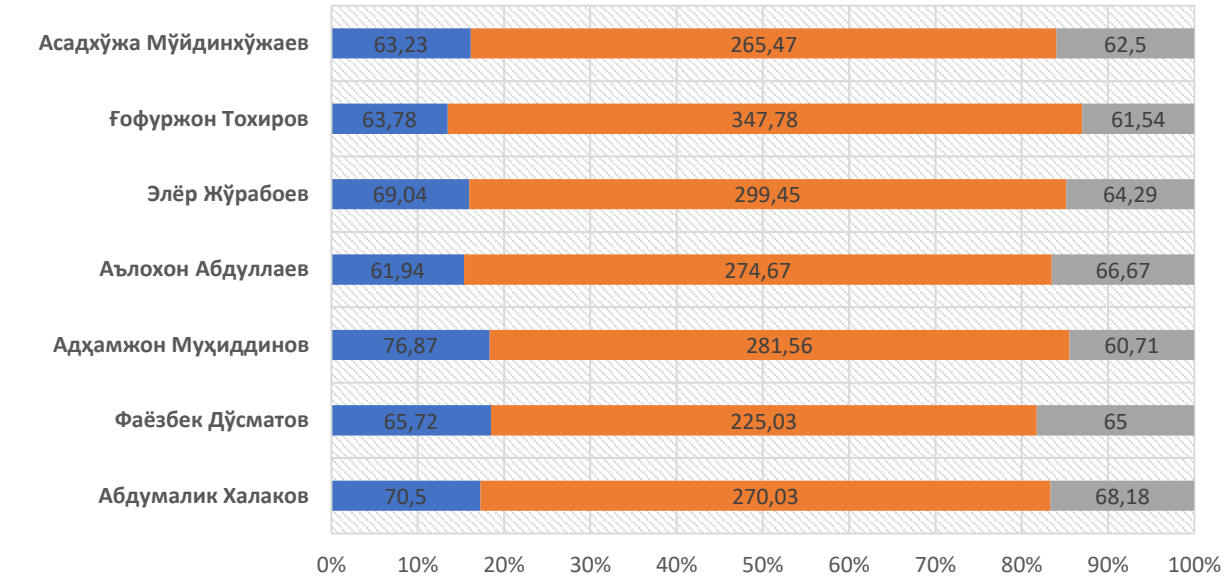
Тадқиқотнинг ташкил этиш усуллари: Педагогик кузатув, педагогик тестлаш, математик статистик таҳлил.

Тадқиқот натижалари ва муҳокамаси. Тадқиқотни тўғри ташкил этиш ва унинг барча босқичларини синчковлик билан амалга ошириш юқори малакали боксчиларни тайёрлаш жараёнида техник тайёргарликни сезиларли даражада яхшилаш имконини беради. Бу боксда халқаро муваффақиятларга эришиш ва янги ёндашувларни жорий этишда катта аҳамиятга эга бўлади.

Техник тайёргарликни назарий билимлар, индивидуал ёндашув ва инновatсион технологиялар билан уйғунлаштириш юқори малакали боксчиларнинг муваффақиятга эришиши учун фундаментал замин яратади. Тўғри ташкил этилган техник тайёргарлик жараёни спортчининг жанг вақтида самарадорлигини ошириб, халқаро мусобақаларда юқори натижаларга эришиш имкониятини таъминлайди.

Биз томонимиздан олиб борилган тадқиқот амалиёти давомида юқори малакали боксчиларнинг техник-тактик тайёргарлиги жараёнида зарба кучи ва аниқлиги смарадорлигини текшириш натижасида қуидаги натижалар қайд этилди:

1-расмда акс этган юқори малакали боксчи, халқаро тоифадаги спорт устаси, жаҳон чемпиони, олимпиада чемпиони Абдумалик Халаковнинг сигнал орқали махсус бокс қопига (Якка курашчи зарбаларини ўлчаш учун дастурли аппарат мажмуаси) зарба бериш жараёнида суст кучланишдаги зарбаси 70.5 кг ни, юқори кучланишдаги зарбаси 270.03 кг ни ва зарба аниқлиги 68.18 % ни ташкил этди. Мазкур кўрсаткич орқали 57 кг вазн тоифасида жанг олиб борувчи А.Халаков ўз имкониятларини маълум қисмини очиб берди. Ушбу қайд этилган натижалардан кўришимиз мумкинки вазн тоифасига нисбатан куч жисмоний сифати ва тезкорлик сифатлари спортчимизда юқори даражада эканлиги аниқланди.



	Абдумалик Халаков	Фаёзбек Дўсматов	Адҳамжон Муҳиддинов	Аълохон Абдуллаев	Элёр Жўрабоев	Ғофуржон Тохиров	Асадхўжа Мўйдинхўжаев
Суст кучланишдаги зарба (кг)	70,5	65,72	76,87	61,94	69,04	63,78	63,23
Юқори кучланишдаги зарба (кг)	270,03	225,03	281,56	274,67	299,45	347,78	265,47
Зарба аниқлиги (%)	68,18	65	60,71	66,67	64,29	61,54	62,5

1-расм. Юқори малакли боксчиларнинг махсус бокс қопига сигнал орқали зарба бериш кўрсаткичлари.

Юқори малакали спортчилар орасида спорт устаси Ф.Дўсматовнинг сигнал асисида махсус бокс қопига зарба бериш назорат синовида суст кучланишда берилган зарба кучи 65.72 кг ни, юқори кучланишда берган зарба кучи эса 225.03 кг га тенг эканлиги аниқланди. Берилган ҳар иккала зарба аниқлигини ўртача кўрсаткичи 65% га тенг деб топилди.

Тадқиқот давомида халқаро тоифадаги спорт устаси А.Муҳиддиновнинг қайд этган натижаларига юзаланадиган бўлсак спортчининг суст кучланишдаги зарба кучи 76.87 кг га ва юқори кучланишдаги зарба кучи 281.56 кг га тенг бўлди. Зарба аниқлиги 60.71% ни ташкил этди (1-расмга қаранг).

Навбатдаги спортчимиз 75 кг вазндаги халқаро тоифадаги спорт устаси А.Абдуллаев бўлиб ушбу спортчи томонидан кузатилган натижалар қуидагича: суст кучланишдаги зарба 61.94 кг, юқори кучланишдаги зарба 274.67 кг ҳамда зарбалар аниқлиги 66.67% га тенг деб топилди.

Юқори малакали спортчилар томонидан қайд этилаётган ушбу кўрсаткичлар уларнинг қайси тарафларига кўпроқ эътибор бериш лозимлиги ҳамга юқори кўрсаткичлар салмоғини янада ошириш учун ҳизмат қилади. Юқори малакали боксчиларнинг махсус бокс қопига сигнал асосида зарба бериш кўрсаткичлари Э.Жўрабоевда ҳам ташкил этилганда унинг натижалари

суст кучланиш билан зарба бериш 69.94 кг ни, юқори кучланиш билан зарба бериш кўрсаткичлари 299.45 кг ни ва зарбалар аниқлиги 64.29% ни қайд этди (1-расмга қаранг).

Халқаро тоифадаги спорт устаси Ғофуржон Тохиров томонидан аниқланган мазкур тестда суст кучланишдаги зарба 63.78 кг ва юқори кучланишдаги зарба 347.78 кг ни ташкил этди. Бундан кўриниб туриндики 71 кг вазн тоифасидаги бу спортчимизда портловчан куч сифати яҳши ривожланган ва унда рақибни нокаут ҳолатига солиб қўйиш фоизи юқори эканлигидан далолат беради. Мазкур боксчимизнинг зарба аниқлиги кўрсаткичлари ўртача 61.54% ни ташкил этгани аниқланди.

Олиб борилган тадқиқот натижалари сўнгида халқаро тоифадаги спорт устаси, жаҳон чемпиони, олимпиада чемпиони Асадхўжа Мўйдинхўжаев томонидан қайд этилган натижалар қуидагилардан иборат: суст кучланишда берилган зарба 63.23 кг, юқори кучланишда берилган зарба 265.47 кг ва берилган зарбалар аниқлиги 62.5% га тенг бўлгани аниқланди.

Қайд этилган барча юқори малакали боксчиларимизнинг сигнал орқали махсус бокс қопига (Якка курашчи зарбаларини ўлчаш учун дастурли аппарат мажмуаси) зарба бериш кўрсаткичлари малакали мураббийлар ҳамда мутахасис олимлар томонидан таҳлил қилинди ва спортчиларнинг тайёргарлик жараёнларида тезкор-куч ва портловчан-куч сифатларига алохида эътибор бериб борилгани аниқланди.

Хулоса

Тадқиқот натижалари юқори малакали боксчиларнинг зарба кучи, зарба аниқлиги ва бу кўрсаткичларнинг спортчиларнинг умумий тайёргарлик ҳолатига таъсирини чуқур таҳлил қилишга имкон берди. Ҳар бир спортчининг натижалари уларнинг техник-тактик тайёргарлиги, куч-қувват кўрсаткичлари ва индивидуал хусусиятларига боғлиқ эканлиги аниқланди. Қуйида асосий хулосалар кенг талқинда ёритилган:

Зарба кучи ва аниқлик ўртасидаги боғлиқлик: Спортчиларнинг юқори кучланиш билан зарба беришдаги кўрсаткичлари суст кучланишдагига нисбатан бир неча баробар юқори бўлгани кузатилди. Шу билан бирга, зарба аниқлиги ўртача 60–66% оралиғида бўлиб, куч билан аниқликни мувофиқлаштириш спортчиларнинг портловчан куч сифатларини ривожлантириш заруриятини кўрсатмоқда.

Портловчан кучнинг аҳамияти: Ғофуржон Тоҳировнинг юқори кучланишдаги зарба кўрсаткичи энг юқори бўлиб, 347.78 кг ни ташкил этди. Бу натижа 71 кг вазндаги спортчининг юқори портловчан кучга эга эканлигини ва зарба самарадорлигини ошириш учун бу хусусиятни янада ривожлантириш имкониятлари мавжудлигини кўрсатади.

Аниқлик ва тактик салоҳият: Зарба аниқлигининг 60–66% оралиғида эканлиги спортчиларнинг техник ва тактик қобилиятлари билан узвий боғлиқ. Айниқса, суст кучланишдаги зарбалар аниқлигининг юқорилиги боксчиларнинг рақибга тўғри ва самарали зарба бериш қобилиятларини шакллантиришда муҳим аҳамият касб этади.

Вазн ва кучланишнинг зарба кучига таъсири: Тадқиқотда спортчиларнинг вазн тоифаси ва улар томонидан кўрсатилган зарба кучлари орасида муайян боғлиқлик аниқланган. Масалан, А. Абдуллаев ва Ғ. Тоҳиров каби спортчиларнинг юқори кучланишдаги зарбалари вазн тоифаларига мос равишда максимал натижаларга эришиш имкониятларини кўрсатди.

Амалий аҳамият: Юқоридаги натижалар мураббий ва спорт мутахассислари учун муҳим методик кўрсатмаларни шакллантиришга хизмат қилади. Тезкор-куч ва портловчан куч сифатларини ривожлантиришга йўналтирилган махсус машғулотлар зарба самарадорлигини ошириш ва мусобақаларда юқори натижалар кўрсатишга замин яратади.

Якуний хулоса: Юқори малакали боксчиларнинг зарба кучи ва аниқлик кўрсаткичлари спортчиларнинг тезкор-куч ва портловчан-куч хусусиятларини ривожлантиришнинг долзарблигини тасдиқлайди. Бундай натижалар спортнинг илмий асосланган методикаси ва индивидуал ёндашувлар асосида тайёрланган машғулот дастурлари муҳимлигини таъкидлайди. Шунингдек, спортчиларни тайёрлаш жараёнида уларнинг техник-тактик ва психологик қобилиятларини ҳам ҳар томонлама ривожлантириш лозим. Бу эса мусобақаларда муваффақиятга эришиш эҳтимолини оширади ва жаҳон майдонида рақобатбардошликни таъминлайди.

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ПРЯМЫЕ И ОБРАТНЫЕ ЗАДАЧИ ДЛЯ УРАВНЕНИЯ ШТУРМА-ЛИУВИЛЛЯ, ЗАДАННОГО ПО ВСЕЙ ЧИСЛОВОЙ ОСИ

Аннотация:*Статья посвящена решению прямых и обратных задач для уравнений Штурма-Лиувилля, заданного на число всей оси. Исследуются основные математические методы и подходы для нахождения явления и собственные функции оператора Штурма-Лиувилля, а также исследуются условия, при которых задачи имеют решения.*

Ключевые слова: *решение Йоста, уравнения, коэффициент, число, функция, лемма.*

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DIRECT AND INVERSE PROBLEMS FOR THE STURM-LIOUVILLE EQUATION, SPECIFIED ON THE ENTIRE NUMERICAL AXIS

Abstract:*The article is devoted to solving direct and inverse problems for the Sturm-Liouville equations, specified on the entire axis. The main mathematical methods and approaches for finding the phenomenon and eigenfunctions of the Sturm-Liouville operator are investigated, and the conditions under which the problems have solutions are investigated.*

Keywords: *Jost solution, equations, coefficient, number, function, lemma.*

В данной статье мы рассмотрим классические понятия, связанные с уравнением Штурма-Лиувилля, заданным перед целым числом. Поэтому приведем некоторые теоремы и леммы.

Пусть дана задача ниже, т.е.

$$-y'' + q(x)y = k^2 y, \quad (-\infty < x < \infty) \tag{1.1}$$

здесь потенциал $q(x)$ является действительной функцией

$$\int_{-\infty}^{\infty}(1+|x|)|q(x)|dx<\infty \qquad (1.2)$$

удовлетворяет условие. Уравнение (1.1) при условии (1.2)

$$f(x,k)=e^{ikx}+\overline{\overline{o}}(1),\qquad f'(x,k)=ike^{ikx}+\overline{\overline{o}}(1),\quad (x\to+\infty) \qquad (1.3)$$

$$g(x,k)=e^{-ikx}+\overline{\overline{o}}(1),\quad g'(x,k)=-ike^{-ikx}+\overline{\overline{o}}(1),\quad (x\to-\infty) \qquad (1.4)$$

определены асимптотические решения. Эти решения называются решениями Йоста уравнения (1.1).

Лемма 1.1. Решения задачи (1.1) - (1.2) являются решениями следующего интегрального уравнени**я:** $f(x,k)=e^{ikx}+\int_{x}^{+\infty}\frac{\sin k(x-t)}{k}q(t)f(t,k)dt$,

$$g(x,k)=e^{-ikx}+\int_{-\infty}^{x}\frac{\sin k(x-t)}{k}q(t)g(t,k)dt.$$

Для решений Йоста справедлива следующая теорема.

Теорема 1.1. (Левин Б.Я.) Для решений задачи (1.1) - (1.2) справедлив следующий интегральный вид:

$$f(x,k)=e^{ikx}+\int_{x}^{\infty}A^{+}(x,t)e^{ikt}dt, \qquad (1.5)$$

$$g(x,k)=e^{-ikx}+\int_{-\infty}^{x}A^{-}(x,t)e^{-ikt}dt. \qquad (1.6)$$

Кроме того

1. $A^{+}(x,y)$, $A^{-}(x,y)$ ядра связаны с $q(x)$ потенциалом следующими уравнениями

$$q(x)=-2\frac{d}{dx}A^{+}(x,x),\qquad q(x)=2\frac{d}{dx}A^{-}(x,x), \qquad (1.7)$$

2. Для любых конечных x

$$\int_{x}^{\infty}|A^{+}(x,t)|dt<\infty,\qquad \int_{-\infty}^{x}|A^{-}(x,t)|dt<\infty \qquad (1.8)$$

Результат. $f(x,k)$ и $g(x,k)$ функции по переменной можно аналитически продолжить в высшую комплексную полуплоскость.

В действительных значениях $\operatorname{Im}k=0$ $(k\neq 0)$ пара функций $\{f(x,k),\ f(x,-k)\}$ и $\{g(x,k),\ g(x,-k)\}$ образует систему фундаментальных решений. Поэтому

$$f(x,k)=b(k)g(x,k)+a(k)g(x,-k), \qquad (1.9)$$

$$g(x,k)=c(k)f(x,k)+d(k)f(x,-k). \qquad (1.10)$$

Лемма-1.2. Если будет $\operatorname{Im}k=0,\quad k\neq 0$, то

1) $a(-k)=\overline{a(k)},\qquad b(-k)=\overline{b(k)}$;

2) $c(k) = -b(-k), \quad d(k) = a(k);$

3) $a(k) = -\frac{1}{2ik} W\{f(x,k),\ g(x,k)\};$

4) $b(k) = \frac{1}{2ik} W\{f(x,k),\ g(x,-k)\};$

5) $|a(k)|^2 = 1 + |b(k)|^2;$

6) $b(k) = O\left(\frac{1}{|k|}\right), \quad |k| \to \infty;$

7) в $\operatorname{Im} k \geq 0$ равномерно

$$a(k) = 1 + O\left(\frac{1}{|k|}\right), \quad |k| \to \infty;$$

8) $a(k)$ функция является аналитической функцией в $\operatorname{Im} k > 0$ верхней полуплоскости и имеет предельное число простых нулей $k_j = i\chi_j$, $j = \overline{1,n}$, а числа являются собственными значениями уравнения (1.1).

Пример 1. Ниже

$$-y'' - \frac{2}{\operatorname{ch}^2 x} y = k^2 y, \quad x \in \square$$

найдите решения Йоста уравнения и коэффициенты теории рассеяния $a(k)$ и $b(k)$.

Решение: будем искать решение Йоста $f(x,k)$ этого уравнения

$f(x,k) = Ae^{ikx}(2k + ia(x))$

привести к уравнению $f(x,k)$, при этом

$$(2k + ia(x))k^2 e^{ikx} + 2ka'(x)e^{ikx} - ie^{ikx}a''(x) -$$
$$- \frac{2}{\operatorname{ch}^2 x} e^{ikx}(2k + ia(x)) = k^2(2k + ia(x))e^{ikx}$$

получим равенство. Если уравнять коэффициенты перед одинаковыми степенями k, то

$$\begin{cases} a'(x) = \frac{2}{\operatorname{ch}^2 x}, \\ a''(x) = -\frac{2}{\operatorname{ch}^2 x} a(x) \end{cases}$$

будем иметь равенства. Отсюда

$$-\frac{4}{\operatorname{th}^3 x} \operatorname{sh} x = -\frac{2}{\operatorname{ch}^2 x} a(x).$$

Значит, $a(x) = 2 \operatorname{th} x.$ Таким образом,

$$f(x,k) = Ae^{ikx}(2k + 2i \operatorname{th} x)$$

$f(x,k) \underset{x\to\infty}{\to} e^{ikx}$ с учетом асимптотики получим равенства

$$A(2k+2i)=1$$

$$\Rightarrow A=\frac{1}{2(k+i)} \text{ хам } f(x,k)=e^{ikx}\,\frac{k+i\,\mathrm{th}\,x}{k+i}.$$

Именно так можно вывести $g(x,k)=e^{-ikx}\,\frac{k-i\,\mathrm{th}\,x}{k+i}$. При помощи найденных $f(x,k)$ и $g(x,k)$ решений Йоста мы получим

$$W\{f(x,k),\,g(x,k)\}=W\{f(x,k),\,g(x,k)\}\Big|_{x=0}=$$

$$=\begin{vmatrix} \frac{k}{k+i} & \frac{k}{k+i} \\ \frac{ik^2+i}{k+i} & \frac{-ik^2-i}{k+i} \end{vmatrix}=\frac{-2ik(k-i)}{k+i}$$

Здесь по формуле 3) находим $a(k)=\frac{k-i}{k+i}$

Именно таким образом

$$W\{f(x,k),\,g(x,-k)\}=\begin{vmatrix} \frac{k}{k+i} & \frac{k}{k+i} \\ \frac{ik^2+i}{k+i} & \frac{ik^2-i}{k+i} \end{vmatrix}=0, \qquad b(k)=0.$$

Пример 2. Уравнение

$$-y''-2b\delta(x)y=k^2y, \qquad x\in$$

найдите решения Йоста, а также коэффициенты $a(k)$ и $b(k)$ теории рассеяния, где $\delta(x)$ - функция Дирака "дельта."

Решение. По лемме 1.1

$$f(x,k)=e^{ikx}-2b\int_x^\infty \frac{\sin k(x-t)}{k}\delta(t)f(t,k)dt,$$

$$f(x,k)=\begin{cases} e^{ikx}, & x\ge 0, \\ e^{ikx}-\dfrac{2b\sin kx}{k}, & x\le 0. \end{cases}$$

Таким образом,

$$g(x,k)=\begin{cases} e^{-ikx}+\dfrac{2b\sin kx}{k}, & x\geq 0 \\ e^{ikx}, & x\leq 0 \end{cases}$$

$$W\{f(x,k),\, g(x,k)\}=W\{f(x,k),\, g(x,k)\}\Big|_{x=+\infty}=$$

$$=\begin{vmatrix} 1 & 1 \\ ik & -ik+2b \end{vmatrix}=-2ik+2b\,.$$

Поэтому

$$a(k)=1+\frac{b}{k}i;$$

$$W\{f(x,k),\, g(x,-k)\}=W\{f(x,k),\, g(x,-k)\}\Big|_{x=+\infty}=\begin{vmatrix} 1 & 1 \\ ik & ik+2b \end{vmatrix}=2b$$

Значить,

$$b(k)=-\frac{b}{k}i\,.$$

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ШАХСНИНГ АЙБЛИЛИК МАСАЛАСИНИ ҲАЛ ҚИЛМАСДАН ЖИНОЯТ ИШИНИ ТУГАТИШ ТАРТИБИНИ ТАКОМИЛЛАШТИРИШ

Аннотация:*Мазкур мақолада Ўзбекистон Республикаси жиноят-процессуал қонунчилик тизимида айблилик масаласини ҳал қилмасдан жиноят ишини тугатиш учун белгиланган асослар атрофлича ўрганилган. Шу билан бирга, ушбу нормалар айрим хорижий давлатларнинг жиноят-процессуал қонунчилиги билан қиёсий таҳлил қилинган ҳолда, мавжуд ўхшашликлар ва фарқлар аниқланган. Шунингдек, амалдаги жиноят-процессуал қонунчиликда белгиланган мазкур нормаларнинг камчиликлари таҳлил қилиниб, улар бўйича таклиф ва ечимлар ишлаб чиқишга алоҳида эътибор қаратилди.*

Калит сўзлар: *Айблилик масаласи, суд-тергов амалиёти, тергов ва суриштирув масалалари, жиноят иши, реабилитация, ҳуқуқий тизим.*

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IMPROVEMENT OF THE PROCEDURE FOR TERMINATION OF CRIMINAL CASES WITHOUT RESOLVING THE ISSUE OF A PERSON'S GUILT

Abstract: *This article examines in detail the grounds established in the criminal procedure legal system of the Republic of Uzbekistan for terminating a criminal case without resolving the issue of guilt. At the same time, these norms are compared with the criminal procedure legislation of some foreign countries, existing similarities and differences are identified. Also, the shortcomings of these norms defined in the current criminal procedure legislation were analyzed, and special attention was paid to the development of proposals and solutions on them.*

Keywords: *The issue of guilt, forensic practice, issues of investigation and inquiry, criminal case, rehabilitation, legal system.*

Кириш:

Жиноят ва жиноят иши деб номланган икки тушунчани нима эканлиги билиб оладиган бўлсак, Ўзбекистон Республикаси Жиноят кодекси 14-

моддасида жиноят тушунчасига таъриф бериб ўтилган, унга кўра, Жиноят кодекси билан тақиқланган айбли ижтимоий хавфли қилмиш (ҳаракат ёки ҳаракацизлик) жазо қўллаш таҳдиди билан жиноят деб топилади деб мустаҳкамлаб қўйилган. Мазкур нормадан тушунишимиз мумкинки жиноят ижтимоий хавфли қилмиш ҳисбланади.

Ўзбекистоннинг амалдаги жиноят-процессуал қонунчилигида «жиноят иши» тушунчасига аниқ таъриф келтирилмаган. Бироқ, олим М.А. Лавновнинг таъкидлашича, «жиноят иши шахснинг ҳаракати ёки ҳаракацизлиги натижасида якка шахсга, бир нечта шахсга ёки бутун жамиятга ижтимоий хавф туғдирувчи ва қонунга зид бўлган қилмиш сифатида тушунилади[96]».

Фикримизча «жиноят» моддий ҳуқуқ соҳасида қўлланиладиган тушунча, «жиноят иши» бўлса, бевосита жиноят-процессида фойдаланилади.

Шунингдек, Ўзбекистон Республикаси Жиноят-просессуал кодексининг 83 ҳамда 84-моддаларида назарда тутилган реабилитация ҳамда айблилик тўғрисидаги масалани ҳал қилмай туриб жиноят ишини тугатиш учун асосларга тўхталишдан олдин мазкур тушунчаларнинг луғавий маъносига, уларнинг келиб чиқиши ҳақида фикр билдирсак мақсадга мувофиқ ҳисобланади.

«Реабилитация» тушунчаси лотинча со‘здан олинган бо‘либ, бунда ҳуқуқларни тиклаш, ё‘қолган яхши номни тиклаш, айбсиз шахсни ёки «жиноят таркиби ё‘қлиги» сабабли бир гуруҳ шахсларни асоссиз айблашни бекор қилиш маъноларини англатади[97].

Муҳокама ва натижалар:

Жиноят-просессуал кодексининг 83-моддасида гумон қилинувчи, айбланувчи, судланувчини реабилитация қилиш учун асослар назарда тутилган бўлиб, унга кўра:

- иш қўзғатилган ва тергов ҳаракатлари ёки суд муҳокамаси ўтказилган иш бўйича жиноий ҳодиса юз бермаган бўлса;
- унинг қилмишида жиноят таркиби бўлмаса;
- унинг содир этилган жиноятга дахли бўлмаса.

Жиноят-процессуал ҳуқуқда шахснинг айблилик масаласини ҳал қилмасдан жиноят ишини тугатиш тартиби мураккаб ва масъулиятли институтлардан бири ҳисобланади. Ушбу институт шахснинг ҳуқуқ ва манфаатларини ҳимоя қилиш, адолат тамойилларини таъминлаш ҳамда жиноят процессининг самарадорлигини ошириш мақсадида қўлланилади. Бироқ, бу процессни қонунийлик, адолат ва шаффофликка риоя этган ҳолда амалга оширишни таъминлашда айрим камчиликлар ва мураккабликлар мавжуд.

[96] Лавнов М.А. Институт прекращения уголовного дела в системе уголовно-процессуального права и правоприменительной практики: дис. … канд. юрид. наук. Саратов, 2015.
[97]Стадия возбуждения уголовного дела: современное состояние и перспективы совершенствования. 2016 / Гаврилов Б. Я. · Стадия возбуждения уголовного дела - "Атавизм"

Шунингдек, Жиноят-процессуал ҳуқуқ соҳасида фаолият юритган олимлардан бири О.В. Волйнкаянинг фикрига кўра, «ушбу процессуал институтнинг моҳиятини тадқиқ қилиш ва жиноят-процессуал жараён илм-фанида унинг асосий мазмунини аниқлашда турли ёндашувлар мавжудлиги бу масаланинг мураккаблигини яққол намоён қилади[98]» деган фикрлари асосида ҳам ушбу институтнинг мураккаблигига гувоҳ боълишимиз мумкин.

Бундан ташқари, айблилик тўғрисидаги масаласини ҳал қилмай туриб жиноят ишини тугатишга нисбат миллий олимимиз Ш.Г. Нийзованинг билдирган фикрига кўра, «жиноятга жавобгарликка тортиш ва жазони ижро этиш муддатларини белгилаш, инсон ҳуқуқларини бузилишининг олдини олишга хизмат қилади, чунки бу усул одамларни доимий жиноят жавобгарлигидан қўрқиб яшашмасликка ундайди[99]».

Жиноят ишини айблилик масаласини ҳал қилмай туриб тугатиш тартибига тоъхталиб оътадиган боълсак, Оъзекистон Республикаси Жиноят-процессуал кодекси 84-моддасида жиноят ишини айблилик масаласини ҳал қилмай туриб тугатиш асослари мустаҳкамлаб қоъйилган унга коъра,

1. Жавобгарликка тортиш муддати тугаган бўлса.
2. Эълон қилинган амнистия акти содир этилган жиноятга ёки шахсга нисбатан тадбиқ этилса.
3. Айбланувчи ёки судланувчи вафот этган тақдирда.
4. Шахсга нисбатан айнан шу айблов бўйича суднинг қонуний кучга кирган ҳукми мавжуд бўлса.
5. Шахсга нисбатан айнан шу айблов бўйича суднинг қонуний кучга кирган ажрими (қарори) ёки ваколатли мансабдор шахснинг жиноят иши қўзғатишни рад этиш ёхуд ишни тугатиш ҳақидаги бекор қилинмаган қарори мавжуд бўлса.
6. Иш фақат жабрланувчининг шикояти асосида қўзғатиладиган бўлса ва унинг шикояти мавжуд бўлмаса (Ўзбекистон Республикаси Жиноят-процессуал кодексининг 325-моддасида назарда тутилган ҳоллардан ташқари).
7. Шахс ижтимоий хавфли қилмиш содир этган пайтда жиноий жавобгарликка тортиш мумкин бўлган ёшга тўлмаган бўлса.
8. Жиноят кодексининг Махсус қисмининг тегишли моддасида шахснинг:

- Ўз қилмишига амалда пушаймон бўлгани туфайли;

[98] Волы́нская О.В. Прекращение уголовного дела и уголовного преследования: теоретические и организационно-правовые проблемы: дис… докт… юрид. наук. М., 2018; она же. Прекращение уголовного дела и уголовного преследования: теоретические и организационно-правовые проблемы: монография. М., Юнити-Дана, Закон и право, 2017.

[99] Муродов Бахтиер Баходирович. Основания прекращения уголовного дела в связи с истечением срока давности привлечения к ответственности (опыт Узбекистана) // Вестник экономической безопасности. 2016. №1. URL: https://cyberleninka.ru/article/n/osnovaniya-prekrascheniya-ugolovnogo-dela-v-svyazi-s-istecheniem-sroka-davnosti-privlecheniya-k-otvetstvennosti-opyt-uzbekistana (дата обращения: 22.11.2024).

- Етказилган моддий зарарнинг ўрни қопланганлиги ёки жиноят оқибатлари бартараф этилганлиги сабабли жавобгарликдан озод этилиши назарда тутилган бўлса.

Мазкур норма жиноят-процессуал қонунчиликда шахснинг айблилик масаласини ҳал қилмасдан жиноят ишини тугатиш учун ҳуқуқий асосларни белгилайди. Улар давлатнинг жазолаш ваколатини инсон ҳуқуқларига риоя қилиш билан мувозанатлашга қаратилган. Бунда муддатларнинг ўтиб кетиши, амнистия, жабрланувчининг шикояти йўқлиги ёки шахснинг ижтимоий хавфи йўқлиги каби омиллар инобатга олинади.

Шунингдек, шахснинг ўз қилмишига пушаймон бўлиши ва зарар оқибатларини бартараф этиши жазодан озод этиш учун асос сифатида қабул қилиниши, қонунчиликда инсонпарварлик тамойилининг устуворлигини кўрсатади. Ушбу меъёрлар нафақат адолатни таъминлаш, балки тергов ва суд органларининг ортиқча иш юкини камайтиришга ҳам хизмат қилади. Бироқ, улар нотўғри қўлланилса, жабрланувчи ҳуқуқлари ёки адолат принсиплари бузилиши эҳтимоли мавжуд.

Таъкидлаш лозимки, ушбу модда биринчи қисмининг 1, 2, 3 ва 8-бандларида назарда тутилган ҳолларда, агар айбланувчи, судланувчи ёки вафот этган айбланувчининг, судланувчининг яқин қариндошлари талаб қилса, ишни юритиш умумий тартибда давом эттирилиши мумкин. Бундай ҳолларда ҳукм қилиш учун асослар мавжуд бўлса, айблов ҳукми жазо тайинланмасдан чиқарилади.

Мақоламизни айрим хорижий давлатларни жиноят-процессуал ҳуқуқ тизимида жиноят ишини айблилик масаласини ҳал қилмай туриб тугатиш институтини қандай тартибга солинганлигини таҳлил қилиш билан давом этирадиган бўлсак.

Жумладан, Грузия жиноят-процессуал қонунчилигида ҳам жиноят ишини тугатиш асослари тўлиқ равишда ягона моддада келтирилган. Унга кўра, жиноят қонунида назарда тутилган жиноий ҳаракат бўлмаса, агар ҳаракат ноқонуний бўлмаса, агар янги қонун жиноятни бекор қилса, прокуратура Конституцияга зид бўлган қонунни тан олган тақдирда, жиноий қидирув қилиш муддати тугаган тақдирда, амнистия акти чиқарилган тақдирда, шахсни жиноий жавобгарликдан ва содир этилган ҳаракат учун жазодан озод қилинган тақдирда, худди шу айблов бўйича суднинг қонуний кучга кирган ҳукми мавжуд бўлса жиноят иши тугатилиши зарур[100].

Бундан ташқари Қозоғистон Жиноят-процессуал қонунчилигида айблилик масаласини ҳал қилмай туриб жиноят ишини тугатиш қуйдагича белгиланган,

Жиноят содир этилмаганлиги, жиноят ҳодисасининг йўқлиги, амнистия акти туфайли, агар у содир этилган ҳаракатлар учун жазо қўлланилишини бартараф этса, жиноий жавобгарликка тортишни чеклаш муддати тугаганлиги учун, жабрланувчининг шикояти йўқлиги учун, агар содир этилган хатти-

[100] Грузия, Уголовно-процессуальный кодекс, https://matsne.gov.ge/ru/document/view/90034?publication=163

ҳаракатлар учун жиноий жавобгарликни бекор қиладиган қонун кучга кирса ёки Қозоғистон Республикасининг конституциявий Кенгаши томонидан ушбу жиноят иши бўйича қўлланилиши керак бўлган Конституцияга хилоф қонун ёки бошқа нормативҳуқуқий ҳужжат деб тан олинган бўлса, агар шахсга нисбатан худди шу айблов бўйича суднинг қонуний кучга кирган ҳукми ёки жиноий таъқибнинг мумкин эмаслигини аниқлаган бошқа бекор қилинмаган суд қарори мавжуд бўлса жиноят иши тугатилади[101].

Жиноят-процессуал соҳадаги қонунчиликни такомиллаштиришнинг устувор йўналишларини ишлаб чиқишга қаратилган Ўзбекистон Республикаси Президентининг 2018-йил 14-майдаги ПҚ–3723-сон қарори билан тасдиқланган Ўзбекистон Республикасининг Жиноят ва жиноят-процессуал қонунчилигини такомиллаштириш консепсияси қабул қилинди.

Шунга асосан, жиноят жараёнида жиноят ишини тугатиш ҳамда унда исбот қилишни амалга ошириш масаласини чуқур тадқиқ этиш ва жиноят ишини тугатиш асосларининг ўзига хос хусусиятларини ҳисобга олган ҳолда мазкур институтни такомиллаштириш асосларини яратиш жуда муҳим аҳамиятга эга. Бу нафақат жиноят процессининг самарадорлигини ошириш, балки унга оид қонунчиликни такомиллаштиришга ҳам хизмат қилади.

Бизга маълумки, жиноят жараёнида жиноят ишини тугатиш — суриштирув ва дастлабки терговни тамомлашнинг бир шакли бўлиб, бу жараёнда масъулиятни қайд этиш, жиноят ишига оид ҳуқуқий жараёнларнинг тўғри ва аниқ амалга оширилиши зарур. Жиноят ишини тугатиш жараёни ҳар бир ҳолатда эҳтиёткорлик билан кўриб чиқилиши керак, чунки бу суд тизими ва унинг адолатли ишлашига бевосита таъсир қилади.

Бунда, жиноят ишини тугатиш ваколатига эга бўлган органлар ва мансабдор шахслар, ўз фаолиятида жиноят ишини тугатишнинг қонуний асосларини текшириш ва аниқ исбот қилишни амалга оширадилар. Бу жараённи бажаришда асосий эътибор далилларни тўплаш, уларни текшириш ва таҳлил қилишга қаратилади. Ҳар бир далилнинг ишончлилиги, тўпланган маълумотларнинг аниқлиги, шунингдек, процессуал қонунларга тўлиқ мувофиқлиги асосида ишни тугатиш қарори қабул қилинади.

Бугунги кунда, олимлар ва ҳуқуқшунослар жиноят ишини тугатиш ҳамда унда исбот қилиниши лозим бўлган ҳолатлар ҳақида турли хил фикрларни илгари суриб, бу жараённинг янада самарали ва адолатли бўлиши учун керакли тавсияларни беришмоқда. Масалан, баъзи олимлар, жиноят ишини тугатиш жараёнида ижтимоий хавфли ҳолларни, шунингдек жабрланувчиларнинг ҳуқуқларини ҳимоя қилиш зарурлигини таъкидлашмоқда. Жумладан, У.Тухташеванинг назарида, қилмишда жиноят-процессуал муносабатлар мавжуд бўлишини инкор қиладиган ҳуқуқий фактларнинг мавжудлиги жиноят ишини тугатишни тақозо этади, чунки

[101] Казахстан Республика, Уголовно-процессуальный кодекс, https://adilet.zan.kz/rus/docs/K1400000231

бундай ҳолатлар суднинг тўғри қарор қабул қилишига халақит беради ва жараённи нотўғри йўналишга олиб келиши мумкин[102].

Шу ўринда, жиноят жараёнидаги барча томонларнинг қонуний ҳуқуқлари ва манфаатлари ҳимоя қилинишини таъминлаш учун, жиноят ишларини тугатишнинг барча асосларини аниқлаш ва улар устидан қатъий назоратни амалга ошириш жуда муҳим. Бундай ёндашув, ўз навбатида, суд тизимининг адолатли ва ошкора ишлашини таъминлашга хизмат қилади.

Шунингдек, айблилик тўғрисидаги масалани ҳал қилмасдан туриб жиноят ишини тугатиш институти жиноят жараёнининг муҳим жиҳати бўлишига қарамасдан, суд-тергов амалиётида уни қўллаш билан боғлиқ айрим муаммолар ҳам мавжуд. Қуйида ушбу институт билан боғлиқ бўлган муаммоларни таҳлил қилишга ҳаракат қиламиз.

Жиноят-процессуал кодексининг 84-моддаси биринчи қисмининг 3-бандига кўра, айбланувчи ёки судланувчининг вафот этганлиги сабабли айблилик масаласини ҳал қилмасдан туриб жиноят ишини тугатиш асоси белгиланган. Бироқ, суд-тергов амалиётида гумон қилинувчининг вафот этганлиги ҳолатлари ҳам учраб туради. Амалдаги Жиноят-процессуал кодексда суриштирув, дастлабки тергов ёки суд жараёнида гумон қилинувчи вафот этган тақдирда жиноят ишини ҳал қилиш тартиби аниқ мустаҳкамланмаган.

Ҳозирги кунда гумон қилинувчи вафот этган ҳолларда ваколатли органлар томонидан дастлаб унга сиртдан айблов эълон қилиниб, сўнг жиноят иши айбланувчининг вафот этганлиги сабабли айблилик масаласини ҳал қилмасдан туриб тугатилмоқда. Шу билан бирга, агар жиноят иши қўзғатилмаган бўлса, шахсга айбланувчи мақомини бериш ҳуқуқий асосга эга эмас. Бу ҳолат Жиноят-процессуал кодексининг 84-моддасида белгиланган қоидаларга зид ҳисобланади.

Амалиётда гумон қилинувчи мақомидаги шахснинг тергов, суриштирув ёки суд жараёнида вафот этган ҳолатлари учраб туриши сабабли ушбу масалага норматив-ҳуқуқий ечим бериш муҳим аҳамият касб этади.

Хусусан, гумон қилинувчининг вафот этганлиги ҳолатини ҳам айблилик масаласини кўриб чиқмасдан туриб жиноят ишини тугатиш асослари сифатида тан олиш керак деган ечим берилмоқда. Бу ечим фақатгина мавжуд қонунчиликнинг аниқлик ва изчиллигини оширишга эмас, балки ҳуқуқий амалиётни тартибга солишга, шунингдек, фуқароларнинг ҳуқуқлари ва қонуний манфаатларини ҳимоя қилишга қаратилган. Шу билан бирга, бундай ёндашув жиноят-процессуал нормалар қўлланилишида ягона стандартларни шакллантиришга ва ҳуқуқни қўллаш амалиётида юзага келадиган зиддиятларни бартараф этишга хизмат қилади.

Хулоса:

[102] Уголовный процесс: Общая часть. Учебное пособие в 2-х частях. Часть II / Автор-составитель У.А. Тухташева. – Т., 2007. – 281 с.

Ўзбекистон Республикаси Жиноят-процессуал кодексининг 83 ва 84-моддаларида шахснинг айблилик масаласини ҳал қилмасдан жиноят ишини тугатиш асослари аниқ белгиланган. Ушбу норматив-ҳуқуқий асослар жиноят жараёнини адолатли ва инсонпарвар тамойилларга мувофиқ ташкил этишга қаратилган. Жиноят-процессуал ҳуқуқда айблилик масаласини ҳал қилмасдан жиноят ишини тугатиш муҳим процессуал институт ҳисобланади, чунки у давлатнинг жазолаш ваколатларини чеклаб, шахснинг ҳуқуқ ва манфаатларини ҳимоя қилишга хизмат қилади.

Жиноят иши тугатилганда жиноят процессининг барча томонларининг ҳуқуқлари ва манфаатларини мувозанатлашган тарзда ҳимоя қилиш зарур. Бу ҳуқуқий ислоҳотларнинг муваффақиятли амалга оширилишини таъминлашда муҳим омил бўлади. Жиноят-процессуал тизимнинг такомиллаштирилиши, шахсларнинг айблилик масаласини ҳал қилмасдан жиноят ишини тугатиш тартибининг самарали қўлланилиши ва уларнинг ҳуқуқий ҳимояси жамиятда жиноятга қарши курашиш жараёнининг барқарорлигини ва адолатли эканлигини таъминлайди.

Юқоридаги барча омилларни ҳисобга олиб, айблилик масаласини ҳал қилмасдан жиноят ишини тугатиш тартибини такомиллаштириш Ўзбекистондаги жиноят-процессуал тизимни янада самарали ва ҳуқуқий ислоҳотларга мослаштиришга ёрдам беради. Бу нафақат жиноят процессининг самарадорлигини ошириш, балки шахснинг ҳуқуқий манфаатларини ҳимоя қилиш, шунингдек, жамиятдаги ҳуқуқий онгни ривожлантиришга ҳам хизмат қилади. Шу билан бирга, қонунчиликни такомиллаштириш ва амалиётдаги камчиликларни бартараф этиш орқали барча томонларнинг ҳуқуқларини таъминлаш учун қўшимча механизмлар ишлаб чиқиш зарурати мавжуд.

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ОЛМАНИ ЯНГИ НАВЛАРИНИНГ ДАСТЛАБКИ ХЎЖАЛИК БЕЛГИЛАРИ

Анотатция. Мазкур мақолада *Академик М.Мирзаев номидаги боғдорчилик, узумчилик ва виночилик илмий-тадқиқот институти Андижон вилояти Избоскан тумани жойлашган Андижон илмий тажриба станцияси иқлим шароитларида янги олманнинг кечки хорижий навларидан "Моди", "Либери", хамда "Жеромин" "Ред пауло", "Старткинг делишест" навлари озиқланиш майдони 4х2.5 метрга экилган дарахтларнинг меваларининг ранги, хосилдорлиги, бирдона мева вазни, мева хажми, товарлиги, ташки қавати, мева бандининг узунлиги, тош хужайраларининг мавжудлиги, уруғ камераси, уруғар сони каби бир қатор белгилари бўйича маълумотлар келтирилган.*

Калит сўзлар. *"Модий", "Либери", "Жеромин" "Ред пауло", "Старткинг делишест" селекция, якка танлов, абиотик*

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EARLY FARM SIGNS OF NEW VARIETIES OF APPLES

Annotation. *In this article, in the climatic conditions of Andijan Scientific Experimental Station of the Horticulture, Viticulture and Winery Research Institute named after Akademik M.Mirzaev, Izboskan District, Andijan Region, "Modiy", "Liberia", "Jeromin" as well "Red paulo" "Startking deliciousest" varieties from the late foreign varieties of New Germany were planted in a feeding area of 4x2.5 meters information on a number of characteristics of trees such as fruit color, productivity, weight of single fruit, fruit size, quality, outer layer, length of fruit band, presence of stone cells, seed chamber, number of seeds are presented.*

Keywords. *"Modi", "Liberi", "Jerome" "Red Paulo", "Startking Delicious" selection, side selection, abiotic*

Кириш. Ҳар йили дунёда ўртача 43 миллион тонна олма етиштирилади. Олманинг дунёдаги етакчи экспортчилари Хитой, АҚШ ва Европа Иттифоқидир. Олма етиштириш бўйича дунёда этакчи Хитой ҳисобланади. Олмадан бир гектаридан энг юқори хосил олаётган давлаталар АҚШ 37 тонна Туркия ва Полша 28 тонна Хитой хамда Эрон 22 тоннадан Колган давлатлар 10 тоннадан зиёд олма етиштиришмоқдалар.

Етиштирилаётган олмалар махсулотлари дунё ахолисини атига 25 % га таминлашга етиши айни хақиқат.

Саноат ва дунё ахолини сифатли олма мевалари билан таминлашда янги олма навларни ўрганиш уларни интодукция қилиш улар асосида янги навларни ишлаб чиқиш ва ишлаб чиқаришга тадбиқ қилиш хозириги куннинг долзарб муамоларидан биридир

Анашундай муамоларга амалий ечим топишни мақсад килган холда Академик М.Мирзаев номидаги боғдорчилик, узумчилик ва виночилик илмий-тадқиқот институти Андижон вилояти Избоскан тумани жойлашган Андижон илмий тажриба станцияси илмий ходимлари томонидан олманинг яни навларни селекцияда бошланғич манба сифатида фойдаланиш мақсадида меваларни ўргандик.

Тадқиқот услублари. Тадқиқотлар Бутун Россия мева экинлар селекцияси илмий-тадқиқот институти томонидан ишлаб чиқилган “Мевалар, резавор мевали ва ёнғоқ ўсимликлари навларини ўрганиш усули ва дастури” (Орёл 1999)**;** Биокимёвий ва физиологик тадқиқотлар И.В.Мичурин номидаги Россия боғдорчилик илмий-тадқиқот институтининг “Мевали экинлар навларини синаш услуби ва дастури”га (1973) мувофиқ ўтказилди.

Тажрибалар учун Олманинг хорижий навларидан “Модий”, “Либерий”, хамда “Жеромин” “Ред пауло”, “Старткинг делишест” навлари озиқланиш майдони 4х2.5 метрга экилган дарахтларнинг меваларининг ранги хосилдорлиги бирдона мева вазни мева хажми **товарлиги** ташки қавати банди узунлиги тош хужайраларининг мавжудлиги Уруғ камераси Уруғар сони белгилари бўйича ўрганилди.

Тадқиқот натижалари. Ўрганилаётган олманинг хорижий навларида меваларининг пишиш давомийлиги *бошка олма навларига нисбатан эрта эрта*

бошланиб кизил рангга кириши уруғларининг етилиш бошка навларга нисбатан жадал кечди.

Олма навларининг помологик белгилари.

Меванинг учки қисми бўлакларга бўлинмаган. Навнинг хосилдорлиги юқори, товарбоплиги 88.2 % ни ташкил этади. Бирдона мевада 8 тада 9 тагача уруғ етилади. Либерти навининг хосилдорлигини ошириш учун Голден нави чанглатувчи сифатида экиш тавсия этилади.

Олманинг “Моди” навининг мевалари йирик бирдона мевасининг вазини 175.3 гр мева ичининг ранги сариқ рангда сувли ширин бу хусусияти галашнига навидан ўтганлиги яққол билиниб турибди меванинг ташқи юзасидаги ранги қизил ёрқин тош хужайраларининг якол кўриниши меванинг учки қисми бўлакларга бўлинмаганлиги “Либерти” навидан ўтганлиги кўриш мумкин Навнинг хосилдорлиги юқори таворбоплиги 79.8 % ни ташкил этади. Бу нав узинини чанглай олади. Бирдона мевада 6 тада 7 тагача баъзан 8 тагача уруғ етилади.

Олманинг “Жеромин” навининг АҚШ селекциясига мансуб Эрли ред ван навининг клони хисобланди мевалари йирик мева ичининг ранги сариқ

Номи	**Бирдона мева вазни гр**	**Хосилдорлиги тонн/га**	**Мева хажми**	**Товарлиги %**	**Ташки кавати**	**Ранги**	**Банди узунлиги**	**Granul-yatsiyasi**	**Уруғ камераси**	**Уруғар сони**
Либерти	129.5	10800	Йирик	**88.2**	Силлиқ	қизил	**Ўртача**	**Мавжуд**	**5**	**8.4**
Моди	175.3	17800	Йирик	**76.4**	Силлиқ	қизил	**Ўртача**	**Мавжуд**	**5**	**6.4**
Жеромин	168.1	13500	Йирик	**79.8**	Силлиқ	қизил	**Ўртача**	**Мавжуд**	**5**	**7.2**
Пауларед	127.4	15200	Йирик	**87.4**	Силлиқ	қизил	**Ўртача**	**Мавжуд**	**5**	**8.6**
Старкинг делишест	181.2	18400	Йирик	**84.7**	Силлиқ	қизил	**Ўртача**	**Мавжуд**	**5**	**7.5**

рангда сувли ширин меванинг ташқи юзасида ғуборлар мавжуд ранги тўқ қизил ёрқин тош хужайраларининг якол кўринади меванинг учки қисми бўлакларга бўлинган Навнинг хосилдорлиги юқори товарбоплиги 76.4 % ни ташкил этади. Тоғли ва адирли худудларда яхши қизаради паст текислик худуларда кизил ранг олиши сустроқ кечади. Навининг хосилдорлигини ошириш учун Голден Делишест, Гранний Смит, ва Гала навлари чанглатувчи сифатида экиш тавсия

Олманинг “Паулоред” навининг АҚШ селекциясига мансуб якка танлов йўл билан танлаб олинган нав хисобланди мевалари йирик мева ичининг ранги сариқ рангда сувли ширин меванинг ташқи юзасидаги ранги тўқ қизил ёрқин тош хужайраларининг якол кўринади меванинг учки қисми бўлакларга бўлинган Навнинг хосилдорлиги юқори товарбоплиги 87.4 % ни ташкил этади. Тоғли ва адирли, паст текислик худуларда кизил ранг олиши яхши кечади. Бирдона мевада 7 тада 8 тагача уруғ етилади.

Олманинг “Старткинг делишест” навининг АҚШ селекциясига мансуб “Ред делишест” навининг олинган клон нави хисобланди мевалари йирик мева ичининг ранги сариқ рангда сувли ширин меванинг ташқи юзасидаги ранги тўқ қизил ёрқин тош хужайраларининг якқол кўриниши меванинг учки қисми бўлакларга бўлинган Навнинг хосилдорлиги юқори товарбоплиги 84.7 % ни ташкил этади. Тоғли ва адирли худудларда яхши қизаради паст текислик

худуларда кизил ранг олиши сустроқ кечади. Навининг хосилдорлигини ошириш учун Голден Делишест, Гранний Смит, ва Гала навлари чанглатувчи сифатида экиш тавсия этилади. Бирдона мевада 7 тада 8 тагача уруғ етилади.

Хулоса. Олманинг янги навларида олиб борилган хўжалиқ ва биологик кузатувлардан олинган натижалага асослани куйдаг хулосаларга эришдик.

Либерти олма нави Андижон вилояти шароитида яхши қизаради меваси узоқ сақланганда таббий холатини яхши сақлайди. Нав абиотик (иссиқга қурғоқчиликга) омилларга чидамлиги аникланди.

Олманинг Моди нави Андижон вилояти шароитларга мослашиб табиатнинг абиотик (иссиқга қурғоқчиликга) омилларга бардошли хусусиятини намаён бўлди. навнинг яна бир хусусияти қизил рангга тўла кириб зараркунандалар кам зарарланиши билан юқори хосил берди.

Олманинг “Старткинг делишест” нави юқори хосилдорлиги мевалари кам тўклувчан адрли ва паст текислик худудларда хам бир хилда қизил рангга кирди сақланувчанлиги юқори узоқ вакт сақланганда табийлигини йўқотмади.

Ўрганилган олманинг барча навларнинг Андижон вилоятига иқлимлаштириш. кўчатларини кўпатириш бўйича тажрибалар давом этирилмоқда.

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САРИҚ МАЛИНАНИНГ ХЎЖАЛИК БЕЛГИЛАРИГА ЭГА НАВЛАРИДА ДАСТЛАБКИ НАТИЖАЛАР

Аннотация. *Ушбу мақолада сариқ малина навларининг ҳосилдорлик, мева сифати, зараркунандаларга бардошлилик сингари қимматли хўжалик белгиларини тадқиқ қилинган.*

Калит сўзлар: *малина навлари, малина ўсимлиги, «Желтый гигант», «Фаллголд» ва «Утренняя роса» ирсийланиш, ремонтант.*

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PRELIMINARY RESULTS IN VARIETIES OF YELLOW RASPBERRIES WITH FARM SIGNS

Abstract This article examines the valuable economic characteristics of ellow raspberry varieties, such as yield, fruit quality, and pest resistance.

Keywords: raspberry varieties, raspberry plant, "Yellow Giant", "Fallgold" and "Morning Dew" heredity, repair capacity.

Кириш. Маълумки, малина асосан ижобий миқдор белгиларга асосланган, қимматли хўжалик белгилари, яъни тезпишарлик, ремонтантлик, ҳосилдорлик, мевасининг оғирлиги, бир тупдаги мева вазни ва бошқа кўрсаткичлари юқори бўлган шакллар ҳамда уларнинг ўзаро дурагайларини танлаш асосида бойитилади. Амалий селекция учун миқдорий белгиларнинг ирсийланиш даражасини ўрганиш алоҳида аҳамият касб этади. Малина ҳосилдорлигини белгиловчи асосий кўрсаткичлар, хусусан бошланғич манба ёки навнинг иқтисодий мезонларидан бири – битта мева вазни ва битта ўсимликдаги мевалар сонидир. Шунинг учун ҳам селекцион генетик изланишларда бу белгиларнинг қай тарзда ирсийланиши ва намоён бўлишига алоҳида эътибор берилади. Селекция ишларининг муваффақиятли чиқиши ва

бошланғич ашёларнинг энг яхши белгиларини ўзида мужассамлаштирган янги дурагай ўсимликларини яратиш учун малинанинг қимматли хўжалик белгилари билан бир қаторда морфологик белгиларнинг ҳам наслдан-наслга ўтиш қонуниятларини ўрганш лозим [3].

Сўнги йилларда **Академик Махмуд Мирзаев номидаги боғдорчилик, узумчилик ва виночилик илмий-тадқиқот институти** Андижон илмий тажриба станцияси олимлари томонидан малина янги "Жёлтый Гигант" хамда "**Золотистая Осень**" навлари интродукция қилиниб селекцион жараёнлар учун хўжалик қимматли белгилари ўрганилмоқда Ушбу наварнинг ўзининг хўжалик қимматли белгилари абиотик омилларга чидамлилиги, эртапишарлиги юқори хосилдорлиги, меваларнинг таркибидаги фойдали моддаларга бойлиги жиҳатидан ҳозирда Мамлакатнинг шаркида жойлашган худудларда ушбу навларга катта талаб ва эҳтиёж сезилмоқда. Изланишларимиздан асосий мақсад Тошкент вилоятининг тупроқ–иқлим шароитларига мос тезпишар, серҳосил, касаллик ва зараркунандаларга чидамли, юқор ва сифатли хосил берадиган, ҳар хил экстремал шароитларга мослаша оладиган янги навларни яратиш ва ишлаб чиқаришга жорий этишдан иборатдир.

Тадқиқот шароити ва усуллари. Тажрибалар Фарғона вилояти Фарғона шахар Фрунзе массиви майдонида олиб борилди. Тадқиқотлар Бутун Россия мева экинлар селекцияси илмий-тадқиқот институти томонидан ишлаб чиқилган "Мевалар, резавор мевали ва ёнғоқ ўсимликлари навларини ўрганиш усули ва дастури" (Орёл 1999)**; Биокимёвий ва физиологик тадқиқотлар И.В.Мичурин номидаги Россия боғдорчилик илмий-тадқиқот институтининг "Мевали экинлар навларини синаш услуби ва дастури"га (1973) мувофиқ ўтказилди.** Малина вегетация даврида қуйидаги фенологик кузатув ва хисобот ишлари олиб борилди: ўсимликларни 50% униб чиқиши, гуллаш ва пишиш фазаларини давомийлиги аниқланди; гуллаш, мева тугиш ва пишиш фазаларида ўсимликларни бўйи ўлчанди; гуллар, шохлар, пишган мевалар сони аниқланди; терим олдидан навлар бўйича хар бир навдан 50 тадан мева лаборатория анализи учун териб олинди ҳамда теримлар бўйича ҳосил миқдори аниқланди.

Тадқиқот натижалари ва уларнинг таҳлили. Бизга маълумки, кўчат экилгандан то ҳосил пишиб етилгунгача ўтган давр вегетация даври дейилади. Бу вегетация даврида ўсимликнинг янги белгилари пайдо бўлади ва тез ўсиб ривожланади дастлабки хосил элементлар пайдо бўлади Шулардан келиб чиққан холда вегетация даври бошлангандан 10 кун оралиғида тажрибадаги ўсимликлар устида кузатув ишлари олиб борилди.

Сариқ малинанинг ремонтант наларинг фенологик кузатишлар натижасига асосланиб вегетатция даври Фарғона водийсининг мавсумий биоритмларга мос келди. Олиб борилган кузатув ишлари натижасида сариқ малина навлари тўғрисида дастлабки малумотлар олинди.

Сариқ малинанинг ремонтант навлари ўз ўзини чанглай олиши, пояларининг ўрта бўйли хамда кучли ривожланиши ўрганилган барча навлар

хар қандай тупроқ иқлим шароитларда хам шароитларга мослаша олиш кобиляти новдалардаги тиканларнинг камлиги бошқа малина турларидан ажиралиб туради. Сариқ малина навларининг мевалари таркибидаги кислота миқдори пастлиги бошқа малина навларига караганда алерген таъсири йўқлиги сабабли сариқ малина навлари кундан кунга оммалашиб бормоқда

Эрта пишар навларидан Жёлтый Гигант ва Медовая навлари эрта пишарлиги билан поялари баланд кучли, ўртача қалин тиканлар билан қопланганиши, ажойиб таъмга эга бўлган сариқ резаворлар алоҳида аҳамиятга эга. Меавлари йирик 5 гр дан 10 гр гача ширин, хушбўй резаворлар ёқимли таъмга ва хушбой ҳидга эга. Сариқ малинанинг Жёлтый Гигант нави хар қандай тупроқларда хам юқори хосилдорлиги билан хаваскор боғбонлар орасида машхур хисобланди Эрта пишар навлар навлар орасида Беглянка нави бошка навларга қараганда иссиқа чидамлилиги абиотик омиллар натижисида нобуд бўлган органарни тиклай олиш қобиляти, касаллик ва зараркунандаларга чидамлилиги билан резавор мевалар орасида алохида ўринга эга.

Сариқ малинанинг ўрта пишар навлар орасида **Золотистая Осень** ва Фаллголд навларининг мева эти зичлиги, меваларнинг оғирлиги 7-10 гр поялари ўртача баландликда яхши шохланиб барглар орасига иссиқдан меваларни яширади.

Фаллголд нави сариқ малина навлари ичида юқори совуқларга чидамли ремонтант асалли нав ҳисобланади асаларилар бир гектардан 50 килограммгача асал етиштириш мумкин. Ушбу навлардан саноат миқиёсида асал ва меваси учун етиштирилади.

Сариқ малинанинг кеч пишар ремонтант навларидан Амбер нави ўрта бўйли 1.2 метргача ўсади. 27 ^{0}С совуқга бардошли мевалари сариқ рангда, мазаси нордон-ширин хажми ўртача катталикда 4-6 гр териб олингандан сўнг ўз шаклини узоқ сақлайди, ташиш учун энг яхши нав хисобланади.

Сариқ малинанинг қимматли хўжалик белгилари

№	Нав номи	Қишга чидам лилик	Қайта тиклаш қобиляти	Тез пиш-арлик	Ҳосил-дорлик	Мевалари-иг тўкилув-чанлиги	Мева катталиги	Меванинг қоплама ранги	Мева таъми	Касаллик ларга чидамлилиги	Бошқа белгилари
1	**Жёлтый Гигант**	-20 ^{0}C	Қисман тикланади	Эрта пишар	6-6.5	Тўклувчан	Йирик	Сариқ	Ширин	касалликларга чидамли	Ремонтант
2	Медовая	-20 ^{0}C	Тикланмай-ди	Эрта пишар	6.8-7.5	Тўклувчан	Ўртача катталикда	Сариқ	Ширин	касалликларга чидамли	Ремонтант
3	Беглянка	-25 ^{0}C	Тикланади	Эрта пишар	3-5	Кам тўклувчан	Ўртача катталикда	Сариқ	Ширин	касалликларга чидамли	
4	**Золотистая Осень**	-30 ^{0}C	Қисман тикланади	Ўрта пишар	5.5-7.5	Кам тўклувчан	Йирик	Сариқ	Нордон ширин	касалликларга чидамли	Ремонтант
5	Фаллголд	-26 ^{0}C	Қисман тикланади	Ўрта пишар	3.8-4.7	Кам тўклувчан	Йирик	Сариқ	Ширин	касалликларга чидамли	Ремонтант
6	Амбер	-27 ^{0}C	Қисман тикланади	Кеч пишар	2.6-3.0	Тўклувчан эмас	Ўртача катталикда	Апелсин ранг	Нордон ширин	касалликларга чидамли	Ремонтант
7	Сунни Беррй	-30 ^{0}C	Қисман тикланади	Кеч пишар	5-7	Тўклувчан эмас	Йирик	Сариқ	Ширин	касалликларга чидамли	Ремонтант
8	Желтая чудо	-25 ^{0}C	Қисман тикланади	Кеч пишар	5-6	Кам тўклувчан	Ўртача катталикда	Сариқ	Нордон ширин	касалликларга чидамли	Ремонтант
9	Желтая десертна	-30 ^{0}C	Қисман тикланади	Кеч пишар	4-8	Кам тўклувчан	Йирик	Сариқ	Нордон ширин	касалликларга чидамли	Ремонтант
10	Абрикосивий	-27 ^{0}C	Қисман тикланади	Кеч пишар	7-9	Кам тўклувчан	Йирик	Сариқ	Нордон ширин	касалликларга чидамли	Ремонтант

Ремонтант малина навалари орасида Санни Берри нави мевалари йирик 5-6 гр ранги ёрқин сариқ рангда бошка навларга нисбатан қурғоқсиликга ва замбруғли касаликларга чидамли. барча худудларга мослашади шунинг учун малинанинг Санни Берри нави боғбонлар томонидан қадрланади.

Сариқ малинанинг кеч пишар навларидан Желтая чудо нави боғбонлар орасида энг кам харажат талаб қилинадиган нав сифатида қадирланади мевалари экологик сифатли мевалари йирик оғирлиги 6-8 гр тами ширин меваси таркибида кислота камлиги сабабли бошка навларга нисбатан аллериген таъсир йўқли сабабли бошқа навлардан ажиралиб туради.

Хулоса. Тадқиқот натижаларига асосоланган холда сариқ малинанинг барча янги навлари Фарғона вилояти шароитларида поялар кучли ривожланиб апрел ойида қийғос гуллади ва ёппасига мева тугиш босқичига ўтди меваси пишиш даврида Жёлтый Гигант ва Медовая навлари қисман мевалари тўкилди колган навларда мевалрини тўкилиши кузатилмади тупларнинг абиотк омилларга чидамли каби ижобий хўжалик биологик белгиларини номоён қилди

1.Сариқ малина навларининг қиймати: Сариқ малина навлари, хусусан, “ ва “Медовая" “Фаллголд” каби навлар ҳосилдорлик, мева сифати ва зарарли омилларга чидамлилик жиҳатидан қимматли ҳисобланади. Бу навлар экологик тоза ва сифатли маҳсулот етиштиришда муҳим аҳамиятга эга.

2.Мавсумий мослашув ва ҳосилдорлик: Сариқ малина навлари мавсумий шароитларга мос келиши ва юқори ҳосил бериши билан ажралиб туради. Бу навлар Фарғона водийсининг иқлим шароитларида юқори натижалар кўрсатган.

3.Абиотик омилларга ва касалликларга чидамлилик: Тадқиқотлар шуни кўрсатадики, сариқ малина навлари касалликларга ва зараркунандаларга чидамлилик хусусиятига эга. Бу хусусиятлари туфайли боғбонлар орасида оммалашиб бормоқда.

4.Ривожланиш ва чанглатиш имкониятлари: Сариқ малина навлари ўзини-ўзи чанглатиш қобилиятига эга ва ҳар қандай тупроқ-иқлим шароитларига мослашади. Бу навларнинг ўсиш қобилияти уларнинг бошқа навлардан ажралиб туришини та'минлайди.

Алергенлик даражаси пастлиги: Сариқ малинада кислота миқдори пастлиги туфайли аллергия келтириб чиқариш эҳтимоли кам. Шунинг учун бу навлар экологик жиҳатдан соғлом ва истеьмол учун хавфсиз мева сифатида баҳоланади.

Андижон вилоятиа иқлимлаштириш мақсадида кўчатларини кўпатириш бўйича тажрибалар давом этирилмоқда.

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СРАВНИТЕЛЬНЫЙ АНАЛИЗ АЛГОРИТМОВ МАШИННОГО ОБУЧЕНИЯ ДЛЯ ПРОГНОЗИРОВАНИЯ ОТКАЗОВ В МЕХАНИЧЕСКИХ СИСТЕМАХ

Аннотация: *В данной работе рассматривается сравнительный анализ алгоритмов машинного обучения для прогнозирования отказов в механических системах. Анализируются четыре популярных алгоритма: логистическая регрессия, случайный лес, градиентный бустинг и глубокие нейронные сети. В работе предоставляется всесторонняя оценка этих методов на основе различных метрик, таких как точность, полнота, F1-мера и время обработки, что позволяет выявить их сильные и слабые стороны. Особое внимание уделяется аспектам скорости обучения и предсказания, что имеет важное значение для практического применения алгоритмов в реальных условиях. Результаты исследования показывают, что глубокие нейронные сети обеспечивают наилучшую точность прогнозирования, однако требуют значительных вычислительных ресурсов, в то время как методы случайного леса и градиентного бустинга демонстрируют хорошие результаты при меньших временных затратах.*

Ключевые слова: *машинное обучение, прогнозирование, отказ, механические системы, алгоритмы, точность, полнота, F1-мера, скорость, анализ*

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COMPARATIVE ANALYSIS OF MACHINE LEARNING ALGORITHMS FOR PREDICTING FAILURES IN MECHANICAL SYSTEMS

Abstract: *This paper presents a comparative analysis of machine learning algorithms for failure prediction in mechanical systems. Four popular algorithms are analyzed: logistic regression, random forest, gradient boosting, and deep neural networks. The paper provides a comprehensive evaluation of these methods based on various metrics such as accuracy, recall, F1-score, and processing time, which helps identify their strengths and weaknesses. Particular attention is paid to the aspects of training and prediction speed, which is important for the practical application of algorithms in real-world settings. The results of the study show that deep neural networks provide the best prediction accuracy, but require significant computational resources, while random forest and gradient boosting methods demonstrate good results with lower time costs.*

Keywords: *machine learning, prediction, failure, mechanical systems, algorithms, accuracy, recall, F1-measure, speed, analysis*

Введение: Прогнозирование отказов в механических системах является ключевым фактором для обеспечения надежности и безопасности в различных инженерных областях, таких как автомобилестроение, авиация и промышленное оборудование. Современные механические системы становятся всё более сложными, что требует применения инновационных подходов для анализа данных и предотвращения сбоев. Среди таких подходов алгоритмы машинного обучения демонстрируют высокий потенциал, предоставляя возможность точного прогноза отказов на основе анализа исторических данных. Однако разнообразие алгоритмов, таких как линейные модели, деревья решений, нейронные сети и методы ансамблирования, требует детального изучения их эффективности и применимости к различным задачам.

Методология: Методика "Интегрированный подход к оценке алгоритмов прогнозирования отказов". Данная методика основана на интеграции нескольких этапов анализа, обеспечивающих комплексное изучение и сравнение алгоритмов машинного обучения для прогнозирования отказов в механических системах. Она включает в себя последовательные процессы от подготовки данных до интерпретации результатов, что позволяет получить объективные выводы о применимости каждого алгоритма. На первом этапе выполняется сбор данных. Используются как исторические данные о параметрах работы механических систем, так и синтетические наборы, имитирующие возможные сценарии отказов. При сборе данных особое внимание уделяется качеству информации, так как наличие пропусков или шума может существенно повлиять на точность прогнозов. Следующим шагом является предобработка данных. На этом этапе устраняются пропуски, выполняется нормализация числовых признаков и преобразование категориальных данных в числовые значения (например, с использованием метода one-hot encoding). Также проводится анализ корреляции между признаками для исключения избыточной информации и улучшения производительности моделей. Для обучения моделей выбираются несколько

алгоритмов машинного обучения, таких как логистическая регрессия, случайные леса, градиентный бустинг и глубокие нейронные сети. Модели обучаются с использованием кросс-валидации, что позволяет избежать переобучения и обеспечить стабильность результатов. Для настройки гиперпараметров применяется метод поиска по сетке (grid search) или байесовская оптимизация. Оценка моделей осуществляется с использованием набора метрик, включая точность (accuracy), полноту (recall), F1-меру и ROC-AUC. Дополнительно анализируется время обучения и предсказания, что особенно важно для систем с ограниченными вычислительными ресурсами. Для задач с дисбалансом классов акцент делается на метрики, чувствительные к редким событиям, такие как специфичность и чувствительность. Заключительный этап включает интерпретацию результатов. Анализируются сильные и слабые стороны каждого алгоритма, а также их применимость к реальным условиям эксплуатации механических систем. Дополнительно проводится визуализация результатов в виде графиков и диаграмм для наглядного представления эффективности алгоритмов. Методика "Интегрированный подход к оценке алгоритмов прогнозирования отказов" обеспечивает надежный выбор оптимального алгоритма, учитывая особенности данных и требования к системе. Она может быть адаптирована для различных отраслей промышленности, где требуется прогнозирование отказов.

Результат: в ходе исследования по методике "Интегрированный подход к оценке алгоритмов прогнозирования отказов" были использованы четыре алгоритма машинного обучения: логистическая регрессия, случайный лес, градиентный бустинг и глубокие нейронные сети. Для анализа применялись данные о работе механических систем, содержащие более 10 000 записей с параметрами эксплуатации и информацией о предыдущих отказах. Результаты показали, что глубокие нейронные сети продемонстрировали наилучшие показатели точности (91%), полноты (89%) и F1-меры (90%). Градиентный бустинг также достиг высоких результатов: точность составила 88%, полнота – 85%, F1-мера – 86%. Случайный лес обеспечил точность 85%, полноту 82% и F1-меру 83%. Логистическая регрессия показала наиболее скромные результаты с точностью 78%, полнотой 72% и F1-мерой 75%.

Скорость работы алгоритмов также была проанализирована. Логистическая регрессия показала наименьшее время обучения – всего 5 секунд, а время предсказания составило 0,1 секунды на одну запись. Случайный лес обучался за 18 секунд, а предсказание занимало 0,3 секунды. Градиентный бустинг потребовал 35 секунд на обучение и 0,5 секунды на предсказание. Глубокие нейронные сети, несмотря на высокую точность, имели наибольшие временные затраты: 90 секунд на обучение и 1 секунду на предсказание.. Для более быстрой обработки данных без значительной потери точности подходят случайный лес и градиентный бустинг. Логистическая регрессия, несмотря на простоту, менее эффективна для сложных задач

Заключение: Сравнительный анализ алгоритмов машинного обучения позволяет определить их сильные и слабые стороны, что способствует выбору наиболее подходящего метода для прогнозирования отказов в механических системах. Применение данной методики обеспечивает не только повышение точности прогноза, но и способствует снижению эксплуатационных рисков и затрат на обслуживание. В будущем планируется расширить исследование, включив более сложные алгоритмы, такие как трансформеры и методы федеративного обучения, что открывает новые перспективы в области предиктивного анализа.

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ПРОБЛЕМА ПРЕПОДАВАНИЯ ИНЖЕНЕРНЫХ НАУК КОМПЬЮТЕРНОЙ ГРАФИКИ И ЕЕ РЕШЕНИЯ

Аннотация: *Образование возникло на первом этапе цивилизации как процесс передачи знаний, умений, социального и культурного опыта массам. В этот период накапливались знания, навыки и ценности. Это был традиционный пример культуры передачи объективных знаний непосредственно от отца к сыну, от учителя к ученику. И, возможно, корень слова образование не зря – «изображение», ведь сначала передача знаний шла через модель объекта, в том числе и графическую модель, ведь графический язык – один из самых древних и универсальных. языки человеческого общения.*

Ключевые слова: *«Информационно-коммуникационные технологии», «компьютерные технологии», «компьютерная графика», «цифровые технологии».*

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THE PROBLEM OF TEACHING ENGINEERING SCIENCES COMPUTER GRAPHICS AND ITS SOLUTIONS

Abstract: *Education emerged at the first stage of civilization as a process of transferring knowledge, skills, social and cultural experience to the masses. During this period, knowledge, skills and values were accumulated. This was a traditional example of the culture of transferring objective knowledge directly from father to son, from teacher to student. And perhaps the root of the word education is not in vain - "image", because at first the transfer of knowledge went through a model of the object, including a graphic model, because graphic language is one of the most ancient and universal. languages of human communication.*

Keywords: *"Information and communication technologies", "computer technologies", "computer graphics", "digital technologies".*

Появление и бурное развитие информационно-коммуникационных технологий, позволяющих запоминать, хранить, передавать и изменять информацию, приводят к созданию новой образовательной парадигмы XXI века – информационной культуры. При этом возможности познавательной деятельности учащихся бесконечно возрастают, меняется и роль педагога. Это не только носитель научных знаний для студентов, но и «лоцман» в море информации, помогающий отобрать необходимую информацию, логически ее

понять и эффективно использовать в профессиональной деятельности, отвечающей принципам компетентности. современного образования.

Появление книгоиздания в Европе в 40-х годах XV века вывело культуру чтения на новый уровень. Книжное образование постепенно вытеснило традиционную форму личного общения и создало основу массового образования. В то же время появилась новая отрасль науки — дидактика, сформировался новый образ учителя, преобразующего научные истины в удобные для обучения учебники.

Современный этап развития общества требует новых требований к научному уровню и компетентности специалиста. В условиях увеличения объема знаний, предоставляемых студентам, сокращение аудиторной подготовки является поводом для дальнейшего совершенствования образовательного процесса. Повышение эффективности образовательного процесса является одной из основных задач высшего образования, которую можно решить, используя современные информационные технологии в образовательном процессе.

Эффективное использование информационно-коммуникационных цифровых технологий при преподавании учебных предметов является одним из требований времени. Использование информационно-коммуникационных технологий привело к изменению содержания учебно-воспитательной деятельности. использование технологий приводит к изменению содержания образовательной и воспитательной деятельности. Но такие изменения могут дать положительные результаты только при использовании в организации образовательного процесса передовых педагогических технологий.

Учебные пособия – это объекты, созданные человеком и природой. Они используются как носители информации в образовательном процессе, в педагогической деятельности, как средство достижения целей образования и обучения учащихся.

Компьютерные средства кардинально изменили подход к методам обучения: визуализация невидимых процессов и явлений, таких как магнитные и электрические поля, химические реакции и т. д., позволяет улучшить их наблюдение и понимание.

Цифровые технологии сокращают время, необходимое для механического повторения в процессе обучения. Например, вместо написания теоретических положений урока учащиеся могут скопировать учебник на носители информации, и это помогает сэкономить определенную часть времени урока. Руководство и советы педагога необходимы при выполнении графических или курсовых работ, а также курсовых и дипломных проектов. Вопросы, задаваемые студентами, повторяются из года в год. Если эти вопросы включить в электронный учебник, время, отведенное на направление и консультирование, сократится. Если письменный контроль теста будет организован с использованием современных компьютерных средств вместо традиционного метода, это сэкономит еще часть времени педагога (1).

Стремительное внедрение компьютерных технологий в систему образования расширяет область применения современных цифровых технологий. На данный момент можно выделить следующие направления развития современных информационных технологий в образовании:

1. Внедрение программных средств образовательного назначения в качестве средства обучения, объекта обучения и средства обработки информации.
2. Интеграция возможностей учебно-демонстрационных средств и средств компьютера при создании учебно-методических комплексов. Использование таких комплексов помогает обучающемуся собирать и хранить информацию об изучаемом процессе, раскрывать сущность законов процесса. Использование учебно-демонстрационных комплексов на основе современных цифровых технологий создает основу для организации индивидуальной и коллективной экспериментальной деятельности. Это увеличивает возможности студентов развивать свой интеллектуальный и творческий потенциал и приобретать самостоятельные знания.
3. При создании мультимедийных систем добиться интеграции возможностей компьютеров и средств передачи аудио-видео информации. Такие системы воплощают в себе комплекс программных средств и средств, а также различные виды информации.

(текст, графика, звук, изображение) и организует интерактивное общение с пользователем. Использование мультимедийных систем обеспечивает внедрение активных методов и форм обучения, повышает уровень восприятия информации.

4. Использование возможностей системы искусственного интеллекта для создания интеллектуальных систем обучения. Такие образовательные системы создают основу для организации процесса самостоятельного обучения, самостоятельного усвоения знаний, развития интеллектуализации учебной деятельности. Все это ускоряет процесс развития личности студента.
5. Использование информационно-коммуникационных средств, обеспечивающих обмен информацией через глобальные и локальные компьютерные сети. Информационно-коммуникационные связи (синхронные, асинхронные) будут способствовать распространению передовых инновационных технологий в короткие сроки и общему развитию студентов.
6. Новая технология обмена информацией – система стереоскопического зрения в реальном времени, т.е. «Виртуальная реальность».

Известно, что лекции по инженерной графике проводятся со сложными чертежами, требующими определенной логической последовательности и точного действия алгоритмов решения метрических и позиционных задач. Поэтому рисовать на доске традиционным способом, используя мел, линейку и круг, неэффективно.

Анализ опыта проведения лекционных занятий с использованием традиционных и мультимедийных систем обучения показывает, что в последнем случае значительно возросла активность, объем и качество обучения студентов (2).

Мультимедийные средства существенно расширили визуализацию учебного процесса: использование моделей, графики, цвета, звука, видеотехники. Такое разнообразие позволяет моделировать различные учебные ситуации, в том числе обучающие игры. В целях повышения качества знаний будущих выпускников преподаватели инженерной графики используют в учебных ситуациях персональные компьютеры и стремятся применять различные технологии.

Создание лекции на компьютере имеет следующие преимущества:

- качество визуальной информации на экране выше, чем на доске;
- материалы кафедр Чертежной геометрии и черчения легче усваиваются за счет высокого изложения лекции;
- студенты будут иметь полный текст лекции;
- скорость изложения выше, чем на обычной лекции;
- если у какого-либо ученика позже возникнет вопрос, учитель может легко вернуться шаг за шагом к предыдущему рисунку;
- сходство электронной лекции с традиционным уроком повышает интерес к ней, способствует развитию пространственного мышления.

Он позволяет обучать с помощью компьютерной графики, объемного моделирования предметов, выполнения разрезов, нанесения цветовых схем, показа размеров. Еще одним преимуществом компьютерных технологий является моделирование процессов, которые очень сложно или невозможно продемонстрировать в различных реальных условиях.

Основные недостатки традиционного обучения с точки зрения эффективности управления познавательной деятельностью учащихся заключаются в следующем:

- перед преподавателем ставится необходимость управлять разными категориями объектов управления в одном и том же качестве;
- контроль обучающихся за учебными материалами не является постоянным. Преподаватель не имеет возможности быстро узнать уровень подготовки учащихся, то есть у него нет возможности контролировать педагогическое воздействие на каждого ученика. Обратная связь не работает постоянно, информация поступает с опозданием и неполная;
- деятельность учителя на уроке не может охватить всех учащихся. Учитель фокусируется на одних учениках за счет других учеников;
- ограничены возможности преподавателя держать учащихся в состоянии постоянной познавательной деятельности. Обучение – двусторонний процесс, и если одна сторона бездействует, эффективность образования существенно снижается.

Использование компьютерной графики при обучении чертежной геометрии и черчению дает следующие возможности:

- совместное использование современных компьютерных и педагогических технологий в образовательном процессе;
- создание электронного учебника и внедрение его в учебный процесс;

- создание тестовых вопросов с несколькими вариантами ответов разного уровня;
- создание тренажеров;
- включение уроков ведущих преподавателей в виде видеоуроков в электронный учебник;
- создание компьютерных игр на научную тематику;
- использование 3D графических программ;
- совместное выполнение графических работ в бумажном и компьютерном вариантах;
- соответствие учебного материала реальной жизни (3).

Использование интерактивных досок позволяет разнообразить процесс изучения науки. Преподаватель использует лекционные материалы одновременно из Интернет-ресурсов, видео- и аудиоматериалы, учебные программы, тексты, тренажеры, информационно-аналитические системы, информационно-информационные системы, общее и специальное прикладное программное обеспечение и умеет давать с использованием других. Также можно писать заметки ко всем документам, изображениям, таблицам, диаграммам или веб-страницам.

Использование интерактивных электронных средств доставки информации (например, интерактивных досок) в традиционном образовательном процессе является весьма эффективным и современным методом обучения, при котором целенаправленное обучение сочетается с экономией времени и средств.

При внедрении интерактивной методики при обучении чертежной геометрии и черчению реализуются принципы дидактики: научность, системность, последовательность, достоверность, основательность усвоения знаний и наглядность. Интерактивное рисование на доске позволяет в полной мере реализовать эти принципы при обучении геометрии и черчению. Решение задач в интерактивной информационной среде совершенствует практическую направленность обучения за счет возможности моделирования различных процессов, а использование интерактивности совмещает функции обучения, воспитания и развития учащихся (4).

Использование интерактивных технологий в процессе обучения инженерной графике позволяет использовать различную информацию для визуального описания абстрактных объектов (например, плоскости), восприятия условия задачи (например, пересечения поверхностей).

По результатам исследований, проведенных Т.И.Татаринсевой, обучение с использованием анимации и другой графической информации предоставляет следующие возможности:
- увеличить запоминаемость информации на 10%;
- увеличить восприятие (понимание) информации на 30%;
- повышает вовлеченность студента в учебный процесс;
- Сокращает время обучения до 50%;

- использование изображений позволяет повысить эффективность учебного процесса до 89%;
– анимация значительно улучшает восприятие данных по сравнению со статистическими изображениями.

По словам В. Князикова, использование информационных и цифровых технологий в образовательном процессе предполагает соблюдение следующих принципов:
- целесообразность (использование компьютерных технологий должно быть обосновано в каждом конкретном случае исходя из методических и практических потребностей);
- динамичность (предусмотрено постепенное внедрение графики и других программ в течение всего учебного процесса).

Компьютерная графика выполняет две функции: иллюстративную и познавательную. Иллюстративная функция позволяет представить зрителю только существующую в мире идею исследователя в виде визуального оформления. Когнитивная функция помогает интеллектуальному процессу приобретения новых знаний, раскрытия сущности явления или хотя бы получения представления об этом явлении с помощью каких-то образов.

Иллюстративные задачи компьютерной графики выполняются в образовательной системе при передаче знаний, предъявляемых учащимся с заранее подготовленными графическими, анимационными, аудио- и видеоизображениями. Когнитивная функция проявляется, когда учащиеся приобретают знания, проводя исследования математических моделей изучаемых объектов и процессов.

В заключение следует отметить, что освоенные в науке инженерной компьютерной графики проектные программы могут быть использованы в качестве учебного объекта для изготовления электронного чертежа, а черчение - как средство обучения наукам геометрии и черчения. Это предполагает формирование у студентов-преподавателей высших учебных заведений не только умения работать в системе автоматизированного проектирования, но и эффективно использовать возможности этих программных продуктов в своей будущей профессиональной деятельности.

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НАПРАВЛЕНИЯ ОРГАНИЗАЦИИ ПРОЦЕССОВ (PROFESSIONAL EDUCATION SYSTEM OF PLATFORM) ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ ПЛАТФОРМЫ СИСТЕМЫ ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ

Аннотация: *Системная интеграция образовательного процесса с информационно-коммуникационными технологиями является одним из важных направлений совершенствования процессов профессионального образования. В этом случае организация образовательного процесса и радикальное обновление его содержания, педагогической деятельности преподавателя и образовательного процесса обучающегося в среде информационно-коммуникационных технологий предстают стратегическим вопросом.*

Ключевые слова: *«Информационно-коммуникационные технологии», «компьютерные технологии», «компьютерная графика», «цифровые технологии».*

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DIRECTIONS OF ORGANIZATION OF PROCESSES (PROFESSIONAL EDUCATION SYSTEM OF PLATFORM) OF PROFESSIONAL EDUCATION OF THE PLATFORM OF THE PROFESSIONAL EDUCATION SYSTEM

Abstract: *System integration of the educational process with information and communication technologies is one of the important areas of improvement of professional education processes. In this case, the organization of the educational process and the radical renewal of its content, the pedagogical activity of the teacher and the educational process of the student in the environment of information and communication technologies appear to be a strategic issue.*

Keywords: *"Information and communication technologies", "computer technologies", "computer graphics", "digital technologies".*

На современном этапе научно-технического развития резкое увеличение объема информации и ограничение времени ее использования в учебном процессе требуют внедрения новых технологий в образовательную систему. Одним из путей совершенствования содержания профессионального

образования является создание необходимых условий для формирования и развития возможностей самостоятельного образования обучающихся, информационных источников образования. Основой образовательного процесса является качественная и высокотехнологичная среда. Хотя ее создание и развитие технически сложны, такая среда служит совершенствованию системы образования и внедрению цифровых технологий в образование в самом прямом смысле этого слова.

Современные информационные технологии открывают перед студентами большие возможности в процессах доставки, хранения и поиска информации. В настоящее время в образовательных учреждениях создано множество информационных и образовательных ресурсов в электронном виде, но системного подхода к их использованию нет. Прежде всего, это связано с отсутствием научно-методической базы, отсутствием достаточной квалификации и навыков использования современных цифровых технологий в образовательном процессе, неполным решением методических проблем. Несмотря на достигнутые успехи во внедрении цифровых технологий в процесс профессионального образования, результаты носят несистематизированный и разрозненный характер. В создании такой среды, прежде всего, организация информатизации в образовательных учреждениях, то есть всех образовательных, административных и хозяйственных служб, библиотеки и управления (ректоры, деканаты, учебные отделы и т.д.) для объединения кафедр. в единую сеть, создать для них возможности доступа к системе Интернет, контролировать учебный процесс в образовательном учреждении, организовать электронный обмен документами, специальные учебно-методические методики на основе цифровых технологий. необходимо будет реализовать такие задачи, как организация самостоятельной учебной деятельности учащихся путем создания комплексов. В настоящее время при выполнении подобных задач можно организовать использование информационных и образовательных ресурсов путем создания портальных технологий. Использование информационных и телекоммуникационных технологий в образовательном процессе является важным направлением развития единой платформы системы профессионального образования образовательного учреждения. Важным направлением является использование информационных и телекоммуникационных технологий в образовательном процессе.

Современный этап образовательных реформ ставит актуальные задачи, связанные со стремительностью происходящих в обществе изменений, более быстрой адаптацией к новым, более высоким требованиям, предъявляемым к образовательным учреждениям. В таких условиях постоянно возрастает вес мероприятий, направленных на развитие образовательного учреждения и обеспечение его функционирования на уровне современных требований. Практически все представленные задачи в принципе создают новые требования, и при их решении команде недостаточно работать только на основе имеющегося опыта. Анализ исследований по теории и практике

управления образовательными учреждениями показывает, что управление образовательным учреждением в современных условиях напрямую связано с управлением информационным обменом в нем. Это, в свою очередь, показывает, что улучшить деятельность образовательного учреждения можно за счет эффективного использования информационных технологий, и создает необходимость проведения целевых исследований в этом направлении.

Создание электронной информационной образовательной среды процессов профессионального образования не является чисто технической задачей, но для этого необходимо использовать научно-методические, организационные и педагогические возможности образования, основанные на системном подходе.

1. Платформа электронной системы профессионального образования любого уровня признается сложным структурированным объектом, имеющим системный характер.

2. Целостность электронной платформы профессионального образования системы профессионального образования является синонимом концепции достижения систематизации, означающей их гармонию, и воплощает образовательные цели внедрения личностно-профессиональной модели выпускника.

3. Платформа системы электронного профессионального образования является фактором, влияющим на эффективность профессионального образования, а также его инструментом.

Кроме того, существует несколько различных взглядов на определение платформы системы профессионального образования, в том числе:

 системно организованный комплекс информационного, технического, образовательного и методического обеспечения, неразрывно связанный с человеком и образовательной средой как субъектом;

 традиционные и электронные носители информации, виртуальные библиотеки, распределенные базы данных, компьютер, воплощающий учебно-методические комплексы, единая информационная образовательная среда, построенная на основе интеграции информационных и коммуникационных технологий.

Необходимо внедрить системный подход к созданию и управлению платформой системы профессионального образования. На начальном этапе данного подхода определяется цель платформы системы профессионального образования образовательного учреждения в соответствии с содержанием современного образования. В педагогической деятельности цель воспитания выполняет систематизирующую задачу. Именно сформулированная цель служит основой выбора содержания, цели и организационных форм профессионального образования. Целью современного образования является формирование системы знаний, умений и квалификаций, которая формируется в соответствии с требованиями модели специалиста и находит отражение в соответствующих образовательных стандартах. В таких случаях

возрастает значимость самостоятельного обучения студента, и требуется формирование следующих навыков и квалификации:

1. Навыки и компетенции планирования самостоятельного образования:

 составление личного плана самостоятельной деятельности;

 целевая деятельность по плану;

 контролировать их деятельность и вносить в нее необходимые коррективы.

2. Навыки и квалификация использования научной и учебной информации в сети Интернет:

 независимая идентификация научной и образовательной информации;

 способность самостоятельно анализировать и оценивать новую информацию;

 поиск и нахождение источников информации в сети Интернет по решаемой проблеме;

 уметь видеть в содержании полученной информации новые и перспективные новости.

3. Навыки и квалификация для работы на электронных информационно-образовательных ресурсах:

 систематическое использование электронных руководств и каталогов;

 уметь вести список научной, учебной и другой литературы, полученной из сети Интернет, по правилам библиографии.

4. Навыки и умения осваивать лекции, представленные посредством современных цифровых технологий:

 определение темы и плана лекций, списка литературы;

 правильность принятия предоставленной информации;

 уметь выделять основную проблему, идею и выводы;

 кратко записать основное содержание своими словами;

 обработка, хранение и сохранение предоставленной информации в образовательных целях.

5. Навыки и квалификация для работы с электронным учебником:

 познакомиться с электронным учебником в целом, узнать его автора, содержание, аннотацию, иллюстрации и аннотации;

 извлечение логической структуры электронного учебника;

 дополнительные пособия для полного понимания изучаемой темы: анимация, словарь, энциклопедия, справочники;

 зафиксировать полученную информацию в виде тезиса, реферата.

Платформа системы электронного профессионального образования решает три основные задачи:

 помочь субъектам внешней среды сформировать представление о платформе системы профессионального образования образовательного учреждения с помощью современных информационных технологий;

 повысить взаимное сотрудничество сотрудников образовательного учреждения и создать среду для взаимного обмена информацией и образовательными ресурсами;

 организация и управление эффективным информационным обменом в образовательном учреждении посредством инструментов платформы системы профессионального образования.

При определении назначения платформы системы профессионального образования в образовательном учреждении учитывается периодическая последовательность трех процессов:

 на первом периоде изучаются результаты экологического анализа;

 во втором периоде – определяются соответствующие действия;

 в третьем периоде разрабатывается цель платформы системы профессионального образования образовательного учреждения.

Назначение платформы электронной системы профессионального образования в вузе разрабатывается в непосредственной связи с требованиями к будущему педагогу. С другой стороны, при формировании личности будущего педагога особое внимание уделяется формированию качеств, направленных на непрерывное саморазвитие после окончания вуза. Здесь следует отметить, что реализуемые в нашей республике образовательные реформы требуют новой трактовки понятия «профессия». Согласно требованиям национальной модели подготовки кадров, обладатель современной профессии не обладает набором готовых профессиональных знаний, но обладает навыками, служащими профессиональному развитию, может анализировать свой профессиональный уровень, может приобретать новые. знания в соответствии с меняющимися требованиями общества и производства характеризуются готовностью к освоению. В основе перечисленных качеств лежит процесс развития, направленный на осуществление непрерывного профессионального обучения через приобретение новых знаний на протяжении всей жизни [1].

Уровень совершенствования содержания образования в условиях современных цифровых технологий является одним из важных условий подготовки специалистов, способных отвечать вышеуказанным требованиям. В информационном обществе под содержанием образования понимаются научные знания, практические навыки и квалификации, которые необходимо приобрести, а также система образовательных идей, направленных на формирование мировоззрения, и на ее состав влияют следующие факторы:

 потребности сообщества;

 современные методологические взгляды ученых-полевых ученых;

 научно-техническое развитие (современные средства и системы информационно-коммуникационных технологий);

 потребности, возникающие в самой системе образования, направленные на обеспечение качества, современности и популярности образования.

Содержание профессионального образования на основе современных информационных технологий формируется на основе следующих критериев:

 соответствие содержания профессионального образования уровню современных научных достижений;

 соответствие уровня сложности учебного материала реальным возможностям обучающихся, используемым цифровым технологиям;
 совместимость с количеством времени, отводимым на освоение объема контента;
 учитывается международный опыт;
 освоение технических и программных средств, информационных и телекоммуникационных технологий, которые будущий педагог профессионального образования будет использовать в своей будущей профессиональной деятельности.

Информационное общество в настоящее время создало новые условия, которые позволяют будущему учителю профессионального образования управлять образовательной деятельностью. Учебный процесс основан на принципах взаимного сотрудничества преподавателя и обучающегося, и для его совершенствования необходимо в совершенстве владеть современными педагогическими и цифровыми технологиями. Кроме того, современные цифровые технологии требуют от учителя выполнения ряда важных задач – теперь учитель ориентируется не только в области своей специальности, но и существующих концепций преподавания, передовых направлений в области методики, психологических особенностей познания, должен знать возможности современных цифровых технологий в обучении. Для успешной реализации данной задачи необходимо провести исследование эффективного функционирования системы подготовки педагогических кадров профессионального образования, внедрения передовых образовательных методов и форм в данную сферу.

Таким образом, организация информатизации процессов профессионального образования требует исследования платформы электронной системы профессионального образования, создания интегрированных информационно-образовательных ресурсов как фактора, повышающего качество образования.

В связи с этим мы считаем, что необходимо обратить внимание на следующие вопросы:

• создание единых информационно-образовательных порталов образования по профессиональным направлениям на основе обобщения и развития достигнутых положительных результатов;
• создание научных порталов, обеспечивающих возможность реализации единого информационного и методического обеспечения науки в системе профессионального образования;
• разработка методов использования ресурсов информационно-образовательного портала в образовательном процессе профессионального образования.

Таким образом, очевидно, что существует большая потребность в создании порталов с интегрированными информационно-образовательными ресурсами, предназначенными для образовательного процесса.

Необходим системный подход к созданию и развитию информационно-образовательных порталов. Потому что при создании образовательной среды на основе портальных технологий важно иметь хороший уровень аналитической подготовки, обеспечивать адекватность содержания, обеспечивать систематизацию информации [2].

Портал — телекоммуникационный узел сети, объединяющий различные информационные ресурсы для доставки информации пользователю посредством простой навигации и широкого набора удобных интерфейсов. Исходя из этого, к порталам можно предъявить следующие требования:

• обслуживание большого количества пользователей;
• широта информации;
• использование основных сетевых форматов;
• внедрение простой и эффективной системы поиска;
• интеграция информационных ресурсов;
• обеспечивать информационную безопасность;
• классификация информации;
• управление знаниями-анализ.

Индекс порталов определяется объемом заключенной в нем информации, то есть объемом информационных ресурсов.

Цель любого портала – предоставить пользователю необходимую информацию в сжатые сроки и без лишних переходов между разными интерфейсами.

Организация информационно-образовательных порталов должна, прежде всего, отвечать педагогическим и психологическим требованиям. Среди педагогических и психологических требований для создания портала важны следующие:

- представленные информационные ресурсы должны быть достоверными, соответствующими современному состоянию соответствующей науки, системными и последовательными.

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АНАЛИЗ ИНТЕГРИРОВАННЫХ ПРЕДПРИЯТИЙ ТЕКСТИЛЬНОЙ ПРОМЫШЛЕННОСТИ УЗБЕКИСТАНА

Аннотация: *В статье дана информация о текстильной промышленности, производственных предприятиях, производственных процессах, роли производства в экономике страны, организации производства и производстве. Также представлены мнения о факторах, влияющих на организацию производственного процесса в текстильной промышленности Узбекистана.*

Ключевые слова: *Текстильная промышленность, производство, производственные структуры, производственный процесс, организация производственного процесса.*

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ANALYSIS OF INTEGRATED ENTERPRISES OF THE TEXTILE INDUSTRY OF UZBEKISTAN

Abstract: *The article provides information about the textile industry, manufacturing enterprises, production processes, the role of production in the country's economy, the organization of production and production. Also presented are opinions on the factors influencing the organization of the production process in the textile industry of Uzbekistan.*

Keywords: *Textile industry, production, production structures, production process, organization of the production process.*

Анализ развития предприятий, специализирующихся на переработке хлопкового волокна в нашей стране, следует начать с изучения динамики развития национальной текстильной промышленности.

В стабилизации экономики переход от модели сырьевого экспорта к модели переработки сырья на основе инновационных технологий является одним из национальных приоритетов, поскольку будет способствовать быстрому и перспективному экономическому росту и снижению зависимости экономики страны от Внешняя рыночная конъюнктура. Если мы посмотрим на экономику развитых стран, таких как США, Япония, Германия, Великобритания, Франция, а также новых индустриальных стран Китая и Юго-Восточной Азии, то 75-90% прироста валового внутреннего продукта

приходится на «интеллектуальное развитие», то есть интеллектуализация основных факторов производства и использование инновационных технологий. достигается посредством внедрения технологий. Глобальная конкуренция требует создания научных основ для крупномасштабного производства конкурентоспособной на мировом рынке продукции за счет организации высокотехнологичного производства, соответствующего мировым стандартам и обеспечивающего выпуск экспортоориентированной продукции, развития инфраструктуры легкой промышленности. предприятий промышленности, внедрение инновационных технологий.

В этой связи одним из наиболее актуальных вопросов сегодня является повышение эффективности организации и управления производством на кластерной основе на предприятиях легкой промышленности нашей страны с учетом зарубежного опыта. Исходя из этого, говорится, что для обеспечения роста уровня жизни населения нашей страны, а также вхождения в число технологически и экономически развитых стран необходимо модернизировать и устойчиво развивать промышленные предприятия за счет увеличения трудозатрат. производительность, обеспечение международной конкурентоспособности, развитие рынков для инновационной продукции, повышение инновационного потенциала. Можно сделать вывод.

Текстильная промышленность Узбекистана имеет многовековую историю, основанную на переработке местного сырья: хлопковое волокно, шелк, кожа, каолин и т. д. считаются национальным богатством страны. Прохождение Великого Шелкового пути через Узбекистан, мастерство изготовления здесь хлопчатобумажных и шелковых тканей, уникальные национальные головные уборы и обувь, расписные керамические сосуды славятся во многих странах мира. В настоящее время легкая промышленность занимает высокое место среди отраслей мирового экспорта. Этот сектор включает в себя широкий ассортимент экспортных товаров: от пряжи до готовых изделий. С этой точки зрения экспортный потенциал отрасли играет существенную роль, а направление его развития зависит от наличия стратегического инвестора, товарной конъюнктуры на мировом рынке, эффективности бизнес-плана, соответствия кадрового состава требованиям. с требованиями экспортного производства. В Европе постоянно растущие затраты на переработку хлопкового волокна и высокая стоимость земли приводят к сокращению числа подобных промышленных предприятий.

В последние годы в республике реализуются комплексные меры по развитию текстильной, швейно-трикотажной, кожевенно-обувной и меховой отраслей легкой промышленности, расширению видов и ассортимента выпускаемой готовой продукции, а также всесторонней поддержке инвестиционной и экспортной деятельности. деятельности предприятий отрасли.

Таблица 1

Экспорт Ассоциации «Узтекстиль-Индустрия»

Показатели		Экспорт	Нить	Ткань	Трикотажное полотно	Швейные и вязальные	Чулочно-носочные изделия
единица измерения		млн.дол	тыс.тн	млн.кв.м	тыс.тн	млн.долл	млн.долл
2019 год	натура		381	215	20	-	74
	количество (млн.долл)	1541	881	74	79	486	21
2020 год	натура		455	296	33	-	119
	количество (млн.долл)	1868	947	104	140	648	30
2021 год	натура		562	318	46	-	167
	количество (млн.долл)	2931	1619	146	238	882	46
2022 год	натура		410	306	50	-	168
	количество (млн.долл)	3229	1422	168	301	1283	54
2023 год	натура		448	589	61	-	170
	количество (млн.долл)	3386	1172	171	290	1696	56

Ассоциация «Узтокимачиликсаноат» в 2023 году смогла произвести 1 000 000 тонн хлопкового волокна и 932 000 тонн пряжи. Кроме того, произведено 2650,0 млн. тонн трикотажных и вязаных изделий и 275,0 тыс. тонн трикотажного полотна. В то же время, усиление конкуренции на мировых рынках, развитие инновационных технологий, оптимизация издержек производства зарубежными производителями требуют проведения исследований в области развития этих направлений.

Эти факторы несколько расширили возможности привлечения западноевропейских инвесторов в Узбекистан. Однако улучшение условий жизни в развитых странах в сочетании с высокой покупательной способностью населения создают необходимость в постоянном увеличении объемов производства экологически чистых текстильных и других товаров. Следует отметить, что американские, японские и западные компании обладают высоким уровнем экспертизы в текстильной промышленности и могут расширять свою деятельность в регионах с широкими возможностями для развития отрасли, таких как Узбекистан. Текстильная промышленность стала одной из ведущих отраслей экономики нашей республики за годы независимости. В результате принимаемых мер по модернизации реального сектора экономики, техническому и технологическому перевооружению, диверсификации производства наблюдается тенденция роста доли текстильной промышленности в валовом внутреннем продукте страны.

При анализе внутренней среды предприятий текстильной промышленности Узбекистана анализ SNW способствует повышению их конкурентоспособности.

Анализ SNW применяется для оценки конкурентной ситуации на рынке и анализа факторов внутренней среды предприятия.

С – сила

N – нейтральный - нейтральный

С – слабость

Основная цель анализа SNW — выявить положительные и отрицательные ресурсы и найти точки роста предприятия.

Анализ SNW позволяет оценить конкурентную ситуацию на рынке и получить четкое представление о сильных и слабых сторонах предприятия. Результаты анализа помогут выбрать направление развития предприятия, использовать его сильные стороны, учесть слабые стороны и принять меры по их устранению. На основе такого анализа можно систематизировать информацию о компании на рынке и сосредоточить внимание на новых перспективах.

На сегодняшний день существует множество методов проведения анализа SNW, который служит основой стратегического планирования. Это создает очень широкие возможности для предприятий по разработке вариантов стратегической деятельности на рынке. Анализ SNW — удобный инструмент, дающий структурный обзор характеристик предприятия и его окружения. При использовании той или иной методики проведения анализа SNW общая схема этого процесса остается неизменной, однако число факторов может быть очень большим. Это обусловливает необходимость использования специальных методов их классификации. Важно также учитывать субъективные факторы, выявленные лицами, участвующими в анализе процесса (обычно экспертами).

Анализ SNW При анализе деятельности предприятий текстильной промышленности нашей страны сильными сторонами предприятий

текстильной промышленности являются пригодность почвенных условий для выращивания хлопкового сырья, наличие рабочей силы в регионе, производительность труда. факторов производства, наличие интеграции науки и производства, наличие аэропортов, железных и автомобильных дорог. Установлено, что существуют такие факторы, как наличие инфраструктуры, развитие информационно-коммуникационных технологий, привлечение инвестиций. Также установлено, что слабыми сторонами является зависимость урожайности сырья от погодных условий осени, необходимость улучшения этих факторов с учетом специализации региона по отраслям и отраслям, доходов населения.

Для оценки эффективности текстильной промышленности Узбекистана мы используем анализ SNW для анализа сильных, слабых и нейтральных сторон рынка.

Таблица 2

SNW-анализ деятельности интегрированных предприятий текстильной промышленности Узбекистана

	Показатели	**Оценка**			**Комментарии**
	Природно-географический				
	Сырье				Пригодность почвенных условий для выращивания хлопкового сырья
	Сотрудничество в сфере сырья				Партнеры в том же регионе могут обеспечить производителей сырьем
	Погодные условия				Зависимость урожайности сырья от погодных условий осени
	Трудовые ресурсы				
	Демография				демографический потенциал региона
	Рабочая сила				Наличие рабочей силы в регионе
	Квалификация персонала				Нехватка квалифицированных рабочих
	Производство				
	Основные инструменты				Состояние основных средств
	Эффективность производства				Производительность факторов производства
	Специализация				Специализация региона по отраслям и отраслям
	Инновации				
0	Научные достижения				Внедрение передовых инновационных технологий
1	Научные исследования				Реализация научных проектов
2	Интеграция науки и производства				Наличие интеграции науки и производства
	Инфраструктура				

3	Вода, электричество				Состояние водоснабжения и электроснабжения в регионе
4	Транспорт				Наличие аэропортов, железных дорог и автомагистралей
5	Информация и коммуникация				Развитие информационно-коммуникационных технологий
	Финансы				
6	Инвестиции				Привлечение инвестиций
7	Кредит				Кредиты, выдаваемые коммерческими банками на деятельность субъектов предпринимательства
8	Доход				Увеличение доходов за счет снижения затрат

Анализ SNW При анализе деятельности предприятий текстильной промышленности нашей страны сильными сторонами предприятий текстильной промышленности являются пригодность почвенных условий для выращивания хлопкового сырья, наличие рабочей силы в регионе, производительность труда. факторов производства, наличие интеграции науки и производства, наличие аэропортов, железных и автомобильных дорог. Установлено, что существуют такие факторы, как наличие инфраструктуры, развитие информационно-коммуникационных технологий, привлечение инвестиций. Также установлено, что слабыми сторонами является зависимость урожайности сырья от погодных условий осени, необходимость улучшения этих факторов с учетом специализации региона по отраслям и отраслям, доходов населения.

Один этот пример может убедить нас в том, что в нашей стране есть еще много неиспользованных резервов и возможностей. В этой связи, в первую очередь, необходимо внедрять технологии по дальнейшей переработке первичного сырья и полуфабрикатов, для чего создавать новые комплексы и предприятия в нефтегазовой, нефтехимической и химической, легкой промышленности и т.д. Электротехническая промышленность, а также наладить кооперацию с мировыми и региональными предприятиями Важно наладить выпуск готовых текстильных изделий, кожевенной обуви, продуктов питания, фармацевтических препаратов, электроники и бытовой электротехники, бытовой химии, строительных и отделочных материалов, востребованных в наши внутренние рынки. Разумеется, достижение столь амбициозных целей требует от текстильных предприятий проведения активной маркетинговой политики и производства конкурентоспособной на внешних рынках продукции на основе эффективных маркетинговых исследований.

Заключение

В последние годы текстильная промышленность становится все более динамично развивающейся отраслью народного хозяйства Узбекистана, лидером по привлечению иностранных инвестиций и экспорту продукции. Значительно возросла роль легкой промышленности в экономике нашей страны: ее доля в валовом внутреннем продукте составила 8,8 процента, в объеме промышленного производства - 14,8 процента, а в объеме непродовольственных товаров народного потребления - более 44 процентов. процентов. Сегодня на предприятиях отрасли трудятся более 500 000 человек. Создана возможность 100-процентной переработки хлопкового волокна, производимого в Узбекистане.

География экспорта постоянно расширяется. Сегодня узбекская текстильная продукция поставляется практически на все континенты мира — в более чем 70 стран. Предприятия текстильной и швейной промышленности Узбекистана экспортируют свою продукцию на рынки стран СНГ, Евросоюза, а также Китая, США, Канады, Южной Америки, Африки, Юго-Восточной Азии и др.

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БЎЛҒУСИ ИҚТИСОДЧИЛАРДА АНАЛИТИК ТАФАККУРНИ РИВОЖЛАНТИРИШНИНГ ИННОВАЦИОН-ПЕДАГОГИК ОМИЛЛАРИ

Аннотация.*Мақолада бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантиришнинг замонавий педагогик шарт-шароитлари, омиллари, босқичлари, компонентлари, усуллари таҳлил қилинган. Шунингдек, мақолада бўлғуси иқтисодчиларда аналитик тафаккур юритиш кўникмаларининг педагогик-иерархик тизими, намоён бўлиш шакллари тадқиқ қилинган.*

Таянч сўз ва иборалар: *фикрлаш, аналитик фикрлаш, бўлғуси иқтисодчи**,** таълим, олий таълим, таълим ва тарбия жараёни, метод, дебатлар, методик талаблар, таълим ва тарбия самарадорлиги, бахс-мунозара, мустақил фикр.*

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ANALYTICAL THINKING IN FUTURE ECONOMISTSURNI INNOVATIVE-PEDAGOGICAL FACTORS OF DEVELOPMENT

Annotation. *The article analyzes the modern pedagogical conditions, factors, stages, components, methods of developing analytical thinking in future economists. Also, the article examines the pedagogical-hierarchical system of analytical thinking skills, forms of manifestation in future economists.*

Keywords and expressions: *thinking, analytical thinking, future economist, Education, Higher Education, Educational and educational process, method, debates, methodological requirements, effectiveness of education and training, debate, independent thought.*

Бугунги кунда янгича мустақил фикрловчи, ижод қилувчи талаба-ёшларни тарбиялаш энг асосий муаммоларимиздан бири бўлиб қолмоқда. Дарҳақиқат, талабалик йилларида ёшлар биологик жиҳатдан баркамоллик, ижтимоий нуқтаи назардан етуклик, жисмоний бақувватлик босқичига кўтарилади. Талабаларда ўз-ўзини назорат қилиш, ўз-ўзини баҳолаш, ўз-ўзини англаш, ўз-ўзини бошқариш сингари ақл-заковатнинг муҳим жиҳатлари тараққиётнинг янги юксак босқичига кўтарилади. Айниқса, бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш, илмий

дунёқарашнинг шаклланишида умумкасбий, ижтимоий, иқтисодий ва ихтисослик фанлари муҳим ўрин тутади [1, 143].

Ҳозирги кунда миллий иқтисодиётни шакллантираётган эканмиз, бўлғуси иқтисодчилар онгида шаклланаётган янги иқтисодий муносабатлар тизимини ўргатувчи иқтисодий таълимни миллий қадриятларимиз билан уйғунлаштирган ҳолда етказишимиз, бунинг учун олий таълим муассасалари учун тайёрланаётган иқтисодий фанларга оид дарсликлар, ўқув қўлланмаларни жаҳон андозалари талаби даражасида ҳамда миллийликни унутмаган ҳолда тайёрланишини алоҳида қайд этишимиз ўринлидир.

Бўлғуси иқисодчиларга таълим-тарбия бериш жараёнида уларнинг аналитик тафаккурини шакллантиришда доимо миллийлик ва миллий манфаатлар нуқтаи назаридан келиб чиққан ҳолда ёндашиш лозим. Ҳар бир давр иқтисодий тараққиёти даражаси ва иқтисодий муносабатлари тизимини ўрганиш ва баҳо беришда холисликка ва адолатга суянмоқ, аналитик фикрлаш асосида муносабатда бўлиш кўникмаларини шакллантириш мақсадга мувофиқдир.

Бўлғуси иқтисодчиларда аналитик тафаккур, асосан, ўқиш, амалий машғулот ва мустақил билим олиш фаолиятида жадал ва узлуксиз равишда ривожланади. Гоҳо маъруза жараёни улардан репродуктив тафаккурни тақозо этса ҳам, лекин амалий машғулотлар, мустақил топшириқлар, лаборатория топшириқлари продуктив (ижодий) фикр юритиш фаолиятини талаб қилади. Ҳар иккала таълим шакли ҳам бўлғуси иқтисодчиларда аналитик тафаккур ақлий меҳнат, мақсадга йўналтирилган ва мувофиқлаштирилган диққати ёрдами билан амалга ошади. Таълим-тарбия жараёнида замонавий иқтисодиётнинг назарий, амалий ва услубий асосларини, тадбиркорлик ва бизнес қонуниятлари юзасидан чуқур назарий методологик, илмий-услубий хусусиятдаги билимлар ўзлаштирилади. Айниқса, ушбу даврда аналитик тафаккур талаба учун омилкор ақл-заковат қуроли вазифасини бажаради [2, 34].

Психолог А.В.Петровский: “Тафаккур муҳим бир янгилик қидириш ва очишдан иборат нутқ билан чамбарчас боғлиқ психик ва социал-сабабий жараёндир...тафаккур воқеликни анализ ва синтез қилишда уни бевосита умумлаштириб акс эттириш жараёнидир”, -деб [3,14.] изоҳласа, Э.Ғозиев тафаккур нафақат психологиянинг балки мантиқ, фалсафа хатто кибернетиканинг ҳам тадқиқот объектига айланганлигини, фақат бу фанлар доирасида тафаккур илмий муаммоларга боғлиқ жиҳатлардан тадқиқ этилишини таъкидлаган [4,13] Олимнинг фикрича, тафаккур бир-бири билан чамбарчас боғланган хотира, диққат, тасаввур, идрок каби бошқа руҳий жараёнлар билан уйғунликда юзага келади.

Психологлар тафаккур операцияларини анализ ва синтез, таққослаш, абстракциялаш, умумлаштириш, конкретлаштириш, таснифлаш, тизимлаш каби турларга ажратадилар.

Тафаккур кўринишлари орасида шахс эрудицияси ва интеллектини оширишдаги самарадорлигига кўра алоҳида ажралиб турадиган тури бу

аналитик тафаккур ҳисобланади. Аналитик тафаккур ёрдамида ўрганилаётган объектга турли тарафдан ёндашиш,унинг ички ва ташқи алоқаларини комплекс ҳолда текшириш имконияти ҳамда бир тўхтамга келиш тақазо этилади. Ана шундай фикрлаш салоҳиятига эга одамларни қадимги Юнонистонда аналитиклар деб номлаганлар.

“Фалсафа. Қомусий луғат”да “аналитика” атамаси таҳлил қилиш, муҳокама, исботлаш санъати сифатида изоҳланади[5,25]. Аналитика атамаси илк бор Аристотель томонидан мантиқий таҳлил техникасига берилган ном сифатида қўлланган. Унинг “Аналитика” номли асарида фикрлашнинг бу йўсинига тааллуқли икки жиҳат: мураккаб бутунликка эга бўлган объектни дастлаб оддий қисмларга ажратиш ва уларни текшириш асносида тафаккур юритишнинг мураккаблашиб боришига эътибор қаратилади.

Немис файласуфи Иммануил Кант аналитикани инсоннинг англаш қобилияти деб атаб, “Соф онг танқиди” асарида биринчи бўлиб билиш жараёнини аналитик ва синтетик фикрлаш сингари икки босқичга ажратишни таклиф этди [6]. Аналитик фалсафанинг рамзий отаси Г.Фреге аналитик фалсафада тил илмий тадқиқот олиб бориш ва унинг натижаларини ифодалаш воситасигина эмас, балки фалсафий тахлилнинг предмети ҳам ҳисобланади, деб таъкидлайди[7]. Аналитик фалсафа ўзга фалсафий услублардан ўз ғояларини умумий матн орқали эмас, балки алоҳида гап орқали ифодалашига кўра ажралиб туради. Файласуф-аналитик фикр ва ундаги гапларнинг аниқ маъно ташишига, мантиқий боғланишли бўлишига, аниқлигига жиддий эътибор қаратади. Шунинг учун ҳам бўлғуси иқтисодчилар аналитик тафаккурини ривожлантириш, уларни мустақил фикр кишиси қилиб тарбиялаш қаторида нутқини ўстириш, тилни ўргатиш ҳамиша долзарб масала бўлиб келмоқда.

Педагог олимларнинг тадқиқотлари натижасида аниқландики, бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш биринчи галда ўқитиш таъсири остида амалга ошар экан. Тафаккур қилиш эса, таълимнинг мазмуни, ўқитишнинг принциплари ва шакллари каби педагогик категориялар орқали амалга ошади. Шу боис, «тафаккур» тушунчаси педагогик категория сифатида қабул қилинади. Бинобарин, талабаларда тафаккурнинг шаклланишини педагогик нуқтаи назардан ўрганиш жуда муҳимдир.

Бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш ўқув-тарбия жараёнида педагогик категориялар орқали амалга ошишини назарда тутсак, билимларнинг шакллари, ўқитишнинг принциплари, методлари ва шаклларининг тафаккурни, хусусан тушунчавий тафаккурни ривожлантиришга қай даражада йўналганлигини аниқлаш жуда муҳимдир. Бу эса аналитик тафаккурни ривожлантиришнинг шартлари, йўллари ва воситаларини аниқлаш имконини беради [1, 129].

Ўқитиш мобайнида билимларнинг хилма-хил шакллари билан иш кўришга тўғри келади. Одатда тасаввур, тушунча, қонун, принцип, назария, ғоя, исбот, қоида, методлар ва бошқа билимларнинг кенг тарқалган шакллари ҳисобланади. Ўқитишда улар умумий тарзда эмас, балки маълум ўқув

предметининг мазмунидан келиб чиққан ҳолда ўрганилади. Билимларнинг зикр қилинган шакллари тушунчалар сифатида ҳам ўрганилиши жоиздир. Уларни ўзлаштиришга қаратилган фаолиятнинг барча турлари биринчи галда тушунчавий тафаккурни ривожлантириш ва шакллантиришга қаратилган.

Тафаккур – инсон ақлий фаолияти, ақл-заковати ва онгли хатти-ҳаракатининг юксак шакли ҳисобланади. Тафаккур теварак-атрофни, ижтимоий муҳит ҳамда воқеликни билиш қуроли, шунингдек инсоннинг кенг кўламдаги фаолиятини оқилона амалга оширишнинг асосий шарти саналади. Тафаккур жараёнида талабаларда фикр, мулоҳаза, ғоя, фараз кабилар вужудга келади ва улар онгда тушунчалар, ҳукмлар, хулосалар шаклида ифодаланади [8, 114].

Бўлғуси иқтисодчиларни аналитик фаолиятга йўллаш ва бу фаолиятни ривожлантиришда мантиқий, танқидий ва аналитик фикрлаш малакасини шакллантириш шахс сифатида ривожланишларининг динамик асосларини ташкил этади. Зотан, аналитик услубда фикрлаш ҳар қандай масала юзасидан чуқур, атрофлича мантиқли фикр юритиш билан бирга чиқарилган хулосанинг исботланган бўлиши жихатидан ажралиб туради. Демак, бўлғуси иқтисодчиларни аналитик фаолиятга йўллашда ўзига хос ёндашув, қарашни аниқ, мантиқли, ифодали баён этиш ҳамда асослашга ўргатиш муҳим аҳамиятга эга. Ҳар бир одамнинг тафаккур даражаси ҳам билимлар турфалиги натижасида аналитик тафаккур ўзига хос қарашларни юзага чиқишига имкон беради. Шунинг учун ҳам XX асрнинг ўрталаридан бошлаб Ғарб мамлакатлари педагогик амалиётида аналитик тафаккурни ривожлантиришга алоҳида эътибор қаратила бошланган.

Аналитик тафаккур мантиқий тафаккур хусусиятларини ҳам қамраб олиши, тафаккур суръатининг тезлиги, масалага турли жиҳатлардан ёндашишни талаб этиши, қамровлилиги, муаммонинг асосланган ечимини топиш сингари жиҳатлари билан устуворлик қилади. Бундай тафаккур эгаси масаланинг асл моҳиятини англаш, унинг сабаб-оқибатларини тушуниш, керакли қарорга кела билиш қобилиятига ҳам эга бўлади. Аналитик тафаккур янги ахборот излаб топиш, уни ўрганиб, тизимга солиш, таққослаш, бахолаш, мантиқий фикрлаш, далилларга таяниш, мавжуд ахборотларга танқидий қарай олиш, олинган маълумотлар асосида тўғри тўхтамга келиш имконини беради. Бинобарин, тараққиётнинг ҳозирги даражаси ҳар қандай касб эгасидан ўхшатиш, қиёслаш, қисмларга ажратиш, умумлаштириш, тизимлаш, моделлаштириш, таснифлаш, мўлжал қилиш орқали ўз фаолиятини режалаштиришни талаб қилади. Санаб ўтилган сифатларнинг қарор топиши эса талабаларда яхлит ахборот маданияти ҳамда замонавий, гуманистик дунёқарашни шаклланишида асос вазифасини ўтайди.

Хўш, қай йўсинда иш олиб борилса, бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш самара беради?

1. Аналитик тафаккурни шакллантириш бевосита талабаларнинг амалий мутахассислик фаолиятига боғлаб фанлараро интеграция асосида касбий амалиётда кўп учрайдиган муаммоларни ечишга қаратилган бўлса;

2. Бу жараён самарали якунланишини кафолатлайдиган илғор таълим методларидан, усул ва воситалардан, инновацион технологиялардан фойдаланиш орқали;

3. Касбий бахслар ташкил этиш, аналитик тренинглар ўтказиш,илмий тадқиқот лойиҳаларига жалб этиш ;

4. Талабаларнинг аналитик фикрлаш механизмини ўзлаштиришлари учун педагогик шарт-шароит яратиш, хилма-хил ўқув топшириқлари ва вазиятли кейслардан унумли фойдаланиш.

Бўлғуси иқтисодчилар аналитик тафаккурни ривожлантириш асосида ўз қобилиятини баҳолаш, ютуқларини тахлил қилишга интилиш, фанга доир компетентлик даражасини ошириш имконига эга бўладилар. Бу эса таълим натижаларини прогнозлашга шароит яратади. Биз бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантиришда қуйидаги амалий компонентларга устуворлик беришни тавсия қиламиз: қадриятли мотивацион, рефлексив – баҳоловчи, фаолиятга доир, когнитив компонентлар.

Қадриятли-мотивацион компонент талабаларда вазифаларни аниқ белгилаш, тўпланган материаллар ва ахборотдан самарали фойдалана олиш лаёқатини шакллантиришни кўзда тутади.

Рефлексив-баҳоловчи компонент талабаларда эмоционал-интеллект ва баҳолаш-аксиологик қобилиятни ривожлантиришга таъсир кўрсатади.

Фаолиятга йўналтирилган компонент маълумотларни тизимлаштириш, яхлитлаш, уларнинг ўзига хос қирраларини топиш ва ўз қарашларини исботлаш орқали оддий қарашлардан илмий концепция яратишгача бўлган фаолият лаёқатларини шакллантиришни назарда тутади.

Когнитив компонент эса ҳаётий, илмий, фалсафий хулосалар ясаш, тафаккурий юксалиш, амалий кўникмалар ҳосил қилиш лаёқатларини шакллантиришни ўз ичига олади.

Бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш нафақат ҳар бир олий ўқув юрти илмий мавқеининг юксалиб боришига балки, жамият равнақига ижобий таъсир кўрсатади.

Олий таълим муассасалари узлуксиз равишда ижодий тафаккурни талаб қиладиган, муаммоли хусусиятдаги топшириқ ва масалалар тизимидан иборатдир. Ҳар бир маъруза, семинар, мустақил таълим, лаборатория ишлари

ҳам муаммоли вазият, ҳолатнинг таркибий қисмларидан тузилган бўлади. Уларни ҳал қилиш эса талабадан ижодий изланишни талаб этади. Чунки, муаммоли ҳолатгача давр, муаммоли вазият, муаммоли вазиятдан кейинги ақлий жараёнлар ҳам талабадан ижодий қидирув, тадқиқот фаолиятини амалга оширишни тақозо этади. Топшириқларни мустақил бажариш талабалардан тафаккур операциялари (анализ, таққослаш, қиёслаш, мавҳумлаштириш, умумлаштириш, гуруҳлаш) ва шаклларидан (тушунча, ҳукм, хулоса чиқаришдан) фойдаланишни талаб қилади.

Бўлғуси иқтисодчилар иқтисодиётга оид фан асосларини эгаллаш жараёнида ижодий маҳсулот бериш учун тинимсиз ҳаракат қиладилар. Уларнинг билишга, билим олишга ундовчи майллари турғун, мустаҳкам ва

барқарор қизиқишга айлана боради. Жумладан, талабалар тадбиркорлик ва кичик бизнес билан шуғуллана бошлайдилар. Ҳатто бу ёшлар, ўз ақлий меҳнати маҳсуллари билан олимпиада, илмий-амалий анжуманларда, ихтирочилар ва рационализаторлар конкурс-танловларида муваффақиятли қатнаша оладилар. Буларнинг барчаси, тафаккур ёрдами билан амалга оширилади, моддий борлиқни янада аниқроқ ифодалаш, яратиш фаолиятларида фаол қатнашиш учун интилиш, муаммоли ҳолат ва вазиятларни ҳал қилиш жараёнларининг маҳсули сифатида намоён бўлади [9,45].

Иқтисодиёт олий ўқув юртларида замонавий таълим муаммоли ўқитиш, тадқиқ этиб, муаммони ҳал этишдир. Бундай ўқитиш жараёни шахснинг ижодий фаолиятини тарбиялаш мақсадларига мос таълим муассасалари амалиётида муаммоли ўқитиш билан бирга иллюстрацияли тушунтириш, ахборот-маълумот ва дастурлашган таълим технологияси кабилардан кенг фойдаланилади.

Фикримизча, иқтисодиёт фанларидан муаммоли ўқитиш жараёнида талабанинг мустақиллик роли репродуктив ўқув усулларига қиёсланганда анча самарали бўлади. Муаммоли таълимнинг мақсади – талабалар билан ишлаш жараёнида таълим-тарбия масалалари, юзага келган муаммо ва саволларига жавоб қидириш, уларни ҳал этиш йўллари билан янги билимларни ўзлаштиришни, талабалар ўқув фаолиятида муаммоли вазиятларни вужудга келтириш ва ҳал этиш бўйича профессор-ўқитувчилар уларда қизиқиш уйғота олишидан иборат. Жумаладан:

1. Иқтисодиётда юзага келган муаммоларни таҳлил қилиб фикр юритиш, талабаларнинг мустақил ақлий фаолиятини ривожлантиришнинг муҳим талабларидандир. Бундай фикр юритиш талабани шу нарсани англай олмаганлигини тушуниб етиб, муаммонинг маъносига жиддий равишда эътибор беришга, тафаккурини шакллантиришга қаратилади.

2. Олий таълим муассасаларида ўқитиш жараёнида аналитик тафаккурни самарали, мақсадга мувофиқ бўлиши учун уни ўқув жараёни, ўқув-тарбия ишлари асосининг бир қисмига айлантириш зарур. Муаммоли таълим ёрдамида эса бўлажак иқтисодчи мутахассисларда ўқув муаммолари ва мутахассислик масалаларини ҳал этишга тадқиқий ёндашиш, аналитик тафаккурини ривожлантириш, мустақил тарзда ўрганиш маҳоратини шакллантиришни тарбиялайди.

3. Иқтисодий таълим талабалар билим тизимлари ва ақлий ҳамда амалий фаолиятларида самарали ўзлаштиришга, аналитик тафаккурини шакллантиришга ёрдам беради, ўзлаштирган янги билимларидан келажакдаги вазиятларда унумли фойдалана олишни, таълим муаммоларини ҳал эта билиш, мустақил изланишга ўргатиш, ижодий тажрибага эга бўлиш ва уни ривожлантириш, таълим жараёнининг вазифаларини таҳлил қилиш, муаммоли таълимни аниқлаш имкониятларини очиб беради.

Мамлакатимизда кучли демократик ҳуқуқий давлат ва фуқаролик жамиятини барпо этиш учун ижтимоий йўналтирилган бозор иқтисодиётини

шакллантириш, кўп укладли иқтисодиётни вужудга келтириш, Ўзбекистон Республикасини янада ривожлантириш бўйича Ҳаракатлар стратегиясида кўрсатилган иқтисодиётдаги таркибий ўзгаришларни амалга ошириш, яъни иқтисодий ислоҳотларни амалга оширишгина эмас, инсонларда, айниқса, ёшларда янгича иқтисодий тафаккурни шакллантириш муҳим рол ўйнайди. Чунки, иқтисодий тафаккур жамият аъзоларининг дунёқарашини шакллантиришда мустақил фикр юритиш, вазиятга кўра қарор қабул қилишга ўрганишига асос бўлади.

Ҳозирги шароитда бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш муҳим рол ўйнайди. Чунки, аналитик тафаккур жамият аъзоларининг дунёқарашини шакллантиришда мустақил фикр юритиш, вазиятга кўра қарор қабул қилишни ўрганишига асос бўлади. Аналитик тафаккур чегарани ҳис қилиш, меъёрни билиш, ҳисоб-китоб қилиш орқали хоҳиш, истак билан реал имкониятни таққослаб қарор қабул қилишда ифодаланади [10, 78].

Бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш уларда ўзи акс эттирган, сезган, идрок қилган, тасаввур этган нарса ва ҳодисаларнинг тўғрилиги, аниқлиги, ҳақиқийлиги ёки уларнинг воқеликка мос тушишини аниқлашга имкон беради. Ижтимоий ҳаётда, таълим жараёни ва ишлаб чиқаришда инсонлар ўртасида объектив тарзда юзага келувчи алоқа ва субъектив муносабатлар ҳам аналитк тафаккур ёрдамида намоён бўлади.

Бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантиришга қаратилган педагогик жараёнда қуйидагиларга алоҳида эътибор қаратиш мақсадга мувофиқ:

1. Талабаларда ўқув фаолият бутунлиги ҳамда мантиқий, аналитик тафаккурни шакллантириш.

Тадқиқотларнинг кўрсатишича, талаба-ёшлар мактаб давридан бошлаб ўқув фаолиятини, унинг компонентлари – ўқув масалалари, ўқув ҳаракатлари, ўз-ўзини баҳолаш билан биргаликда ўзлаштира оладилар. Бу борада талабаларда ўқув фаолиятини шакллантиришни, ўз-ўзини назорат қилиш ва баҳолашдан бошлаш мумкинлигини тавсия этиш мумкин[11]. Чунки бу ҳолатда талабалар ўз ўқув ҳаракатларини таҳлил қила оладилар ва таққослайдилар.

2. Талабаларнинг мустақил таълим олиш фаолиятини ривожлантириш.

Маъруза ва амалий машғулотларни ташкил қилиш жараёнида ривожлантирувчи таълим талабаларнинг мустақил таълим олишини кучайтиришни назарда тутади. Мустақил таълим олиш деганда, қитувчининг топшириғи ва ажратилган вақт давомида, ҳамда бевосита унинг иштирокисиз бажариладиган одатдаги ўқув фаолияти тушунилади.

3. Бўлғуси иқтисодчиларда аналитик тафаккурни ривожлантириш ривожлантириш учун фикрлаш хусусиятларини шакллантириш. Асосий фикрлаш операциялари – бу анализ-синтез, умумлаштириш, таққослаш, таснифлашдир. Фикрлаш операциялари асосан машғулотлар жараёнида фаоллаштирилиши мумкин. Бу ўқитувчининг «Нима учун?», «Қандай

мақсадда?», «Сабаблари қандай?», «Натижа нима учун шундай бўлди?» сингари саволлари муҳокамаси орқали амалга оширилиши мумкин.

4. Машғулотлар жараёнида бўлғуси иқтисодчиларда диалектик тафаккурни ривожлантириш. Иқтисодиёт олий ўқув юрти талабаларини аналитик фикрлашга ўргатиш учун уларнинг фалсафий онгини кўтариш ниҳоятда муҳимдир. Талабаларни баҳслар, мунозаралар, қарама-қарши вазиятларга тортиш орқали аниқ ва ноаниқ, очиқ ва ёпиқ қарама-қаршиликлар, ўзгаришлар-предметлар орасидаги боғлиқликларга аниқликлар киритилади. Бундай машғулотлар давомида тафаккур мослашувчанлиги таркиб топиб, бунда талаба ҳар қандай ҳолатни таҳлил қила олиб, ундаги ўзгариш ва ривожланишни аниқлаш, предметлар ва воқеликка ўзгача назар билан қарашни ўрганади. Бундай хусусият эса ниҳоятда тез ўзгараётган бугунги замонамизда ҳар бир талаба учун ниҳоятда зарурдир.

5. «Билимлар иқтисодиёти», «Инновацион иқтисодиёт» ва иқтисодиётга оид фанларни ўтиш жараёнида талабаларда ижодий тафаккурни шакллантириш.

Бўлғуси иқтисодчиларни муаммоли вазиятларга тортиш, танқидий ҳолатларни муҳокама қилиш улардаги муаммоларни мустақил ҳолда топиш ва уларни ҳал этиш учун ўз лойиҳаларини, кейсларни тузиш ва ҳимоя қилиш уларда аналитик тафаккурнинг самарали шаклланишига хизмат қилади.

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ВОСПИТАНИЕ ВОЕННОГО ПАТРИОТИЗМА В ПОДГОТОВКЕ МОЛОДЕЖИ К ВОЕННОЙ СЛУЖБЕ

Аннотация*: На каждом из нас лежит огромная ответственность за укрепление обороны нашей страны. Образование молодежи, трудовая деятельность и научно-техническое развитие имеют важное значение в поддержании системы государственной обороны. Организация военной подготовки слушателей военно-учебных центров и факультетов военного образования на качественном уровне, обеспечение военно-учебных центров современной учебно-материальной базой, достигается путем проведения у студентов практической военной подготовки. В данной статье рассматривается организация обучения на высоком уровне на основе современных педагогических технологий студентов военными знаниями и навыками в военно-учебных центрах и военно-учебных факультетах.*

Ключевые слова: военно-патриотического воспитания, военной службе, морально-психологическое, морально-этические, соматического здоровья, нервно-эмоциональные, Патриотизм, Вооруженных Силах, *Самореализация, Индивидуалистические****.***

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FOSTERING MILITARY PATRIOTISM IN PREPARING YOUNG PEOPLE FOR MILITARY SERVICE

Annotation: *Each of us has a huge responsibility for strengthening the defense of our country. Education of youth, labor activity and scientific and technical development are of great importance in maintaining the system of national defense. Organization of military training of students of military training centers and faculties of military education at a high level, provision of military training centers with a modern educational and material base, is achieved by conducting practical military training for students. This article examines the organization of high-level training based on modern pedagogical technologies of students with military knowledge and skills in military training centers and military training faculties.*

Key words: *military-patriotic education, military service, moral and psychological, moral and ethical, somatic health, neuro-emotional, Patriotism, Armed Forces, Self-realization, Individualistic.*

Исходя из анализа исследовательских работ, посвященных проблеме военно-патриотического воспитания, его определение может выглядеть следующим образом. Военно-патриотическое воспитание - это процесс воспитания любви к своему Отечеству на основе формирования духовно-нравственной и социально-психологической готовности гражданина к выполнению обязанностей военной службы в мирное время и его защите в военное. Такой подход к военно-патриотическому воспитанию позволяет сделать вывод о том, что духовностью и нравственностью должен быть пропитан весь процесс формирования готовности молодежи призывного возраста к военной службе в армии.

Главная цель военно-патриотического воспитания - формирование и развитие качеств и отношений фажданина-патриота и высоконравственной личности готовой к добросовестному служению Отечеству в армии. Основой ценностных ориентиров служения Отечеству в армии выступают патриотические убеждения и мировоззрение личности молодого человека призывного возраста. Это позволяет выделить следующие ценностные ориентиры и особенности отечественного военного патриотизма: особая любовь местных людей к родной земле; державность; общинность; свободолюбие, готовность к сознательному самопожертвованию ради свободы Отечества; жизненная стойкость, отвага и мужество; гордость и достоинство местной нации, сочетающиеся с проявлением миролюбия и добрососедских отношений с другими народами.

Таким образом, в определениях понятий «патриотизм», «патриотическое воспитание», «военно-патриотическое воспитание» в качестве особенных их сторон выявлено общее, состоящее в том, что в их основе лежит особое духовно-нравственное отношение любви молодого человека призывного возраста к своему Отечеству, способствующее деятельному участию в труде на благо народа и государства, а также защите от преступных посягательств на их свободу, суверенитет и государственную целостность.

Готовность молодежи к военной службе в армии является сложным интегральным психолого-педагогическим образованием, сочетающим взаимосвязанные психологические особенности и духовно-нравственные ценности личности, социально-ценностные отношения выбора, способы поведения, основ военных знаний, умений и навыков, приобретенных в соответствии с возможностями образовательного процесса в общеобразовательных учреждениях (Приложение 6). Такая готовность является системным качеством, она имеет определенную структуру и многоуровневый характер. Основными составляющими готовности молодежи призывного возраста к военной службе в армии являются целевая, мировоззренческая (ценностная), практически-результативная. Для выявления уровней

готовности молодежи призывного возраста к военной службе в армии в реально существующих условиях проводился мониторинг, целью которого было выявление характерного в состоянии готовности призывников к военной службе в армии. В основу модели, с помощью которой формируется готовность молодежи призывного возраста к военной службе в армии в процессе военно-патриотического воспитания, положен сам процесс деятельности. Преподаватели должны сформировать, а призывники должны научиться общим принципам и методам решения типичных проблем, с которыми сталкивается молодой человек в жизни и в процессе подготовки и прохождения военной службы в армии. Основными составляющими модели являются: цель, определяющая ориентиры ожидаемого результата, задачи по его достижению; субъекты; объекты; основные направления; принципы; критерии; компоненты, к которым относятся: интеллектуальный, деятельностный, личностно-ориентированный.

Военно-патриотическое воспитание и формирование у молодежи призывного возраста готовности к военной службе в армии является итогом педагогической деятельности и взаимодействия общеобразовательных учреждений, военных комиссариатов, общественных организаций и объединений, других управленческих структур; военно-патриотическое воспитание молодежи определяется ценностными ориентирами, характерными для данного этапа развития общества, его содержание включает многоуровневую систему мероприятий, способствующих всестороннему развитию важных для военной службы знаний, навыков, умений и ценностных отношений; основой военно-патриотического воспитания молодежи выступают исторические традиции и духовно-нравственные ценности.

Раннюю профориентационную подготовку учащихся на службу в ОВД необходимо рассматривать через выявление элементов, из которых она состоит, системообразующих отношений и взаимосвязей, объединяющих отдельные элементы в целое, функций, которые обусловлены системообразующими отношениями, и определяющих факторов развития системы.

Наглядное представление системы подготовки в диссертации решается с помощью метода моделирования, который предполагает исследование сложных процессов и объектов путем их упрощенного представления в модели. Это позволяет выделить несколько этапов: актуализация уже накопленные знаний об объекте; выбор из уже существующих моделей той, которая наиболее полно отвечает требованиям исследователя; построение модели и, наконец, ее исследование. В качестве теоретической основы в диссертации обоснована структурно-функциональная модель. Для построения выбранной структурно-функциональной модели профориентационной подготовки учащихся на службу в органах внутренних дел в диссертации обоснованы и сформулированы следующие принципы: *целостности, преемственности, развития, связи теории с практикой.* Согласно выдвинутым выше положениям (системный подход и личностно-

ориентированное обучение), обоснованным принципам (целостности, преемственности, развития, связи теории с практикой) в исследовании разработана структурно-функциональная модель ранней проф-ориентационной (до профессиональной) подготовки учащихся к выбору профессии сотрудника органов внутренних дел.

Модель содержит следующие компоненты: целевой, субъектно-объектный (объект и субъекты педагогической деятельности), функциональный (функции деятельности субъектов педагогической деятельности), технологический (методы и формы, используемые в деятельности специалистов по профориентационной подготовке учащихся).

Цель подготовки учащихся заключается в определении содержания, форм, методов воспитания и обучения в учебной и вне учебной работе. Содержание ранней профориентационной подготовки учащихся определяется в программах специальных дисциплин. В качестве субъектов этой деятельности выступают учителя и воспитатели общеобразовательной школы (классные руководители, воспитатели, организаторы внеклассной работы, завучи), психологи (психологи-консультанты по профориентацион-ной работе), преподаватели средних и высших профессиональных учебных заведений (профессоры, доценты, старшие преподаватели), практические работники органов МВД и юстиции, родители. Преподаватели (учителя) реализуют в своей деятельности образовательную, воспитательную, развивающую функции через систему традиционных форм и методов обучения, а также внедряют новые технологии в учебно-воспитательный процесс. Основной формой обучения является урок. Гибкое применение этой формы обучения позволяет использовать различные виды уроков: урок-дискуссия, урок с элементами диагностических и самодиагностических процедур, урок в виде психологического тренинга, уроки с элементами игрового обучения, уроки экскурсии, уроки-конференции. При организации деятельности учеников используются индивидуальные, фронтальные и коллективные виды работ. Уровни, критерии оценки и показатели сформированности военнопатриотических ценностей молодежи призывного возраста и ее готовности к служению Отечеству в армии (Таблица 10).

Таблица 10

Уровни	**Критерии**	**Показатели**
	знания	Поверхностные знания о патриотизме, основах военной службы, традициях, ценностных отношениях и ориентирах служения Отечеству, обычаях народов, истории Узбекистан, отсутствие знаний о национальных героях, их подвигах.

низкий	умения	Наличие коммуникативного барьера, напряженности общения в коллективе, отсутствие стремления участвовать в подготовке и проведении мероприятий воспитательной, спортивно-массовой работы, допризывной подготовки во внеурочное время, низкие результаты по физической культуре, выполнению нормативов по основам военной службы.
	ценностные отношения и ориентиры	Неустойчивый интерес к истории Родины, национальным героям, народным традициям, непонимание ценностного смысла патриотизма, долга, чести, любви к своему Отечеству, сопричастности с его историей, культурой, достижениями
средний	знания	Определяется наличием половины или более половины признаков соответствующего критерия, знанием основных традиций и обычаев народа, населяющих в республике; средний Умения ценностные отношения ориентиры Высокий умения владением неполными знаниями истории, культуры Отечества; понимание ценностной сути патриотизма долга, чести, любви к своему Отечеству, сопричастности с его историей, культурой, достижениями.
	умения	Неустойчивый интерес к выполнению нормативов по основам военной службы, невысокие результаты в выполнении нормативов по физической культуре и основам военной службы, пассивность в подготовке и проведении мероприятий воспитательной, спортивно-массовой работы, допризывной подготовки во внеурочной время
	ценностные отношения и ориентиры	Пассивное отношение к истории Отечества, национальным героям, боевым и трудовым традициям, пониманию ценностного смысла патриотизма, долга, чести, служения Отечеству в армии, сопричастности с его историей, культурой, достижениями.
высокий	знания	Глубокие знания истории Отечества, основ военной службы, боевых и трудовых традициях и обычаях народов, населяющих Узбекистан, проявление устойчивых признаков, свойственных высоконравст-венной личности; знание и почитание национальных героев, писателей, поэтов, композиторов.
	умения	Устойчивый интерес к выполнению нормативов по основам военной службы, высокие результаты в выполнении нормативов по физической культуре и основам военной службы, активное участие в подготовке и проведении мероприятий воспитательной, спортивно-массовой работы, допризывной подготовки во внеурочное время. Коммуникативные умения работы в команде,

		дисциплинированность, уважение других народов, их обычаев и культуры
	ценностные отношения и ориентиры	Сознательное отношение к истории Отечества, национальным героям, боевым и трудовым традициям народов, населяющих Узбекистан, пониманию ценностного смысла патриотизма, долга, чести, служения Отечеству в армии и следование им в повседневной жизни; сопричастность с историей, культурой и достижениями Узбекистан

Таким образом, в образовательных учреждениях необходимо целенаправленно формировать патриотическое мировоззрение и патриотические убеждения, создавать определенные педагогические условия, способствующие формированию всесторонней готовности к военной службе.

Разработаны ориентиры по духовно-нравственному, патриотическому и военно-патриотическому воспитанию молодёжи призывного возраста, формированию ценностных отношений к военной службу на исторических примерах, традициях верного и добросовестного служения Отечеству старших поколений его защитников, целостности светского и религиозного воззрений на эту проблему, а также выявлены педагогические условия эффективной деятельности по военно-патриотическому воспитанию и формированию у молодёжи призывного возраста готовности к военной службе в армии. Выдвинуто положение о том, что повышение эффектив-ности подготовки молодёжи к службе в армии возможно, на основе совершенствования организационных основ деятельности общеобразователь-ных организаций по подготовке молодёжи к службе в Вооруженных Силах; совершенствования педагогической техники преподавателей-организаторов общеобразовательных организаций; обеспечения активизации сотрудничест-ва образовательных организаций с общественными организациями и военны-ми комиссариатами. Разработана методическая система и педагогическое обеспечение процесса формирования готовности защищать интересы Отечества. Определена структура воспитательной среды, ее место и роль в формировании готовности учащейся молодёжи выполнять свой гражданский и воинский долг по защите интересов Отечества.

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МИНТАҚА САНОАТИНИ ХУДУДИЙ ТАРКИБИНИ ТАКОМИЛЛАШТИРИШ ЙЎЛЛАРИ. (ЗАРАФШОН МИНТАҚАСИ МИСОЛИДА)

Аннотация: *Ушбу мақолада минтақа саноатини худудий таркибини такомиллаштириш ва минтақа худудий таркибини такомиллаштиришда орта қолаётган туманларни такомиллаштириш бўйича масалалар очиб берилган.*

Ключевые слова: *Иқтисодиёт, модернизация, иқтисодий-ижтимоий ривожланиш, минтақавий хусусиятлар, комплекс ривожланиши, истеъмолчи, ишлаб чиқариш, иқтисодий муносабатлар.*

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WAYS OF IMPROVING THE TERRITORIAL COMPOSITION OF THE REGIONAL INDUSTRY (In the of Zarafshan region)

Abstract*: This article discusses the issues of improving the territorial structure of regional industry and improving the health of areas lagging behind in improving the territorial structure of the region.*

Keywords*: Economy, modernization, economic and social development, regional features, integrated development, consumer, industrial, economic relations*

Иқтисодиётни модернизация қилиш шароитида иқтисодий-ижтимоий ривожланишнинг минтақавий хусусиятларини тадқиқ этиш муҳим илмий ва амалий аҳамиятга эга. Бу энг аввало, аҳоли турмуш тарзининг кўтарилиши, ижтимоий барқарорлик ҳамда мамлакатнинг индустриал тараққиёти билан узвий равишда боғланган.

Саноат иқтисодий район иқтисодиётининг барқарор ва комплекс ривожланиши, ижтимоий барқарорликни таъминлаш, аҳолининг турмуш даражасини оширишда катта ўрин тутади.

Саноат тараққиёти иқтисодиётнинг барча тармоқларини, шу жумладан, ишлаб чиқариш тармоқлари ва истеъмолчиларни бирлаштирувчи, ҳудудий ишлаб чиқариш мажмуасини ташкил этувчи мураккаб иқтисодий тизим ҳисобланади.

Саноат ишлаб чиқариш тармоқлари истеъмолчиларнинг ички ва ташқи бозордаги талаб ва таклиф нисбатидан келиб чиққан ҳолда маҳсулот ишлаб чиқаришни ташкил этади. Умумий ҳолда таърифлаганда, минтақавий

1-жадвал

Саноати ривожланиши бўйича орқада бўлган туманларнинг салоҳияти тўғрисида маълумот (2020 йил)[103]

№	Курсатгич номлари	Зарафшон шаҳри	Конимех	Навбаҳор	Нурота	Томди	Учқудуқ	Хатирчи	Каттақўрғон ш	Оқдарё	Иштихон	Каттақўрғо	Қўшробот	Нарпай	Нуробод	Пайариқ	Пахтачи
1	Майдони	0,02	9,25	1,57	5,94	42,49	46,63	1,42	90,7	161,7	258,2	276,6	133,5	215,4	152,7	254,5	146,0
2	Аҳолиси,минг киши	85137	361179	1146 81	86656	15136	37689	201854	90,7	161,7	258,2	276,6	133,5	215,4	152,7	254,5	146,0
3	Саноат корхоналар сони	265	129	214	346	60	208	417	240	296	240	303	121	190	156	309	191
4	Йирик кор	2		1	1				2		2	5		2		2	2
5	Кичик кор	259	129	113	345	60	208	417	238	296	238	298	121	188	156	307	189
6	Саноат маҳ и/ч милярд сўмда	315,7	129,5	521,0	289,2	44,4	147,0	568,9	359,1	334,0	352,2	431,5	45,9	596,5	212,8	354,5	356,6
7	Худудларда ташсав милАКШ	74,2	6,3	31,6	11,4	9,4	4,9	17,7	17,9	40,8	12,8	38,0	3,7	17,8	36,8	15,2	24,2
8	Экспорт	3,3	1,1	17,5	2,3	0,7	1,3	10,0	6,9	18,6	7,4	14,0	1,3	7,4	1,8	9,1	4,6
9	импорт	70,9	5,2	14,1	9,1	1,7	3,6	7,7	11,0	22,2	5,4	24,0	2,5	10,3	34,9	6,1	19,6

[103] Статистик таҳлил муаллиф томонидан бажарилган

10	Фаолият кўрхориж корхон/	17	8	9	25	8	10	8	18	31	14	11	20	5	12	16	9
11	Асосий капитал кир инвестиц	1270,3	1876,7	373,5	273,5	3096,8	1003,5	787,0	159,1	605,9	458,6	177,2	533,7	180,0	373,2	171,3	268,8
12	Қишлоқ,ўрмонва баликчилик	41,9	589,6	1881,7	1254,4	343,7	246,6	3643,0	189,4	1659,2	2949,8	4067,8	1372,1	1392,9	878,7	2892,8	1396,0
13	Истеъмол таварлари	244,9	90,7	268,1	235,8	39,2	120,5	549,7	198,6	250,4	225,4	285,5	34,1	301,2	190,5	227,9	227,6

Манба: Бухоро, Навоий ва Самарқанд вилоятлари статистика қўмитаси маълумотлари асосида муаллиф томонидан тузилган

саноатда саноат маҳсулотларини ишлаб чиқариш, қайта ишлаш ва истеъмол субъектлари ўртасида саноат маҳсулотларини ишлаб чиқариш ва унинг истеъмоли ўртасида рақобат муҳити минтақавий хусусиятларга асосланган иқтисодий муносабатлардан иборат.

Зарафшон иқтисодий райони саноати орқада қолётган туманларни майдони катталиги бўйича (1-жадвал)дан кўришимиз мумкин Каттақўғон тумани (276,6), Иштихон тумани (258,2), Пайариқ тумани (254,5), Нуробод тумани (152,7) асосийси тоғ ва тоғолди худудида жойлашган туманлар ҳисобланади.

2020 йилда ЗИР индустриал секторининг муҳим ривожлантириш кўрсаткичлари-саноатнинг юқори технологик ривожланиш соҳаларига инновацион технологияларни қўллаш (ўзлаштириш,жорий қилиш) асосида ички ва ташқи бозорларда талаб юқори бўлган маҳсулотлар ишлаб чиқариш ҳисобланади.

Республиканинг истиқболда жаҳон савдо ташкилотига қўшилиши ҳисобга олган ҳолда, иқтисодиётнинг барқарорлиги таъминланиши ҳамда маҳаллий хом-ашё ресурсларини қайта ишлаш асосида юқори қўшилган қийматли, жаҳон бозори талабларига мос, рақобатбардош ҳамда экаспортга мўлжалланган маҳсулотлар ишлаб чиқаришни йўлга қўйиш лозим.

Ушбу вазифаларни амалга ошириш кераклиги ва 2020 йил саноат маҳсулотлари ишлаб чиқариш Нарпай тумани 596,5 милярд сўм, Хатирчи тумани 568,9 милярд сўм, Навбаҳор тумани 521,0 милярд сўм, Каттақўрғон тумани 431,5 милярд сўм, Каттақўрғон шаҳри 359,1 милярд сўм, Пахтачи тумани 356,6 милярд сўм, Пайариқ тумани 354,5 милярд сўм, Иштихон тумани 352,2 милярд сўм, Оқдарё тумани 334,0 милярд сўм маҳсулот ишлаб чиқарилган, энг паст кўрсатгичга эга бўлган туманлар Томди тумани 44,4

милярд сўм, Қўшробот тумани 45,9 милярд сўм, Конимех тумани 129,5 милярд сўм, Учқудуқ тумани 147,0 милярд сўм маҳсулот ишлаб чиқарган.

Саноат ишлаб чиқариши асосан бевосита саноатнинг ўзида, унинг хом ашёси асосида маҳсулот ишлаб чиқаргани учун иқтисодиётнинг ажралмас узвий қисми сифатида қараш талаб этилади. Шу билан бир вақтда у тоғ-кон саноати, қишлоқ хўжалиги ва истеъмолчилар ўртасида воситачилик вазифасини ҳам бажаради.

Иқтисодий райондаги саноат ривожланиши бўйича орқада бўлган туманлари мавжуд салохиятидан самарали ривожланиши бўйича орқада бўлган туманлар мавжуд салоҳиятидан самарали фойдаланиш асосида ривожлантириш бўйича қуйидаги таклифлар берилди.:

Қўшробот тумани қурилиш табиий захираларига бой бўлиб, унда мармар, гранит, қурилиш тошлари, графит ва минерал буёқлар ишлаб чиқаришни ривожлантиришга кенг эътибор қаратиш лозим.

Иштихон туманида боғдорчилик бўйича юқори натижаларига эришиш имконияти юқори бўлиб, ушбу туманда мева-сабзавотчилик кластерини жадал ривожлантириш зарур:

Зарафшон иқтисодий райони саноат ривожининг янги йўналишларга ўзгартириш, тўқимачилик ва озиқ-овқат соҳасида, қурилиш материаллари саноати, машинасозлик, фармацефтика маҳсулотлари ишлаб чиқаришни ривожлантириш иқтисодиётнинг ўсишини таъминлайдиган асосий омиллар ҳисобланади.

Мазкур туманлар саноатида кўзда тутилган мақсадли кўрсатгичларга, энг аввало, ишлаб чиқариш суръатларининг камайишига йўл қўяётган корхоналарда ижобий ўзгаришларни таъминлашга қаратилган тадбирларни ишлаб чиқиш, корхоналар олдида юзага келаётган муаммолар ечимини топишда уларга кўмаклашиши ҳамда янги ишлаб чиқариш қувватларини кўпайтириш лозим.

Минтақавий саноат ривожланишининг асосий омилларини иқтисодий, ижтимоий, илмий-техник ва табиий-агроиқлимий гуруҳларга ажратиш мумкин.

Иқтисодий омилларга саноат ишлаб чиқариши ва саноат хом ашёсини қайта ишлаш саноатининг жойлаштирилиши ва ривожланиши, иқтисодий районлар ўртасидаги иқтисодий алоқалар, саноат товарлари нархларининг даражаси ва таркиби киради.

Илмий-техник омиллар саноат ва унинг инфраструктураси, моддий-техника базасининг ривожланиши, фан-техника ютуқларининг жорий этилиш даражасини ўз ичига олади.

Ижтимоий омилларга аҳолининг сони ва ижтимоий демографик таркиби, унинг иқтисодий районда жойлашиши киради.

Табиий-агроиқлимий омилларга эса иқтисодий районнинг табиий географик жойлашуви, иқлим, сув, орографик хусусиятларидан келиб чиқади.

Тадқиқотда минтақавий саноатнинг иқтисодий таҳлили таклиф этилди ва улар қуйидагиларга асосланган:

-ҳудуднинг иқтисодий географик ўрни ва жойлашувини аниқлаш;

-минтақавий саноат ривожланишининг жараёнларини аниқлаш;

-саноат ишлаб чиқариши таркибига таъсир этувчи омилларни баҳолаш;

-минтақавий саноат ривожланиши жараёнларига хос бўлган хусусиятларни аниқлаш.

Маълумки, ҳар қандай саноатнинг худудий таракибини такомиллаштириш, худуддаги соҳа тармоқнинг ривожланшиш уни амалга оширишнинг иқтисодий мехнаизмига бевосита боғлиқ. Зарафшон иқтисодий райони саноат ишлаб чиқаришини ривожлантириш, ишлаб чиқариш салоҳиятидан самарали фойдаланишни рағбатлантириш ва уни давлат томонидан қўллаб-қувватлаш борасида кенг чора-тадбирлар амалга оширилмоқда, жумладан бу борадаги иқтисодий ислоҳатларнинг асосий мазмунини қуйидагилар ташкил этмоқда:

-товар айланишида монополияни чеклаш, молиявий ва моддий ресурслар бозорига киришни соддалаштириш, ишлаб чиқариш тармоқлари учун солиқ юкларини қисқартириш;

-иқтисодиётнинг реал секторида ишлаб чиқарувчиларнинг эркин фаолият юритишлари учун шарт-шароитларни яхшилаш;

-экспорт қилувчи корхоналарни қўллаб-қувватлаш, уларнинг сонини кўпайтириш, тадбиркорлик субъектлари томонидан ишлаб чиқарилаётган маҳсулотларнинг жаҳон стандартларига жавоб беришини таъминлаш;

-импорт ўрнини босувчи маҳсулотлар ишлаб чиқаришни кенгайтиришга алоҳида эътибор қаратиш;

-инновацияларни солиқ сиёсати орқали рағбатлантириш, замонавий технологияларни татбиқ этиш ва инвестицияларни жалб этиш учун имтиёзли шарт-шароитларни яратиш ва ҳокоза;

Зарафшон иқтисодий районидаги демографик жараёнлар, уларда юз берган ўзгаришлар Ўзбекистон бўйича кузатилган жараёнларнинг ажралмас бир қисмидир. Иқтисодий районда амалга ошган ҳар қандай жараён республикага хос бўлган тенденциялар ва қонуниятларнинг қандайдир бир бўлаги сифатида намаён бўлади. Шунинг учун ҳам меҳнат ресурслари ёки аҳоли бандлигига талуқли муаммоларни ҳаққоний талқин қилиш ва энг муҳими тўғри хулосалар чиқариш учун таҳлилни республика ва иқтисодий район аҳолисининг сони, динамикаси, жойлашиши, тақсимлашиши каби жиҳатларни ўрганишдан бошлаш лозим[104] [79,229].

Маълумки Ўзбекистонда кейинги йилларда саноатни яна ҳам ривожлантириш, уни модернизациялаш, техник ва технологик жиҳатдан янгилашга устувор аҳамият берилиб келинмоқда. Бунинг натижасида республикада янги тармоқ ва тармоқчалар, ишлаб чиқаришлар барпо этилмоқда. Кейинги 2010-2020 йилларда саноатда банд бўлган аҳоли сони

[104] Уралов Е.О. Зарафшон минтақаси меҳнат ва табиий ресурслари ва улардан фойдаланиш муаммолари // “Инсон-жамият-табиат” системасида мувозанат ва ривожланиш муаммолари мавзусидаги илмий-назарий семенар материаллари. – Т., 2014. – 229 б.

Ўзбекистон 1540,0 кишидан 1642,3 кишига етди ёки 106,6 фоизга кўпайди. Зарафшон иқтисодий районида ушбу кўрсаткичлар 111,6 фоизга тенг бўлди. Натижада Республикада банд аҳоли ичида саноатнинг улуши 2010 йилда 13,2 фоиздан 2020 йилга келиб 12,8 фоизга пасайди. Иқтисодий районда эса ушбу кўрсаткич 13,3 фоиздан 13,5 фоизга етди.

Иқтисодиётнинг етакчи тармоғи, ишлаб чиқариш воситалари ишлаб чиқарувчи саноатнинг банд аҳоли ўртасидаги улуши иқтисодий ривожланган мамлакатларда 24-28 фоиз атрофида ўзгариб туради. Унинг ялпи ички маҳсулот ишлаб чиқаришдаги улуши 25-30 фоизни ташкил этади. Ўзбекистонда ҳам саноатнинг ялпи ички маҳсулот (ЯИМ) ишлаб чиқаришдаги улуши 2013-йилда 24,2 фоизга тенг бўлди. Умуман Ўзбекистонда ЯИМ ишлаб чиқаришга ва банд аҳоли таркибига тегишли маълумотлар 3.9-жадвалда келтирилган. Таҳлил саноатнинг самарадорлик даражаси нақадар юқори эканлигини, транспорт ва алоқага ҳам унга яқин кўрсаткичлар хослигини кўрсатди. Саноатга 2018-йилда банд аҳолининг 12,9 фоизи тўғри келган ҳолда унга ЯИМ нинг 24,2 фоизи ишлаб чиқарилган. Худди шунингдек транспорт ва алоқанинг банд аҳоли сонидаги улуши 5,3 фоизга тенг бўлган ҳолда, ушбу тармоқда ЯИМ нинг 11,9 фоизни ишлаб чиқарилган. Айни пайтда қишлоқ хўжалигида меҳнат ресурсларидан фойдаланиш даражаси жуда паст кўрсаткичлар билан ифодаланади. Жумладан, 2020-йилда ушбу тармоқ банд аҳолининг 27,2 фоизда тўғри келгани ҳолда, унда ЯИМ нинг 17 фоиздан ишлаб чиқарилди, холос, Шунга яқин шакилланган .республикада бундай вазиятнинг вужудга келишида меҳнат ресурслари билан мавжуд иш жойлари ўртасидаги номутаносиблик асосий омил ҳисобланади. Ундан ташқари мамлакатмизда қишлоқ жойларида истиқомат қилаётган меҳнатга лаёқатли ёшдаги аҳолининг маълум қисми ишга жойлашиши ёки иш қидирмаса уни қишлоқ хўжалигида бандлар қаторига қўшиб қўйиш амалиёти ханузгача мавжуд эканлигини буни мустақилликгача амал қилган “Қолдиқ” тамоилнинг таъсири эканлигини таъкидлаб ўтишимиз лозим.

Зарафшон иқтисодий районида ишсизларнинг умумий сони 2010 йилда 141, мингдан 2020 йилга келиб 139,9 минг кишига ёки 98,9 фоизга пасайди. Ишсизлик даражаси жами ишсизлар ўртасида 5,5 фоиздан 5,1 фоизга, аёлларда эса 6,3 фоиздан 4,9 фоизгача қисқарди. Ишсизликка оид тенденциялар Зарафшон иқтисодий районида республиканинг бошқа иқтисодий районларида бўлгани каби асосларга эга ҳолда ўзгармоқда. Иқтисодий райондаги ҳолат Навоий вилоятида алоҳида ўрин эгаллайди.

Республика бўйича Зарафшон иқтисодий райони қишлоқ хўжалик маҳсулотларини етиштирувчи асосий ҳудудлардан бирдир. Унга саноат ҳам

бирмунча ривожланган. Хўжалиги тузилмасида энг катта улуш қишлоқ хўжалигига тегишлидир.

Иқтисодий район худудларидаги иқтисодий фаол аҳоли, шунингдек, мавсумий ишчилар ҳам қишлоқ хўжалигида бандлиги мавжуд. Қишлоқ аҳолисининг иш билан таъминланишида фермер хўжаликлари муҳим рол ўйнаши лозимлиги таъкидланмоқда. Лекин фермер хўжаликлари қишлоқ

аҳолисини доимий иш билан таъминлай олмаяпти. Чунки хўжаликлардаги иш мавсумий характерда бўлганлиги боис, фермер хўжалигидаги доимий ишчи сони чекланиши табиий ҳолдир.

Иқтисодий районда Самарқанд, Бухоро, Навоий шаҳарларида доимий яшайдиган аҳоли ва меҳнатга лаёқатли ёшдаги аҳоли сони йилдан-йилга ўсиб бормоқда. Фақатгина Когон туманида пасайиш кузатилгани юқоридаги жадвалдан маълум.

Ишлаётган ўсмирлар ва нафақахўрлар сони Бухоро шаҳрида катта кўрсатгичга эга. Когон шаҳри ҳамда Каттақўрғон, Нуробод, Оқдарё, Пахтачи туманларида пасайган.

Иқтисодиётда фаол аҳоли сони Самарқанд, Навоий, Каттақўрғон шаҳарларида юқори, лекин Бухоро, Когон, Зарафшон шаҳарларида ўтган йилдагига нисбатан пасайиш кузатилади. Туманлар даражасида эса энг юқорилари Ғиждувон, Ургут, Пастдарғом, Хатирчи, Нарпай туманларида кузатилади.

Ишсизлик муаммосини ҳал қилишнинг асосий йўли қишлоқларда ижтимоий бозор инфратузилмаларини, яъни аҳолини хусусий ишлаб чиқариш соҳасига йўналтириш, қишлоқ ҳудудларида кичик ва ўрта бизнесни, шунингдек, хизмат кўрсатиш ва сервис соҳасини ривожлантириш ҳисобига ҳал қилиш мумкин.

Зарафшон иқтисодий райони қишлоқларида меҳнат ресурсларидан унумли фойдаланиш учун фақатгина иш ўринларини яратиш кифоя қилмайди. Аслида, ресурслардан тўлиқ фойдаланиш ва барқарор хўжалик тизимини яратиш учун малакали мутахассисларга эҳтиёж жуда катта.

Иқтисодий районларда ривожлантириш лозим ва мумкин бўлган соҳалар мавжудки, айни соҳалар иқтисодий районнинг индустриал ривожланиши ва иқтисодий жиҳатдан республикадаги муҳим ҳудудлардан бирига айланишига ёрдам беради. Бу соҳалар, энг аввало, қурилиш саноатига тегишли бўлиб, Иштихон, Хатирчи, Зармитан туманларида мавжуд рангдор металл ҳамда қурилиш хом–ашёлари заҳиралари қазиб олиш ва улар асосида корхоналар бунёд қилиш билан боғлиқ. Мавжуд енгил саноат корхоналари ишини қайта тиклаш ва жонлантириш талаб этилади. Бундан ташқари, Зарафшон иқтисодий райони табиий ландшафтларнинг турли манзараларига эга бўлган ҳудуддир. Тоғ ва тоғ олди туманлари Нурота, Ургут, Иштихон ҳамда чўл ҳудудларида туристик ва рекреация объектларини бунёд қилиш, туризм инфратузилмасини шакллантириш орқали аҳолини иш билан таъминлаш, хизмат кўрсатиш соҳасини такомиллаштириш, аҳолининг қўшимча даромад манбаларини кўпайтириш имкониятлари мавжуддир.

Кейинги йилларда мамлакатимиз иқтисодиётидаги таркибий ўзгаришлар ва иқтисодий ислохотларнинг босқичма-босқич чуқурлаштириб борилиши иш билан банд аҳоли сонининг ўсишини таъминламоқда.

Зарафшон иқтисодий райони аҳоли сонининг ўсиши ва меҳнат ёшидаги кишилар категориясининг ошиб бориши иқтисодиёт тармоқларида банд ишчи ва хизматкорларнинг сони кўпайишидан сезилади, берилган умумий

маълумотларнинг ўзиёқ Зарафшон иқтисодий райони иқтисодиёт тармоқларида ишчи – хизматчиларнининг сонини кўпаяётганлигини тасдиқлайди. Агар 2000 йилда иқтисодиёт тармоқларида банд аҳоли 1829 минг киши меҳнат қилган бўлса, бу кўрсатгич 2005 йилда 2095,3 минг киши, 2010 йил 2361,6 минг киши, 2017 йил 2929,3 минг киши ташкил қилади. Ҳозирги пайтда бу 266,5 минг кишига кўпайган. Шундан саноат тармоқларида 2000 йилда 226,9 минг киши, 2005 йилда 271,2 минг киши, 2010 йилда 315,5 минг киши, 2014 йилда 359,8 минг кишига етди. Саноат тармоқларида ишчи ва хизматчилар сонини кўпайишига ишлаб чиқариш жараёнини модернизациялашга ва меҳнатга лаёқатлилар билан таъминлаш даражасига боғлиқ. Қишлоқ хўжалигида 2000 йилда 700,8 минг киши, 2017 йилда 748,4 минг кишини ташкил этмоқда. Шунга кўра қишлоқ жойларда аҳолига ижтимоий томондан хизмат қиладиган соҳаларнинг баъзаларини яратиш катта аҳамиятга эга. Бу биринчидан, ижтимоий соҳаларда улкан муаммоларни ҳал қилишга имкон яратса, иккинчидан қишлоқ фуқароларини, айниқса, ёш мутахассисларни қишлоқнинг доимий аъзоларига имконият беради. Шундай қилиб, қишлоқ жойларида аҳолини иш билан таъминлаш ва уларни ижтимоий томондан кафолатлаш қишлоқ жойларда меҳнат ресурсларининг кўпайишини таъминлайди. Лекин қишлоқ жойларда аҳолининг тез суръатда ўсиши ва ўлкамизнинг табиий-иқтисодий шароитидаги хусусиятлар айрим районларни иқтисодиёт тармоқлари йиғиндаги тўсиқлар меҳнат ресурслардан оқилона фойдаланишга пропорцияларнинг иқтисодий асоси иқтисодий районларнинг ишлаб чиқариш жараёнига самарали муносабатини ўрнатиш орқали ижтимоий маҳсулот ва миллий даромад олиш, уни тўғри тақсимлаш, шунингдек ҳалқнинг ривожланиш даражасини юксалтириш, иқтисодий районларни тўлиқ қатнаштириш йўли билан ечилиши мумкин.

Зарафшон иқтисодий райони аҳолисини ишсизликни бартараф этиш учун қуйидаги ишларни амалга ошириш мақсадга мувофиқдир:

— оилавий бизнес ва кичик хусусий корхоналарни ривожлантиришни жадаллаштиришни таъминлаш;

— мазкур мақсадларда микрокредитлаш тизимини рағбатлантириш;

— йирик саноат корхоналари ва нисбатан кичикроқ бўлган ишлаб чиқариш корхоналари билан касаначиликни кенгайтириш асосидаги кооперацияни ривожлантириш имкониятларидан кенг қамровли фойдаланиш;

— маҳаллий хомашёни пухта қайта ишлашга ва тайёр, рақобатга бардошли махсулот ишлаб чиқаришга йўналтирилган енгил ва озиқ-овқат қайта ишлаш саноатининг кўп мехнат талаб қиладиган тармоқларини жадал ривожлантириш;

— хизмат кўрсатиш сохаларини ривожлантириш, кишлоқ жойларида қишлоқ хўжалигига тааллуқли бўлмаган бандлик соҳаларини кенгайтириш масалаларини ҳал этишга эътиборни кучайтириш;

— ишсизларни касбий ўқитиш ва жамоат ишлари тизимларини такомиллаштириш билан шуғулланадиган хизматлар ишини фаоллаштириш.

Мазкур чора-тадбирларнинг амалга оширилиши халқимизнинг фаровон турмушини таъминлаш манбаи бўлган иш билан бандлик даражасининг ошишига, аҳолининг ижтимоий муҳофазасининг кучайишига янада кенг йўл очиб беради.

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МИНТАҚА ИЖТИМОИЙ-ИҚТИСОДИЙ РИВОЖЛАНИШИДА КИЧИК БИЗНЕС ВА ХУСУСИЙ ТАДБИРКОРЛИКНИНГ ЎРНИ ВА АҲАМИЯТИ.(ЗАРАФШОН МИНТАҚАСИ МИСОЛИДА)

Аннотация: *Ушбу мақолада минтақа ижтимоий-иқтисодий ривожланишида кичик бизнес ва хусусий тадбиркорлик ўрни ва аҳамияти мамалакат ва минтақада аҳамияти очиб берилган.*

Ключевые слова: *Кичик бизнес, хусусий тадбиркорлик, иқтисодиёт тармоқлар, саноат, ўрмон ва балиқчилик, инвестиция, тараққиёт, хизмат кўрсатиш, тижорат банклар, деҳқончилик, фермер хўжаликлар.*

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THE ROLE AND SIGNIFCANCE OF SMALL BUSINESS AND PRIVATE ENTREPRENEURSHIP IN THE SOCIAL-ECONOMIC DEVELOPMENT OF THE REGION (On the example of Zarafshan region)

Abstract:*This article reveals the role and importance of small business and private entrepreneurship in the socio-economic development of the country and the region.*

Keywords: *Small business, private entrepreneurship, economic sectors, industry, forestry and fisheries, investment, development, service, commercial banks, agriculture, farms*

Ўзбекистонда мустақилликнинг илк йилларидан бошлаб кичик бизнес ва хусусий тадбиркорликнинг ривожланишини ҳар томонлама қўллаб-қувватлаш ва тартибга солиш муҳим вазифалардан бири бўлиб белгиланган. Хусусан, Ўзбекистон Республикаси биринчи Президенти И.А.Каримов «Тадбиркорлик-иқтисодий тангликдан олиб чиқишнинг, иқтисодий тараққиётга олиб боришнинг асосий иқтисодий воситаси, тараққиёт локомотиви» [42,78]. деб таъкидлаганлар. Бугунги кунда ҳам республикада кичик бизнес ва хусусий тадбиркорликни ривожлантириш иқтисодий сиёсатнинг устувор йўналиши сифатида танланган. Кичик бизнес ва хусусий тадбиркорлик фаолиятини ташкил этиш орқали мамлакатда ишсизлик даражасини камайтириш имкониятларини оширишнинг омилларини кўрсатиб ўтиш мақсадга мувофиқдир.

Кичик бизнес ва хусусий тадбиркорликни ривожлантиришда 2003-йил 20 августдаги “Тадбиркорлик фаолиятини ташкил этиш учун рўйхатдан ўтказиш тартиботи тизимини тубдан такомиллаштириш тўғрисида”ги,

мамлакатнинг иқтисодий-ижтимоий тараққиётини янги, янада юксак босқичга кўтариш мақсадида 2011 йил “Кичик бизнес ва хусусий тадбиркорлик йили” деб эълон қилиниши ва бошқа Қарорлари муҳим аҳамиятга эга бўлмоқда[105] [79,229].

Республиками ЯИМда кичик бизнес ва хусусий тадбиркорликнинг улуши сезиларли равишда ўсди. Агар иқтисодиёт тармоқларида кичик бизнес ва хусусий тадбиркорликнинг ҳиссаси 2000 йилда 31 фоизга тенг бўлган бўлса, бу кўрсаткич 2010 йилга келиб 52,5 фоизга, 2015 йилда 59,1 фоизга, 2017 йилда 63,2 фоизни ташкил этди.

Шу билан бирга, Ўзбекисон Республикаси биринчи Президентининг 2011 йил 7-январда қабул қилинган "2011-2015 йилларда Ўзбекисон иқтисодиётида ислоҳотлар кўламини кенгайтириш ва чуқурлаштириш, мамлакатда ишчанлик муҳитини шакллантиришнинг мезонлари ва баҳолаш тизимини аниқлаш ва амалга оширишга доир чора-тадбирлар дастури тўғрисида"ги ПҚ-1464-сонли қарорига асосан, тижорат банкларида кичик бизнес субъектларига кредитларни ажратишда гаровга қўйилган мулкни расмийлаштириш билан боғлиқ харажатларни кредитнинг умумий суммасида акс эттириш амалиёти жорий қилинди.

2011 йилнинг 1-январидан бошлаб Марказий банкнинг амалдаги молиялаштириш стафкаси йиллик 14 фоиздан 12 фоизга пасайтирилди. Бу эса, ўз навбатида тадбиркорлик субъектларига ажратиладиган кредитларнинг фоиз стафкалари пасайишига ва ажратиладиган кредитнинг ўсишига олиб келди.

Бугунги кунда мамлакатимизда саноатда 39,6 фоиз, хизматларда 58,4 фоиз, қурилишда 65,1 фоиз, банкларда 78,3 фоиз кичик бизнес ва хусусий тадбиркорлик сохасига тўғри келади.

Банкларнинг инвеситцион кредитлари усувор равишда «2011-2015 йилларда саноатни ривожлантириш», «2013 йилги Инвестиция дастури» ҳамда тармоқларни модернизация қилиш, маҳаллийлаштириш ва ҳудудларни ривожлантириш Давлат дастурларига киритилган лойиҳаларни қўллаб-қувватлашга, кичик бизнес ва хусусий тадбиркорлик субъектлари томонидан минитехнологияларни сотиб олишни молиялаштиришга йўналтирилмоқда.

Ўзбекисон Республикаси биринчи Президентининг 2011 йил 11-мартдаги «Кичик бизнес ва хусусий тадбиркорлик субъектларига кредит беришни кўпайтиришга оид қўшимча чора-тадбирлар тўғрисида»ги ПҚ-1501-сонли қарори билан кичик бизнес ва хусусий тадбиркорлик субъектлари фаолиятининг янада эркинлаштирилиши ҳамда улар учун яратилган имтиёз ва қулайликлар, соҳанинг янада ривожланишига ва натижада ушбу сектор субъектлари томонидан банк хизматлари ва кредитларига талабнинг ошишига имкон бермоқда.

Ўзбекисон Республикаси биринчи Президентининг 2013 йил августдаги «Кичик бизнес ва хусусий тадбиркорлик субъектларининг экспортини қўллаб-

[105] Уралов Е.О. Зарафшон минтақаси меҳнат ва табиий ресурслари ва улардан фойдаланиш муаммолари // “Инсон-жамият-табиат” системасида мувозанат ва ривожланиш муаммолари мавзусидаги илмий-назарий семенар материаллари. – Т., 2014. – 229 б.

қувватлаш борасидаги қўшимча чора-тадбирлар тўғрисида»ги ПҚ-2022-сонли қарорига мувофиқ, ташқи иқтисодий фаолият миллий банки ҳузурида республика минтақаларида ҳудудий филиаллари бўлган «Кичик бизнес ва хусусий тадбиркорлик субъектларининг экспортини қўллаб-қувватлаш жамғармаси» ташкил этилди.

Амалга оширилган кенг кўламли чора-тадбирлар натижасида, 2017 йилда кичик бизнес ва хусусий тадбиркорлик субектлари томонидан саноат маҳсулотлари ишлаб чиқариш ҳажми 57095,6 млярд сўмни, жами саноат ишлаб чиқаришнинг 39,6 фоизни, ёки 2016 йилга нисбатан, ўсиш сурати 102,1 фоизга, инвеститциялар 19407,1 млярд сўмни, умумий ҳажмининг 32,0 фоизини ташкил этади, қурилиш соҳасига 22173,8 млярд сўм, қурилиш ишларини умумий ҳажмини 65,1 фоизи, хизмат кўрсатишни 68161,9 млярд сўмни, жами ҳажмини 58,4 фоизини, кичик бизнес ва хусусий тадбиркорлик ҳиссасига тўғри келади.

Зарафшон иқтисодий районида саноат тармоғлари кесимида кичик бизнес ва хусусий тадбиркорлик субъектлари сони Бухоро вилоятида 2019-йилда 1-январда 15700 та, саноат маҳсулотлари 3501,8 млярд, жами саноат ишлаб чиқаришининг 41,1 фоизини, Навоий вилоятида 2019 йил 1 январь ҳолатида 9143та саноат маҳсулотлари ишлаб чиқаришда 3640,0 млярд сўмни жами саноат маҳсулотини 16,1 фоизни, Самарқанд вилоятида 1январда 20669 та, саноат маҳсулотлари 6064,5 млярд, жами саноат ишлаб чиқаришининг 51,1 фоизини кичик бизнес ва хусусий тадбиркорлик ташкил этади [106] [58,28].

6-диаграмма Зарафшон иқтисодий райони кичик тадбиркорлик субектлари туманлар кесимида жами вилоятга нисбатан сони фоизда кўришимиз мумкин. Бухоро вилояти энг паст кўрсатгичлар Қорвулбозор тумани, Когон шаҳри, Вобкент тумани ва Олот туманлари паст тақсимланиши, Бухоро шаҳри, Ромитан тумани, Ғиждувон туманларида юқори кичик тадбиркорлик субектлари тўғри келаётганлигини кўрсатмоқда.

Масалан, кейинги вилоят Самарқанд ва Навоийда Нуробод,Қўшработ, Томди туманларида энг паст кўрсатгичга эга, сабаби бу вилоятлар таббий географик жиҳатдан чўл зонасида жойлашган туманлари ҳисобланади.

Тармоғ ичида қишлоқ, ўрмон ва балиқчилик хўжалигида кичик бизнес ва хусусий тадбиркорликни улуши жуда юқори, масалан, Бухоро вилоятида 2018 йилда 17294,2 млярд, жами қишлоқ, ўрмон ва балиқ хўжаликларининг ялпи маҳсулотининг 99,0 фоизини, Навоий вилоятида 9291,2 млярд, жами қишлоқ, ўрмон ва балиқ хўжаликларини ялпи маҳсулотининг 98,1 фоизини ва Самарқанд вилоятини 26293,9 млрд сўмни ташкил қилиб, жами ялпи қишлоқ, ўрмон ва балиқ хўжаликларини ялпи маҳсулотининг 94,6 фоизини кичик бизнес ва хусусий тадбиркорлик ташкил этади. 2020 йилда бу кўрсаткичлар деярли ўзгармаган сақланган ҳолда, чунки бу худудларда

[106] Намозов Ж., Уралов Е.О. Зарафшон минтақаси сув ресурслари ифлосланишининг ҳудудий жиҳатлари // Экология хабарномаси. – Т., 2016, №12. – 28 б.

қадимдан деҳқончилик ривожланиб келган. Ҳаммаси бу Зарафшон дарёси билан боғлиқ ерлар доимо фермерчилик ишлари ривожланиб келган.

Мамлакат турли худудларида бўлганли каби қурилиш соҳалари жавал кетмоқда, шу сабабли минтақанинг Бухоро вилоятида ҳам давом этмоқда 2020 йилда 2667,5 млярд сўмлик қурилиш ишлари, умумий ҳажмининг 82,6 фоизини, Навоий вилоятида 2018 йилда 1416,7 млрд сўмни, қурилиш ишлари умумий ҳажмининг 70,7 фоизи, Самарқанд вилоятида 2020 йил 2868,8 млярд сўмлик, қурилиш ишларининг умумий ҳажмининг 98,3 фоизи кичик бизнес ва хусусий тадбиркорлик субектларига тўғри келади, вилоятлар ичида Самарқанд вилояти юқори кўрсатгичга эга.

Иқтисодий район ҳудудларни ижтимоий иқтисодий ривожлантиришда фаол инвестициялар роли ҳам муҳим аҳамиятга эга, шу нуқтаи назардан Зарафшон иқтисодий райони, Бухоро вилоятида 2020 йилда 2001,3 млярд сўм, умумий инвестициялар ҳажмининг 25,5 фоизи, Навоий вилоятида 2018 йилда 1478,0 млярд сўмлик инвестициялар умумий инвестициялар ҳажмини 16,3 фоизи, Самарқанд вилоятида 2020 йил 3102,0 млярд сўмлик инвестициялар уларнинг умумий ҳажмини 54,0 фоизига кичик бизнес ва хусусий тадбиркорлик ҳисасига тўғри келмоқда.

2020 йилда Республикамизда 387566 та рўйхатидан ўтган кичик бизнес ва хусусий тадбиркорлик субъектларидан, 56151 та Зарафшон иқтисодий районига тўғри келади. Бу кўрсаткич 2017 йилга нисбатан маълум даражада қисқарган. Бунинг асосий сабаби 2017 йилда фермер хўжаликларининг барқарорлиги, энг муҳими, уларнинг самарадорлигини ошириш мақсадида уларнинг ер майдонларини оптималлаштириш бўйича ишлар амалга оширилиши натижасида фермер хўжаликлари сонининг қисқариши билан боғланган.

Бу ўз навбатида кичик бизнес ва хусусий тадбиркорлик субъектлари сонига ҳам таъсир кўрсатди. Бироқ, охирги йилларда уларнинг сони яна ортиб бормоқда. Рўйхатдан ўтган кичик бизнес ва хусусий тадбиркорлик субъектларининг 91 фоиздан ортиғи фаолият кўрсатмоқда. Қолганлари эса ўз фаолиятини тўғри ташкил қила олмагани учун бутунлай тугатилди ёки тўхтатиб қўйилди.

Кичик бизнес ва хусусий тадбиркорлик субъектларининг кўпчилиги ўз фаолиятини узоқ муддат давом эттира олмаяптилар, яъни бир йилга бормасдан фаолияти тўхтатилмоқда. Масалан, 2009 йилда Зарафшон иқтисодий районида 58695та кичик бизнес ва хусусий тадбиркорлик субъектлари ташкил этилган бўлса, ўша йили 5087 та кичик корхона ўз фаолиятини тугатди. Агар бу кўрсаткични ўша йили ташкил этилган кичик бизнес ва хусусий тадбиркорлик субъектларига нисбатан солиштирадиган бўлсак, унда корхоналарнинг 40 фоизининг фаолияти тўхтатилганлиги маълум бўлади.

Иқтисодий район бўйича рўйхатга олинган кичик бизнес корхоналарининг юқори кўрсатгичлари Самарқанд (32,4 %), Бухоро (16,5 %), Навоий (12,7 %) шаҳарларида ҳамда, Хатирчи (21,4), Қизилтепа (18,2),

Кармана (15,5%), Навбаҳор (15,5 %), Шофиркон (10,5%), Ғиждувон (10,2 %), Пастдарғом (8,3 %), Ромитан (8,0%), Вобкент (7,4%), Ургут туманларида (7,2 %) кузатилмоқда.

Қолган ҳудудларда унинг кўрсаткичлари нисабат пастроқ эканлиги аниқланди. Бу ўринда, айниқса, Когон, Қоровулбозор, Олот, Томди, Учқудуқ, Пахтачи ва Қушработ туманларига хос кўрсатгичлар анча пастлигини таъкидлаб ўтиш мумкин.

Кичик бизнес ва хусусий тадбиркорликни ташкил этиш ва ривожлантиришда ҳудудий омилларнинг таъсирини яққолроқ тасаввур этишда, Қизилтепа ва Олот туманларини мисол тариқасида таққослаш мумкин.

Маълумки, ҳудудлар ўзларининг иқтисодий жойлашуви, демографик кўрсаткичлари, табиий шароити ва бошқа жиҳатлари билан фарқланади. Шунинг учун ҳам ҳар бир туманнинг ўзига хос хусусиятлари эътиборга олинган ҳолда кичик бизнес ва хусусий тадбиркорликни ривожлантирилиши мақсадга мувофиқдир. Демак, бу иқтисодий районларда бир хил шароитлардан келиб чиқиб кичик бизнес ва хусусий тадбиркорлик корхоналарини ташкил этиш мақсадга мувофиқ деб бўлмайди.

Иқтисодий районда 2020 йилда кичик бизнес субъектлари ҳисобига барпо этилган ишчи жойлари фоиз киши ҳисобида, Самарқанд шаҳрида 18,4, Бухоро шаҳрида 13,1, Когон шаҳрида 7,7 , Навоий шаҳрида 9,5, Хатирчи туманида 20,1, Қизилтепа туманида 15,4,Кармана туманида 14,4, Навбаҳор туманида 12,8, Ғиждувон туманида 12,4, Шофиркон туманида 9,9 %, Бухоро туманида 8,3 %, Қоракўл туманида 8,2, Ургут туманида 10,6 ва 7,8 Пайариқ туманларида тўғри келмоқда.

Зарафшон иқтисодий районининг мавжуд иқтисодиёт тармоқларида кичик бизнес ва хусусий тадбиркорлик субъектлари улушининг асосий қисми, 18 фоизи қишлоқ хўжалигига,15фоизи йўловчи ташишга, 15 фоизи қурилиш ишларига, 10,2 фоизи чакана савдо айланмасига,11,7 фоизи жами хизматларга, 9,4 фоизи юк ташишга, 12,3 фоизи аҳолига пуллик хизмат кўрсатишга, 8,4 фоизи саноат маҳсулотлари соҳаларига тўғри келди. 2008- 2009 йиллар орасида кичик бизнес ва хусусий тадбиркорлик субъектлари улуши барча тармоқ ва соҳаларда ишлаб чиқарилган маҳсулотлар ҳажмида ўсиб борди. Аммо уларнинг улуши саноат тармоқларида жуда кам, қишлоқ хўжалигида эса анча юқоридир.

Иқтисодиётда рўй берган ижобий ўзгаришлар оқибатида кичик бизнес ва хусусий тадбиркорликнинг Республика бўйича ЯИМ даги улуши доимий равишда ортиб бормоқда. Бироқ, ушбу кўрсаткич республика ўртача кўрсаткичидан анча паст. Умуман, ЯҲМ ҳамда саноат маҳсулотлари таркибида кичик бизнеснинг улуши бўйича Зарафшон иқтисодий райони Республика иқтисодий районлари ичида охирги ўринлардан бирини эгаллайди.

Ишбилармонлик муҳитини янада тубдан такомиллаштириш, шунингдек, кичик бизнес ва хизматлар соҳасини ривожлантиришни ҳар

томонлама қўллаб-қувватлаш бўйича ишлар изчил амалга оширилди. Иқтисодий районнинг ялпи ички маҳсулотидаги улуши 54,6 фоизгача, хизматлар соҳасида 52 фоизгача кўпайди [107] [76,129].

Хусусан, Булунғур, Қўшработ, Нуробод, Тайлоқ, Нурота ва Кармана туманларида кичик бизнес корхоналарининг саноат маҳсулотларини ишлаб чиқаришдаги улушлари анча юқори бўлди. Йирик саноат корхоналари кўп жойлашган Бухоро, Навоий, Самарқанд, Каттақўрғон, Когон ва Зарафшон шаҳарларида бу кўрсаткич нисбатан пастдир.

Шунингдек, Пайариқ, Навбаҳор, Пешку, Шофиркон ва Қоракўл туманларида ҳам ушбу кўрсаткич анча паст. Айтиш жоизки, ушбу ҳудудларда йирик саноат ишлаб чиқаришни маҳаллийлаштириш ва қишлоққа саноатни олиб кириш йўли билан уларнинг ролини ўстириш имкониятлари мавжуддир.

Бугунги кунда вилоятда кичик бизнес субъектлари томонидан етиштирилаётган қишлоқ хўжалик маҳсулотларининг 86,6 фоизи тайёрланмоқда. Тайёрланган қишлоқ хўжалик маҳсулотларининг ярмини Булунғур, Жомбой, Тайлоқ, Ургут, Хатирчи ва Қизилтепа туманлари етиштиштириб беради.

Зарафшон иқтисодий райони республикада стратегик аҳамиятга эга бўлган ва ҳудуди марказда жойлашган иқтисодий районлардан бири ҳисобланади. Иқтисодий район республикада аҳоли ва меҳнат ресурслари салоҳияти жиҳатидан Тошкент, Фарғона иқтисодий районларидан кейинги ўринда туради. Бироқ, республика ЯИМдаги ҳамда саноат маҳсулотлари ишлаб чиқаришда етакчи ўринни эгаллайди.

Иқтисодий район ўзининг орографик хусусиятлари бўйича республиканинг бошқа иқтисодий районларидан кескин фарқ қилади. Унинг ҳудудида кичик-кичик қолдиқ тоғликлар ва кенг майдонга эга бўлган чўллар мавжуд бўлиб, улар турли хил қазилма заҳираларга бой. Айнан ана шу минерал хомашё ресурслари вилоят иқтисодиётини шакллантириш, унинг ишлаб чиқариш ва экспорт салоҳиятини ривожлантиришда муҳим рол ўйнайди.

Иқтисодиёти кўпроқ бирламчи секторнинг тоғ-кон саноати ва яйлов чорвачилигига ихтисослашган. Республика меҳнат тақсимотида рангдор металлургия, кимё, машинасозлик, нефт ва уни қайта ишлаш, қурилиш материаллари, электр энергетика ва қоракўлчилик маҳсулотларини етиштириш билан ажралиб туради. Умуман, иқтисодий районнинг мамлакат миллий иқтисодиётидаги ўрни анча юқори.

Мутахассислар фикрича Япониянинг жаҳондаги иқтисодий нуфузининг ошишида ва «Япония мўъжизаси»да кичик бизнес ҳал қилувчи роль ўйнайди. Мамлакатнинг биргина қайта ишлаш саноатида 6,5 млн. кичик корхона фаолият юритади, бу эса жами корхоналарнинг 99 фоизини ташкил этади. Бу

[107] Уралов Е.О. Зарафшон минтақасининг ижтимоий-иқтисодий ривожланишида кичик бизнес ва хусусий тадбиркорликнинг ўрни. ЎзМУ хабарлари. – Т.: 2013, №4. – 129 б.

соҳада 40 млн. дан ортиқ ишчи кучи банд бўлиб, жами банд аҳолининг 81 фоизини ташкил этади[108] [97,85].

Маълумки, вилоятда иқтисодий салоҳият нуқтаи назаридан, хусусий тадбиркорликнинг имкониятлари нисбатан чекланган. Улар йирик корхоналар сингари кучли моддий-техника базасига, барқарор ресурслар манбаига, йиллар давомида шаклланган сотиш бозорларига эга эмас. Бундан ташқари, бозор конъюнктурасининг бирмунча ўзгариши ҳам хусусий тадбиркорлик корхоналарига жиддий таъсир кўрсатиши мумкин. Бу муаммолар жаҳон молиявий-иқтисодий инқирози шароитида янада кескинроқ, жиддийроқ кўринишда юз бермоқда. Хусусий тадбиркорликнинг бундай жиҳатлари ўзига нисбатан алоҳида ҳимояни тақазо этади.

Хулоса қилиб айтганда, иқтисодий районда кичик бизнес ва хусусий тадбиркорликни ривожлантиришнинг асосий йўналишлари қуйидагилардан иборат: иқтисодиётнинг барча тармоқларида кичик бизнес субъектлари сонини кўпайтириш; мавжуд табиий-иқтисодий салоҳиятдан самарали фойдаланган ҳолда тайёр маҳсулот ишлаб чиқаришни йўлга қўйиш; иқтисодий районнинг иқтисодий имкониятлари ва ихтисослашувига асосан ишлаб чиқаришни йўлга қўйиш ва бозор инфратузилмасини ривожлантириш; улар учун зарур бўлган хомашёларни етказиб бериш масалаларини давлат миқёсида ҳал этиш ва уни амалга ошириш муҳим устувор вазифалардан ҳисобланади.

Шуни алоҳида таъкидлаш жоизки, кичик бизнес ва хусусий тадбиркорликни нафақат шаҳарларда ёки туман марказларида, балки қишлоқ жойларида ҳам жадал ривожлантириш иқтисодий ислоҳотларнинг устувор йўналишларидан бири ҳисобланади.

Зарафшон иқтисодий райони иқтисодиётида хусусий секторни улушини ва аҳамиятини тубдан ошириш, тадбиркорликни фуқароларнинг асосий даромад манбасига айлантириш ва иш билан банд бўлмаган аҳолини тадбиркорлик фаолиятига фаол жалб қилишга доир чора-тадбирларни янада ошириш орқали вилоят ялпи ҳудудий маҳсулот ҳажмида кичик бизнеснинг улуши ва унда аҳолининг бандлик даражаси кўтарилишига эришилади.

Иқтисодий районларда кичик бизнес ва хусусий тадбиркорлик фаолияти барқарор ривожланиши учун бой табиий-ресурс салоҳиятидан, хусусан, эртапишар сабзавот ва субтропик меваларни етиштириш бўйича иқтисодий районнинг устунлигини ҳисобга олган ҳолда, қишлоқ хўжалик маҳсулотларини қайта ишлаш имкониятидан оқилона ва самарали фойдаланиш, мева-сабзавотларни тайёрлаш ва сақлаш бўйича ишлаб чиқариш инфратузилмаси тармоқларини ривожлантириш, иқтисодий районларнинг тарихий-маданий ва меъморлик обидалари асосида туристик хизматларни ривожлантириш каби йўналишларга асосий эътиборни қаратиш мақсадга мувофиқдир.

[108] Қосимова М. Ҳодиев Б. ва бошқалар. Кичик бизнесни бошқариш. -Т.: Ўқитувчи, 2003. -85 б.

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ТЕОРЕТИЧЕСКИЙ АНАЛИЗ ДЕФИНИЦИЙ НЕСОСТОЯТЕЛЬНОСТИ И БАНКРОТСТВА

Аннотация: *В статье представлен критический анализ существующих научных подходов к раскрытию понятий «несостоятельность» и «банкротство» с выявлением сущностных характеристик и принципиальных различий между данными категориями. Предложены уточненные дефиниции несостоятельности и банкротства с обоснованием их комплексной природы и реабилитационного потенциала.*

Ключевые слова: *несостоятельность, банкротство, неплатежеспособность, антикризисное управление.*

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THEORETICAL ANALYSIS OF INSOLVENCY AND BANKRUPTCY DEFINITIONS

Abstract: *The article presents a critical analysis of existing scientific approaches to revealing the concepts of "insolvency" and "bankruptcy", identifying their essential characteristics and fundamental differences between these categories. Updated definitions of insolvency and bankruptcy are proposed, substantiating their complex nature and rehabilitation potential.*

Keywords: *insolvency, bankruptcy, non-payment, crisis management.*

В современной экономической науке проблема интерпретации понятий несостоятельности и банкротства является предметом пристального внимания и научных дискуссий. Федеральный закон «О несостоятельности (банкротстве)» от 26.10.2002 № 127-ФЗ предлагает базовое нормативное определение. Согласно статье 2 данного закона, «несостоятельность (банкротство)» трактуется как признанная арбитражным судом неспособность должника в полном объеме удовлетворить требования кредиторов по денежным обязательствам, о выплате выходных пособий и (или) об оплате труда лиц, работающих или работавших по трудовому договору, и (или) исполнить обязанность по уплате обязательных платежей [6]. Таким образом, законодатель фактически отождествляет термины «несостоятельность» и

«банкротство», связывая их с неспособностью должника исполнять свои обязательства, что подтверждается судебным актом.

В научной литературе можно выделить три основные позиции относительно понимания этих понятий. Первая позиция, представленная в том числе Н.В. Кобозевой [2], полностью поддерживает законодательный подход и рассматривает термины «несостоятельность» и «банкротство» как абсолютные синонимы, непосредственно связанные с неспособностью должника выполнять свои финансовые обязательства.

Вторая позиция, которой придерживаются такие исследователи, как А.В. Размахова [3], Т.С. Скрипкина [4], Р.Р. Яруллин и Е.А. Лобанов [7], предполагает принципиальное разграничение этих понятий. Они трактуют несостоятельность как более широкую экономическую категорию, характеризующую негативное финансовое состояние должника с различными степенями неплатежеспособности, а банкротство – как крайнюю, юридически оформленную стадию несостоятельности, связанную с судебным признанием невозможности восстановления платежеспособности.

Третья группа исследователей, включающая О.Е. Суркову, М.А. Акулинина [5], Н.А. Золототрубову [1], развивает более нюансированный подход. Они подчеркивают не только экономическую и правовую природу этих явлений, но и обращают внимание на их социальные аспекты. Несостоятельность рассматривается как комплексное явление, обусловленное внешними и внутренними факторами финансово-хозяйственной деятельности, а банкротство – как специфический правовой механизм урегулирования кризисных ситуаций в экономике.

На основе проведенного анализа позиций различных исследователей относительно сущности и соотношения понятий банкротства, несостоятельности и неплатежеспособности предлагается следующий подход к их определению и разграничению:

- несостоятельность определяется как неспособность хозяйствующего субъекта (должника) в полном объеме и установленный срок удовлетворить обоснованные требования кредиторов по денежным обязательствам и (или) исполнить обязанность по уплате обязательных платежей вследствие превышения совокупного размера обязательств над реальной стоимостью его активов;
- банкротство рассматривается как признанная арбитражным судом неплатежеспособность должника, которая служит основанием для применения к нему установленных законом процедур, направленных на соразмерное удовлетворение требований кредиторов и восстановление платежеспособности должника или его ликвидацию.

Особенность предлагаемого подхода заключается в уточнении экономического и правового содержания понятий, обосновании приоритетности критерия неоплатности, акцентировании внимания на реабилитационном потенциале института банкротства и комплексном

рассмотрении проблемы в финансово-экономическом, правовом и управленческом аспектах.

Практическая значимость уточнения понятийного аппарата заключается в создании теоретической основы для совершенствования методик диагностики риска банкротства, повышения эффективности реабилитационных процедур, оптимизации стратегий поведения должников и кредиторов, развития системы мер по предупреждению несостоятельности на микро- и макроуровнях.

Таким образом, проведенное исследование подтверждает сложность и многогранность понятий несостоятельности и банкротства, которые выходят за рамки простой юридической или экономической категории. Представленный подход демонстрирует необходимость комплексного, междисциплинарного понимания этих явлений, учитывающего экономические, правовые, социальные и управленческие аспекты. Дальнейшие научные изыскания в этой области должны быть направлены на разработку более совершенных методологических подходов к диагностике, профилактике и преодолению кризисных явлений в финансово-хозяйственной деятельности организаций, что будет способствовать повышению устойчивости экономической системы и защите интересов всех участников экономических отношений.

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ГЕОГРАФИЧЕСКИЕ ОСНОВЫ РАЗВИТИЯ СЕЛЬСКОГО ТУРИЗМА В СУРХАНДАРЬИНСКОЙ ОБЛАСТИ

Аннотация: *В данной статье анализируются географические основы развития сельского туризма в Сурхандырийской области. Природные ресурсы, климат, культурное наследие и развитие туристической инфраструктуры области создают возможности для увеличения спроса на сельский туризм. Рассматриваются географические факторы сельского туризма, его экономическое и социальное влияние, а также возможности, которые он создает для местного населения и перспективы развития.*

Ключевые слова: *Сельский туризм, географические основы, Сурхандырия, природные ресурсы, культурное наследие, туристическая инфраструктура, климат, экономическое развитие.*

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GEOGRAPHICAL FOUNDATIONS OF RURAL TOURISM DEVELOPMENT IN SURKHANDARYA REGION

Abstract: *This article analyzes the geographical foundations of rural tourism development in Surkhandarya region. The region's natural resources, climate, cultural heritage, and the development of tourism infrastructure create opportunities to increase demand for rural tourism. The article discusses the geographical factors influencing rural tourism, its economic and social impacts, as well as the opportunities it offers for the local population and its development prospects.*

Keywords: *Rural tourism, geographical foundations, Surkhandarya, natural resources, cultural heritage, tourism infrastructure, climate, economic development.*

Введение

Сурхандарьинская область расположена на юге Узбекистана и выделяется своим богатым природным ландшафтом и культурным наследием. В этой области существуют возможности для развития сельского туризма, что не только способствует экономическому развитию региона, но и повышает благосостояние местного населения. В статье рассматриваются географические основы развития сельского туризма в области, включая природные условия, климат, культурное наследие, а также проблемы туристической инфраструктуры.

Основная часть: Географическое положение и природные ресурсы Сурхандарьинской области

Сурхандарьинская область известна своими горными и долинными ландшафтами, живописной природой. Южная часть области характеризуется тропическим и субтропическим климатом. Здесь располагаются многочисленные природные ресурсы, включая леса, горы, реки и озера. Эти природные богатства предлагают туристам разнообразные виды активного отдыха, такие как экологический туризм, горные походы и водный туризм. Кроме того, в сельских районах области можно ознакомиться с традиционной сельскохозяйственной деятельностью, местной культурой и искусством.

Климат и возможности для сельского туризма

Сурхандарьинская область имеет субтропический климат, с жарким летом и относительно прохладной зимой. Эти климатические условия, особенно в горных районах, имеют явные преимущества для развития туризма. Например, летом сельский туризм идеально подходит для отдыха и путешествий, предлагая туризм в горных районах, пешие прогулки и отдых на свежем воздухе. Также можно развивать экологический туризм, наслаждаясь природными красотами, климатом и ландшафтами региона.

Культурное наследие и исторические памятники

Культурное и историческое наследие Сурхандарьинской области способствует развитию сельского туризма. На территории области находятся древние святые места, исторические памятники и архитектурные сооружения, которые представляют интерес для туристов. Местный фольклор, традиционные ремесла и искусство также могут быть интересны для путешественников. Например, древние святыни в городе Termez и традиционные архитектурные памятники в деревнях Омонхона и Сангардак привлекают внимание любителей сельского туризма.

Культурное наследие и исторические памятники

Сурхандарьинская область обладает богатым культурным наследием и историческими памятниками, в том числе древними историческими и культурными памятниками архитектуры. Эти памятники создают уникальные

возможности для развития сельского туризма. Исторические памятники области позволяют туристам не только изучать историю региона, но и открывать для себя уникальную архитектуру и культуру. Одним из таких исторических памятников является город Termez с его значительными археологическими объектами, такими как мавзолей Аль-Хаким ат-Термизий, археологический музей в Термезе и Куштепа.

Архитектура и строительные памятники

Еще одной важной исторической достопримечательностью Сурхандарьинской области является древняя архитектура, которая представлена в таких местах, как деревня Сангардак. Здесь находятся старинные мечети, гостиницы и другие здания, которые отражают уникальный архитектурный стиль региона. Архитектура этих деревень позволяет туристам изучить традиционное узбекское зодчество и понять его историю и развитие.

Фольклор и фестивали

Культурное наследие региона включает не только физические памятники, но и народные традиции и фестивали. В сельских районах Сурхандарьинской области проводятся культурные мероприятия, народные праздники и традиционные торжества, которые могут создать уникальный культурный опыт для туристов. Например, празднование Навруза, сельские спектакли, узбекские свадьбы и другие культурные события дают туристам шанс ознакомиться с богатым культурным наследием Узбекистана. Бойсун бахори «Бойсунская весна» — международный открытый фольклорный фестиваль, традиционно проводимый в апреле-мае в селе Паданг Байсунского района Сурхандарьинской области Узбекистана.

Заключение

Сурхандарьинская область обладает большим потенциалом для развития сельского туризма. Природные ресурсы, климат, культурное наследие и исторические памятники создают благоприятные условия для развития сельского туризма. Однако для полноценного развития этой отрасли необходимо решить проблемы с транспортной инфраструктурой, расширить гостиничные и туристические услуги, а также обеспечить экологическую устойчивость. Сельский туризм способствует улучшению благосостояния местного населения, экономическому росту и сохранению культурного наследия.

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АКТУАЛЬНЫЕ ВОПРОСЫ ЦИФРОВИЗАЦИИ НАЦИОНАЛЬНЫХ ПЛАТЕЖНЫХ СИСТЕМ

Аннотация:*Система безналичных платежей постоянно эволюционирует под влиянием меняющихся потребностей корпоративного бизнеса и населения. Тут важную роль в развитии безналичных платежей играют новые информационные и цифровые технологии, а также внедрения инновационных способов и инструментов безналичных платежей.*

За последнее десятилетие в мире, в области безналичных платежей, произошли кардинальные изменения. В частности, проникновение в повседневную жизнь Интернета, смартфонов, иных цифровых продуктов и сервисов существенно изменило экономическую сущность безналичных платежей.

В статье разработаны научные предложения, направленных на совершенствованию практике цифровизации национальных платежных систем.

Ключевые слова: *цифровизация, платежная система, цифровые технологии, переводы, токенизация, ценные бумаги.*

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CURRENT ISSUES IN DIGITIZATION OF NATIONAL PAYMENT SYSTEMS

Annotation:*The non-cash payment system is constantly evolving under the influence of the changing needs of corporate business and the population. Here, new information and digital technologies play an important role in the development of non-cash payments, as well as the introduction of innovative methods and tools for non-cash payments.*

Over the past decade, dramatic changes have occurred in the world in the field of non-cash payments. In particular, the penetration of the Internet, smartphones, and other digital products and services into everyday life has significantly changed the economic essence of non-cash payments.

The article develops scientific proposals aimed at improving the practice of digitalization of national payment systems.

Key words: *digitalization, payment system, digital technologies, transfers, tokenization, securities.*

Введение

В Указе Президента Республики Узбекистан №6079 от 5 октября 2020 года «Об утверждении Стратегии «Цифровой Узбекистан-2030» и мерах по ее эффективной реализации» поставлены конкретные задачи по цифровизации товарных и платежных услуг. В частности, внедрить свыше 400 информационных систем, электронных услуг и иных программных продуктов в различных сферах социально-экономического развития регионов, внедрить свыше 280 информационных систем и программных продуктов по автоматизации процессов управления, производства и логистики на предприятиях реального сектора экономики [1].

Однако, процесс разработки нормативной документации в области цифровой экономики отстает от практических результатов их применения и функционирования. Кроме того, существует цифровой разрыв между городскими и сельскими районами, особенно в географически отдаленных районах.

Обзор литературы по теме.

М.Свон утверждает, что создание распределенных платежных систем позволит избавиться от множества посредников, участвующих в розничных платежах сейчас [2].

По заключению Д.Тапскотта и А.Тапскотта, структура современной платежной системы, которая складывалась последние 50 лет, достаточно эффективна и устойчива, а главное позволяет осуществлять платежи быстро, за несколько секунд. Но многие умалчивают об огромном количестве посредников, которые существуют сейчас в платежных системах [3].

По мнению Д.Сахарова, «цифровизация платежных систем проявляется в возможности использования мобильных устройств для осуществления платежей, а также в создании платежно-расчетных сервисов в социальных сетях и мессенджерах. Возможности совмещения общения, поиска информации и проведения транзакций, а также удобная для пользователей процедура идентификации делают социальные сети средой, в которой могут совершаться платежи и расчеты» [4].

Группа ученых-экономистов утверждает, что «крупнейшие цифровые платформы, созданные компаниями Facebook, Google, Amazon и Alibaba, успешно развиваются благодаря предоставлению клиентам финансовых и нефинансовых услуг, наличию значительной клиентской базы. В частности, опыт развития бизнеса Ant Group, дочерней компании китайского конгломерата Alibaba Group, свидетельствует о том, что предоставление платежных сервисов на основе QR-кода системы быстрых платежей — один из важных факторов, способствовавших росту клиентской базы» [5].

По мнению Р. Сачихина, проникновение на рынок страны крупных иностранных платежных сервисов вносит больше прозрачности и

обеспечивает честную конкуренцию. Прежде всего, устраняя барьеры для выхода на рынок новых поставщиков платежных услуг и продвигая инновации. Они также составляют конкуренцию для банков и других финансовых институтов. В то же время это усиливает защиту потребителей и обеспечивает большую безопасность в сфере онлайн-платежей и обязывает банки соответствовать происходящим изменениям финансового рынка, а также оказывает положительное влияние на финансовый ландшафт и стоимость платежных операций. Положительным также является создание пространства для инноваций [6].

А. Погносян утверждает, что инновации в электронных платежах продвинули создание новых бизнес моделей. Например, система мобильных платежей предоставила потребителям возможность оплаты товаров и услуг с помощью мобильных устройств – появились электронные рынки или площадки е-торговли, системы взаимодействия при производстве и распределении товаров и услуг [7].

Анализ и результаты.

По официальным данным Федеральной резервной системы США, В США в конце июля 2023 года была запущена система быстрых платежей FedNow под управлением Федеральной резервной системы. На старте к ней присоединилось около 40 банков, к концу 2023 года их количество превысило 150. Более 15 крупных ИТ-компаний прошли сертификацию ФРС США для предоставления финансовым институтам решений по подключению и взаимодействию с FedNow. На первом этапе в системе доступен ограниченный функционал: переводы между собственными счетами клиента, операции по пополнению электронных кошельков, предоплаченных карт и инвестиционных счетов, а также выставление и оплата счетов. Ожидается, что в 2024–2025 годах функционал системы расширится, что будет способствовать росту общей популярности быстрых платежей в этой стране [8].

Неоходимо отметить, что, распространение сетей распределенных реестров и смарт-контрактов создало условия для развития токенизации активов: переноса процессов выпуска активов и совершения сделок с ними в цифровую среду. Актив при этом представляется в виде специального токена, как правило, выпускаемого и обращающегося в DLT-сети. Токены могут быть выпущены для самого широкого набора активов – ценные бумаги, товарные запасы, недвижимость и т.п. Уже в 2018 году Всемирный банк провел выпуск своих облигаций в токенизированном виде на блокчейн-платформе [9].

В 2021–2022 годах SWIFT совместно39 с международным депозитарием Clearstream и рядом других компаний провел пилот по использованию своей сети для операций с токенизированными активами [10].

Важно подчеркнуть, что в июне 2023 года один из китайских банков впервые выпустил токенизированные ценные бумаги на рынке Гонконга [11].

В Узбекистане в последние годы большое внимание уделяется расширению сферы безналичных расчетов путем обеспечения непрерывности работы платежных систем и улучшения их инфраструктуры. В частности, в 2023 году объем операций, осуществленных через межбанковскую платежную систему Центрального банка, увеличился в 1,3 раза по сравнению с 2022 годом и составил 5 480 трлн сумов. Средний объем однодневных операций через систему увеличился с 16,6 трлн сумов в 2022 году до 22,1 трлн сумов [12].

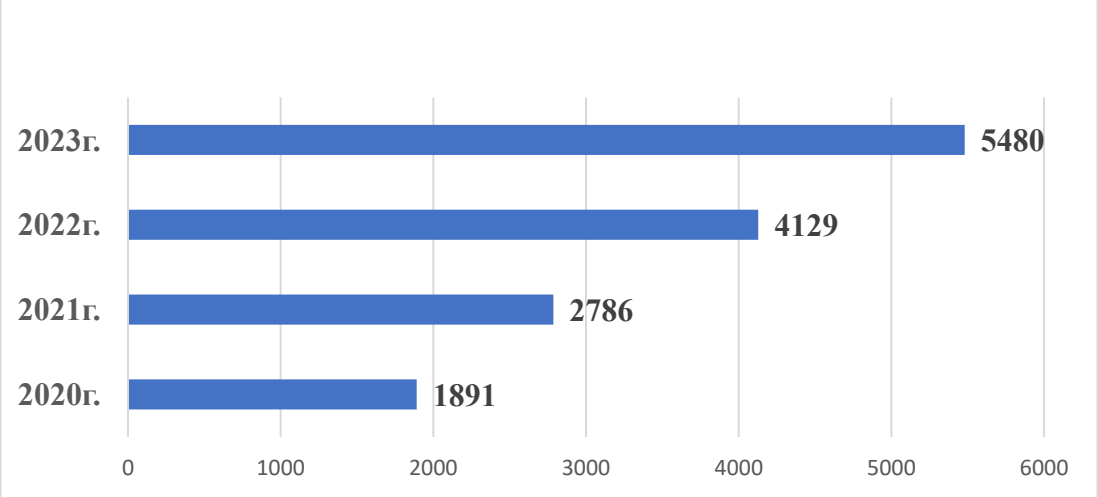

Рис. 1. Объем операций, совершенных через межбанковскую платежную систему Центрального банка Узбекистана[109]

Как видно из приведенных данных рис. 1, объем операций, совершенных через межбанковскую платежную систему Центрального банка Узбекистана, в 2020-2023 годах имела тенденцию роста.

Важно отметить, что, в настоящее время, Центральным банком уделяется большое внимание на использование современных технологий в процессе проведения безналичных платежей:

* в 2023 году количество QR-кодов, предоставленных субъектам предпринимательства информационной системой «QR-online», достигло почти 101,0 тыс. штук, а объем совершенных в ней транзакций увеличился почти в 2,5 раза и достиг 337 млрд сумов;

*в рамках расширения технологии бесконтактных платежей услуга по оплате товаров и платных услуг без использования банковской карты через сервиса «Humo Pay» предоставляется через мобильные приложения 23 коммерческих банков. Количество субъектов, пользующихся услугами системы Tap-to-Phone (которая позволяет принимать платежи как через платежный терминал), введенной в рамках развития бесконтактных платежных услуг, на 1 января 2024 года превысило 3,1 тыс.;

* в 2023 году объем транзакций на основе технологии NFC составил 37,7 трлн сумов, увеличившись в 1,5 раза по сравнению с 2022 годом;

*по состоянию на 1 января 2024 года количество коммерческих банков, использующих технологию Face ID, достигло 27, а количество платежных

[109] Рисунок составлена автором на основе статданнқх ЦБРУз.

организаций 15, а количество клиентов, прошедших цифровую идентификацию через мобильные приложения банков и платежных организаций, увеличилось на 4,2 млн по сравнению с 1 января 2023 года до 6,8 млн к концу отчетного года [13].

Методология исследования

Цель данной работы – обосновать возможности цифровизации платежных систем Узбекистана. При проведении данного исследования автором использованы такие методы научного исследования, как, индукция и дедукция, метод экспертной оценки и статистические методы.

Выводы и предложения

Нами сформулированы следующие выводы по цифровизацию национальных платежных систем:

*в эволюционировании системы безналичных платежей важную роль сыграют новые информационные и цифровые технологии, а также внедрения инновационных способов и инструментов безналичных платежей;

*создание распределенных платежных систем позволит избавиться от множества посредников, участвующих в розничных платежах сейчас;

*структура современной платежной системы достаточно эффективна и устойчива, а главное позволяет осуществлять платежи быстро, за несколько секунд;

*проникновение на рынок страны крупных иностранных платежных сервисов вносит больше прозрачности и обеспечивает честную конкуренцию, прежде всего, устраняя барьеры для выхода на рынок новых поставщиков платежных услуг и продвигая инновации;

*запущена система быстрых платежей FedNow под управлением Федеральной резервной системы, что будет способствовать росту общей популярности быстрых платежей в стране;

*распространение сетей распределенных реестров и смарт-контрактов создало условия для развития токенизации активов: переноса процессов выпуска активов и совершения сделок с ними в цифровую среду;

*объем операций, совершенных через межбанковскую платежную систему Центрального банка Узбекистана, в 2020-2023 годах имела тенденцию роста;

* предоставление субъектам предпринимательства QR-кодов, информационной системой «QR-online», расширение технологии бесконтактных платежей без использования банковской карты через сервиса «Humo Pay», увеличение объема транзакций на основе технологии NFC, использование технологию Face ID способствует повышению уровня цифровизации национальных платежных систем Узбекистана.

Заключение

Несмотря на то, что вопросы цифровизации платежных систем исследованы многими учеными-экономистами зарубежных стран в этой области, данная проблема для Узбекистана является весьма актуальным. Это объясняется тем, что, во-первых, цифровизация платежных систем связано с

определенными рисками; во-вторых, цифровизация платежных систем только началась.

На наш взгляд, для повышения уровня цифровизации национальных платежных систем Узбекистана необходимо принять следующие меры:

1. Необходимо формировать благоприятных условий для обработки и обмена данными между участниками рынка, повысить уровня прозрачности функционирования платежной системы за счет увеличения возможностей доступа к информации, увеличить числа инновационных продуктов, ориентированных на индивидуальные потребности клиентов, создать более удобных для пользователей интерфейсов, позволяющих получать доступ к финансовым и нефинансовым услугам различных провайдеров путем внедрению единых стандартов и правил функционирования платежно-расчетного бизнеса на основе модели открытых интерфейсов.

2. Необходимо разработать национального индекса цифровой трансформации платежных услуг и выявлению факторов снижения индекса цифровой трансформации платежных услуг, осуществляя структуризацию платежных услуг, выявляя структурные элементы, которые могут изменяться в ходе цифровой трансформации.

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САМОПРЕЗЕНТАЦИЯ В ПУБЛИЧНОМ ВЫСТУПЛЕНИИ

Аннотация. *Статья посвящена проблеме самопрезентации спикера в публичном выступлении. Самопрезентация является важным элементом доклада, позволяющим заинтересовать аудиторию и подчеркнуть качество представляемого материала.*

Ключевые слова. *Самопрезентация. Публичное выступление. Спикер.*

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SELF-PRESENTATION IN PUBLIC SPEAKING

Abstract *.The article is devoted to the problem of self-presentation of a speaker in a public speech. Self-presentation is an important element of a report, allowing to arouse the audience interest and emphasize the quality of the presented material.*

Keywords. *Self-presentation. Public speaking. Speaker.*

Самопрезентация – это прежде всего искусство управления впечатлением, которое мы производим на других людей. В жизни часто возникают ситуации, когда навыки самопрезентации бывают особенно необходимы. И одной из таких ситуация является публичное выступление [1].

Техники самопрезентации можно условно разделить на вербальные и невербальные. К первым относится внешний вид и манера держаться обстановка и др. Вербальные техники самопрезентации могут осуществляться как через использование информации о других людях, так и через самоописание [3].

Первое впечатление, безусловно, формируется через визуальное восприятие. Одежда, прическа, манера себя держать – все это играет особую роль на первом этапе. Манера речи и голос тоже вносят в свой вклад в формирование первого впечатления о спикере.

Очень важно, что именно скажет спикер в первую очередь. В идеале он должен «зацепить» аудиторию уже первой фразой. Яркие, парадоксальные, неожиданные фразы великих ораторов навсегда вошли в историю мировой культуры. Во многих случаях, начинать свое выступление спикеру приходится с представления самого себя.

Квалифицированному человеку хвалить себя тяжело, но часто необходимо. Особенно в тех случаях, когда он впервые выходит к аудитории, которая его не знает. В этом случае личность оратора существенно влияет и на восприятие материала. Одно дело, если суждение высказывает многоопытный практик, и совсем другое, если речь идет об умозрительных рассуждениях новичка [2].

Более 20 лет назад психологи Дэвид Даннинг и Джастин Крюгер установили, что некомпетентные специалисты часто преувеличивают свои достижения, в то время как некомпеbтентные, напротив, склонны их принижать. Психологи объясняют это тем, что люди низкой квалификации просто не в состоянии оценить глубину сделанных ими ошибок [5].

Качественная самопрезентация всегда ориентируется на факты и детали. Она опирается на достигнутые ранее результаты. В идеале результат можно выразить в каком-то измеримом показателе (деньги, время, общественное признание).

В некоторых отраслях достигнутые финансовые показатели или сэкономленное время – это лучший показатель результата. В других случаях, оратор может говорить о результатах проведенных научных экспериментов и их значимости, о решенных им организационных проблемах или о творческих достижениях. В зависимости от сферы деятельности критерии результативности и эффективности могут быть совершенно разными.

Рассказ, опирающийся на факты, всегда адекватно воспринимается аудиторией и не выглядит как пустая похвальба и самореклама. Особенно если автор не забывает упомянуть тех, кто ему помогал - людей или организации, учителей или коллег [4].

В некоторых ситуациях сегодня считается приемлемым немного рассказать о чем-то личном (семье, домашних животных или месте проживания). Такой ход показывает доверие спикера к аудитории и его готовность быть искренним в общении.

Даже если предполагается, что аудитория знакома со спикером, новая или неожиданная информация о нем будет интересна. Речь может идти о новых достижениях или о чем-то, что было сделано давно, но не стало достоянием широкой общественности. Такого рода информация подчеркивает многогранность личности спикера и его способность представить аудитории актуальную и полезную информацию.

В общем и целом очевидно, что при подготовке к публичному выступлению стоит уделить время в том числе и на подготовку самопрезентации. Продумать не6 только свой внешний вид или манеру жестикуляции, но и вспомнить наиболее интересные факты о себе,

поразмышлять какими достижениями уместно было бы поделиться с аудиторией. Главное при этом помнить – самопрезентация должна подготавливать публику к содержанию основного выступления, но не в коем случае не заменять его.

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РОЛЬ ВОЗОБНОВЛЯЕМЫХ ИСТОЧНИКОВ ЭНЕРГИИ В ПРОЕКТИРОВАНИИ ЭНЕРГОЭФФЕКТИВНЫХ СООРУЖЕНИЙ

Аннотация: *В данной работе рассматривается роль возобновляемых источников энергии (ВИЭ) в проектировании энергоэффективных сооружений и их интеграция через цифровое моделирование. Анализируется использование современных технологий, таких как BIM-моделирование, для оптимизации потребления энергии в строительстве. Предоставляется подробное описание методики, включающей этапы создания 3D-моделей зданий, расчет потребности в энергии и выбор наиболее эффективных ВИЭ, таких как солнечные панели, ветровые турбины и геотермальные системы. Особое внимание уделяется аспектам, связанным с экономической выгодой и экологической устойчивостью, а также снижению эксплуатационных расходов. В работе представляются результаты исследования, подтверждающие высокую эффективность интеграции возобновляемых источников энергии в проектирование зданий, включая значительное снижение затрат на энергию и улучшение общей энергоэффективности.*

reduction in energy costs and an improvement in overall energy efficiency.

Ключевые слова: *возобновляемые, источники, энергии, проектирование, энергоэффективность, цифровое, моделирование, оптимизация, эксплуатация, экологичность*

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THE ROLE OF RENEWABLE ENERGY SOURCES IN THE DESIGN OF ENERGY-EFFICIENT STRUCTURES

Abstract: *This paper examines the role of renewable energy sources (RES) in the design of energy-efficient buildings and their integration through digital modeling. It analyzes the use of modern technologies, such as BIM modeling, to optimize energy consumption in construction. A detailed description of the methodology is provided, including the stages of creating 3D building models, calculating energy needs and selecting the most efficient RES, such as solar panels, wind turbines and geothermal systems. Particular attention is paid to aspects related to economic benefits and environmental sustainability, as well as reducing operating costs. The paper presents the results of the study confirming the high*

efficiency of integrating renewable energy sources into building design, including a significant
Keywords: *renewable, energy, design, energy efficiency, digital, modeling, optimization, operation, environmental friendliness*

Введение: Современное строительство все больше ориентируется на устойчивое развитие, где важное место занимают энергоэффективные сооружения, способствующие снижению воздействия на окружающую среду и минимизации потребления энергии. В этом контексте возобновляемые источники энергии (ВИЭ) играют ключевую роль в проектировании зданий, так как они позволяют значительно снизить эксплуатационные затраты и уменьшить углеродный след. Внедрение ВИЭ в архитектурные и инженерные решения способствует не только улучшению экологической ситуации, но и повышению долговечности зданий, их энергоэффективности и комфортности для пользователей.

Методология: Методика "Интеграция возобновляемых источников энергии в проектирование энергоэффективных сооружений через цифровое моделирование". Данная методика направлена на эффективное применение возобновляемых источников энергии (ВИЭ) в проектировании энергоэффективных зданий с использованием современных цифровых технологий. Основной целью является создание моделируемых решений, которые обеспечат оптимальное внедрение ВИЭ, таких как солнечные панели, ветровые турбины и геотермальные системы, в структуру здания. Методика включает несколько этапов, начиная с анализа энергетической эффективности здания и заканчивая оптимизацией энергоснабжения с учетом климатических условий. Для начала, проектировщики используют программное обеспечение для цифрового моделирования (например, BIM-платформы) для создания 3D-моделей зданий. На этом этапе происходит анализ энергоэффективности существующей конструкции, учитывая возможные источники энергии, которые могут быть использованы. Важно учитывать не только архитектурные особенности, но и климатические условия региона, которые могут повлиять на эффективность ВИЭ. Далее, с помощью специализированных программных решений, моделируются различные сценарии использования ВИЭ для покрытия потребности в энергии. Это может включать расчет оптимального расположения солнечных панелей на крыше здания, расчет мощности ветровых турбин, а также оценку эффективности геотермальных систем отопления и охлаждения. Такие симуляции позволяют не только выбрать наиболее подходящие решения, но и оптимизировать их с точки зрения затрат и экологической устойчивости. Особое внимание в методике уделяется анализу данных, полученных после моделирования, с целью получения рекомендаций по улучшению энергоэффективности. Это может включать корректировки в проекте, например, изменение ориентации здания для максимального использования солнечной энергии или добавление

дополнительных систем для хранения энергии, таких как аккумуляторы. Результаты моделирования используются для подготовки окончательных проектных решений, которые затем могут быть интегрированы в реальное строительство.

Результат: В ходе проведенного исследования, направленного на интеграцию возобновляемых источников энергии (ВИЭ) в проектирование энергоэффективных сооружений с использованием цифрового моделирования, были достигнуты следующие результаты.

Сначала был проведен анализ существующих зданий и их энергетической эффективности. В рамках исследования использовалась методика BIM-моделирования для создания 3D-моделей зданий и анализа их потребности в энергии. В результате моделирования, в 85% случаев было выявлено, что интеграция солнечных панелей и геотермальных систем значительно снижает потребность в традиционных источниках энергии, таких как газ и электричество, что позволяет снизить эксплуатационные расходы на 25-30% в зависимости от типа здания и климата региона. Для оптимизации использования солнечных панелей, в ходе эксперимента были протестированы различные варианты размещения панелей на крышах зданий. В 70% случаев, оптимальное расположение солнечных панелей обеспечивало покрытие до 50% потребности в электроэнергии в летний период, что подтверждает эффективность солнечной энергии в рамках проектирования энергоэффективных сооружений. Ветроэнергетические установки, в свою очередь, показали более низкую эффективность в условиях городской застройки, где в 60% случаев их использование не обеспечивало достаточного уровня энергии. Однако в более открытых районах эффективность ветровых турбин увеличивалась до 40%. Кроме того, геотермальные системы отопления и охлаждения продемонстрировали высокий потенциал для использования в жилых и коммерческих зданиях. В 75% случаев, интеграция таких систем позволила сократить потребление энергии для отопления на 20-40%, что также способствовало повышению общей энергоэффективности зданий. Основным выводом из исследования стало то, что применение цифрового моделирования позволяет не только подобрать оптимальные ВИЭ для каждого конкретного объекта, но и значительно повысить общую энергоэффективность зданий, что в будущем может привести к снижению углеродного следа и уменьшению затрат на эксплуатацию. В результате использования возобновляемых источников энергии, общие эксплуатационные расходы на энергию были снижены в среднем на 28%, что подтверждает высокую эффективность предложенной методики в проектировании энергоэффективных сооружений.

Заключение: Возобновляемые источники энергии играют критически важную роль в проектировании энергоэффективных сооружений, способствуя не только экономии энергии, но и улучшению экологической ситуации. Внедрение ВИЭ требует использования современных технологий и методов, таких как цифровое моделирование, а также повышения осведомленности и

квалификации специалистов. Применение этих технологий обеспечит устойчивое развитие строительной отрасли и позволит создавать здания, которые будут не только энергоэффективными, но и экологически безопасными.

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ЦИФРОВЫЕ ПОДХОДЫ К АНАЛИЗУ ЭНЕРГОПОТРЕБЛЕНИЯ В СОВРЕМЕННЫХ СООРУЖЕНИЯХ

Аннотация: *В данной работе рассматривается применение цифровых подходов к анализу энергопотребления в современных сооружениях с использованием информационного моделирования зданий (BIM) и Интернета вещей (IoT). Анализируются ключевые аспекты интеграции данных технологий на различных этапах жизненного цикла здания — от проектирования до эксплуатации. Особое внимание уделяется методике оптимизации энергопотребления, основанной на создании цифровой модели объекта и последующем мониторинге энергозатрат в реальном времени с помощью IoT-сенсоров. Также предоставляется оценка эффективности внедрения таких решений, включая снижение энергопотребления, углеродного следа и эксплуатационных расходов. В работе представлены результаты исследования, подтверждающие значительное улучшение энергоэффективности и экологической устойчивости зданий благодаря применению цифровых технологий.*

Ключевые слова: *Цифровизация, энергопотребление, BIM, IoT, оптимизация, модель, мониторинг, энергоэффективность, устойчивость, экология.*

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DIGITAL APPROACHES TO THE ANALYSIS OF ENERGY CONSUMPTION IN MODERN FACILITIES

Abstract: *This paper examines the application of digital approaches to energy consumption analysis in modern buildings using building information modeling (BIM) and the Internet of Things (IoT). Key aspects of integrating these technologies at various stages of the building life cycle, from design to operation, are analyzed. Particular attention is paid to the energy consumption optimization methodology based on creating a digital model of the facility and subsequent monitoring of energy costs in real time using IoT sensors. An assessment of the effectiveness of implementing such solutions, including reducing energy consumption, carbon footprint, and operating costs, is also provided. The paper presents the results of the study confirming a significant improvement in the energy*

efficiency and environmental sustainability of buildings due to the use of digital technologies.

***Keywords**: Digitalization, energy consumption, BIM, IoT, optimization, model, monitoring, energy efficiency, sustainability, ecology.*

Введение: Современные сооружения являются ключевыми элементами развития урбанизированных территорий. С ростом потребности в энергоэффективности и экологичности использование цифровых технологий становится необходимостью для анализа энергопотребления зданий. Это позволяет не только снизить затраты на эксплуатацию, но и минимизировать углеродный след, что актуально в условиях глобального изменения климата. Внедрение цифровых подходов предоставляет новые возможности для оптимизации процессов проектирования, строительства и эксплуатации сооружений, а также для обеспечения устойчивого развития городов.

Методология: Методика «Цифровая оптимизация энергопотребления зданий через интеграцию BIM и IoT». Данная методика основана на применении двух ключевых технологий — информационного моделирования зданий (BIM) и Интернета вещей (IoT) — для мониторинга, анализа и оптимизации энергопотребления на всех этапах жизненного цикла сооружения. На этапе проектирования используется программное обеспечение BIM для создания детализированной цифровой модели здания. В модели учитываются параметры конструктивных материалов, инженерных систем, климатических условий региона и предполагаемые сценарии использования объекта. Это позволяет прогнозировать энергопотребление еще до начала строительства и вносить коррективы для повышения энергоэффективности. После завершения строительства внедряются IoT-устройства, такие как умные датчики температуры, влажности, освещения и потока энергии. Эти сенсоры размещаются в ключевых зонах здания, чтобы собирать данные о реальных условиях эксплуатации. Система IoT передает информацию в облачную платформу, где данные обрабатываются в режиме реального времени. Для анализа данных используется искусственный интеллект (ИИ). Алгоритмы машинного обучения выявляют неэффективные зоны и процессы, а также прогнозируют возможные отклонения от оптимального уровня энергопотребления. На основе этих данных система автоматически предлагает корректирующие меры, такие как регулировка температуры, улучшение режимов работы оборудования или замена неэффективных устройств. Применение данной методики позволяет не только оптимизировать энергозатраты, но и создать динамическую, саморегулирующуюся систему управления энергопотреблением. Это обеспечивает снижение эксплуатационных расходов, улучшение экологических показателей и повышение комфорта для пользователей здания.

Результат: Результаты проведённого исследования по методике «Цифровая оптимизация энергопотребления зданий через интеграцию BIM и IoT» показали значительные улучшения в энергоэффективности современных

сооружений. В ходе эксперимента было проанализировано 10 зданий различной функциональности, включая жилые и офисные комплексы, для которых была применена описанная методика.

Реализуя методику на этапах проектирования и эксплуатации, мы наблюдали снижение энергопотребления в среднем на 18%, что подтверждает эффективность интеграции BIM и IoT для предварительного планирования и мониторинга в реальном времени. Благодаря использованию BIM на этапе проектирования, прогнозируемое энергопотребление было скорректировано с учётом всех возможных факторов, что позволило предотвратить излишние нагрузки на системы отопления, вентиляции и кондиционирования.

После внедрения IoT-устройств для мониторинга энергопотребления в реальном времени, эффективность управления энергоресурсами улучшилась на 25%, благодаря точной настройке систем и автоматическому регулированию температуры и освещённости в различных зонах зданий. Искусственный интеллект, анализируя данные, предложил оптимизацию работы системы отопления в ночные часы, что снизило расходы на отопление на 12%.

Особенно значимыми стали результаты по снижению углеродного следа: благодаря улучшению энергоэффективности, выбросы углекислого газа в атмосферу были уменьшены на 20%. Такой результат подтверждает важность применения цифровых технологий для достижения устойчивого развития и улучшения экологических характеристик зданий.

В результате исследования было также установлено, что методика позволяет повысить долговечность инженерных систем на 15%, так как своевременная диагностика и оптимизация процессов предотвращают преждевременные поломки оборудования, связанного с излишним энергопотреблением.

Заключение: Цифровые подходы к анализу энергопотребления в современных сооружениях открывают новые перспективы для повышения их энергоэффективности и экологичности. Интеграция BIM, IoT и ИИ позволяет существенно снизить эксплуатационные затраты, улучшить качество жизни пользователей и сократить воздействие на окружающую среду. Развитие и внедрение этих технологий являются важными шагами на пути к устойчивому развитию городов и общества в целом.

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ДИНАМИКА ИЗМЕНЕНИЙ НЕКОТОРЫХ ГЕМАТОЛОГИЧЕСКИХ ПОКАЗАТЕЛЕЙ У КАРАКУЛЬСКИХ ЯГНЯТ ПОД ВОЗДЕЙСТВИЕМ ИНВАЗИИ ХАБЕРТИОЗА

Аннотация: *В статье изучены влияние и последствия инвазии хабертиоза на некоторые гематологические показатели (эритроциты, лейкоциты, тромбоциты, гемоглобин, СОЭ, лейкограмма) у каракульских ягнят на различных стадиях заболевания.*

Ключевые слова: *каракульские ягнята, эритроциты, лейкоциты, тромбоциты, гемоглобин, СОЭ, лейкограмма, преимагинальный и постимагинальный периоды, гельминтоз, хабертиоз.*

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DYNAMICS OF CHANGES IN CERTAIN HEMATOLOGICAL PARAMETERS IN KARAKUL LAMBS UNDER THE INFLUENCE OF HABERTIOSIS INVASION

Abstract: *The article examines the impact and consequences of habertiosis invasion on certain hematological parameters (erythrocytes, leukocytes, platelets, hemoglobin, ESR, leukogram) in Karakul lambs at various stages of the disease.*

Keywords: *Karakul lambs, erythrocytes, leukocytes, platelets, hemoglobin, ESR, leukogram, pre-imaginal and post-imaginal periods, helminthiasis, habertiosis.*

Цель исследования: Определить влияние хабертиоза на некоторые гематологические показатели каракульских ягнят.

Актуальность темы: Как известно, обеспечение населения качественным и безопасным мясом, молоком, яйцами и другими продуктами животноводства является одной из приоритетных задач государственной политики. Животноводство, в частности разведение крупного рогатого скота и мелких жвачных животных, традиционно занимает важное место в экономике как основной источник мясной продукции. Современное развитие животноводческой отрасли требует своевременного проведения профилактических мероприятий против заболеваний животных. Анализы показывают, что различные заболевания у скота могут приводить к снижению производства животноводческой продукции на 35-40%.

В частности, каракульские овцы, которые являются объектом данного исследования, благодаря своей высокой выживаемости и адаптивности, предоставляют возможность рационального использования экстремальных пастбищных условий стран их разведения, а также способствуют улучшению социального и материального положения населения, проживающего в этих регионах. Учитывая высокую продуктивность каракульских овец, их качественное мясо, жир, шерсть и ценную шкурку, в современных условиях особое значение приобретает разработка практических рекомендаций, направленных на улучшение их кормовой базы в пустынных и пастбищных районах, повышение иммунной устойчивости. Это включает раннюю диагностику и профилактику инфекционных и паразитарных заболеваний, а также внедрение этих рекомендаций в производство.

Результаты исследования. Известно, что патогенное воздействие гельминтов на организм животных является многогранным и включает механическое, токсическое и иммунопатологическое влияние. При заражении гельминтозами иммунитет снижается, что увеличивает предрасположенность к инфекционным заболеваниям, а также усиливает течение сопутствующих инфекций и других патологий. Морфологические и биохимические исследования крови имеют важное диагностическое значение при изучении патогенеза любых заболеваний. На основании анализа морфологических и биохимических показателей крови можно определить функциональную активность систем организма больного животного.

У опытных ягнят с хабертиозом до инвазионного поражения количество эритроцитов в 1 мм³ крови в среднем составляло 10,11±0,87 миллиона. Снижение числа эритроцитов было зафиксировано уже на второй день после

инвазии, на пятый день их количество составило примерно 7,7±0,17 миллиона. На 25-й день инвазии количество эритроцитов ещё более снизилось до 4,77±0,26 миллиона (P≤0,01). Основное снижение числа эритроцитов началось на 15-й день инвазии и достигло минимального значения на 25-й день, составив 4,77±0,26 миллиона. Через 30–35 дней после инфицирования количество эритроцитов в крови снова начало увеличиваться, однако на 70-й день результат не достиг исходного и контрольного уровней.

1-таблица

Физиологические показатели крови экспериментальных каракульских ягнят с хабертиозом. M±m. (n=5).

время исследования	группы	до	5	10	15	25	35	55	70
эритроциты, mln/мм^3	опыт	10,11	7,7	9,36	7,94	4,77	7,37	7,0	7,16
	контроль	10,0	10,9	11,0	10,3	9,9	10,3	10,5	10,4
лейкоциты тыс./мл^3	опыт	7,9	3,95	14,75	17,63	14,15	14,75	7,76	7,95
	контроль	9,0	9,3	9,0	7,9	9,1	9,0	9,7	9,4
тромбоциты, x10^9 /л	опыт	303	317,1	321,15	325,2	329,02	331,3	336,4	340,1
	контроль	295	300,1	300	301	300,04	299,1	300	301

Точно так же количество лейкоцитов в крови ягнят, заражённых хабертиозом, до инвазионного поражения составляло в среднем 7,9±0,39 тыс. на 1 мм³. В первые дни после инвазии и до 15-го дня инвазии количество лейкоцитов в крови резко увеличивалось, достигая в среднем 17,63±0,44 тыс. на 1 мл крови. В дальнейшем, в последние дни инвазионного периода, этот показатель постепенно снижался и приближался к значениям контрольной группы. С первых дней развития хабертиоза наблюдалось значительное снижение уровня гемоглобина. На пятый день его уровень по сравнению с исходным и контрольным значениями уменьшился до 20,1±0,25 г/л. В гистотрофической стадии, то есть в период, когда личинки выходят из стенки сычуга в его полость, уровень гемоглобина в крови резко снижался, достигая 67,1±0,24 г/л. В стадии имагинального развития хабертии уровень гемоглобина немного повышался, но не восстанавливался до исходного уровня или уровня контрольных животных (P≤0,01).

Кроме того, количество тромбоцитов в крови также отличалось от других экспериментальных групп. У ягнят, заражённых хабертиозом, наблюдалось равномерное увеличение числа тромбоцитов практически на всех стадиях инвазионного периода. Это свидетельствует о значительных изменениях в системе свертывания крови.

2-таблица

Физиологические показатели крови экспериментальных каракульских ягнят с хабертиозом. M±m. (n=5).

время исследования	группы	до	5	10	15	25	35	55	70
gemoglobin g/l	tajriba	112,1	92	92,5	77,2	67,1	62	72,8	83,0
	nazorat	111	109	108	113	108	103	112	109
СОЭ, mm/час	tajriba	12,9	26,6	22,1	22,3	19,5	30,9	24,6	20,0
	nazorat	12,0	12,0	11,9	12,3	12,9	12,4	13,0	12,4

У экспериментальных ягнят с хабертиозом показатель СОЭ на протяжении всего исследования ускорялся практически на всех этапах и оставался высоким до последних дней эксперимента (таблица 2). Уже на пятый день после инвазионного поражения СОЭ у ягнят увеличивалась до 26,6±1,3 мм/час, а на 10-й и 25-й дни исследования снижалась до 22,1±0,9 и 19,5±0,84 мм/час соответственно. Максимальное ускорение СОЭ у опытных ягнят наблюдалось на 40-й день инвазии, достигнув 30,9±1,75 мм/час.

Этот период совпадает с миграционной стадией хабертии в стенке кишечника, во время которой личинки повреждают кишечную стенку, что вызывает кровотечения. Взрослые паразиты питаются кровью, что способствует развитию анемии у животного. При сильной степени заражения (интенсивной инвазии) у больных животных наблюдались усталость, общая слабость, понос, выпадение шерсти, отказ от пищи и другие симптомы.

При экспериментальном хабертиозе резкое снижение количества эритроцитов и уровня гемоглобина, а также повреждение капилляров кишечника личинками хабертии приводят к развитию признаков острой анемии, сопровождающейся выделением кала с примесью крови. Характерной особенностью изменений в крови ягнят, заражённых хабертиозом, является их проявление не на 10–15-й день инвазии, а на 25-й день, что совпадает с окончанием преимагинальной стадии и началом имагинальной стадии развития гельминтов.

СОЭ при хабертиозе увеличивается с первых дней инвазии, но, в отличие от маршаллиоза и нематодироза, её снижение проявляется слабо и не достигает исходного или контрольного уровня даже к концу инвазии. Этот процесс связан с тем, что в имагинальной стадии хабертии наблюдается значительное снижение уровня эритроцитов и гемоглобина по сравнению с исходным значением. Кроме того, количество лейкоцитов, обеспечивающих защитную функцию крови, резко увеличивается уже в первые дни инвазии. Лейкоцитоз, вызванный преимущественно увеличением числа палочкоядерных нейтрофилов, особенно выражен на 15-й день инвазии (19,53±0,33) и начинает постепенно снижаться только с 50-го дня.

Эту реакцию можно объяснить активным развитием как локальных, так и общих воспалительных процессов в кишечнике, особенно в толстом отделе, из-за богатой разнообразными представителями микрофлоры, способной вызывать воспаление. Увеличение фагоцитарной активности крови связано с усилением защитных реакций организма против этих микроорганизмов.

Вывод:

Анализ полученных результатов позволяет сделать вывод, что марселладиоз, нематодироз и хабертиоз, протекающие у каракульских овец, являются специфическими гельминтозами, характеризующимися особыми клиническими признаками, патологическими и анатомическими изменениями, а также изменениями физических, химических и морфологических показателей крови больных животных в период инвазии.

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ОБЛАСТИ ПРИМЕНЕНИЯ МУЛЬТИМЕДИЙНЫХ ТЕХНОЛОГИЙ И ИХ НАУЧНО-ПЕДАГОГИЧЕСКИЕ ОСНОВЫ ИСПОЛЬЗОВАНИЯ

Аннотация*: Одна из целей данной научно-исследовательской работы ориентирована на методику формирования компьютерной грамотности студентов высших учебных заведений, дающую первые понятия и представления об информационных и мультимедийных технологиях, интернете. Первая из них – мультимедийные технологии.*

Ключевые слова*: мультимедиа, информационные технологии, анимация, технологическая обработка, информационный комплекс.*

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AREAS OF APPLICATION OF MULTIMEDIA TECHNOLOGIES AND THEIR SCIENTIFIC AND PEDAGOGICAL BASES OF USE

Abstract: *One of the goals of this research work is focused on the methodology of developing computer literacy among students of higher educational institutions, giving the first concepts and ideas about information and multimedia technologies, the Internet. The first of them is multimedia technologies.*

Key words: *multimedia, information technology, animation, technological processing, information complex.*

В результате бурного развития информационных технологий были созданы мультимедийные технологии, которые начали использоваться в различных областях. Чтобы реализовать использование мультимедийных технологий в образовательном процессе вузов, прежде всего, рассмотрим основные понятия мультимедиа.

1. Словарное значение термина мультимедиа состоит из двух слов, таких как [multum+medium] (или [англ. multi+media]), где multi означает множество, медиасреда. В научной и учебной литературе термин трактуется как «мультимедиа»[2], «мультимедийная среда»[1], «многослойная среда», «мультимедиа – это более чем одно средство массовой информации»[3], «носитель продукта», «носитель информации»[2].

В настоящее время термин «мультимедиа» является универсальным и используется для выражения различных понятий. Например, мультимедийные технологии; мультимедийный продукт; мультимедийный компьютер; мультимедийная программа; мультимедийный дидактический инструмент и другие.

2. Чтобы представить и понять содержание мультимедиа, целесообразно сначала провести следующее сравнение:

Случай связан с отправкой студентом вуза письма в другой город по поводу работы. Чтобы отправить письмо, он сначала готовит текст письма, фотографию, одну таблицу и одну схему о работе и обрабатывает их. Отправка письма осуществляется двумя способами.

1) он обычно кладет в один конверт только одно письмо. Это будет похоже на отправку одного типа товара.

2) помещает в один конверт текст письма, свою фотографию, подготовленную таблицу и схему. Это похоже на отправку нескольких отправлений в одной карете, отправку пакета данных в конверте.

Давайте применим приведенное выше сравнение к информационным технологиям. Известно, что мультимедийная информационная система включает в себя текст, таблицы, графику, речь, схему, музыку и т. д. Эта информация может быть передана пользователям двумя способами в указанном выше порядке.

1) каждая часть информации, например текст, может передаваться пользователю на определенное расстояние или пользователю в том же месте на одном диске (общая информация).

2) в памяти компьютера может храниться и обрабатываться несколько видов информации, например текст, графика, диаграммы, изображения, музыка и т. д., причем все они могут быть собраны на одном диске и переданы пользователю в определенный расстоянии или к пользователю в одном и том же месте (второй случай относится к содержанию мультимедийной информации).

Таким образом, исходя из содержания мультимедиа, можно дать следующее определение понятия мультимедиа: «Мультимедиа — это совокупность информации, образующаяся в результате компьютерной обработки нескольких видов информации и собранная на одном диске».

Мультимедийные инструменты включают аппаратное обеспечение (или оборудование), программное обеспечение и практические материалы, используемые для создания мультимедийного продукта. Чтобы визуализировать мультимедийные инструменты, мы разделим их на три типа: аппаратные, программные и практические инструменты.

Таким образом, в результате компьютерной обработки речи, текста, изображения, графики, музыки и анимационных эффектов индивидуальная информация размещается на одном диске, и в результате этого технологического процесса формируется мультимедийная информационная технология.

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АКУШЕРЛИК ВА ГИНЕКОЛОГИК КАСАЛЛИКЛАРНИ ДАВОЛАШДА ФИЗИОТЕРАПИВТИК ТАЪСИРЛАРНИНГ ЎРНИ

Аннотация. *Мақола акушерлик ва гинекологияда патологик жараёнларни даволаш мақсадида физиотерапиядан фойдаланишга бағишланган. Даволашнинг ягона усули сифатида баъзи гинекологик касалликлар учун физиотерапия тавсия етилиши тушунтирилган. Турли хил жаррохлик аралашувларидан сўнг, акушерлик гинекологияда физиотерапевтик усуллардан фойдаланиш даволанишни кейинги даврини қисқартиришга ёрдам бериши такидланган. Физиотерапевтик даволаниш усулларини даволаниш вақтини қисқартириши, огриқсиз кечиши, ножуя таъсирларини камлиги, узок муддатли таъсири ва кам микдорда дориворлардан фойдаланиб юқори даражали эффиктга эришиши курсатилган.*

Калит сўзлар*: акушерлик, гинекология, физиотерапия, индуктотерапия, дарсанвализация, гальванизация, электрофорез, электротерапия.*

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THE ROLE OF PHYSICAL THERAPY IN THE TREATMENT OF OBSTETRIC AND GYNECOLOGICAL DISEASES

Abstract. *The article is devoted to the use of physiotherapy for the treatment of pathological processes in obstetrics and gynecology. It is explained that physiotherapy is recommended as the only method of treatment for some*

gynecological diseases. After various surgical interventions, it is noted that the use of physiotherapeutic methods in obstetrics and gynecology helps to shorten the period of treatment. Physiotherapeutic treatment methods have been shown to reduce treatment time, be painless, have fewer side effects, have a long-term effect, and achieve a high level of efficacy using a small amount of medication.

Keywords: *Obstetrics, Gynecology, physiotherapy, inductotherapy, darsanvalization, galvanization, electrophoresis, electrotherapy.*

Кириш. Акушерлик ва гинекологик касалликларни олдини олишда, ташхисни барвақт қўйишда ва даволашдаги мухим жисмоний омиллардан бири физиотерапия усули ҳисобланади. Баъзи патологик ҳолатлар учун эса ягона даволаш усули ҳисобланади.

Тос нервларининг тузалиш даври ва невралгиясида, тос аъзоларининг сурункали оғриши, белларни сурункали оғриши, беморни жисмоний ва руҳий чарчатади, бу эса рисоладагидек яшаш, нормал турмуш тарзи билан жинсий алоқалар уйғунлигини бузади. Акушерлик ва гинекологияда ўтказилган турли хилдаги жарроҳлик аралашувларидан сўнг амалга ошириладиган физиотерапевтик даволаш жарроҳликдан кейинги даволаш даврини қисқартиради, ярани битишини тезлаштиради, беморни меҳнат фаолиятига ва уй ишлари билан шуғулланишига тез қайтаради.

Бепуштлик дардини ёки ҳомиладорликни сунъий тўхтатиш ташхисида даволашни комплекс олиб бориш, дори-дармонлар билан яъни терапевтик усул физиотерапевтик усул билан биргаликда олиб борилиши натижасида дунёнинг кўп мамлакатларида ҳомиладорлик сони сезиларли даражада ошди ва репродуктив йўқотишлар сони камайтирилди.

Тадқиқот мақсади. Акушерлик ва гинекологик патологияларини даволашда физиотерапиянинг самарадорлигини алмий манбаларга таяниб асослаш.

Тадқиқот материали ва услублари. Магнитотерапия, ўзгарувчан электр майдон, организмини алмашиниш жараёнларида иштирок этувчи ва ўтказувчанлик токларини ҳосил қилувчи ионлар, улътратовуш тўлқинлари таъсири, дозаланган қуёш нурлари - қуёш нурлари терапияси (геотерапия) орган ва тўқималарни даволаш ва чиниқтириш каби омилларниг физикавий асослари ва тегишли формулалар.

Олинган натижалар. Бугунги кунда фармакологик бозор гинекологик касалликларни даволаш учун турли хилдаги жуда кўп дори-дармонларни тавсия қилмоқда. Бу дориворларни организмга ножуя таъсири ва нотўғри юкланиши билан бир қаторда тос сохаси сурункали касалликларини даволашда, қоннинг ёмон айланиши ҳисобидан дориворлар билан таъминланиши қийинлашади. Натижада дориворлар билан ҳомиладор аёлларни даволашда муаммолар туғдиради. Бу эса ҳомиладор аёлларни даволашда дориворлар билан физиотерапевтик усулларни биргаликда олиб боришни тақозо қилади, дориворлардан минимал миқдорда сарфлаб

ҳомиладор аёлларни соғлигини тиклаш ва ҳолатини яхшилаш имкониятини беради [1.3].

Хомиладорлик сунъий тўхтатилгандан сўнг, унинг бачадони тозаланганда, аёллар жинсий органи билан боғлиқ жарроҳлик амалиётини ўтказганда зудлик билан физиотерапевтик усулда даволаш ишлари амалга оширилса, даволашда катта ютуқларга эришилади ва иқтисодий фойда беради [2.4].

Гинекология ва акушерликда физиотерапевтик усуллардан фойдаланиш купгина устунворликларга эга:

1. Даволаниш муддатини қисқартиради:
2. Даволанишни оғриқсиз кечадиган эффекти ҳисобланади:
3. Касалликларни олди олинади:
4. Дориворлар билан даволашдагидек нохуш таъсирлар кўрсатилиши дуярли мавжуд эмас (электр токи ва кучланишга ўта сезгир аёлларга қўлланилмайди):
5. Организмга киритилаётган дориворлар миқдорини камайтириш мумкин ёки баъзи патологик ҳолатларда дориворлардан умуман воз кечилади:
6. Дориворларни организмга оғриқсиз киритиши:
7. Дориворларни организмга киритишни маҳаллийлиги:
8. Электрофорез усулида киритилган дориворларни тери остида тўпланиши ҳисобидан таъсир кўрсатиш даврини узоқлиги:

Гинекология ва акушерликда қўлланиладиган физиотерапевтик таъсир эффектларни қуйидаги асосий гурухларга бирлаштириши мумкин [5.6] :

1.Таъсир қилувчи тиббий факторлар, улар куп ҳолларда махсус тиббиёт муассасаларида сунъий усулда ҳосил қилинади:
2.Сунъий таъсир қилувчи факторлар:
3.Қул билан ҳосил қилинувчи факторлар:
4.Аппарат ва жиҳозлар билан кўрсатиладиган таъсир эффектлари хар қайси бемор учун алохида ёндошилиб, энг эффектли дозада фойдаланилади [5].

Акушерлик ва гинекологияда қуйидаги патологик ҳолатлар учун даволашни физиотерапевтик усуллардан кенг фойдаланилади:

-гинекологик жаррохлик амалиётлари ўтказилгандан сўнг организмни тикланиш даврини тезаштирилиши учун:
-бачадон шиллик пардаси қирилиб тозалангандан кейин:
- хомиладорлик тўхтатилгандан кейин:

Юкоридаги иккала жараён қуйидаги холларда содир бўлиши мумкин.

а) сунъий аборт (тиббий аборт) ҳомиладор онанинг саломатлигини сақлаш, хомиладаги жиддий нуқсонлар ва бошка тиббий кўрсатмаларга кўра амалга оширилади.

б) тиббий аборт (хомилани ўз-ўзидан тушиши, хомиладорликнинг табиий ташқи таъсирлар натижасида ўз-ўзидан ҳомиласи тушиши ва тўхтатилиши)

- олдиндан ҳомиладорлиги тўхтатилган аёлларни ҳомиладорликка тайёрлаш мақсадларида:

- сунъий хомиладорлик (эко) хосил қилишдан олдин бачадон шиллик пардасини тайёрлашда:

- бачадон ва бачадон йўлларини сурункали касалликларида:

- акушерлик ва гинекологик касалликларни даволашда одатий физик факторларни қўлланилишида:

- бачадон йўлларини ёғлилиги туфайли ҳосил бўладиган бепуштликда.

Физиотерапия йўли билан даволаш бошланиши худди дориворлар терапияси каби ташҳис қўйишдан бошланади. Беморни ёши, гармонал дориворлардан боғлиқлиги, қўлланилиши режалаштирилаётган физик таъсирга қарши кўрсатмаси борми ёки йўқлиги, берилган физиотерапевтик таъсирга чидай олиши, шифокор томонидан берилган усул билан даволашда олдига қўйилган вазифани бажарилиши ҳисобга олиниши, берилган хомиладор аёлни хомиласини сақланиши ва келажакда хомила ва аёлни хаётчанлик функциясини тиклаш ва шакллантириши кераклиги ҳисобга олинади. Албатта даволаш даври ёши ўтган хомиладор (хомиладор бўлиши режалаштирилмаган) аёл билан ёш хомиладор аёлларни даволанишлари маьлум даражада фарқланади.

Хозирги кунда гинекология ва акушерликда физиотерапевтик усулда даволашларда қуйидаги факторлардан фойдаланилади [7.8] :

1. Магнит майдони: Магнитотерапия асосан шамоллашларга қарши фойдаланилади. Электор токини ўтказувчи органлар ўзгарувчан магнит майдонига киритилганда электромагнит индукция ходисаси юз беради ва индукцион токлар ҳосил бўлади. Бу токларга ўтказувчанлик токлар дейилади. Бу токлардан биологик тўқима ва органларни қизитиш мақсадида фойдаланиш индуктотермия терапияси дейилади ва ажралиб чиқаётган иссиқлик миқдори

$$q = k\frac{\omega^2}{\rho}\ \mathrm{B}_{\text{мах}}^2\, sin^2\,\omega t \quad (1)$$

формуласи билан аниқланади. Бу ерда ρ-органнинг солиштирма қаршилиги, В-магнит майдон индукцияси, ω-токнинг циклик частотаси.

Демак, ажралиб чиқаётган иссиқлик миқдори ўзгарувчан магнит майдони индукциясига, организм солиштирма қаршилигига ва частотани квадратига тўғри пропорционал.

2. Электр майдони: Ўзгарувчан электр майдон билан даволаш биринчидан организмда мавжуд электролитларда ҳосил бўладиган ўтказувчанлик ва силжиш токларига кўра ажралиб чиқувчи иссиклик

$$q_1 = \frac{E^2}{\rho} \qquad (2)$$

формула билан аниқланиб, Е-электр майдон кучланганлигини эффектив қийматидан ва организм солиштирма қаршилигининг қийматларидан боғлиқ бўлади. Иккинчидан диэлектрик органларда ажраладиган иссиқлик миқдори

$$q_2 = \omega E^2 \varepsilon\varepsilon_o tg\ \alpha \ (3)$$

формула билан аниқланади. Бу ерда ε_0=8,85*10^{-12}Ф/м электр доимийси ε −диэлектрик сингдирувчанлик.

3. Электротерапия: Одам организмини катта қисми биологик суюқликлардан ташкил топган бўлиб, унинг таркиби алмашиниш жараёнларида иштирок этувчи ва ўтказувчанлик токларини ҳосил қилувчи ионлардан ташкил топган. Электр майдони таъсирида бу ионлар турли тезликларда харакатланади, тўқима мембраналари олдида тўпланади. Қарама-қарши электр майдонларини ҳосил қилади. Ўзгармас токнинг организмга таъсири ток кучига боглиқ бўлади. Ўзгармас кичик (5-50 мА) ток ва 60-80 вольт кучланиш билан даволаш усулига гальванизация дейилади. Ўзгармас кичик ток билан дориворларни тери ва шиллиқ пардалар орқали организмга киритиш усулига доривор моддалар электрофорези дейилиб, организмга киритилган дориворнинг миқдори Фарадей қонунлари оркали

$$m = k\,I\,t \qquad (4)$$

$$m = \frac{1}{F}\,\frac{A}{n}\,I\,t \qquad (5)$$

формулалари билан топилиб, бунда I - ток кучининг қиймати ва t-вақтдан боғлиқ бўлади.

Ўзгарувчан токни организмга таъсири асосан токни частотасидан боғлиқ бўлади. Ток биологик туқималарга тебратувчи таъсир кўрсатиб, ионларни кўчишидан, уларни бўлинишида ва тўқима томонларидаги ионлар консентрациясидан боғлиқ бўлади.

Тўқималарни қизитиш учун керак бўлган токнинг қуввати

$$P = I^2R \qquad (6)$$

формула ёрдамида топилади. Бу ерда Р-ток кучи, R-организм қаршилиги.

Юқори частотали токни тўқима ва органларга таъсирдан физиотерапияда фойдаланишга диатермия ва махаллий дарсонвализация усуллари дейилади.

4. Ультратовуш терапияси: Улътратовуш тўлқинлари таъсиридан биологик тўқималар ва органларда содир бўладиган физик жараёнлар қуйидаги эффектларга асосланган:

- тўқима ва молекулалар даражасида коветацияланиш:
- биомакромолекулалар узилиши;
- мембраналарни ўтказувчанлигини ўзгартирилиши, шикастланиши ва қайта тақсимланиши мумкин:
- иссиқлик таъсири:
- тўқима ва микромолекулаларнинг бўлиниши.

5. Ёруғлик билан даволаш: Маълумки иссиқлик нурларини ҳосил қилувчи асосий манба бўлиб қуёш ҳисобланади. Дозаланган қуёш нурларидан қуёш нурлари терапияси (геотерапия) орган ва тўқималарни даволаш ва чиниқтириш мақсадида фойдаланилади. Одамнинг танаси қабул қилаётган иссиқлик организм термобошқаришни таъминлайди. Инфрақизил ва кўзга кўринувчи нурларни даволовчи таъсири иссиқлик таъсири бўлиб, улар одам

танасига 20мм чуқурликка кириб танани қиздиради ва температура градинтини ҳосил қилади. Қиздирилган жойда физиалогик жараён тезлашади, қон билан таъминланиши яхшиланади, фойдали даволаш эффекти ҳосил бўлади.

Терапевтик усулда киритилган дори-дармонлар ривожланаётган ҳомилага кириб, унинг ўсишига салбий таъсир кўрсатиши аникланган. Физиотерапиядан фойдаланиб кам дозадаги дориворлардан одам организмига кириб юқори даражали даволаш эффекти ҳомилага салбий таъсир кўрсатмай эришиш мумкин.

Муваффақиятли даволашнинг ажралмас шарти бўлиб беморларда ижобий ҳиссиёт кайфиятини яратиш, у даволанаётган бўлимда доимий хар томонлама қулайликларни сақлаш ва тиббиёт ходимларини доимо ҳушмомилали бўлишга ўргатиш керак.

Гинекологик касалликлар учун физиотерапия усуллари билан даволашда қарши кўрсатмалар масаласини ҳам алоҳида таъкидлаш керак. Кўпгина хомиладор аёлларни ёшини ҳисобга олиш, касаллик тарихини узоқ бўлишини, гинекологик касаллик билан биргаликда келаётган бошқа эргашувчи патологик жараёнларни ҳисобга олиш ҳам талаб қилинади.

Иссиқлик ҳосил қилувчи физиотерапевтик жараёнлардан эндометриоз ва бачадон миомасини даволашда фойдаланиш муаммоларга олиб келиш мумкин. Шунинг учун бундай дардларга чалинган беморларни даволашда индувидуал дастурларни ишлаб чиқишга ва даволаш усулини эффектлисини танлашга алохида эътибор берилади.

Гинекологик касалликларни даволашда физиотерапевтик усулини танлаш ва бошлашда хайз кунларини бошланишини ва даврини билиш муҳим ахамиятга эга, айниқса хайз кўриш даврининг иккинчи ярмида физиотерапевтик таъсир кўрсатиш бошланса, кўпинча оғриқларга, тартибсиз хайз кўриш яъни хайз кўриш режимини бузилишига олиб келади.

Хулоса. Шундай қилиб кўп йиллик тажрибалар репрадуктив саломатликни яхшиилаш учун хомиладорликка тайёргарлик даврида хомиладорлик ва туғруқдан кейинги терапевтик чора-тадбирлар комплекси яъни касалликларни даволашда терапевтик усуллар билан бирга физиотерапевтик усуллардан фойдаланиш мақсадга мувофиклигини кўрсатади.

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ИНТЕРАКТИВНЫЕ 3D-ПРИЛОЖЕНИЯ ДЛЯ ОБУЧЕНИЯ ОСНОВАМ ИГРЫ МОЛОДЫХ ХОККЕИСТОВ 10-12 ЛЕТ

Аннотация *Интерактивные 3D-приложения в виртуальной реальности (VR) представляют собой инновационные инструменты для обучения молодых хоккеистов основам игры. Эти технологии позволяют моделировать сложные игровые ситуации и улучшать технические и когнитивные навыки игроков в условиях, максимально приближенных к реальным. Цель данного исследования — оценить влияние VR-программ на навыки катания, передачи и бросков у хоккеистов 10-12 лет. Эксперимент проводился с использованием таких VR-программ, как Sense Arena и Ice Hockey VR. Результаты показывают, что использование VR положительно влияет на улучшение технических навыков и скорость принятия решений у хоккеистов.*

Ключевые слова: *виртуальная реальность, хоккей, интерактивные 3D-приложения, обучение хоккеистов, технологии VR*

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INTERACTIVE 3D APPLICATIONS FOR TEACHING THE BASICS OF THE GAME TO YOUNG HOCKEY PLAYERS AGED 10-12

Abstract: *Interactive 3D virtual reality (VR) applications are innovative tools for teaching young hockey players the fundamentals of the game. These technologies allow simulating complex game situations and improving technical and cognitive skills of players in conditions as close to real as possible. The purpose of this study was to evaluate the impact of VR programs on skating, passing and shooting skills of 10-12 year old hockey players. The experiment was conducted using such VR programs as Sense Arena and Ice Hockey VR. The results show that the use of VR has a positive effect on improving technical skills and decision-making speed in hockey players.*

Keywords: *virtual reality, hockey, interactive 3D applications, hockey training, VR technologies*

Современные технологии играют важную роль в обучении и развитии спортивных навыков у детей и подростков. Виртуальная реальность (VR) становится важным инструментом для тренировки хоккеистов, так как позволяет моделировать игровые ситуации, которые трудно воссоздать на обычных тренировках. Особое внимание уделяется юным хоккеистам, которые находятся на начальных этапах обучения. В этом возрасте важно не только развитие физических навыков, но и тренировка когнитивных способностей, таких как быстрая реакция и принятие решений.

Цель этого исследования — оценить, как использование интерактивных 3D-приложений в VR может помочь улучшить технические и тактические навыки хоккеистов 10-12 лет.

В последние годы VR-технологии получили широкое распространение в спортивной тренировке. Исследования показывают, что они положительно влияют на когнитивные и физические показатели спортсменов. Например, использование VR в баскетболе и футболе улучшает реакцию и стратегическое мышление у молодых игроков. В хоккее также наблюдается рост использования VR для обучения технике катания, бросков и пассов.

Sense Arena — одна из ведущих платформ, которая активно используется в хоккее для тренировки игровых ситуаций. Она позволяет игрокам отрабатывать точность пассов, бросков и технику катания в виртуальной среде. Некоторые авторы отметили, что *Sense Arena* способствует значительному улучшению техники передачи и бросков у хоккеистов молодежных команд.

Ice Hockey VR — еще одна VR-программа, предназначенная для моделирования игровых ситуаций. В исследовании T.Browna показали, что эта программа помогает хоккеистам развивать координацию и скорость принятия решений в игре.

В исследовании многих авторов было показано, что использование VR повышает когнитивные способности спортсменов, помогая им быстрее адаптироваться к изменяющимся игровым условиям. Это особенно важно для юных хоккеистов, которые только начинают разбираться в тактических аспектах игры.

В эксперименте приняли участие 5 молодых хоккеистов в возрасте от 9 до 10 лет. Все они регулярно тренировались в своих хоккейных клубах и имели базовые навыки катания и владения шайбой.

Для проведения эксперимента использовались VR-очки *Meta Quest Pro* и две специализированные VR-программы: *Sense Arena* и *Ice Hockey VR*. Эти программы моделировали игровые ситуации и предлагали хоккеистам тренировать технику катания, точность пассов и бросков в виртуальной среде.

Эксперимент длился 4 недели. В течение этого времени хоккеисты занимались 3 раза в неделю по 30 минут, используя VR-программы для

тренировки техники катания и владения шайбой. До начала эксперимента и по его завершении были проведены тесты для оценки следующих показателей:

1. Время прохождения дистанции в 30 метров на льду.
2. Точность передачи шайбы (измерялись метры передачи и время).

Для анализа эффективности были записаны результаты до и после эксперимента. Показатели времени катания и точности пассов были собраны и проанализированы в таблицах и диаграммах.

Таблица 1. Время прохождения дистанции 30 метров до и после эксперимента (секунды)

Участник	До эксперимента	После эксперимента	Процент улучшения
1	6.00	5.47	8.81%
2	5.88	5.28	10.14%
3	6.25	5.71	8.72%
4	5.78	5.37	7.08%
5	6.39	5.80	9.33%

Формула подсчета:

$$\text{Процент улучшения} = \frac{\text{Значение до эксп.} - \text{Значение после эксп.}}{\text{Значение до эксперимента}} \times \mathbf{100}\%$$

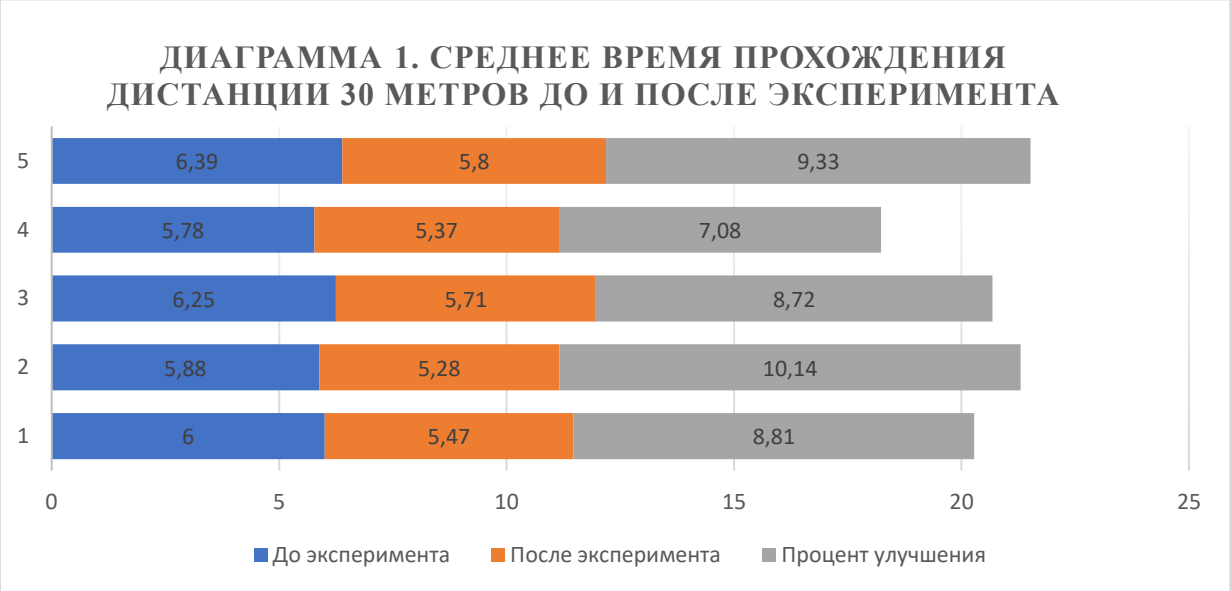


Таблица 2. Точность передачи шайбы (от 15 до 25 метрах)

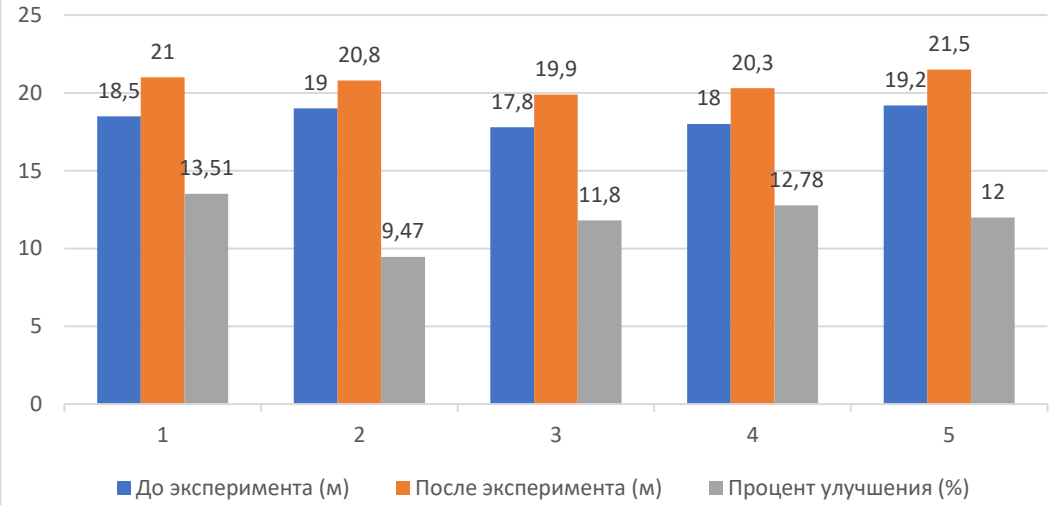
Участник	До эксперимента (м)	После эксперимента (м)	Процент улучшения
1	18.5	21.0	13.51%
2	19.0	20.8	9.47%
3	17.8	19.9	11.80%
4	18.0	20.3	12.78%
5	19.2	21.5	12.00%

$$\text{Среднее расстояние} = \frac{\text{Попытка } \mathbf{1} + \text{Попытка } \mathbf{2} + \cdots + \text{Попытка } \mathbf{n}}{\mathbf{n}} \times \mathbf{100}\%$$

Где:

- **Попытка 1, Попытка 2,…, Попытка n** — это расстояния, на которые игрок передавал шайбу в каждой попытке.
- **n** — количество попыток.

Таблица 2. Точность передачи шайбы (в метрах)



Результаты эксперимента показали значительное улучшение навыков катания и точности пассов и бросков после использования VR-программ. В среднем, время прохождения дистанции 30 метров сократилось на 9%, что свидетельствует о повышении скорости катания и лучшем контроле над движениями на льду. Улучшение точности пассов на 10-12% подтверждает, что VR-технологии могут эффективно развивать технику передачи шайбы даже в условиях, когда игроки не находятся на льду.

Интерактивные 3D-приложения, такие как *Sense Arena* и *Ice Hockey VR*, оказались особенно полезными для обучения тактическим навыкам и развитию когнитивных способностей, что важно для молодых хоккеистов на этапе начальной подготовки.

Выводы

Применение VR-технологий в тренировках хоккеистов 10-12 лет показывает значительный потенциал для улучшения их технических и когнитивных навыков. Интерактивные 3D-приложения могут стать важным инструментом в спортивной подготовке, позволяя моделировать сложные игровые ситуации и тренировать ключевые навыки вне льда. VR-программы, такие как *Sense Arena* и *Ice Hockey VR*, продемонстрировали высокую эффективность в развитии катания, пассов и бросков у молодых хоккеистов.

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ЭКОЛОГИЯ НЕМАТОД, РАСПРОСТРАНЕННЫХ В АГРОЦЕНОЗАХ ПШЕНИЦЫ ВОСТОЧНЫХ РАЙОНОВ СУРХОНДАРЬИНСКОГО ОАЗИСА

Аннотация. *В статье представлены сведения о распределении нематод, обнаруженных на растение пшеницы и её прикорневой почве, по 5 экологическим группам, согласно которым параризобионты-17 видов, девизапробионты-23, эусапробионты-5, фитогельминты неспецифического патогенного эффекта-34 и фитогельминты специфического патогенного эффекта-14 видов. Также приведены сведения о распределении видов фитонематод, по органам растений и прикорневой почве, относящихся к разным экологическим группам.*

Ключевые слова: *пшеничные агроценозы, фитонематоды, экологические группы, параризобионты, девисапробионты, эусапробионты, фитогельминты, распределение.*

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ECOLOGY NEMATODE, RASPROSTRANENNYX V AGROTSENOZAX PSHENITSY VOSTOChNYX RAYONOV SURKHANDARINSKOGO OAZISA

Abstract. *The article presents information on the distribution of nematodes found on a wheat plant and its root soil, according to 5 ecological groups, according to which pararhizobionts - 17 species, disaprobionts - 23, eusaprobionts - 5, phytohelminths of a nonspecific pathogenic effect - 34 and phytohelminths of a specific pathogenic effect - 14 types. Information is also given on the distribution of phytonematode species, according to plant organs and root soil, belonging to different ecological groups.*

Key words: *wheat agrocenoses, phytonematodes, ecological groups, pararhizobionts, devisaprobionts, eusaprobionts, phytohelminths, distribution.*

Текущий в день деревня ферма интенсивный разработка и день за днём число повысился идущий наша планета население хорошее качество и питательный еда продукты с предоставлять в мире самый это актуальная проблема стоит Мир шкала деревня ферма из растений съемный производительность на практике до 20-40% был часть другой вредители и болезни из-за теряется .

Научный из источников Известно , что это паразит фитонематоды под влиянием пшеница с завода 23-31% в США , 25-38% в Китае , 41-66% в Индии , 25-50% во Франции , 34-55% в России , 24-35% в Узбекистане производительность теряется . Мир шкала от 4100 на данный момент больше, чем паразит фитонематоды учился это деревня ферма их под влиянием на сумму 80-85 миллиардов долларов в год повреждать видел

Б. Угдай завода производительность увеличивать для их рост , развитие и производительность отрицательный эффект делатель другой заболевания , различные вредителей эффект обучение с один в соответствии в них паразитизм делатель фитонематоды определить научный и практичный важность тоже занятие достаточно

Исследовать материал и методы . В 2021–2022 годах были проведены масштабные фитогельминтологические исследования, в ходе которых собирались образцы почвы и корней пшеницы. Для сбора образцов и их анализа использовались современные методы, а результаты были детально изучены и широко проанализированы[1].

В нашей работе мы использовали вороночный метод Бермана для выделения фитонематод из почвы вокруг органов и корней растений [2].

При определении вида и рода фитонематод использовали тринокулярный микроскоп Н-300М, а также атласы фитонематод, подготовленные в «Институте систематики, экологии и эволюции нематод им. К.И. Скрябина» и «Проблемы экологии и эволюции им. А.Н. Северцова». Для анализа размеров фитонематод учёные применили формулу Де Мана (1880). [5].

Анализ и результаты . В результате исследования фитонематод, встречающихся в корнях пшеницы и окружающей почве, было выявлено: 3 младших класса, 8 отрядов, 9 малых серий, 13 крупных семейств, 23 семейства, 44 рода и 93 вида.

В условиях районов Сурхандарьинской области фитонематоды, обнаруженные вокруг растения пшеницы и его корней в почве, были определены в соответствии с классификацией А.А. Парамонова [3;4]. Эти фитонематоды, в зависимости от их питания, места обитания и стиля жизни, были распределены по экологической классификации. В соответствии с этой классификацией каждый вид фитонематод разделяется на 5 экологических групп: параризобионты, эусапробионты, девисапробионты, фитогельминты, не вызывающие заболеваний, и фитогельминты, вызывающие заболевания.

В агроценозах пшеницы в ходе исследований было выявлено распределение типов фитонематод по экологическим группам следующим образом: параризобионты – 17 видов (18,3% от общего числа типов фитонематод), 422 особи (1,7% от общего числа индивидуумов); девисапробионты – 23 вида (24,8%), 13 638 особей (56%); эусапробионты – 5 видов (5,3%), 1 088 особей (5%); фитогельминты, не вызывающие заболеваний – 34 вида (36,6%), 6 078 особей (26%); фитогельминты,

вызывающие заболевания – 14 видов (15%), 2 743 особи (11,3%). Данные представлены в Таблице 1.

Распределение фитонематод вокруг корней пшеницы и в почве следующее: в почве вокруг корней параризобионты – 17 типов, девисапробионты – 23 типа, эусапробионты – 5 видов, фитогельминты, не вызывающие заболеваний – 34 вида, фитогельминты, вызывающие заболевания – 14 видов.

Таблица -1

Экология видов фитонематод, выявленных в растении пшеницы группы в соответствии с распределение

Нет	**Экологический группы**	**Типы Число**	**%**	**индивидуальный с число**	**%**
1.	*Параризобионты*	17	18,2	422	1,7%
2.	*Девисапробионты*	23	25	13638	56%
3.	*Эусапробионты*	5	5.3	1088	5%
4.	*Болезнь причина без сказал фитогельминты*	34	36,5	6078	26%
5.	*Болезнь причина эмитент фитогельминты*	14	15	2743	11,3%
	Общий:	93	100	23969	100

Растение на листе слишком параризобионты не обнаружены, девисапробионты – 11 видов, эусапробионты – 1 вид, болезнь причина который не излучает фитогельминты – 6 вставать вызывающий болезнь излучает фитогельминты – 1 тип организовать сделал (табл. 2).

Таблица -2

Растение видов фитонематод, идентифицированных в растении пшеницы органы и экологический в почве группы в соответствии с распределение

Нет	**Экологический группы**	**Типы число**			
		Земля	**Корень**	**Корень**	**Лист**
1.	*Параризобионты*	17	5	-	-
2.	*Девисапробионты*	23	22	13	11

3.	*Эусапробионты*	5	5	1	1
4.	*Болезнь причина который не излучает фитогельминты*	34	31	9	6
5.	*Болезнь причина эмитент фитогельминты*	14	12	1	1
	Общий:	93	75	2 4	19

Заключение . Паропровод и его корни вокруг в почве включают 93 вида, в корнях – 75 видов, в стебле – 24 вида, на листьях – 19 видов. Встречены и сделаны соответствующие примечания.

Определение фитонематод по типам экологических групп согласно классификации показало, что наибольшее количество видов относится к группе фитогельминтов, не вызывающих заболеваний (34 вида). Меньшее количество видов было зафиксировано среди эусапробионтов (5 видов). Примечание: фитогельминты, не вызывающие заболеваний, преобладают среди других групп по численности.

Частные лица, согласно наблюдениям, показывают, что наибольшее количество индивидуумов встречается среди девисапробионтов (13 638 особей). Меньшее количество особей было зафиксировано среди группы параризобионтов (422 индивидуумов). Примечание: девисапробионты преобладают по численности среди других групп.

Выше данный информация на основе без нематод классификация на основе их растения с трофический отношение с население плотности увеличивать или в уменьшении не только босс организм возможно абиотический окружающей среды слишком важно.

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ТАКСОНОМИЧЕСКИЙ АНАЛИЗ НЕМАТОД, ВЫЯВЛЕННЫХ В РАСТЕНИЯХ ПШЕНИЦЫ НА ЮГЕ УЗБЕКИСТАНА

Аннотация. *В статье приведены сведения об исследованиях видового разнообразия и распространения фитонематод, обнаруженных в органах растений и прикорневой почве пшеницы. В результате исследований в органах растений и прикорневой почве пшеницы зарегистрировано 93 видов фитонематод, относящихся к 3 подклассам, 8 родам, 9 подродам, 23 семействам и 44 родам.*

Ключевые слова: *пшеница, виды, фитонематоды, распространение, корневые паразитические нематоды, видовое разнообразие.*

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TAXONOMIC ANALYSIS OF NEMATODES IDENTIFIED IN WHEAT PLANTS IN THE SOUTHERN OF UZBEKISTAN

Abstract. *The article presents information on studies of the species diversity and distribution of phytonematodes found in plant organs and root soil of wheat. As a result of studies, 93 species of phytonematodes belonging to 3 subclasses, 8 genera, 9 subgenera, 23 families and 44 genera were registered in plant organs and root soil of wheat.*

Keywords: *wheat, species, phytonematodes, distribution, root parasitic nematodes, species diversity.*

Сегодня защита культурных растений от различных вредителей и болезней, выявление вредящих им организмов и разработка мер борьбы с ними является одной из наиболее актуальных проблем в современном мире. В связи с этим важно выявить особенности адаптации организмов-вредителей, особенно паразитических нематод, к новым условиям среды.

Б. Угдай завода производительность негативно влияет на их рост, развитие и продуктивность эффект делатель другой болезни, различные вредители эффект обучение с один в соответствии в них паразитизм делатель Идентификация фитонематод имеет научное и практическое значение. занятие достаточно.

Материалы и методы исследования. С целью исследования почвенные фитонематоды корней и околокорневых растений пшеницы в 8 районах Сурхандарьинской области, Шерабаде , Ангоре , Термезе, Музработ , Кызырик

, Бойсун , Джаркурган и Банди Хан из посевов пшеницы в районах был выбран. Исследование проводилось в период с 2021 по 2023 год.

При сборе проб почвы вокруг корня растения пшеницы использовали маршрутный метод, принятый и широко принятый большинством исследователей в области фитогельминтологии [1,2].

В нашей работе мы использовали вороночный метод Бермана для выделения фитонематод из почвы вокруг органов и корней растений [1,2].

Растение разделяли на корневую, стебельную и листовую части, промывали водопроводной водой, после чего части растения разрезали ножницами на куски длиной 0,5 см и взвешивали указанное количество (20 г). На воронку надевали резиновую трубку, на ее дно ставили пробирку и наливали в нее чистую воду. После этого на воронку устанавливали медное сито, а затем каждый образец помещали в молочный фильтр и помещали в воронку. Это особенное также использовались сита. После того, как образцы были помещены в воронку, на каждом образце было указано, где, когда и из какой части растения он был взят.

Фитонематоды из растения и почвы в воду и в пробирку будут собраны. Поскольку образцы были помещены в летнее время, через 24 часа пробирку вынимали, сжимая вручную резиновую трубку, вставленную в воронку. Часть воды в пробирке удаляли пипеткой, заменяли 4-процентным раствором формалина и помещали в рот пробку. Некоторые зафиксированы формалином тело фитонематод может стать искривленным и искривленным .

Чтобы вернуть его в исходное состояние, пробирку нагревают до 50-55 ∘ C. помещали в ванну с горячей водой. После этого с целью определения видов фитонематод и выяснения их количества фитонематоды из пробирки высыпали в чашку Петри и помещали под микроскоп . Когда фитонематоды наблюдаются живыми, их строение тела и морфологические особенности лучше, чем когда они фиксированы. Для приготовления постоянного препарата мы использовали метод Сейнхорста. В этом случае фитонематоды прикрепляются к часовому стеклу специальной иглой, 4- В дистиллированную воду добавляли 5 капель. После сбора добавляют 4 капли первой смеси (20% спирта, 1% глицерина, 79% дистиллированной воды) для осветления фитонематод, 20-30 C ° li term ost лошади помещали на 24 часа. Термостат помогает испарять спирт и воду. Через 24 часа его обработали второй смесью (95% спирт, 5% глицерин) капали и снова помещали в термостат при 20-30°C на 2-3 часа.

Определение вида и пола фитонематод. H -300 M Тринокулярный модель (МД 101.5.0 M , 11 экранов) по микрокопии , из атласов фитонематод, подготовленных в Институте систематики, экологии и эволюции нематод им. К. И. Скрябина и «Проблемы экологии и эволюции им. А. Н. Северова» использовали [3,4]. Большинство ученых в принятии размеров фитонематод использовалась формула Де Мана (1880), принятая в [5].

Полученный результаты и их анализ

Исследовать в результате в почве вокруг растения пшеницы и корнях обнаруживаются фитонематоды. 3 подкласса, 8 родов, 9 подотрядов, 13 надсемейств, 23 семья, 44 поколение 93 принадлежит к виду.

Наш в Энопли в наших материалах в сериал о 2 та вставать В Мононши 3 вида относятся к роду Dorylaimida 10 видов относятся к роду Monhysterida в сериал о 1 та вставать Плектида в сериал о 2 та вставать В рабдите в сериал о 28 та вставать В Афеленчи в сериал о 18 та вставать и к роду Tylenchida 29 около вид был полон решимости.

Стол - 1

Виды фитонематод, выявленные в растении пшеницыкатегории в соответствии с распределение

Нет	**Категории**	**Типы число**	**%**	**индивидуальный с число**	**%**
1.	*в Энопле*	2	2.1	11	0,04
2.	*В Мононши*	3	3.3	56	0,23
3.	*В Дорилаими*	10	10,8	297	1.22
4.	*В Монхистери*	1	1.07	37	0,15
5.	*Плектида*	2	2.1	27	0,11
6.	*В рабдите*	28	30,2	14726	60,6
7.	*В Афеленчи*	18	19,3	5489	22,6
8.	*В Тыленчи*	29	31.13	3627	15,5
	Общий:	93	100	24270	100

В результате исследований выделено 3 подкласса, 8 родов, 9 подродов, 13 больших семейств, 23 семья, 44 поколение 93 все виды фитонематод был полон решимости .

Наш в наших материалах Аденофория младший класс 3 семейства Tripyloidina, Mononchina, Dorylaimida . собственный в берет в Энопле категория собственный в свою очередь 1 младший категория (Трипилоидины), 1 большой семейство (Tripyloidea), 1 семейство (Tripylidae), 1 младший семейство (Tripylinae) 2 родов (Trischistoma, Tobrilus) и 1 вида (общ. 2,1 % видов) в берет

В Тыленчи категория собственный по очереди на 2 младше род (Tylenchina , Criconematina), 4 крупных семейство (Tylenchoidea , Hoplolaimoidea , Criconematoidea , Anguinoidea), 6 семейств (Tylenchidae , Dolichodoridae , Psilenchidae , Hoplolaimidae , Pratylenchidae , Anguinidae), 9 подсемейств семейство (Tylenchinae , Tylenchorhynchinae , Merliniinae , Psilenchinae , Rotylenchoidinae , Pratylenchinae , Radopholinae , Anguininae , Nothotylenchinae), 16 родов (*Tylenchus , Filenchus , Lelenchus , Aglenchus , Tylenchorhynchus , Bitylenchus , Merlinius , Psilenchus) , Геликотиленх , Pratylenchus , Pratylenchoides , Paratylenchus , Scytaleum , Neotylenchus ,*

Ditylenchus , Nothotylenchus) и 29 видов (всего видов 31,13 % вн) собственные в берет

Исследовать брать шел районы условия пшеница на заводе определенный фитонематод люди число категории в соответствии с следующее распределено: в Энопле в сериал о 11 та индивидуальный, 56 особей относятся к роду Mononchida, 297 — к роду Dorylaimida. та особь, 37 особей, принадлежащих к семейству Monhysterida, к семейству Plectida о 27 та индивидуальный, В рабдите в сериал о 14726 та индивидуальный, 5489 особей, принадлежащих к роду Aphelenchida. и принадлежащий к роду Tylenchida 3627 человек встретился

Заключение . На основании полученных результатов можно сделать следующие выводы :

Найдены фитонематоды 3 подкласса, 8 родов, 9 подотрядов, 13 надсемейств, 23 семья, 44 поколение 93 тип был полон решимости .

Tylenchida была доминирующей группой по выявленным видам , насчитывающей 29 видов, а наименьшее количество видов было обнаружено у Monhysterida , т.е. 1 вид.

Определенный видов люди число с точки зрения самый много В рабдите в сериал о 14726 та индивидуальный , англ. меньше В Дорилаими и в Энопле по категориям о 11 та индивидуальный встреча примечание сделано

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ЧЕТ-ЭЛ ИНВЕСТИЦИЯЛАРИНИ МАМЛАКАТ ЯЛПИ ИЧКИ МАҲСУЛОТИНИНГ ЎСИШИДАГИ АҲАМИЯТИ

Аннотация: *Ушбу мақолада Осиё, Африка ва Лотин Америкасидаги ривожланаётган мамлакатларнинг жаҳон ялпи ички маҳсулотидаги улуши ва тўпланган тўғридан-тўғри инвестициялар улуши ва кўрсаткичларининг нисбий динамикаси кўриб чиқилади. Шунингдек ушбу динамикани таҳлил қилиш асосида кўриб чиқилаётган мамлакатларда иқтисодий ўсишида инвестицияларнинг таъсир тавсифи берилган.*

Калит сўзлар: *Ривожланаётган мамлакатлар, ялпи ички маҳсулот (ЯИМ), тўғридан-тўғри хорижий инвестициялар, савдо, сотиқ, товар айланмаси, иқтисодиёт, ички бозор.*

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EVEN THE COUNTRY'S INVESTORS STRESSED THE IMPORTANCE OF YALPI IN THE PRODUCTION OF PRODUCTS

Annotation: *This article examines the share of developing countries in Asia, Africa and Latin America in the world gross domestic product and the relative dynamics of the share and indicators of accumulated direct investment. Also, based on the analysis of these dynamics, a description of the impact of investments on economic growth in the countries under consideration is given.*

Key words: *Developing countries, gross domestic product (GDP), foreign direct investment, trade, sales, turnover, economy, domestic market.*

Жаҳон иқтисодиётининг қиёфаси динамик равишда ўзгариб бормоқда. Эътиборга молик тенденциялардан бири шундаки, сўнгги ўн йилликларда иқтисодий ўсиш марказлари ва тўғридан-тўғри инвестицияларнинг тортишиш марказлари тобора ривожланаётган мамлакатларга, айниқса Осиёга кўчиб ўтди. Бу ривожланаётган мамлакатларнинг глобал ялпи ички маҳсулотдаги улуши ва глобал ички тўғридан-тўғри инвестиция заҳиралари сезиларли даражада ошишига олиб келди. Бундан ташқари, турли мамлакатларда ушбу икки кўрсаткичнинг динамикаси жуда фарқ қилади.

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишидаги ролини баҳолаш учун иккита кўрсаткичнинг динамикасини

солиштириш муҳимдир - мамлакатнинг жаҳон ялпи ички маҳсулотидаги улуши ва унинг глобал миқёсдаги улушлари билан белгиланади [1]. Шубҳасиз, иккита номланган динамика ўртасидаги муносабатларнинг олтита варианти бўлиши мумкин:

A. "Жаҳон ялпи ички маҳсулоти улушининг ўсиш суръати жаҳон улушининг ўсиш суръатидан юқоридир".

B. “Жаҳон ялпи ички маҳсулоти улушининг ўсиш суръати жаҳон ялпи ички маҳсулоти улушининг ўсиш суръатидан паст”.

C. “Жаҳон ялпи ички маҳсулотидаги улушнинг ортиб бориши ва жаҳон НДПИИдаги улушнинг пасайиши”.

E. "Жаҳон ялпи ички маҳсулоти улушининг пасайиши ва глобал улушининг ошиши".

D. "Жаҳон ялпи ички маҳсулоти улушининг пасайиш даражаси глобал улушининг пасайиш тезлигидан камроқ".

F. “Жаҳон ялпи ички маҳсулоти улушининг пасайиш суръати жаҳон миқёсидаги улушининг пасайиш суръатидан каттароқдир”.

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишида хорижий капитал қандай умумий рол ўйнаганлиги масаласига тўхталиб ўтишга имкон беради.

А гуруҳида хорижий капиталнинг қабул қилувчи мамлакатлар иқтисодиёти билан интеграцияси мавжуд. Бунда тўғридан-тўғри хорижий инвестициялар ҳам ички, ҳам ташқи бозорда муваффақиятли фаолият юритувчи ва шу билан бирга, бир томондан маҳаллий ресурслардан (хом ашё, бутловчи буюмлар, ишчи кучи ва бошқалар) фаол фойдаланадиган корхоналарни яратишга олиб келади. бошқа, маҳаллий бизнес муҳитига технологиялар, ноу-хау ва ваколатларни узатишни амалга ошириш.

В гуруҳида хорижий капитал миллий иқтисодиётга камроқ интеграциялашган бўлиб, у мезбон мамлакатни минтақада кенгайиш платформаси сифатида ишлатишдан ёки глобал қиймат занжирларида ўз ресурсларидан фойдаланишдан кўпроқ манфаатдор. Шунга қарамай, ушбу вариант ривожланаётган мамлакатлар учун ҳам қимматлидир, чунки бу уларга инвестиция маркази стратегиясидан фойдаланиш ва халқаро капитал миграциясидан фойда олиш имконини беради.

С гуруҳи мезбон иқтисодиёт ўз салоҳияти асосида кўпроқ ривожланадиган ривожланиш вариантини ифодалайди. Шу билан бирга, хорижий капитал аста-секин инвестиция марказлари ролини ўйнайдиган рақобатбардош мамлакатларга ёъналтирилади, бунинг натижасида маълум бир мамлакатда тўғридан-тўғри хорижий инвестициялар тўпланиши тўхтатилади.

D гуруҳида вазият қайсидир маънода аксинча. Бу ерда мезбон иқтисодиёт ўзининг ўсиш потенциалида дефицитни бошдан кечиради. Чет эл капитали у билан ёмон интеграциялашган ва минтақавий кенгайиш ва глобал қиймат занжирларига эътибор беришни афзал кўради.[2]

E гуруҳи салбий вариант билан тавсифланади, бунда мезбон иқтисодиёт ўзининг инвестицион жозибадорлигини (нисбатан ёки баъзи ҳолларда ҳатто мутлақо) йўқотади. Унинг ички салоҳияти жаҳон ўртача даражасидан паст ва шунинг учун фақат улушнинг пасайишини секинлаштириши мумкин. Шу билан бирга, хорижий капитал узоқ муддатли фойдали инвестиция соҳаларини топа олмайди ва илгари қўйилган маблағларни қисман олиб чиқиб, янги тўғридан-тўғри инвестицияларни камайтиради.

F гуруҳи жуда аниқ; унда ривожланаётган мамлакатлар деярли йўқ. Ушбу гуруҳга киритилган бир неча ривожланган давлатлар паст ўсиш суръатларини (жаҳон ўртача даражасидан паст) кўрсатмоқда, бироқ бир қатор тармоқларда инвестиция жозибадорлигини сақлаб қолишмоқда. Шу сабабли, уларнинг глобал миқёсдаги улушининг пасайиши жаҳон ялпи ички маҳсулотидаги улушининг пасайишига қараганда секинроқдир.

Чет-эл инвестицияларининг кириб келиши сезиларли даражада ва баъзи ҳолларда қабул қилувчи мамлакатнинг инвестицион муҳити томонидан ҳал қилувчи таъсир кўрсатади. Кирувчи тўғридан-тўғри инвестицияларнинг ички ёки ташқи (минтақавий ва глобал) йўналиши нуқтаи назаридан инвестиция муҳитининг таъсири икки томонлама эканлигини ҳисобга олиш керак. Қуйида биз ўн компонентдан иборат бўлган инвестиция муҳити моделидан фойдаланамиз: бозор ҳажми, иқтисодий очиқлик, инфратузилма, меҳнат ресурслари сифати, меҳнат харажатлари, инвестицияларни ҳимоя қилиш, рисклар, молия бозорини ривожлантириш, солиқ юки, тартибга солиш муҳити билан белгиланади.

Инвестицион муҳитнинг ички бозор ҳажми ва иқтисодиётнинг очиқлиги каби таркибий қисмлари, асосан, ички талаб ва миллий иқтисодиёт билан интеграциялашувга йўналтирилган тўғридан-тўғри инвестицияларни жалб қилади. Шу билан бирга, бошқа компонентлар, масалан, тартибга солиш муҳитининг сифати ва солиқ юкининг ҳажми, қабул қилувчи мамлакатда инвестиция марказини яратиш мақсадида амалга оширилган хорижий инвестицияларни кўпроқ жалб қилиши мумкин (яъни. минтақавий ва глобал кенгайиш учун платформа).[3]

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишидаги айрим таркибий қисмлари тўғридан-тўғри инвестицияларни ички талаб ва ташқи талабга йўналтириш учун деярли бир хил аҳамиятга эга. Булар инфратузилма, меҳнат ресурслари сифати ва меҳнат харажатлари киради. Ҳатто қулай инвестиция муҳитининг умумий даражаси бўйича бир-бирига яқин бўлган мамлакатлар ҳам унинг алоҳида таркибий қисмларида кучли фарқларга эга бўлиши мумкин. Шунинг учун ҳар бир мамлакатда инвестиция муҳитининг ички ва ташқи ёъналишига таъсири ўзига хосдир.

Хорижий инвестицияларнинг қабул қилувчи мамлакатлар иқтисодиёти билан ўзаро алоқаси бошқача характерга эга бўлиши мумкин. А гуруҳига кирувчи мамлакатлар муҳим ички ўсиш потенциалининг мавжудлиги ва хорижий капитал учун жозибадорлиги билан тавсифланади. Бу энг кўп яратади миллий иқтисодиётнинг тўғридан-тўғри хорижий инвестициялар

билан ўзаро таъсири учун қулай шароитлар. Бундай ўзаро таъсирнинг оптимал варианти шундаки, жалб қилинган хорижий капитал миллий такрор ишлаб чиқаришга қўшилиб, иқтисодий ўсиш катализатори ролини ўйнай бошлайди. Ўз навбатида, иқтисодий ўсиш суръатларининг ошиши мамлакатнинг жозибадорлигини янада оширади ва тўғридан-тўғри хорижий инвестициялар оқимининг кейинги тўлқинини келтириб чиқаради.[4]

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишга (яъни, жаҳон ялпи ички маҳсулотидаги улушнинг ҳам, жаҳон тўғридан-тўғри инвестицияларидаги улушнинг ҳам ўсишига) эмас, балки иқтисодий ўсиш суръатларининг тўғридан-тўғри тўпланиш тезлигидан тезроқ бўлишига олиб келади. Бундай сценарий миллий иқтисодиётлар учун фойдалидир, аммо таърифига кўра, ҳамма мамлакатлар ҳам буни амалга ошира олмайди. Шундай қилиб, Осиёдаги 38 та давлатдан 9 таси А гуруҳига, Африкадаги 54 та давлатдан 11 таси, Лотин Америкасидаги 20 та давлатдан 4 та давлатга мансуб ҳисобланади.

Хитой А гуруҳига мансубликнинг энг яққол мисолидир. 2000-2016 йиллар учун. Осмон империяси жаҳон ялпи ички маҳсулотидаги улушини тўрт баравардан кўпроқ ва глобал миқёсдаги улушини деярли икки баравар оширди. Шунга кўра, унинг иқтисодий ўсиш суръатларининг тўғридан-тўғри инвестицияларни тўплаш суръатига нисбатан илгарилаш коэффитсиэнти 2 дан ошди. Умумий инвестиция муҳити индекси 10 балли шкала бўйича 6,85 балл билан Хитойда "ички бозор ҳажми" максимал қийматга эга - 10 балл. Айнан ушбу компонентнинг устунлиги туфайли Хитой мезбон иқтисодиёт билан ўзаро муносабатларга ёъналтирилган тўғридан-тўғри хорижий инвестициялар учун кучли жалб қилишни таъминлай олди.[5]

Чет-эл инвестиция муҳитининг яна бир компоненти – иқтисодий очиқлик – Ўрта Қиролликда 5,8 пункт қийматига эга (бу мамлакатдаги умумий инвестиция муҳити индексидан паст). Қолган саккиз компонент баҳолаш даражаси жиҳатидан бир-биридан унчалик фарқ қилмайди; бундан мустасно, тўғридан-тўғри инвестицияларни жалб қилиш учун ҳали ҳам қулай бўлган меҳнат харажатлари компонентидир. Сўнгги йилларда Хитойда иш ҳақи сезиларли даражада ошди. Шуни эътироф этиш керакки, Хитой мамлакат тараққиёти манфаатларидан келиб чиқиб, хорижий капитал билан муносабатларни моҳирлик билан йўлга қўйган. Бу Хитой томони ўзининг улкан бозорини тўғридан-тўғри хорижий инвестициялар иштирокидаги корхоналарга очиб, эвазига энг илғор технологияларни олишга интилишида намоён бўлди. Ушбу технологиялар тезда тарқалди ва баъзи ҳолларда ҳатто хитойлик мутахассислар томонидан сезиларли даражада яхшиланди. Шундай қилиб, инновация ва технологик ривожланишга асосланган иқтисодий ўсишнинг замонавий тури шакллантирилди ва сақланиб қолди.

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишига яна бир мисол Нигерия давлатидир. Бу мамлакатнинг жаҳон ялпи ички маҳсулотидаги улушининг ўсиш суръати Хитойникидан бир оз пастроқ эди, аммо унинг глобал миқёсдаги улушининг ўсиши сезиларли даражада паст эди.

Натижада, Нигерияда этакчи даражаси муҳим қийматга етди - 3,5. Бу Нигерия иқтисодиёти иқтисодий ўсиш ва тўғридан-тўғри инвестициялар тўпланишини кўпайтириш билан муваффақиятли ўзаро алоқада эканлигини англатадими? Баъзи хорижий тадқиқотлар буни тасдиқлади. Шундай қилиб, шундай тадқиқотлардан бири 1981-2014 йиллар давомида Нигерияга хорижий капитал оқими ва иқтисодий ўсиш ўртасидаги муносабатларни ўрганиб чиқди. Тода-Яма-мото неденселлик тести методологиясидан фойдаланган ҳолда ушбу тадқиқот икки томонлама сабаблиликни кўрсатди.

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсиши бўйича Лотин Америкасида Гватемала қизиқарли мисолдир. 2006-2014 йиллар учун ички тўғридан-тўғри инвестициялар таркиби бўйича мавжуд маълумотлар, қайта инвестиция қилинган фойда каби таркибий қисмнинг барқарор ва жуда муҳим устунлигини кўрсатди. Бу даврда тўғридан-тўғри хорижий инвестициялар оқими 8,46 млрд долларни ташкил этди ва бу ҳажмдаги қайта инвестиция қилинган фойда улуши 66,5% ни ташкил этди. Ушбу маълумотлар Гватемала миллий иқтисодиёт ва хорижий капиталнинг ўзаро таъсири энг самарали бўлган А гуруҳининг ўзига хос хусусиятларини намойиш этишини кўрсатади. Дарҳақиқат, катта миқдордаги фойдани қайта инвестиция қилиш учун ушбу фойдани олиш керак, бу тўғридан-тўғри тўғридан-тўғри инвестицияларни қабул қилувчи мамлакатнинг шароитлари ва иқтисодий ривожланиш салоҳиятига боғлиқ. Гватемалага тўғридан-тўғри хорижий инвестициялар асосан Қўшма Штатлар, Канада, Мексика ва Колумбиядан келади, аммо 2012-йилдан буён катта миқдордаги тўғридан-тўғри хорижий инвестициялар Россиядан келган.[6]

Осиёда “А” гуруҳи: Хитой, Лаос ПДР, Мянма, Филиппин, Вьетнам, Покистон, Шри-Ланка, Баҳрайн, Ливан.

Африкада А гуруҳига: Миср, Гвинея-Бисау, Нигерия, Серра-Леоне, Бурунди, Камерун, Чад, Экваториал Гвинея, Танзания, Ангола, Замбия киради.

Лотин Америкасида А гуруҳига: Гаяна, Парагвай, Гватемала, Панама киради.

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишининг аванс коэффициенти жуда кенг доирада ўзгариб туради. Шунинг учун, баъзи мамлакатлар (қўрғошин коэффициенти бирдан бир оз каттароқ) фақат расмий равишда А гуруҳига киради.

Б гуруҳи: минтақавий ва глобал йўналиш-ушбу гуруҳда мамлакатнинг глобал миқёсидаги улушининг ўсиши унинг жаҳон ялпи ички маҳсулотидаги улушининг ўсишидан устундир. Умуман олганда, бу ҳолат хорижий капитал мамлакатни биринчи навбатда минтақавий кенгайиш платформаси ёки глобал қиймат занжирлари ва капитал оқимларининг бўғини сифатида фойдаланиш нуқтаи назаридан жозибадор деб топишини англатади. Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишига яна бир яхши мисол – Сингапур давлатидир. Сингапур 2000-2016 йилларда унинг жаҳон ялпи ички маҳсулотидаги улуши глобал миқёсидаги улушининг ярмига ўсди.[7] Сингапурнинг тўғридан-тўғри хорижий инвестициялар учун

жозибадорлиги қисман унинг мукаммал инвестицион муҳити, балки минтақадаги стратегик жойлашуви (коммуникация ва транспорт йўллари марказида) билан ҳам боғлиқ. Мамлакат узоқ вақтдан бери минтақавий ва глобал миқёсда ишлаб чиқариш занжирлари қуриладиган ва капитал оқимлари қайта тақсимланадиган минтақавий марказ ролини муваффақиятли ўйнади.

Африкада В гуруҳидаги давлатлардан бири Марокаш ҳисобланади. Бу мамлакатда жаҳон ялпи ички маҳсулоти ва тўғридан-тўғри инвестициялар улушининг ўсиш суръати Сингапурга қараганда сезиларли даражада паст бўлиб, иқтисодий ўсиш суръати ва тўғридан-тўғри инвестицияларни тўплаш суръати ўртасидаги кечикиш камроқ сезилади. Бироқ, бу ерда ҳам хорижий капиталнинг минтақавий операцияларга ёъналтирилганлиги сезилади. Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг 44 фоизи унинг икки энг яқин Ўрта ер денгизи қўшнилари - Франция (34 фоиз) ва Испания (10 фоиз) га тўғри келишида намоён бўлади. Бошқа томондан, мамлакатнинг 2020 йилгача саноатни жадаллаштириш режасида "стратегия барча иқтисодий операторларни ... Марокашнинг қитъада халқаро инвестициялар учун дарвоза сифатидаги мавқеини мустаҳкамлаш учун Африка давлатлари билан ҳамкорлик даражасини оширишга чақиради" деб аниқ таъкидланган. Бошқача қилиб айтганда, Марокаш стратегияси мамлакатни тўғридан-тўғри хорижий инвестициялар учун минтақавий марказ сифатида ривожлантиришни аниқ тан олади ва муҳим мақсад сифатида қабул қилади. Шуни таъкидлаш мумкинки, халқаро тўғридан-тўғри инвестициялар оқимида бундай ролни кучайтиришга уриниш В гуруҳига кирувчи давлат учун табиийдир.

Осиёда 19 та давлат В гуруҳига киради: Жанубий Корея, Монголия, Камбоджа, Индонезия, Сингапур, Таиланд, Бангладеш, Бутан, Ҳиндистон, Эрон, Малдив ороллари, Непал, Иордания, Қувайт, Уммон, Қатар, Саудия Арабистони, Туркия, БАА.[8]

Африкада В гуруҳига 23 та давлат киради: Жазоир, Марокаш, Судан, Бенин, Буркина-Фасо, Кабо-Верде, Гана, Гвинея, Мали, Мавритания, Нигер, Сенегал, Того, Конго, Руанда, Комор ороллари, Жибути, Эфиопия, Кения, Мадагаскар , Маврикий, Сейшел ороллари, Уганда.

Лотин Америкасида В гуруҳида 7 та давлат бор: Бразилия, Чили, Колумбия, Перу, Уругвай, Коста-Рика, Никарагуа.

С гуруҳи: ички жамғариш манбаларининг устуворлиги етакчи А ва В гуруҳлари битта ижобий "икки марта ўсиш" сценарийсининг иккита вариантини ифодалайди. Кейинги С ва D гуруҳлари жуфтлиги кўпроқ қарама-қарши сценарийни тавсифлайди, бунда иккита кўрсаткичдан бири ўсиб боради, иккинчиси эса пасаяди. С гуруҳида мамлакатнинг жаҳон ялпи ички маҳсулотидаги улуши ўсиб бормоқда, аммо унинг жаҳон миқёсидаги улуши пасаймоқда. С гуруҳи нисбатан кичик. Осиёда Малайзия ва Яман, Африкада Кот-Деуар, Либерия, Ботсвана, Лесото, Малави, Намибия ва Зимбабве, Лотин Америкасида Боливия ва Эквадор киради.

Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсиши бўйича Е гуруҳига кирувчи мамлакатларда жаҳон НДПИИ улуши ортиб бормоқда, лекин жаҳон ЯИМдаги улуши пасаймоқда. Бу жуда кичик гуруҳ ва Осиёда кўриб чиқилаётган кўрсаткичларнинг бундай динамикасига эга мамлакатлар ёқ. Африкада Е гуруҳига Марказий Африка Республикаси, Конго Демократик Республикаси ва Мозамбик, Лотин Америкасида Белиз, Салвадор ва Мексика киради. Мисол тариқасида Мозамбикни олайлик. Мамлакат тўғридан-тўғри инвестицияларни жалб қилиш бўйича кам ривожланган давлатлар орасида рекордчи ҳисобланади. Бунда мега-лойиҳалар ҳал қилувчи рол ўйнади: аввал Мозал алюминий заводи, кейин эса тоғ-кон саноатидаги мега-лойиҳалар. Табиийки, ушбу мега-лойиҳалар ташқи бозорларга йўналтирилган эди, шунинг учун уларнинг мамлакат ялпи ички маҳсулотига қўшган ҳиссаси миллий иқтисодиётнинг ўсишига каталитик таъсир кўрсатмади. Бу эрда тўғридан-тўғри инвестициялар иқтисодий ривожланишнинг анклав ҳудудларини ташкил қилади. Шу боис, иқтисодий ўсиш манфаатларидан келиб чиқиб, мегалойиҳаларни миллий иқтисодиёт билан кўпроқ боғлиқ бўлган кичикроқ лойиҳалар билан тўлдириш зарур.

Е гуруҳида чет-эл инвестицияларини мамлакатнинг жаҳон ялпи ички маҳсулотидаги улуши ҳам, жаҳон ялпи ички маҳсулотидаги улуши ҳам пасайиб бормоқда, аммо охирги кўрсаткич биринчисига қараганда тезроқ пасайиб бормоқда. Осиёда бу гуруҳга Бруней Даруссалам, Африкада - Тунис, Гамбия, Жанубий Африка ва Свазиленд, Лотин Америкасида - Аргентина киради. 2000-2016 йиллар давомида, Бруней Даруссалом ЯИМ ва ЯИМда ўртача (жаҳон ўртача кўрсаткичидан паст) ўсиш суръатларини кўрсатди ва шунинг учун унинг шунга ўхшаш глобал кўрсаткичлардаги улуши камайди.[9] Ушбу кичик давлат мисоли шуни кўрсатадики, халқаро меҳнат тақсимотида истиқболли ўринни топиш ва катта миқдордаги тўғридан-тўғри хорижий инвестицияларни жалб қилиш осон эмас. Ва ҳатто дастлаб муваффақиятга эришган мамлакатлар, масалан, Жанубий Африка, келажакда муаммоларга дуч келиши мумкин.

F гуруҳи: ижобий аҳамиятсизлик ва ниҳоят, гуруҳи - бу эрда чет-эл инвестицияларини мамлакат ялпи ички маҳсулотидаги улуши жаҳон миқёсидаги улушидан тезроқ тушади. Осиё ва Африкада бундай давлатлар йўқ. Лотин Америкаси ва Кариб ҳавзасида, кичик Доминика бундан мустасно. Е гуруҳига саноат ривожланган мамлакатлар киради: Финляндия, Италия, Нидерландия, Португалия ва Буюк Британия. Иқтисодий ўсиш ва инвестициялар марказларини ривожланаётган мамлакатларга (айниқса, Осиё) кўчиришнинг глобал жараёни бир қанча юқори ривожланган мамлакатларнинг орқада қолиб кетишига олиб келди.[10]

Хулоса қилиб айтганда чет-эл инвестицияларини Осиё, Африка ва Лотин Америкаси мамлакатларини иккита асосий кўрсаткичнинг нисбий динамикасига қараб гуруҳларга тақсимлашни кўриб чиқиш эди - уларнинг жаҳон ялпи ички маҳсулотидаги улуши ва жаҳон миқёсидаги тақсимотнинг таҳлили шуни кўрсатдики, номлари келтирилган мамлакатларнинг аксарияти

асосий кўрсаткичлар бўйича ижобий динамикага эга бўлган гуруҳларга тегишли (А гуруҳи - 24 мамлакат, В гуруҳи - 49 мамлакат). Оралиқ ёки ўтиш гуруҳларига сезиларли даражада камроқ мамлакатлар киритилган бўлиб, улар бирининг кўпайиши ва бошқа асосий кўрсаткичнинг пасайиши (С гуруҳи - 11 мамлакат, Е гуруҳи - 6 мамлакат). Иккала асосий кўрсаткичнинг ҳам салбий динамикасига эга бўлган давлатлар камроқ (Е гуруҳи - 6 мамлакат, В гуруҳи - 1 мамлакат).

Шунингдек олинган маълумотлар шуни кўрсатадики, Осиё, Африка ва Лотин Америкасининг аксарият мамлакатлари ўсиш ва инвестиция марказларини ривожланаётган мамлакатларга кўчириш глобал жараёнининг иштирокчилари бўлиб, улардан 24 таси (А гуруҳи) одатда ўзаро муносабатларнинг энг мақбул сценарийсини амалга оширадилар. Шу билан бирга, бошқа 24 давлат (С, Е, F, В гуруҳлари) асосий кўрсаткичларнинг қарама-қарши ёки салбий динамикасини намоён этади, бу уларнинг тўлиқ иштирок этмаётганлигини, баъзилари эса ҳатто глобал миқёсда умуман иштирок этмаётганлигини кўрсатади. Чет-эл инвестицияларини мамлакат ялпи ички маҳсулотининг ўсишидаги аҳамиятидан келиб чиқиб, давлат юксалиш сари қадам қўйиши шубҳасиздир.

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РЕСПУБЛИКА СУВ РЕСУРСЛАРИДАН ФОЙДАЛАНИШ, УНИНГ АҲАМИЯТИ ВА МОҲИЯТИ

Аннотация: *Сув — табиатнинг энг қимматбаҳо ресурсларидан бири бўлиб, биотизимдаги моддалар алмашинуви жараёнларида муҳим рол ўйнайди. Сув ҳар доим ва ҳар вақтда биотизимнинг муҳим қисмини ташкил этиб, инсонларнинг яшаш муҳити учун ажралмас бўлиб қолади. Суюқ ресурсларнинг оқилона фойдаланилиши, уни тежаш ва атроф-муҳитни муҳофаза қилиш соҳасидаги амалий тадбирлар мамлакатимизда аҳамиятли рол ўйнайди. Ушбу мақолада Ўзбекистон Республикасининг сув ресурсларидан фойдаланиш ва уларни ҳимоя қилиш қонунлари, сувдан фойдаланиш турлари, шунингдек, қишлоқ хўжалигида сувдан фойдаланишнинг муҳим жиҳатлари ҳақида батафсил маълумотлар берилган.*

Калит сўзлар: *Сув ресурслари, сувдан фойдаланиш, қишлоқ хўжалиги, атроф-муҳитни муҳофаза қилиш, сувнинг муҳофазаси, сувдан оқилона фойдаланиш, сув объектлари, сувни тежаш, сув тизимлари, сув соҳасидаги қонунлар, ирригация, сувни ҳимоя қилиш, сув таъминоти, экологик муҳофаза, сув ресурсларини бошқариш.*

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USE OF WATER RESOURCES OF THE REPUBLIC, ITS IMPORTANCE AND ESSENCE

ABSTRACT: *Water is one of the most valuable resources in nature, playing a crucial role in biogeochemical processes. It is an integral part of the biosphere and a vital component of human living conditions. Rational use, conservation, and protection of water resources are of significant importance in Uzbekistan, and various laws and regulations are in place to manage water use. This article provides detailed information about the use of water resources in Uzbekistan, water protection, and the importance of water management in agriculture.*

KEY WORDS: *Water resources, water usage, agriculture, environmental protection, water conservation, rational water use, water bodies, water saving, water systems, water legislation, irrigation, water protection, water supply, ecological protection, water resource management.*

Сув - табиатнинг қимматбаҳо ресурси бўлиб, биосферанинг мавжудлигини таъминловчи моддалар алмашиниши жарайонлари да муҳим рол ўйнайди. Сув ҳар доим ва ҳар вақтда биосферанинг муҳим қисмини ташкил этиб, инсонлар яшаш муҳитининг ажралмас қисми бўлиб қолади. Атроф-муҳитимизнинг мавжудлигини таъминлашда зарурий восита бўлиб, сайёрамиздаги бутун тирик организмларни, энг аввало, бутун инсониятни яшаши учун шароит яратади. Сувнинг саноат ва қишлоқ хўжалигидаги аҳамияти беқиёсдир. Унинг маиший эҳтиёжларни қондириш учун зарур восита эканлиги ҳеч кимга сир эмас. Сув инсон организми, барча ўсимлик ва ҳайвонлар таркибини ташкил қилади. Кўплаб тирик мавжудотлар учун яшаш муҳити вазифасини бажаради. Демак табиатда ва инсон ҳаётида сувнинг аҳамияти беқиёсдир.

Мамлакатимиз Президенти Ш.М.Мирзиёев: “Сув ресурслари чекланган минтақамизда деҳқончилик қилиш, мўл ва сифатли ҳосил олиш қанчалар оғир ва машаққатли эканини сиз, шу соҳанинг моҳир усталари жуда яхши биласиз. Шунинг учун сувни тежайдиган технологияларни жорий этишга қаратилган тадбирлар қўллаб-қувватланиб, бунинг ташаббускори бўлган хўжалик ва ташкилотларга қўшимча имтиёз ва преференциялар яратиб берилмоқда. Натижада бугунги кунда қарийиб 240 минг гектар майдонда ана шундай технологиялар, жумладан, 28 минг гектар ерда томчилатиб суғориш технологияси жорий қилинди”[110]

Ўзбекистон Республикасининг ягона давлат сув фонди: дарёлар, кўллар, сув омборлари, бошқа ер усти сув ҳавзалари ва сув манбалари, канал ва ҳовузларнинг сувларидан, ер ости сувлари ва музликлардан иборатдир. Давлатлараро дарёлар, Амударё, Сирдарё, Зарафшон дарёси, Орол денгизи ва бошқа сувлардан фойдаланиш ҳуқуқи давлатлараро битимларда белгилаб берилади.

Сувдан фойдаланиш ва уни муҳофаза қилиш устидан давлат назоратини махаллий ҳокимият ва бошқарув органлари, Ўзбекистон Республикаси Табиатни муҳофаза қилиш давлат қўмитаси, Ўзбекистон Республикаси саноатда ва кончиликда ишларнинг бехатар олиб борилишини назорат қилиш агентлиги, Ўзбекистон Республикаси Соғлиқни сақлаш вазирлиги, Ўзбекистон Республикаси Қишлоқ ва сув хўжалиги вазирлиги қонун ҳужжатларида белгиланган тартибда амалга оширадилар. Жамоат бирлашмалари, жамоалар ўз низомларига мувофиқ ҳамда фуқаролар сувдан оқилона фойдаланиш ва уни муҳофаза қилиш бўйича тадбирларни амалга оширишда давлат органларига кўмаклашадилар. Сувнинг ҳолатига таъсир ўтказадиган янги, таъмирланган иншоотлар ва бошқа объектларни жойлаштириш, лойиҳалаш, қуриш ҳамда ишга тушириш, шунингдек янги технология жарайонлари ни жорий этиш чоғида аҳолининг сиҳат-саломатлигини сақлаш ва ичимлик сувига бўлган талабларини ҳамда маиший

[110] *Mirziyoyev.Sh.M Rizq-ro'zimiz bunyodkori qishloq xo'jalik xodimlari mehnatini ulug'lash, soha rivojini yangi bosqichga ko'tarish asosiy vazifamizdir. O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning Qishloq xo'jaligi xodimlari kuniga bag'ishlangan tantanali marosimdagi nutqi.* http://www.uza.uz

эҳтиёжларини биринчи навбатда қондириш шарти билан сувдан оқилона фойдаланишни таъминлаш лозим.

Бунда сув объектларидан олинадиган ва шу обектларга қайтариладиган сувни ҳисобга олишни, сувни буғланиш, ифлосланиш ва камайиб кетишдан сақлашни, сувнинг зарарли таъсирини олдини олишни, ерларни сув босиш хавфини имкон қадар камайтиришни, ерларни шўрланишдан, зах босишдан ёки қақраб қолишдан муҳофаза қилишни, шунингдек қулай табиий шароитлар ва ландшафтларни сақлаб қолишни таъминловчи тадбирларни ўтказиш кўзда тутилади.

Сувдан фойдаланишнинг икки хил тури мавжуд:

1. сувдан умумий фойдаланиш: - сувнинг ҳолатига таъсир қиладиган иншоотлар ёки техникавий қурилмаларни қўлламай фойдаланиш.

2. сувдан махсус фойдаланиш: - иншоотларни ёки қурилмаларни қўлланиш йўли билан фойдаланиш.

Иншоотлар ёки техникавий қурилмаларни қўлламай туриб, аммо сувнинг холатига таъсир қиладиган тарзда сув объектларидан фойдаланиш ҳам айрим ҳолларда сувдан махсус фойдаланиш турига киритилиши мумкин. Сувдан умумий ва махсус фойдаланиш турларининг рўйхати қишлоқ ва сув хўжалиги, табиатни муҳофаза қилиш, санитария назорати, геология ва минерал ресурслар органлари томонидан белгилаб қўйилади. Танҳо фойдаланмоқ учун сув объектлари бериб қўйилган корхоналар, ташкилотлар ва муассасалар - сувдан бирламчи фойдаланувчилар ҳисобланиб, улар қишлоқ ва сув хўжалиги ва табиатни муҳофаза қилиш органлари билан келишиб, бошқа корхоналар, ташкилотлар, муассасалар ва фуқароларга сувдан иккиламчи фойдаланиш учун рухсат беришга хақлидирлар.

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ИССЛЕДОВАНИЕ СОВРЕМЕННЫХ ТЕНДЕНЦИЙ РАЗВИТИЯ ГОРОДСКОГО ОБЩЕСТВЕННОГО ТРАНСПОРТА

Аннотация. *В статье разработал мероприятия, отражающие современные тенденции развития городского общественного транспорта, направленные на повышение уровня привлекательности городского общественного транспорта.*

Ключевые слова: *общественного транспорта, пассажирского транспорта, перекрестка, автопарковок, транспортного средства, населения, пропускную способность городских дорог.*

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RESEARCH OF MODERN TRENDS IN URBAN PUBLIC TRANSPORT DEVELOPMENT

Annotation. *The article developed measures that reflect modern trends in the development of urban public transport, aimed at increasing the attractiveness of urban public transport.*

Keywords: *public transport, passenger transport, intersections, car parks, vehicles, population, urban road capacity.*

В целях развития эффективной, привлекательной и доступной системы городского пассажирского транспорта, отвечающей всем техническим требованиям и требованиям безопасности, а также обеспечения конкурентной среды между перевозчиками, мною разработаны мероприятия, направленные на повышение привлекательности городского пассажирского транспорта в Ташкенте.

Ограничение парковки транспортных средств на проезжей части наиболее нагруженных участков города положительно повлияло бы на пропускную способность городских дорог. Это проблема год за годом набирает обороты так как число личных авто день за днем только

увеличиваются, отрицательно влияя на пропускную способность городских дорог, на скорость и частоту движения ОТ. Для решения этой проблемы предлагаю построить многоэтажные парковочные места (пазловые парковки) для владельцев личных авто и при этом установить цену штрафа в зависимости от количества автобусов, проехавших мимо этого припаркованного автомобиля, то есть тем, кому он создал помехи. И деньги, полученные за неправильную парковку на проезжей части дороги, должны быль направлены на счет «Тошшахартрансхизмат».

Рисунок 1. Многоэтажные парковки

Как мы видим на рисунке 18, многоэтажные парковки не обязательно строить в виде здании, а наоборот они должный быть простыми и эффективными для строительства на придомовых территориях, у объектов деловой и коммерческой недвижимости. Такие автопарки сыграли бы очень большую роль не только в решении проблем с пропускной способностью автомобильных дорог, но повысили бы имидж Ташкента, как одного из быстро развивающихся городов мира.

Наиболее правильным решением строительство данных пазловых автопарковок дать частным предпринимателям. Проведем самый простой расчет по затратам и доходам.

Допустим, что наша парковка имеет 100 мест для автомобилей.

Таблица 1

Прибыль от парковки

Время	Цена за 1 автомобиль (сумм)	За 100 авт (сумм)
1 час	3000	300,000
24 часа	72000	7,200,000
1 месяц	2,160,000	216,000,000
1 год	25,920,000	2,592,000,000

Если будим считать, что на одно парковочное место обойдется нам на 2000 долларов это приблизительно 22,8 млн сумм, то на строительство 100 парковочных мест мы потратим 200,000 долларов (2,295,000,000сумм), включая затраты на установку и другие мелкие затраты

Но здесь нужно отметить, что наполняемость разных парковок по-разному, где-то стоянка предназначена в основном для ночного хранения авто, а где-то только для дневного хранения, ну а где-то круглые сутки. Поэтому необходимо учитывать коэффициент наполняемости.

Если взять 70% наполняемости получим приблизительно 1,815,000,000 сумм дохода. При 60% - 1,555,000,000 и 50% - 1,296,000,000

Учитывая нынешнюю потребность в парковочных местах и полагаясь на выше вычисленные данные, можно сказать максимум за 2 года 100 парковочных мест полностью окупятся. По грубым расчетам можно сказать, что уже с 3го года владелец этих парковок будет получать доход в размере 130,000,000 сумм в месяц (при 60% наполняемости парковок). Да могут быть и другие затраты (содержание и т,п) но как мы видим чистая прибыль значительно большая.

Вторым очень важным мероприятием является совершенствование организации светофорного регулирования, для обеспечения приоритета движения городского общественного транспорта (установка дополнительных секций; оснащение светофорных объектов датчиками, регистрирующими приближение общественного транспорта и др.). Это мероприятие уже реализована в Сиднее, Австралии и во многих других городах с использованием SCATS (Sydney Coordinated Adaptive Traffic System).

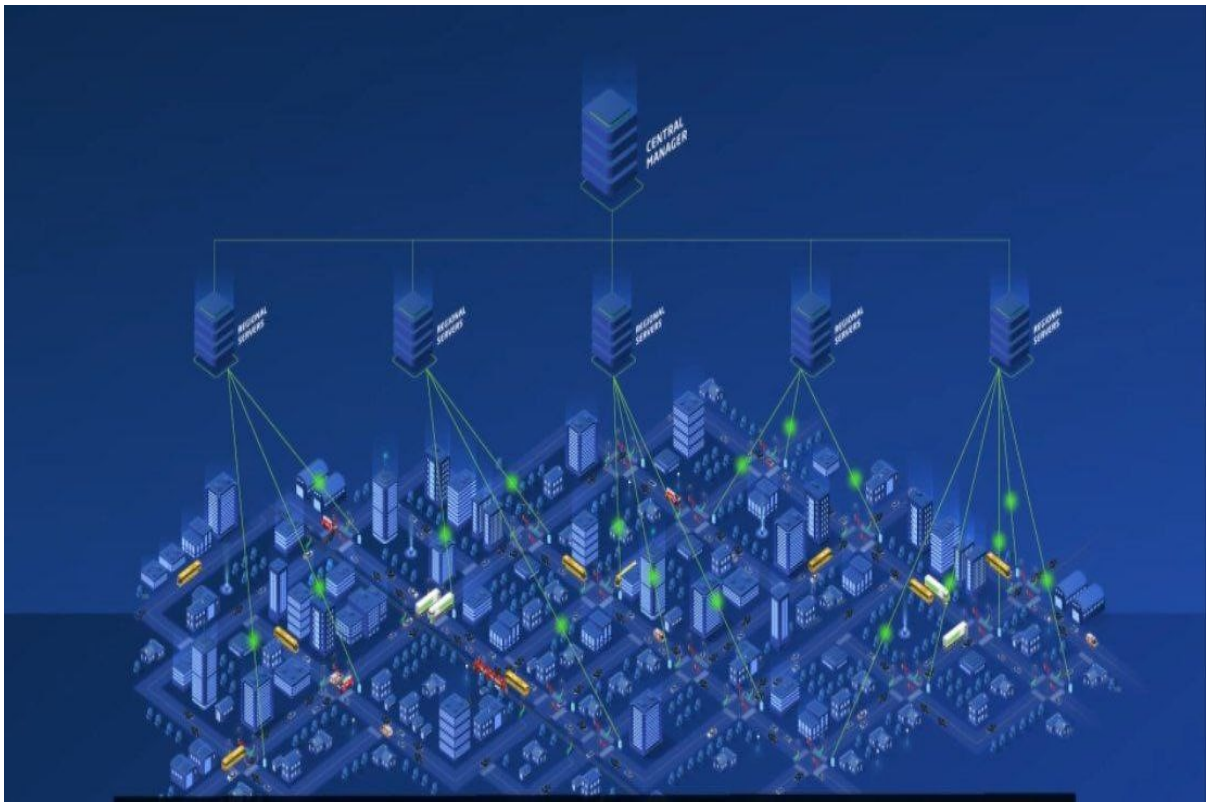

Рисунок 2. SCATS (Sydney Coordinated Adaptive Traffic System)

SCATS использует алгоритмы прогнозирования, поскольку приоритетное транспортное средство (ОТ, пожарные машины, машины скорой помощи и т.д) перемещается по сети SCATS, сигнал местоположения GPS передается через регулярные промежутки времени. Этот сигнал принимается сотовой сетью и передается в систему отслеживания транспортных средств, которая обменивается данными с приоритетным двигателем SCATS, а затем со SCATS. Затем SCATS координирует сигналы светофора на маршруте, чтобы обеспечить приоритетный проезд. Для каждого перекрестка SCATS Priority Engine получает предполагаемое время прибытия транспортного средства, полосу въезда и полосу выезда. Эта информация гарантирует, что сигналы светофора останутся зелеными или изменятся на зеленый до прибытия приоритетного транспортного средства, в зависимости от предполагаемого прибытия транспортного средства. Приоритетная последовательность сохраняется на время поездки, чтобы обеспечить своевременное прибытие общественного транспорта, эффективную пожарную транспортировку и приоритетный доступ для скорой помощи, пожарных и полицейских машин в чрезвычайных ситуациях. Сокращение общего количества остановок и времени в пути. В городах, где используется система SCATS, средняя скорость автобусов на перекрестках

удвоился почти в два раза, а также повысило удовлетворенность клиентов и уровень привлекательности городского общественного пассажирского транспорта.

Мы думаю, система SCATS очень важна для такого мегаполиса, как Ташкент, так как в часы пик уровень загруженности дорог вырастает до десяти баллов.

Вывод. Мы разработал мероприятия, отражающие современные тенденции развития городского общественного транспорта, направленные на повышение уровня привлекательности городского общественного транспорта.

1. Внедрение систем SCATS, который дает приоритет городским общественным автомобильным транспортам на перекрестках что позволяет увеличить скорость сообщения при этом сокращая время в пути.
2. Строительство многоэтажных парковок. Строительство компактных в тоже время вместительных многоэтажных парковок позволило бы свободному передвижению ГОПТ и освободить достаточно большое пространство земли на придомовых территориях, у объектов деловой и коммерческой недвижимости и использовать их разумно. Если внедрить выше предлагаемые мероприятия передвижения на общественном пассажирском транспорте станет самым оптимальным и удобным для населения, особенно в часы пик.

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СУРХОНДАРЁ ВИЛОЯТИ ГЕОГРАФИК ЎРНИ, ТАБИИЙ ШАРОИТИ ВА СУВ РЕСУРСЛАРИ

Аннотация: *Мазкур мақолада Сурхондарё вилоятининг географик ўрни, табиий шароити, сув ресурслари, иқтисодий ва агросаноат мажмуаси ҳақида сўз боради. Вилоятнинг ўзига хос субтропик иқлими, рельефининг хилма-хиллиги ҳамда сув ресурсларининг қишлоқ хўжалиги ва иқтисодий тараққиётдаги аҳамияти таърифлаб берилган. Шунингдек, Сурхон-Шеробод водийсидаги суғориладиган ерлар, янги ўзлаштирилган ҳудудлар ва сув омборларининг ролига ҳам тўхталиб ўтилган.*

Калит сўзлар: *Сурхондарё вилояти, Сурхон-Шеробод водийси, географик ўрин, табиий шароит, сув ресурслари, рельеф, қишлоқ хўжалиги, сув омборлари, тоғ тизмалари, агросаноат мажмуаси.*

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THE GEOGRAPHICAL LOCATION, NATURAL CONDITIONS, AND WATER RESOURCES OF SURKHANDARYA REGION

ABSTRACT: *This article discusses the geographical location, natural conditions, water resources, and economic and agro-industrial complexes of the Surkhandarya region. It describes the region's unique subtropical climate, diverse relief, and the significance of its water resources for agriculture and economic development. Additionally, the role of irrigated lands, newly reclaimed territories, and reservoirs in the Surkhan-Sherabad valley is highlighted.*

KEY WORDS: *Surkhandarya region, Surkhan-Sherabad valley, geographical location, natural conditions, water resources, relief, agriculture, reservoirs, mountain ranges, agro-industrial complex.*

Мамлакатимизнинг энг жанубида жойлашган Сурхондарё вилояти 1941-йил 6-мартда ташкил топган. Унинг майдони 20,1 минг кв.км бўлиб, Ўзбекистон Республикаси ҳудудининг 4,5 фоизига тенг. Вилоятда, 2024-йил 1-январ маълумоти бўйича, 2877,1 минг киши ёки мамлакат аҳолисининг 7,9 фоизи истиқомат қилади. Бундан кўринадики, вилоятнинг демографик салоҳияти унинг майдонига нисбатан 1,7 марта юқори. Сурхондарё вилояти

республика ҳудудий мехнат тақсимотида ўзининг агросаноат мажмуаси, хусусан, пахта ва ғалла етиштириш, сабзавотчилик, чорвачилик маҳсулотлари билан ажралиб туради. Шунингдек, бу ерда тоғ-кон саноати (полиметалл рудалар, тошкўмир, нефт, табиий газ, туз), қурилиш материаллари саноати тармоқлари ҳам ривожланиб бормоқда. Минтақа ўзининг қатор бетакрор хусусиятларига эга. Жумладан, у республикамизнинг энг жанубида, энг тоғли, энг иссиқ ҳудудида жойлашган. Вилоятда урбанизация ва саноатлашув даражаси энг паст, демографик ривожланиш, яъни аҳоли табиий кўпайиши энг юқори ҳудудлардан биридир. Маъмурий жиҳатдан эса Сурхондарё вилояти 14 та қишлоқ тумани, 8 та шаҳар ва 114 та шаҳарчалардан иборат.Сурхондарё вилоятининг нисбатан жанубда жойлашганлиги, бу ерга йиллик ялпи қуёш радиациясининг кўп тушиши (1 см2 юзага 160 ккал.), шунингдек қуёшли кунлар ҳамда ижобий ҳарорат миқдорининг юқорилиги билан ажралиб туради. Бундан ташқари, бу ерда рельеф омиллари билан биргаликда ўзига хос қуруқ субтропик иқлим ҳосил бўлган. Унинг ғарбида Бойсун тоғининг жануби-ғарбий давоми ҳисобланган Кўҳитанг тоғи (баландлиги 3137 м), шимоли-ғарбда Бойсун тоғи, шимолда Ҳисор тоғ тизмалари, шарқда эса Боботоғ тизмалари жойлашган. Вилоятнинг жанубий томони текисликдан иборат бўлиб, Амударё орқали Афғонистон давлати билан чегараланади. Минтақа релефи хилма-хил ва мураккаб, у тупроқ қопламининг шаклланиши, қишлоқ хўжалигида, техникалардан фойдаланишда, қайта ишлаш ва номоддий ишлаб чиқариш корхоналарини қуриш ва жойлаштиришга кучли таъсир кўрсатади.

Вилоят рельефи морфологик жиҳатдан текисликлар, водийлар, дарё, адирлар, тоғолди ва баланд тизмаларга бўлинади(1-илова). Уларни шартли равишда тоғлик ва текислик қисмларга ажратиш мумкин. Ҳудуднинг текислик қисми Сурхон-Шеробод водийси, Шеробод дашти ва кўп сонли тоғ дарё водийларини ўз ичига олади. Сурхон-Шеробод водийси тоғ ва тоғолди зонасига нисбатан интенсив ўзлаштирилган бўлиб, бу ерда ишлаб чиқариш кучлари зичроқ жойлашган. Бу ҳудуд илмий адабиётларда Қуйи Сурхондарё агрогеографик райони деб аталиб асосан текисликдаги ҳудудларни ўз ичига олиб, маъмурий жиҳатдан Ангор, Жарқўрғон, Музработ, Термиз,Шеробод ва Қизириқ туманларидан иборат. Ушбу маъмурий бирликлар вилоят майдонининг 32,2 фоизини, аҳолисининг 39,0 фоизини ўзида мужассам қилган. Минтақа вилоят қишлоқ хўжалик маҳсулотларининг 2/5 қисмидан кўпроғини таъминлайди. Қуйи минтақада қишлоқ хўжалигида фойдаланиладиган ерлар, жумладан, суғориладиган ерлар ҳажми кўп, ҳарорат ҳам етарли, аммо сув заҳиралари жуда оз. Айнан шу ҳудудларда янги ерлар ўзлаштирилган бўлиб, улар минтақа агроиқтисодиёт тизимида муҳим ўринга эга.Сурхон-Шеробод водийси уч томондан баланд тоғ тизмалари билан ўралган. Ушбу тизмалардан вилоят қишлоқ хўжалиги экинларининг суғориш манбаи ҳисобланган Тўпалангдарё, Сангардакдарё, Хўжаипак, Шероботдарё каби дарёлари бошланади. Водийда бир қанча сув омборлар, жумладан Жанубий Сурхон, Тўпаланг, Учқизил, Оқтепа, Дегрез сув омборлари, қатор

магистрал каналларнинг қурилиши тез суръатда қишлоқ хўжалиги экин майдонларининг кенгайишига ва ерларнинг мелиоратив ҳолатини яхшиланишига олиб келди.

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СОЦИАЛЬНЫЕ АСПЕКТЫ ЛЕЙКОЗА У ДЕТЕЙ

Аннотация: *В статье освещены вопросы по проблемам острых лейкозов у детей в стационаре Бухарского областного детского многопрофильного медицинского центра. Целью исследования было изучение образа жизни семьи больных детей острым лейкозом с методом ретроспективного анализа. Под наблюдением находились 75 детей в возрасте от 1 до 15 лет, находящихся в Бухарском областном детском медицинском многопрофильном центре с 2022 по 2024 годы. Авторы пришли к выводу, что матери детей лейкозом во время беременности чаще страдали анемией, инфекционными и другими заболеваниями. У детей находящихся на искусственном вскармливании заболеваемость острым лейкозом было выше, смертность детей от острого лейкоза на 1 году жизни и в возрасте 2 – 7 лет выше, по отношению других возрастов, вредные привычки родителей в виде курения и употребления алкоголя повышает риск развития лейкоза у детей раннего возраста, раннее применение ПХТ увеличивает продолжительность жизни у детей.*
Ключевые слова: *лейкоз у детей, социальные аспекты, психологическая поддержка, семейная динамика, социальная изоляция, стигматизация, реабилитация, финансовые трудности, группы поддержки, волонтерские организации.*

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SOCIAL ASPECTS OF LEUKEMIA IN CHILDREN

Abstract: *The article highlights the issues of acute leukemia in children in the hospital of the Bukhara regional Children's Multidisciplinary Medical Center. The aim of the study was to study the lifestyle of a family of children with acute leukemia with the method of retrospective analysis. 75 children aged 1 to 15 years old who were in the Bukhara Regional Children's Medical Multidisciplinary Center from 2022 to 2024 were under supervision. The authors concluded that mothers of children with leukemia during pregnancy were more likely to suffer from anemia, infectious and other diseases. In children who were artificially fed, the incidence of acute leukemia was higher, the mortality of children from acute leukemia at 1 year*

of life and at the age of 2-7 years is higher compared to other ages, harmful habits of parents in the form of smoking and alcohol consumption increases the risk of developing leukemia in young children, early use of PCTs increases life expectancy in children.

Keywords: *leukemia in children, social aspects, psychological support, family dynamics, social isolation, stigmatization, rehabilitation, financial difficulties, support groups, volunteer organizations.*

Актуальность темы

Пик заболеваемости лейкозом у детей приходится на возраст 2-4 года. В связи с наблюдаемой в последние десятилетия тенденцией к росту заболеваемости лейкозом и сохраняющейся высокой летальностью проблема лейкозов у детей стала особенно актуальной для практического здравоохранения

Острые лейкозы -гетерогенная группа клональных опухолевых заболеваний кроветворной ткани, характеризующаяся: неконтролируемой пролиферацией, нарушением дифференцировки, накоплением в костном мозге и периферической крови незрелых гемопоэтических клеток

Острый лейкоз выделен в отдельную нозологию в середине 19 века

Миелобласт описан в 1900 г. Нагели, он же разделил лейкозы на миелоидные и лимфоидные

Острый моноцитарный лейкоз описан в 1913 году Решадом

Острый промиелоцитарный лейкоз в 1957 Хильштадом

Острый лейкоз заканчивается летально без лечения в 100%

До эры химиопрепаратов все больные погибали в течение 3 месяцев от инфекций либо геморрагий

За 50 лет достигнуты большие успехи в терапии лейкозов – 5 выживаемость – 70%, а в ряде случаев *выздоровление.*

Полихимиотерапия, пересадка костного мозга и таргетные препараты

ЭТИОЛОГИЯ ЛЕЙКОЗОВ

Хромосомные изменения обнаруживают приблизительно у 60-70 % больных.

Они возникают под влиянием неблагоприятных *факторов внешней среды*: ионизирующего излучения, электромагнитного поля, химических веществ, бензола, медикаментов.

Особенно чувствительны к воздействию электромагнитного излучения дети школьного возраста, организм которых еще не сформировался: даже всего несколько часов в неделю, проведенных около компьютера, опасны для их здоровья. В 2001 году в США опубликованы данные по увеличению количества заболеваний детей лейкозом, которые более 2 часов в день играли на компьютере и в видео игры.

Согласно мировой статистике, 3,3-4,7 детей из 100 тысяч заболевают лейкемией в возрасте до 15 лет. Около 40-46 % случаев приходится на детей 2-6 лет.

ЭПИДЕМИОЛОГИЯ

Острый лейкоз составляет 3% от всех злокачественных заболеваний

Заболеваемость 5 случаев на 100000 населения, 75% случаев диагностируется у взрослых, соотношение миелоидных и лимфоидных у взрослых 6:1

У детей 80-90% всех лейкозов лимфоидные, средний возраст около 10 лет

Острые миелоидные лейкозы болезнь пожилых людей, средний возраст 60-65 лет.

Заболеваемость

В разных регионах колеблется от 4 до 5 на 100000 детей до 15 лет, с пиком в возрасте 3,5 – 4 года. Из них составляет 80-90% - острый лимфобластный лейкоз, 10 – 15% - острый нелимфобластный лейкоз, 1 – 3 % с хроническим миелоидным лейкозом, Остальные неидентифицированные варианты острого лейкоза

Цель исследования

Изучение образа жизни семьи больных детей острым лейкозом с методом ретроспективного анализа

Задачи исследования

Выявить зависимость прогноза лейкоза от состояния образа жизни родителей и материального состояния их

Материалы и методы исследования

Составлена специально разработанная карта – анкета больных лейкозом.

Анкета содержит сведения о состоянии здоровья родителей, их социальном положении, наличии профессиональных вредностей, вредных привычек. Также уделяется внимание состояния здоровья матери во время беременности, характеру вскармливания ребенка. Учитывается также материальное обеспечение семьи и ряд других факторов.

При заполнении карты использовали следующую медицинскую документацию – история болезни (форма № 3), история развития ребенка (форма № 112), карту диспансерного учета (форма № 3) и провели устный опрос матерей

Результаты исследования

Под наблюдением находились 75 детей в возрасте от 1 до 15 лет, находящихся в Бухарском областном детском медицинском многопрофильном центре с 2012 по 2015 годы

Дети городского населения составляли – (18) 24 %, дети из сельской местности – (57) 76%, мальчики- (45) 60%, девочки – (30) 40%

Возраст детей от 0 до 2 лет – 12%, от 2 до 7 лет – 53,3%, от 7 до 10 лет –13,3%, возраст 10 – 15 лет 21,3%,

При анализе состояния женщин во время беременности составляли: дети от первой беременности – 34 (45,3%), дети от второй беременности – 7

(9,3%), дети от третьей беременности – 30 (42,8%), дети от четвертой беременности – 4 (5,3%)

Изучая состояния здоровья родителей мы обнаружили, что матери детей страдающих острым лейкозом, чаще страдали анемией различной степени– 75(%) в I триместре беременности. У 35% из них была зарегистрирована угроза прерывания беременности в различных периодах. Также 42% из них в первом триместре переболели заболеваниями верхних дыхательных путей, ССС, органов пищеварения, почек и т.д. Почти 75% из них страдали токсикозом I и II половины беременности, только 25% не болели никакими заболеваниями.

Среди осложнений в родах чаще наблюдалось рождение ребенка в асфиксии – 17,9%, с родовой травмой – 7,7%, мать получила лечение во время беременности антибиотиками и другими лекарствами– 65%

При анализе характера вскармливания детей до 1 года, выявлено следующее: кормили ребенка только материнским молоком до 1 года – 12,5%, кормили ребенка материнским молоком до 6 мес – 25,5%, кормили ребенка искусственными смесями и коровьим молоком до 1года - 46,6% , находились на смешанном вскармливании до 6 мес – 15,4%

Расспрашивая о вредных привычках родителей, обнаружено, также что не было случаев злоупотребления алкоголем и курением среди матерей, число отцов – курильщиков 76,8% , злоупотребление алкоголем у отцов – составлял – 12,5%

Изучая материальное состояние родителей выявлено, дети не получившие поли химиотерапию проживали в плохих жилищных условиях, что составляет уровень смертности почти 87% (27) на первом полугодии после заболевания острым лейкозом

При хороших материально – бытовых условиях, когда была возможность получить ПХТ по схеме Москва –Берлин – 91% прожили до 1 года и больше

Ремиссия продолжалась более 3 лет, у 58,6% (44) детей с ОЛ

Смертность детей - 31 (41,3%) С рождения до 1 года – 5 детей умерли в течении 2 – 3 месяцев после выявления лейкоза, причем у 1 из них выявлено заболевание сразу после рождения на 2 день, у которой был летальный исход в течении 3 дней, смертность детей в возрасте 1 – 2 лет – 45% , 2-7 лет – 18%, 10-15 лет – 37%.

Наиболее частые клинические признаки лейкоза у детей, составляли лихорадка – 61%, геморрагии – 48%, боль в костях – 24%, лимфоаденопатия – 65% (выраженная лимфоаденопатия - лимфатические узлы более 3 см у 16,5% детей), спленомегалия – 58%, гепатомегалия – 62%, анемия – 80% средней и тяжелой степени, поражение ЦНС в виде нейролейкоза у 3 %

В первичных анализах крови обнаружено: анемия – 80%, тромбоцитопения – ниже 20000 в мкл – у 28%, от 20 – 100000 в мкл у 47%, более 100 тысяч в мкл – 25%, лейкоциты менее 10000 в мкл – 51%, 10 – 50 тыс

в мкл – 30%, более 50000 – 19%, наличие недифференцированных бластных клеток – 85%

Заключение результатов исследования

1. Матери детей лейкозом во время беременности чаще страдали анемией, инфекционными и другими заболеваниями.

2. У детей находящихся на искусственном вскармливании заболеваемость острым лейкозом было выше.

3. Смертность детей от острого лейкоза на 1 году жизни и в возрасте 2 – 7 лет выше, по отношению других возрастов.

4. Вредные привычки родителей в виде курения и употребления алкоголя повышает риск развития лейкоза у детей раннего возраста.

5. Раннее применение ПХТ увеличивает продолжительность жизни у детей.

Вывод

Таким образом, проведенное исследование позволило установить влияние на возникновение и прогноз острых лейкозов следующих факторов: осложненное течение беременности матерей, нерационального искусственного питания ребенка, вредные привычки и материально-социальное положение родителей.

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МЕТОДИКА РАЗВИТИЯ УРОВНЯ ЧИТАТЕЛЬСКОЙ ГРАМОТНОСТИ И ПОНИМАНИЯ УЧАЩИХСЯ НАЧАЛЬНЫХ КЛАССОВ ПОСРЕДСТВОМ ЗАДАНИЙ PIRLS

Аннотация: *В контексте статьи рассматриваются аспекты подготовки младших школьников в разрезе развития читательской грамотности и понимания, прочитанного посредством заданий PIRLS. Кроме того, в статье также выделена степень важности развития читательской грамотности и понимания, прочитанного не только в младших классах, но и в контексте дальнейшего обучения в старшей школе.*

Ключевые слова: *читательская грамотность, навык чтения, младшие школьники, PIRLS,* развитие *читательской грамотности, текст, методы, средства.*

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A METHODOLOGY FOR DEVELOPING THE LEVEL OF READING LITERACY AND UNDERSTANDING OF PRIMARY SCHOOL STUDENTS THROUGH PIRLS ASSIGNMENTS

Annotation. *In the context of the article, aspects of the preparation of primary school children are considered in the context of the development of reading literacy and understanding read through PIRLS assignments. In addition, the article also highlights the importance of developing reading literacy and understanding, read not only in elementary grades, but also in the context of further education in high school.*

Keywords: *reading literacy, reading skills, primary school children, PIRLS, development of reading literacy, text, methods, tools.*

Введение. Само по себе чтение в контексте обучения младших школьников следует понимать прежде всего как разновидность речевой деятельности, помимо прочего характеризующейся высокой степенью значимости. Значимость такового во многом базируется прежде всего на том, что чтение находится в прямой взаимной связи с такими не менее важными аспектами, как произношение, а также – понимание речи.

Кроме того, под чтением следует также понимать способность человека к полноценному восприятию и пониманию полученной им информации, которая была предварительно записана, а затем и передана посредством различных средств хранения и передачи информации. В ходе процесса чтения производится перекодировка символов, что в свою очередь позволяет обозначить звучание таковых, а кроме того, обеспечивает возможность для понимания информации [4].

Также важно принимать во внимание то обстоятельство, что процесс чтения включает в себя два важных аспекта – технический и смысловой. В первом случае речь идет о таких компонентах процесса, как: метод чтения, степень корректности, выразительность и темп. Во втором случае речь идет о такого рода составляющих как усвоение и понимание прочитанной информации. Также важно, что два указанных выше аспекта находятся в неразрывной связи друг с другом. В конечном итоге основной целью развития технической стороны чтения можно считать развитие навыков артикуляции. Что касается ключевой цели непосредственно самого процесса чтения, то в качестве таковой можно выделить понимание смысла прочитанного. Важно, что развитие умений и навыков в области понимания прочитанной информации – и есть ключевая составляющая, которая может быть охарактеризована как ключевой критерий оценки сформированного у школьника навыка чтения или читательской грамотности.

PIRLS – исследование качества чтения, сформированная и используемая на сегодняшний день на международном уровне. При применении такового мониторингу и оценке подвергаются как техническая, так и смысловая сторона чтения, что позволяет сделать итоговую оценку наиболее точной и объективной. При этом преобладающее значение придается именно смысловой составляющей [5].

Не секрет, что в глобальных масштабах с каждым годом требования, предъявляемые к качеству образования, становятся все более жесткими. Для того, чтобы сохранить престиж на международной арене, Узбекистану также приходится соответствовать этим требованиям.

Исследование, проведенное в 2021 г. среди учащихся 4-х классов, позволило сделать вывод, что Узбекистан в разрезе читательской грамотности и понимания прочитанного не набрал среднего балла, достигнув отметки в 437 баллов, против средней оценки в 500. Итог – 49 позиция в рейтинге, включившем 57 государств [10]. В конечном итоге набранные баллы соответствуют уровню развития навыков чтения, который характеризуется как «низкий» [9].

Стоит также обратить внимание на то, что в рамках рассматриваемой методики исследования анализу подвергаются два типа чтения – ориентированное на оценку чтения, которое ориентировано на достижение литературного уровня грамотности, и чтения как метода овладевания информацией для последующего ее применения. В рамках исследования такого рода учащиеся чаще всего получают несколько разных типов

произведений. Выбираются они с соблюдением критерия того, чтобы одно из них было художественным, а другое – научно-популярным. Затем учащиеся также получают задания, в рамках которых они должны ответить на ряд вопросов, связанных с изученными произведениями. Таким образом производится оценка усвоения полученной информации. Если говорить об этом более подробно, то в рамках выданных заданий производится оценка одновременно 4-х аспектов, а именно: поиска, трактовки и синтеза информации, а также – навыков умозаключения относительно этой информации. Также в рамках методики выясняется способность учащегося к разбору и оценочному суждению прочитанного [6].

Важно понимать также и то, что от уровня развития читательской грамотности напрямую зависит общий успех дальнейшего образования учащегося в будущем – после окончания 4 класса. Также от данного аспекта во многом зависит общая социализация школьника. Принимая во внимание то, что сегодня каждый человек практически постоянно находится под влиянием информационного шума, воспринимать информацию, выделять смыслы и запоминать прочитанное современным школьникам становится все сложнее. PIRLS же способствует развитию у учащихся навыков критического мышления, улучшению навыков понимания прочитанного, а также – интерпретации различного рода данных [2].

На сегодняшний день в сфере образования в Узбекистане существует острая необходимость в изменении не только методов преподавания, но и техник взаимодействия между учащимися и преподавателем [7]. Важно учесть то, что успех обучения зависит не только от того, насколько интересным является материал, но и от того насколько у учащихся развит опыт чтения вкупе с навыками дискуссии и слушания.

Уровень развития широкого спектра способностей коммуникационного, а также познавательного типа может быть достаточно точно оценен посредством заданий, связанных с чтением, пониманием, усвоением и умением самостоятельно трактовать различного рода произведения. Также в данном контексте оценивается способность к изменению исходного текста произведения, а кроме того – использование информации из разных текстов для решения задач различной специфики. В рамках международных исследований оценивались такие аспекты, как смысловое чтение, а также выполнение анализа и проведение аналогий, и формирование выводов.

По итогам PIRLS было установлено, что учащиеся из Узбекистана испытывают значительные сложности относительно многих навыков, оценка которых была выполнена в разрезе исследования. В частности, речь идет о таких аспектах, как:

– минимальная степень развития у учащихся навыка применения информации, полученной из текста в целях конкретизации какой-либо собственной идеи;

– отсутствие надлежащего соответствия между личным опытом учащегося и той информацией, которую он получил ранее в результате прочтения;

– низкий уровень развития у учащихся способности давать детальные, развернутые ответы на основе прочитанной ранее информации;

– затруднение при высказывании собственных мыслей и мнения относительно прочитанного [1].

Исходя из ситуации, сложившейся на сегодняшний день в сфере образования в Узбекистане, а в частности – той, что имеет место в области обучения именно учащихся младших классов, можно предположить, что ключевыми проблемами, препятствующими повышению позиций страны в рейтинге PIRLS, являются такие, как: отсутствие стимулирующей внешней среды, отсутствие навыков чтения при поступлении в первый класс, а также – недостаточная квалификация молодых кадров из числа педагогического состава и устаревшие методы коммуникации между учеником и педагогом. Далее – о каждом из этих тормозящих факторов более подробно.

1. Относительно отсутствия стимулирующей внешней среды следует упомянуть прежде всего влияние родителей. Не секрет, что дети не столько слушают родителей, сколько копируют их модель поведения и привычки. Невзирая на обилие информации, которое имеет место на сегодняшний день, в современных семьях практически отсутствует культура чтения, а дома зачастую и вовсе не имеется книг для повседневного чтения. Одновременно с этим будущий школьник растет в обстановке, которая никоим образом не способствует развитию читательской грамотности. Ему просто негде копировать подобный навык, поскольку ни родители, ни сверстники (которые почти всегда являются детьми таких же родителей) не склонны к чтению. И более того – не воспринимают таковое как способ приятно провести время, как это было еще совсем недавно.

2. Отсутствие навыков чтения при поступлении в первый класс имеет место отчасти ввиду причины, указанной выше, а отчасти – ввиду того, что современные семьи зачастую не уделяют должного внимания дошкольной подготовке ребенка в целом.

3. Говоря о низкой квалификации молодых кадров, важно понимать, что в динамично меняющихся условиях современности педагоги должны проявлять в работе гибкость и изобретательность. Также необходимо уделять внимание мониторингу, изучению и внедрению новых методов обучения младших школьников. В частности, речь идет о различного рода интерактивных методах обучения в рамках образовательного процесса в целом и на уроках чтения в младших классах – в частности.

Под интерактивным типом обучения подразумевается подход, базирующийся на максимальной вовлеченности учеников непосредственно в учебный процесс, их активном участии в занятиях. В данном случае, в отличие от традиционного обучения, педагог выступает лишь в роли помощника и координатора процесса. Основным условием является активное вовлечение

учащихся в процесс обучения, развитие у них самостоятельного мышления. В процессе обучения ученики учатся мыслить самостоятельно, а также активно участвуют в процессе и взаимодействуют друг с другом, что позволяет развить практические навыки решения задач, а также навыки коммуникационного типа. Кроме того, такое обучение подразумевает самостоятельный поиск и обработку информации, а также поиск или разработку различных решений. Наконец, такие методы позволяют получить и в значительной степени закрепить не только теоретические знания, но и широкий спектр практических навыков, многие из которых могут стать определяющими в контексте решения профессиональных задач в будущем. Также в рамках такой формы обучения ученики приобретают необходимые социальные навыки, навыки работы с информацией [8].

4. Относительно традиционных форм коммуникации между учеником и педагогом необходимо сказать, что в настоящее время по всей стране остается доминирующей авторитарная форма общения, в контексте которой преподаватель воспринимается как сторона, которая по умолчанию права. Более того, ученики не всегда получают возможность для того, чтобы ответить на вопрос педагога развернуто, что, тем не менее, является необходимым для достижения цели, обозначенной выше. Основой современного подхода к такого рода коммуникациям должно выступать партнерское общение. Речь идет о признании значимости другого человека, его личности, а также мнения, решений и интересов. Одновременно с этим авторитарное давление, как показывает практика, чаще вызывает отторжение, нежели интерес [3].

Важно в полной мере осознавать, что в контексте развития читательской грамотности применение методик традиционного типа зачастую неспособно обеспечить получение запланированных высоких результатов. Для того, чтобы учащиеся в 4 классе могли с легкостью решить задания PIRLS, требуется обеспечить их навыками для решения задач подобного рода начиная уже с первого года обучения.

В первых классах задания такого рода могут быть ориентированы на самостоятельный поиск школьником информации по теме произведения, поиска смыслов тех или иных предложений или же отдельных слов, а также – установление связей между событиями и явлениями, описанными в произведении.

Далее, в 4 классе задания, которые даются ученикам в рассматриваемой области, должны в значительной степени усложниться. Это касается как общей их структуры, так и содержания в разрезе отдельных составных компонентов такового. В частности, новые, более сложные задания такого рода требуют от учащихся:

– гораздо более глубокого анализа прочитанных произведений;

– более развернутых выводов о прочитанном ранее;

– углубленных навыков в области обработки и изменения данных, полученных при чтении того или иного произведения.

Помимо сказанного выше, задания, которые получают ученики на данном этапе обучения, ориентированы прежде всего на достижение промежуточных целей нижеследующего типа:

– развитие навыков проведения аналогий;

– развитие навыков противопоставления имеющегося опыта той информации, которую ученик получил в ходе прочтения произведения, а также – данных из нескольких произведений друг с другом;

– развитие навыков практического применения полученной ранее информации;

– развитие навыков оценочного суждения. В данном случае подразумевается, что учащиеся должны уметь выявлять и конкретизировать ключевую авторскую идею, определять ключевую тему произведения, а кроме того – вычленять те художественные средства, посредством применения которых были расставлены акценты в произведении. Также учащиеся должны уметь оценивать степень того, насколько описанная в произведении ситуация является или не является правдоподобной.

На сегодняшний день в нашей стране уделяется пристальное внимание формированию максимально благоприятной среды, в условиях которой было бы возможным не только использование наиболее современных интерактивных методов обучения, но и поднятии позиций страны в рейтинге PIRLS. Во многом достижение этих целей может быть выполнено за счет обмена опытом на международном уровне.

Кроме того, необходимым шагом является разработка и внедрение комплексной системы интерактивных заданий из области развития внимания и читательской грамотности младших школьников. Данный шаг, в свою очередь, также может быть выполнен благодаря изучению опыта на международном уровне.

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ВЛИЯНИЕ СТРЕССА И ЭМОЦИОНАЛЬНОГО СОСТОЯНИЯ РОДИТЕЛЕЙ НА ИХ ПОДДЕРЖКУ ДЕТЕЙ В ОБРАЗОВАТЕЛЬНОМ ПРОЦЕССЕ: ПСИХОЛОГИЧЕСКИЕ АСПЕКТЫ И МЕТОДИКИ ПРЕОДОЛЕНИЯ ТРУДНОСТЕЙ

Аннотация: *Родители должны осознавать, что забота о своем собственном психическом здоровье — это не эгоизм, а необходимый шаг для того, чтобы быть полноценными поддерживающими фигурами для своих детей. Сбалансированное эмоциональное состояние родителей позволяет создать более положительную и поддерживающую атмосферу в семье, что в конечном итоге способствует лучшей адаптации детей к образовательному процессу.*
Ключевые слова: *образование, педагогика, психология, семья.*

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INFLUENCE OF STRESS AND EMOTIONAL STATE OF PARENTS ON THEIR SUPPORT OF CHILDREN IN THE EDUCATIONAL PROCESS: PSYCHOLOGICAL ASPECTS AND METHODS OF OVERCOMING DIFFICULTIES

Abstract: *Parents should realize that caring for their own mental health is not selfishness, but a necessary step in order to be full-fledged support figures for their children. A balanced emotional state of parents allows you to create a more positive and supportive atmosphere in the family, which ultimately contributes to better adaptation of children to the educational process.*
Keywords: *education, pedagogy, psychology, family.*

Актуальность темы о влиянии стресса и эмоционального состояния родителей на поддержку детей в учебном процессе возрастает в свете современных реалий, характеризующихся высоким уровнем неопределенности и стресса в обществе. Глобальные изменения, экономические кризисы и социальные вызовы приводят к тому, что родительский стресс становится распространенной проблемой, что негативно

сказывается на эмоциональном климате семей. Психоэмоциональное состояние родителей критически влияет на их способность взаимодействовать с детьми, что имеет ключевое значение для учебной активности и общего развития детей. Дети, воспринимающие напряженность и стресс в семейной атмосфере, находятся под угрозой развития тревожных расстройств, что затрудняет их социализацию и снижает мотивацию к учебе.

Стресс и эмоциональное состояние родителей существенно влияют на их способность поддерживать детей в учебном процессе, так как высокий уровень стресса негативно сказывается на психическом и физическом здоровье, вызывая раздражительность, усталость и снижая эмоциональную доступность. Дети, чувствующие напряженность в семье, могут начать испытывать тревожность, что негативно отражается на их учебе и социальной адаптации. В условиях стресса родители становятся менее способны поддерживать детей, что снижает их мотивацию и интерес к образованию. Поэтому важно применять психологические методики для управления стрессом и улучшения эмоционального состояния. Методика осознанности (майндфулнес) помогает снижать уровень стресса и укреплять связи внутри семьи, а когнитивно-поведенческая терапия позволяет родителям менять негативные модели мышления. Техники релаксации, такие как глубокое дыхание, также способствуют снижению напряжения. Поддерживающая среда для обмена опытом и группа поддержки могут уменьшить чувство одиночества и повысить уверенность родителей. Забота о физическом здоровье включает физическую активность, правильное питание и достаточный сон, что благоприятно сказывается на эмоциональном состоянии.

Работа над психоэмоциональным состоянием родителей — ключевой аспект родительства, необходимый для качественной поддержки детей в образовательном процессе. Это многофакторный процесс, где различные методы могут значительно повысить эмоциональную устойчивость и снизить уровень стресса. Не менее важным является развитие навыков эффективного общения и конфликтного разрешения. Родители, которые умеют конструктивно обсуждать возникшие проблемы и находить компромиссы, создают более гармоничную атмосферу в семье, что способствует снижению стресса как для них самих, так и для детей. Учёные и психологи подчеркивают важность создания открытого коммуникационного пространства, где каждый член семьи может свободно выражать свои мысли и чувства. Установление такого диалога значительно укрепляет эмоциональную связь между родителями и детьми, что, в свою очередь, создаёт основу для успешной учебной деятельности.

Важным элементом является развитие самосострадания у родителей. Научиться относиться к себе с добротой и пониманием в моменты стресса и неопределенности — это важный аспект психологического здоровья. Методики, направленные на развитие самосострадания, помогают родителям осознать, что они не одни в своих переживаниях и что испытывать трудности

— это нормально. Это понимание способствует снижению внутренней критики и повышению уверенности в своих способностях как родителей.

Второй важный аспект заключается в профилактике эмоционального выгорания. Родители, особенно те, кто заботится о нескольких детях или сталкивается с особыми образовательными потребностями, могут оказаться под давлением и испытывать чувство исчерпания. Планирование отдыха, время для себя и занятия любимыми делами становятся необходимыми не роскошью, а важной частью личного благополучия и здоровья. Подобные действия не только помогают родителям восстановить силы, но и позволяют им привнести больше радости и энергии в воспитание детей.

Взаимодействие со специалистами в области психологии и педагогики также может иметь положительное влияние. Психологи и консультанты могут предложить индивидуальные решения и помочь родителям разработать личные стратегии управления стрессом и эмоциональными трудностями. Группы взаимопомощи и поддержки для родителей также дают возможность поделиться опытом, обсудить общие проблемы и получить полезные советы.

Важно понимать, что создание поддерживающей среды в семье требует времени и усилий, но результаты, достигаемые через постоянную работу над своим эмоциональным состоянием, становятся ощутимыми. Дети, видящие, что их родители заботятся о себе и умеют справляться со стрессом, более склонны к позитивному восприятию образовательного процесса. Они учатся осознавать свои эмоции, находить эффективность в учебе, гибко реагировать на трудности и решать проблемы. Умение родителей справляться с собственными стрессом и эмоциями создает фундамент для формирования аналогичных навыков у детей, что в конечном итоге способствует их успешной социализации и академическим достижениям.

Таким образом, работа над психоэмоциональным состоянием родителей не только улучшает качество их жизни, но и является основой для успешного и гармоничного развития их детей в условиях современного образовательного процесса.

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ОБРАЗОВАТЕЛЬНЫЕ ВЫЗОВЫ И ПУТИ ПОВЫШЕНИЯ ГРАМОТНОСТИ РОДИТЕЛЕЙ В ПОДГОТОВКЕ ДОШКОЛЬНИКОВ К ШКОЛЕ

Аннотация: *Современные вызовы в образовании и методики повышения педагогической и психологической грамотности родителей для успешной подготовки детей дошкольного возраста к школе требуют глубокого анализа и синтеза знаний в области образовательных практик.*
Ключевые слова: *образование, педагогика, психология, семья.*

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EDUCATIONAL CHALLENGES AND WAYS TO INCREASE PARENTAL LITERACY IN PREPARING PRESCHOOL CHILDREN FOR SCHOOL

Abstract: *Modern challenges in education and methods of improving pedagogical and psychological literacy of parents for the successful preparation of preschool children for school require deep analysis and synthesis of knowledge in the field of educational practices.*
Keywords: *education, pedagogy, psychology, family.*

В последние десятилетия система образования претерпела значительные изменения, возникающие в ответ на быстро меняющийся мир технологий и социальных условий.

Изменения ставят перед родителями дошкольников множество актуальных задач, требующих их активности и вовлеченности в образовательный процесс. Исследование современных образовательных вызовов и формирования педагогической и психологической грамотности родителей в подготовке детей дошкольного возраста является многогранной темой, которая охватывает работу различных ученых в области педагогики, психологии и социологии.

Учёные, которые внесли значительный вклад в исследования, касающиеся современных образовательных вызовов и формирования педагогической и психологической грамотности родителей в подготовке детей дошкольного возраста: Л. Выготский разработал теорию социокультурного развития, подчеркнув значимость социального взаимодействия в обучении. Его идеи о "зоне ближайшего развития" иллюстрируют, как родители могут поддерживать обучение своих детей, создавая среду, способствующую развитию.

Пиаже Жан исследовал когнитивное развитие детей и предложил концепцию различных стадий мышления. Понимание этих стадий помогает родителям адаптировать свою поддержку и воспитывать детей в соответствии с их когнитивным развитием.

Джон Дьюи придерживался идеи о необходимости обучения через практический опыт и активное участие. Дьюи подчеркивал, что родители могут стать партнерами в образовательном процессе, внедряя активные методы обучения дома.

Эти ученые и их работы предоставляют ценную информацию, касающуюся не только образовательных теорий и практик, но и практических аспектов взаимодействия родителей и детей, а также методов, способствующих повышению грамотности родителей. Выбор конкретных методов и стратегий может помочь решать современные вызовы в образовании и готовить детей к успешной учебной деятельности. Современные образовательные стандарты требуют от детей более высокой степени самостоятельности, критического мышления и социальной адаптации. Образовательные учреждения акцентируют внимание на необходимости развития не только академических, но и личностных навыков, что становится важным для успешной интеграции в сообщество. Кроме того, существование множества культурных контекстов требует от родителей понимания и уважения к индивидуальным особенностям своих детей, что также акцентируется в современном образовании.

Важно учитывать, что дети сталкиваются с высоким уровнем стресса, вызванного не только учебной нагрузкой, но и высокими ожиданиями со стороны окружающих, что может негативно сказаться на их эмоциональном состоянии и общем развитии. Эта напряжённость может проявляться в различных формах, таких как тревожность, ухудшение самооценки и даже проблемы со здоровьем. Вместе с тем, родительская поддержка и понимание имеют критическое значение для снижения уровня стресса у детей и их успешной адаптации к образовательной среде. Создание безопасной и поддерживающей атмосферы в семье, а также регулярное общение о переживаниях и ощущениях ребёнка помогают укреплять его уверенность и готовность к преодолению трудностей. Осознание значимости эмоционального комфорта и устойчивости способствуют создаваемию условий, в которых дети могут развиваться и учиться без лишнего давления. Родители должны быть чуткими к потребностям своих детей и активно

работать над созданием позитивной среды, где их ценности и достижения признаются и поддерживаются. Таким образом, родительская поддержка и создание безопасной и стабильной среды для развития становятся ключевыми факторами в успешной подготовке детей к школе. На этом фоне методики повышения педагогической и психологической грамотности родителей становятся исключительно актуальными. Одним из наиболее эффективных способов является обучение через активное участие родителей в образовательном процессе. Посещение курсов и семинаров, участие в практических мастерских и родительских собраниях помогает родителям узнать о современных подходах и адаптировать их в своей воспитательной практике. В дополнение к этому доступность онлайн-ресурсов, таких как курсы на платформах Coursera и Udemy, позволяет родителям обучаться в удобное время и формате, что расширяет их горизонты и углубляет знания в аспектах воспитания. Создание развивающей среды дома также играет важную роль. Родители могут предлагать различные обучающие игры, книги и творческие проекты, что способствует развитию у детей когнитивных и творческих навыков. Навыки общения и поддержки также нельзя игнорировать, так как активное слушание и обсуждение с детьми их переживаний и потребностей помогают установить доверительные отношения и снизить уровень тревожности. Взаимодействие с другими родителями и обмен опытом на различных форумах и встречах могут стать источником полезной информации и моральной поддержки. Работа с педагогами и активное участие в их мероприятиях, таких как родительские встречи и консультации, позволяет родителям лучше понять подходы к обучению и способы поддержки образовательного процесса дома.

В заключение, современные вызовы в образовании требуют от родителей активной роли в воспитании и обучении детей. Повышение педагогической и психологической грамотности становится необходимым условием для успешной подготовки детей дошкольного возраста к школе, а применение разнообразных методик поможет создать благоприятную атмосферу для развития и обучения, укрепляя семейные связи и формируя гармоничное окружение для детей.

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ИСПОЛЬЗОВАНИЕ СПУТНИКОВЫХ ДАННЫХ ДЛЯ МОНИТОРИНГА СОСТОЯНИЯ АТМОСФЕРЫ В Г. ТАШКЕНТ

Аннотация. *В последнее время бурное развитие спутниковых методов измерений параметров атмосферы сделала возможным построить систему непрерывного мониторинга воздуха по всему земному шару. Это особенно ценно для тех регионов, где нет постоянных наблюдений или количество станций не покрывает всю территорию. Поэтому во всем мире происходит активное исследование и внедрение спутниковых наблюдений на оперативную и исследовательскую работу. В данной статье на основе сопоставительного анализа будет показана адаптация спутниковых измерений температуры воздуха для г. Ташкента.*

Ключевые слова: *Метеорологические спутники, температура воздуха, Aura, погрешность.*

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USING SATELLITE DATA TO MONITOR THE STATE OF THE ATMOSPHERE IN TASHKENT

Abstract. *Recently, the rapid development of satellite methods for measuring atmospheric parameters has made it possible to build a system for continuous air monitoring around the globe. This is especially valuable for those regions where there are no permanent observations or the number of stations does not cover the entire territory. Therefore, active research and implementation of satellite observations for operational and research work is taking place all over the world. In this article, based on a comparative analysis, the adaptation of satellite measurements of air temperature for Tashkent will be shown.*

Keywords: *Meteorological satellites, air temperature, Aura, error.*

Введение. Измерение и прогноз температуры одна из важных задач метеорологии. Для решение этой задачи в современной практике уже используются данные исскуственных спутников Земли[1,2]. Эти измерения служат для определения погодных фронтов, мониторинга Эль-Ниньо-Южного колебания, определения силы тропических циклонов, изучения

городских островов тепла и мониторинга глобального климата. Преимущества спутниковых измерений заключается в том, что мы можем получать непрерывные данные как по пространству, так и по времени.

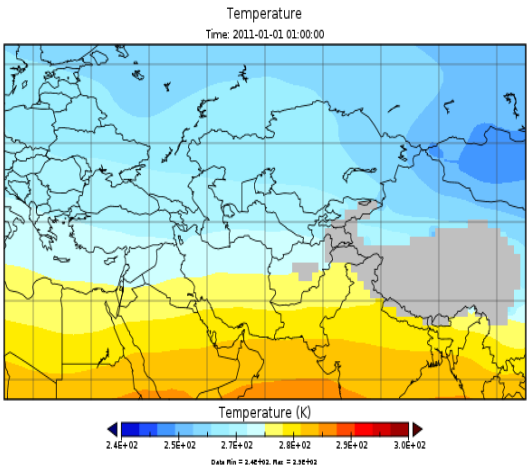
Технически спутниковые измерения температуры - это анализ радиометрических измерений на различных высотах, в том числе на поверхности моря и на поверхности суши, полученные с помощью спутника.

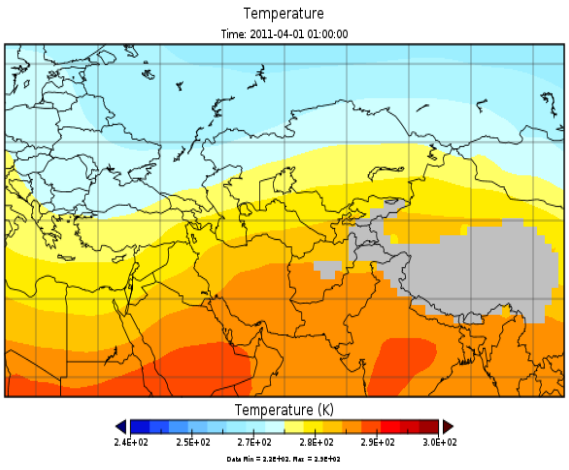
Для адаптации данных спутниковых измерений для нашей республики мы сопоставили результаты спутниковых измерений и данные наземных измерений температуры воздуха на примере г. Ташкента. На основе этих данных было построено пространственно-временное распределение температуры для всей республики.

Методы измерение температуры и обработка этих данных. Метеорологические спутники не измеряют температуру напрямую. Они измеряют излучение в различных диапазонах длин волн, которые затем должны быть математически инвертированы для получения косвенных значений температуры. Результирующие температурные профили зависят от деталей методов, которые используются для получения температур от излучений.

Преимущество спутников заключается в том, что они ежедневно измеряют практически всю Землю одними и теми же приборами, которые затем сверяются друг с другом. Но поскольку между инструментами есть очень небольшие различия, которые могут со временем немного измениться, необходимо внести коррективы.

Пространственные распределение температуры в Узбекистане.





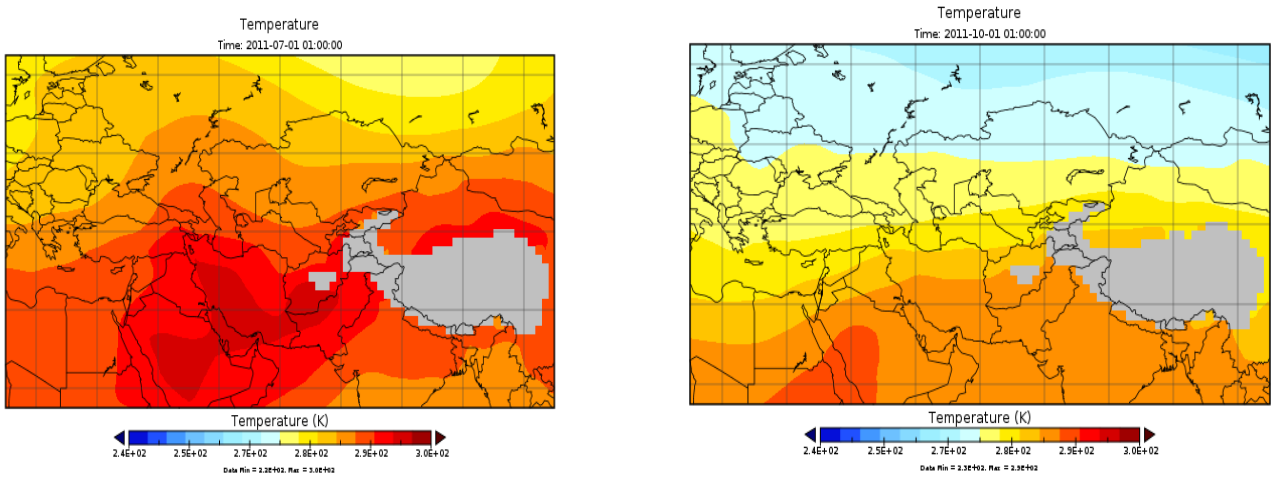


Рис.1. Пространственное распределение среднемесячной температуры на территории Узбекистана на основе спутниковых данных. а) январь б) апрель в) июль г) октябрь

На рис.1 показаны карты распределение температуры на территории Узбекистана на основе данных спутниковых измерений. Как видно из карт летом в Узбекистане температура может достигать 40°C и выше в июле и августе. Зимой, особенно в северных регионах, в январе средняя температура может опускаться до -5°C и ниже, особенно в таких городах, как Самарканд и Ташкент. На юге, например в Ташкенте, зимы мягче, с температурами около 0°C.

Для сопоставление данных спутников были выбраны метеостанции в разных городах. Для примера для города Ташкент был получении рис.2., где видны результаты сопоставительного анализа.

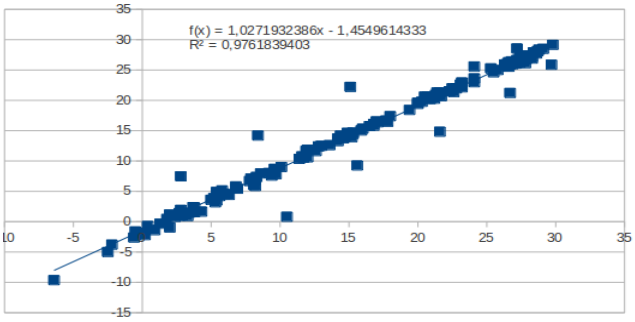


Рис.2. Сопоставление данных реанализа и наземных измерений температуры воздуха.

Заключение. Результаты сопоставительного анализа показали что, данные спутниковых и наземных измерений хорошо согласуются между собой и коэффициент корреляции составил 0,95. Построенные карты распределение температуры для территории республики, дают возможность исследовать всю территорию Узбекистана, даже в тех регионах, где нет сети наземных станций.

Эти измерение могут служить для многих других подобных исследований атмосферы и гидросферы.

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РАЗРАБОТКА РАЗДАТОЧНЫХ МАТЕРИАЛОВ ПО РУССКОМУ ЯЗЫКУ ДЛЯ СТУДЕНТОВ ТЕХНИЧЕСКИХ ВУЗОВ

Аннотация:*Обучение русскому языку в технических вузах требует разработки специализированных методик и материалов, способствующих формированию профессионально ориентированных языковых компетенций. В статье проводится исследование особенностей преподавания русского языка в контексте технического образования, анализируются ключевые задачи и проблемы создания раздаточных материалов, ориентированных на студентов технических специальностей. Рассматриваются теоретические и практические аспекты проектирования дидактических материалов, включая применение цифровых технологий и мультимедийных ресурсов. Особое внимание уделяется профессиональной направленности содержания и адаптации материалов к уровню подготовки студентов. На основе анализа разработаны рекомендации по созданию современных раздаточных материалов, учитывающих специфику технического обучения и современные образовательные стандарты.*

Ключевые слова: *русский язык, технические вузы, профессионально ориентированное обучение, раздаточные материалы, методика преподавания, цифровизация обучения.*

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DEVELOPMENT OF HANDOUTS ON THE RUSSIAN LANGUAGE FOR STUDENTS OF TECHNICAL UNIVERSITIES

Abstract: *Teaching Russian in technical universities requires the development of specialized methods and materials that contribute to the formation of professionally oriented language competencies. The article studies the features of teaching Russian in the context of technical education, analyzes the key tasks and problems of creating handouts aimed at students of technical specialties. Theoretical and practical aspects of designing didactic materials, including the use of digital technologies and multimedia resources, are considered. Particular attention is paid to the professional focus of the content and adaptation of materials to the level of students' training. Based on the analysis, recommendations have been*

developed for creating modern handouts that take into account the specifics of technical training and modern educational standards.

Keywords: *Russian language, technical universities, professionally oriented training, handouts, teaching methods, digitalization of training.*

Русский язык является неотъемлемой частью профессионального образования в технических вузах, где он выступает не только как средство коммуникации, но и как инструмент для формирования профессиональных и академических компетенций. Студенты технических специальностей сталкиваются с необходимостью применять русский язык в профессиональной сфере: составлять отчёты, писать техническую документацию, проводить деловую переписку, готовить научные статьи и презентации.

Однако традиционные подходы к обучению русскому языку зачастую не отвечают требованиям современной образовательной среды, особенно в условиях технических вузов. Основными проблемами являются:

- Недостаточная связь содержания курса с профессиональной деятельностью студентов.
- Снижение мотивации к изучению языка из-за акцента на лингвистической теории вместо практических задач.
- Отсутствие современных и интерактивных учебных материалов, которые могли бы эффективно учитывать специфику технического образования.

Для решения этих проблем особое значение приобретает разработка раздаточных материалов, способных интегрировать профессионально ориентированный подход, современные образовательные технологии и коммуникативную направленность. Эти материалы должны не только способствовать повышению языковых компетенций, но и стимулировать интерес студентов к изучению русского языка через практическое применение знаний.

Целью настоящей работы является исследование методологических основ и практических подходов к созданию раздаточных материалов по русскому языку для студентов технических вузов, а также разработка рекомендаций по их проектированию с учётом современных образовательных стандартов и потребностей студентов.

Обучение русскому языку в технических вузах имеет ряд особенностей, которые необходимо учитывать при разработке учебных материалов:
1. Профессионально ориентированная направленность. Русский язык изучается как средство профессиональной коммуникации. Это предполагает акцент на развитие навыков, связанных с технической документацией, деловой перепиской, научным стилем речи.
2. Практическая значимость. В технических вузах ключевое внимание уделяется практическому применению знаний. Это касается как общих коммуникативных навыков, так и узкоспециализированных умений.

3. Разнородность языковой подготовки. Студенты могут значительно различаться по уровню владения русским языком. Это требует разработки материалов, которые будут адаптированы к разным уровням подготовки.
4. Ограниченность времени на изучение языка. В условиях насыщенного учебного плана языковые дисциплины часто получают минимальное количество учебных часов, что делает раздаточные материалы важным инструментом для самостоятельного обучения.

Раздаточные материалы играют важную роль в процессе изучения русского языка, поскольку они выполняют сразу несколько функций:
- *Информационную.* Предоставляют студентам структурированную информацию, которая служит основой для выполнения практических заданий.
- *Методическую.* Организуют процесс обучения, задавая направление и темп изучения темы.
- *Мотивационную.* Повышают интерес к предмету благодаря включению интерактивных элементов и примеров из профессиональной деятельности.
- *Контролирующую.* Позволяют преподавателю отслеживать уровень усвоения материала и корректировать образовательный процесс.

Раздаточные материалы могут быть представлены в виде печатных пособий, электронных документов, презентаций, видеоуроков, а также интерактивных платформ и приложений.

Разработка раздаточных материалов требует учёта современных методических подходов. Основное внимание уделяется развитию у студентов навыков устной и письменной речи в профессиональной сфере. Использование мультимедийных ресурсов, онлайн-тестов, обучающих платформ делает процесс обучения более гибким и увлекательным. Задания и примеры должны быть максимально приближены к реальным профессиональным ситуациям, с которыми студенты столкнутся в своей работе. Материалы должны быть адаптированы к уровню подготовки студентов, что позволит обеспечить индивидуализацию обучения.

Эффективные раздаточные материалы для студентов технических вузов должны включать следующие компоненты:

1. Теоретический блок. Краткие справочные материалы по грамматике, лексике и стилистике, которые можно использовать в качестве справочника.
2. Практические задания. Упражнения, направленные на развитие профессиональных навыков (например, составление технических текстов, аннотаций, рефератов).
3. Кейсы. Ситуационные задания, требующие применения полученных знаний в профессиональной сфере (анализ документации, подготовка доклада).
4. Контрольные задания. Тесты и задания для самопроверки, позволяющие оценить уровень усвоения материала.
5. Мультимедийные ресурсы. Видеоуроки, подкасты, интерактивные приложения, которые способствуют самостоятельному изучению языка.

Для создания эффективных раздаточных материалов приведем несколько

рекомендаций.

1. Адаптация под профессиональные потребности. Раздаточные материалы должны быть строго ориентированы на профессиональные задачи, с которыми сталкиваются студенты технических вузов. Это предполагает активное использование специализированной терминологии, а также включение текстов, связанных с техническими науками, инженерными дисциплинами и научными исследованиями. Формирование содержательного материала должно учитывать специфику будущей профессиональной деятельности обучающихся, способствуя развитию языковой компетенции в контексте профессиональной коммуникации.

2. Интеграция цифровых технологий. Важным требованием к современным раздаточным материалам является их цифровая доступность и интерактивность. Следует разрабатывать учебные материалы в формате интерактивных PDF-документов, мультимедийных презентаций, электронных пособий и онлайн-курсов. Это обеспечит не только удобство их использования, но и стимулирует студентов к активной самостоятельной работе, вовлекая их в образовательный процесс через цифровую среду. Использование платформ дистанционного обучения (LMS) также может стать важным компонентом образовательной стратегии.

3. Гибкость и адаптивность содержания. Учебные материалы должны быть структурированы таким образом, чтобы обеспечить возможность их индивидуальной настройки под потребности конкретных групп студентов. Дифференцированный подход позволяет учитывать различия в уровне подготовки студентов, их языковые навыки, а также специфику выбранных инженерных или технических специальностей. Это создаёт условия для реализации принципов персонализации и вариативности обучения.

4. Актуализация содержания и регулярное обновление. Эффективность раздаточных материалов напрямую связана с их соответствием современным реалиям и требованиям профессиональной среды. Постоянное обновление материалов с учётом новых тенденций, научных достижений и изменений в профессиональной терминологии позволяет поддерживать их актуальность. Особое внимание следует уделять включению актуальных примеров из технической практики, что будет способствовать повышению интереса студентов и их вовлечённости в учебный процесс.

Таким образом, разработка раздаточных материалов должна основываться на принципах научной обоснованности, практической применимости и интеграции инновационных технологий. Реализация указанных рекомендаций позволит не только повысить эффективность обучения русскому языку в технических вузах, но и сформировать у студентов профессионально значимые компетенции, необходимые для их будущей профессиональной деятельности.

Разработка раздаточных материалов по русскому языку для студентов технических вузов является важной задачей, направленной на повышение качества обучения и формирование профессиональных языковых

компетенций. Такие материалы позволяют учитывать специфику технического образования, профессиональные интересы студентов и требования современного образовательного процесса.

Для успешной реализации данной задачи необходимо интегрировать современные методики, цифровые технологии и учитывать индивидуальные особенности студентов. Раздаточные материалы должны стать не только средством передачи знаний, но и инструментом формирования мотивации и развития умений, необходимых для профессиональной деятельности.

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КАЧЕСТВЕННЫЕ ХАРАКТЕРИСТИКИ ФИНАНСОВОЙ ОТЧЕТНОСТИ

Аннотация: *Данная статья посвящена анализу качественных характеристик финансовой отчетности, определяющих ее достоверность и полезность для пользователей. Рассматриваются основные качественные характеристики согласно МСФО и национальным стандартам, их взаимосвязь и влияние на принятие экономических решений. Особое внимание уделяется проблемам обеспечения качества отчетности и мерам по ее улучшению.*

Ключевые слова: *финансовая отчетность, качественные характеристики, МСФО, достоверность, полезность, сопоставимость, понятность, существенность, своевременность, надежность, предсказуемость.*

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QUALITATIVE CHARACTERISTICS OF FINANCIAL STATEMENTS

Abstract: *This article is devoted to the analysis of the qualitative characteristics of financial statements that determine their reliability and usefulness to users. The main qualitative characteristics according to IFRS and national standards, their interrelation and influence on economic decision-making are considered. Special attention is paid to the problems of ensuring the quality of reporting and measures to improve it.*

Keywords: *financial statements, qualitative characteristics, IFRS, reliability, usefulness, comparability, clarity, materiality, timeliness, reliability, predictability.*

Введение

Финансовая отчетность является основным источником информации о финансовом положении, результатах деятельности и движении денежных средств организации. Для того чтобы отчетность выполняла свою основную функцию – информирование пользователей и принятие на основе этой информации обоснованных экономических решений – она должна обладать определенными качественными характеристиками. Эти характеристики определяют достоверность и полезность информации, представленной в отчетности.

Основные качественные характеристики финансовой отчетности

Согласно Международным стандартам финансовой отчетности (МСФО) и национальным стандартам бухгалтерского учета, основные качественные характеристики финансовой отчетности можно разделить на две категории: фундаментальные и улучшающие.

Фундаментальные характеристики:

Достоверность (надежность): Информация должна быть свободна от существенных искажений и представлять события и операции так, как они произошли в действительности. Это включает в себя не только точность числовых данных, но и полное и честное раскрытие всех существенных фактов. Нарушение принципа достоверности может привести к принятию ошибочных решений.

Полезность: Информация должна быть способна влиять на экономические решения пользователей. Это означает, что отчетность должна предоставлять информацию, которая является релевантной для потребностей пользователей и позволяет им делать обоснованные выводы о финансовом состоянии и результатах деятельности организации.

Улучшающие характеристики:

Понятность: Информация должна быть представлена ясным и доступным языком, понятным для пользователей, обладающих необходимыми знаниями в области экономики и финансов. Сложные термины должны быть объяснены, а информация – структурирована логично и последовательно.

Существенность: Информация должна быть существенной, то есть иметь достаточно большое влияние на экономические решения пользователей. Несущественная информация может быть исключена из отчетности, чтобы избежать ее перегрузки. Определение существенности зависит от контекста и профессионального суждения.

Своевременность: Информация должна быть предоставлена в достаточном временном промежутке, чтобы она оставалась актуальной и полезной для принятия решений. Задержка с предоставлением отчетности может снизить ее ценность.

Сопоставимость: Информация должна быть сопоставима с информацией за предыдущие периоды и с информацией других организаций. Это достигается путем использования последовательных методов учета и

раскрытия информации. Сопоставимость позволяет пользователям отслеживать тенденции и проводить сравнительный анализ.

Предсказуемость (верифицируемость): Информация должна быть подтверждаема независимыми экспертами. Это означает, что разные аудиторы, используя одинаковые методы, должны прийти к схожим выводам на основе представленной информации. Верифицируемость повышает доверие к отчетности.

Взаимосвязь качественных характеристик.

Качественные характеристики финансовой отчетности тесно взаимосвязаны. Например, понятность способствует достоверности, так как четко представленная информация легче поддается проверке. Своевременность повышает полезность информации, а сопоставимость – ее надежность и ценность для анализа трендов. Все эти характеристики работают вместе, чтобы обеспечить высокое качество отчетности.

Проблемы обеспечения качества финансовой отчетности

Несмотря на существование стандартов, обеспечение высокого качества финансовой отчетности остается сложной задачей. К основным проблемам относятся:

Субъективность оценок: При применении некоторых методов учета (например, при оценке запасов или нематериальных активов) неизбежна определенная степень субъективности, что может влиять на достоверность информации.

Сложность стандартов: МСФО и национальные стандарты являются достаточно сложными документами, что может приводить к различным интерпретациям и ошибкам при их применении.

Отсутствие достаточных ресурсов: Не все организации обладают достаточными финансовыми и кадровыми ресурсами для обеспечения высокого качества учета и составления отчетности.

Давление со стороны руководства: В некоторых случаях руководство может оказывать давление на бухгалтеров, чтобы исказить финансовую информацию в своих интересах.

Меры по улучшению качества финансовой отчетности

Для повышения качества финансовой отчетности необходимо предпринимать следующие меры:

Повышение квалификации бухгалтерского персонала: Регулярное обучение и повышение квалификации бухгалтеров помогут им лучше понимать и применять стандарты.

Использование современных информационных технологий: Автоматизированные системы бухгалтерского учета повышают точность и эффективность работы.

Усиление внутреннего контроля: Эффективная система внутреннего контроля помогает предотвращать ошибки и мошенничество.

Независимый аудит: Проведение независимого аудита обеспечивает дополнительную проверку достоверности финансовой отчетности.

Повышение прозрачности: Более полное и ясное раскрытие информации в отчетности способствует повышению доверия пользователей.

Заключение

Качественные характеристики финансовой отчетности являются основой для ее достоверности и полезности. Обеспечение высокого качества отчетности – это сложная задача, требующая совместных усилий со стороны бухгалтеров, аудиторов, разработчиков стандартов и руководства организаций. Постоянное совершенствование методов учета, использование современных технологий и повышение профессиональной компетентности – это залог предоставления пользователям достоверной и полезной информации, способствующей эффективному принятию экономических решений.

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ПУЛ МАБЛАҒЛАРИ ТАЪРИФИ ВА ТАСНИФИНИ ХАЛҚАРО СТАНДАРТЛАР АСОСИДА ТАКОМИЛЛАШТИРИШ

Аннотация. *Ушбу мақолада пул маблағлари ва эквивалентларини тан олиш, таърифини халқаро стандартларга мувофиқлаштиришдаги долзарб муаммолар қайд қилинган. Пул маблағлари бўйича муаллифлик таърифи ишлаб чиқилди. Хорижий тажрибалардан келиб чиқиб пул маблағлари ва пул эквивалентлари таркибини такомиллаштириш бўйича таклифлар ишлаб чиқилди. Бугунги кунда пул маблағлари ҳисобини такомиллаштиришнинг асосий йўналишлари таклиф этилди.*

Калитли сўзлар: *пул маблағлари, пул эквивалентлари, операцион фаолият, инвестициявий фаолият, молиявий фаолият, кичик касса*

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IMPROVING THE DEFINITION AND CLASSIFICATION OF CASH ASSETS IN ACCORDANCE WITH INTERNATIONAL STANDARDS

Abstract*. In this article, the current problems in the recognition of cash assets and equivalents, their definition in accordance with international standards are noted. An author's definition of funds has been developed. On the basis of foreign experiences, proposals were developed to improve the composition of cash and cash equivalents. Today, the main directions for improving the cash account were proposed.*

Key words: *cash, cash equivalents, operational activity, investment activity, financial activity, petty cash*

Кириш.

Пул маблағлари корхонанинг асосий капитали, уни ҳарактерлантирувчи маблағи, мажбуриятларини тўлаш воситаси ҳамда ўта тез ликвидли актив ҳисобланади. Пул ва унинг функциялари иқтисодчи олимлар томонидан бозор иқтисодиётининг асосий тамойили ҳамда инструменти сифатида талқин қилинган, унинг таърифи ишлаб чиқилган. Пулнинг жамиятдаги функциялари талқин қилинган.

Бугунги кунда иқтисодиётнинг глабаллашуви шароитида пулнинг аҳамияти, унинг қиймат ўлчови ва тўлов воситаси сифатидаги функциялари янгича мазмун кашф этмоқда. Жаҳон иқтисодиёти глобаллашуви шароитида пул маблағларига янада кўпроқ эҳтиёж сезилмоқда.

Пул-кредит сиёсатининг асосий йўналишларида қайд қилинганидек, “Халқаро валюта жамғармасининг прогнозларига кўра, жаҳон иқтисодиёти 2021 йилда 5,9 фоизга, 2022 йилда 4,9 фоизга, 2023-2024 йилларда эса 3,5 фоиз атрофида ўсиши кутилмоқда.”[111]

Президент Ш.М.Мирзиёев (2018) “Узоқ йиллардан бери иқтисодиёт тармоқларида пул оқимлари самарасиз бошқарилганлиги ва номутаносиб тақсимлангани оқибатида қарздорлик ҳолатлари кўпайиб кетганлиги” ни қайд этган. Ушбу ҳолатлар асосий ҳаракатлантирувчи субъектлари ҳисобланган корхоналар ва ташкилотларда пул маблағларидан самарали фойдаланишни тақозо этади.

Мамлакатимиз иқтисодиётида муҳим масалалардан бири бу хорижий инвестицияларни жалб қилиш масаласидир. Ўзбекистон – 2030 стратегиясида “Мамлакатимизда **250 миллиард** долларлик инвестицияларни ўзлаштириш, жумладан **110 миллиард** доллар хорижий инвестициялар ва **30 миллиард** доллар давлат-хусусий шериклик доирасидаги инвестицияларни жалб қилиш” вазифасининг қўйилиши ҳам инвесторларга молиявий ҳисоботларда сифатли ҳамда ҳаққоний ахборотларни тақдим этишни талаб этади. Инвесторни қизиқтирадиган энг муҳим масалалардан бири бу соф фойда ва унинг тақсимланиши ҳисобланади. Инвесторлар соф фойда билан пул маблағлари ҳаракати ўртасидаги боғлиқликни очиқлаш ҳамда пул маблағларидан корхона қайси мақсадларда фойдаланганлиги тўғрисидаги ахборотларни талаб этади. Бу ўз навбатида пул маблағлари ҳисобини халқаро стандартлар асосида такомиллаштириш заруриятини келтириб чиқаради.

1-расм. Молиявий активларнинг таркиби (Б.Боронов,2020).

Ушбу расмдан кўриниб турибдики, пул маблағлари молиявий активнинг энг асосий элементи ҳисобланади. Шу боис, муаллифнинг пул маблағлари бухгалтерия балансида молиявий активлар бўлимини очиш ва

[111] Пул-кредит сиёсатининг 2022 йил ва 2023-2024 йиллар даврига мўлжалланган асосий йўналишлари https://cbu.uz/upload/medialibrary/12a/Pul_kredit-siyesatining-2022_2024-yillar-uchun-asosiy-ynalishlari_Publikatsiya-uchun.pdf

унда акс эттириш борасидаги таклифларига қўшиламиз. Молиявий активлар, жумладан пул маблағлари жорий активлар такрибига киради.

Таҳлил ва натижалар муҳокамаси.

Жорий активлар таркибида муҳим моддалардан бири пул маблағлари ҳисобланади. Халқаро стандартларда жорий активларнинг учта тури кўрсатилган. *Биринчисига*, бизнес субъектининг нормал операцион цикли давомида олинган ва истеъмол қилинган айланма капиталнинг бир қисми киритилган. *Иккинчисига*, операцион актив ҳисобланмаган, балки савдо ва инвестицион мақсадларда қўлланилиб, ҳисобот санасидан 12 ой давомида сотишга мўлжалланган маблағлар қайд қилинган. У*чинчи* турига пул маблағлари ва уларнинг эквивалентлари, қайсики фойдаланишда тўсиқларга эга бўлмаган маблағлар киритилган.

Пул маблағлари ҳам жорий маблағларда катта ҳиссани ташкил этадиган тезкор ликвидли актив ҳисобланади ва бутун бизнесни ҳаракатлантирувчи восита сифатида майдонга чиқади. Ҳозирги кунда пул маблағларининг ҳолати ва ҳаракатига доир сифатли ҳамда объектив ахборотларни шакллантиришда уларнинг ҳисоби ва ҳисоботини бухгалтерия ҳисоби миллий ва халқаро стандартлари талабларига мувофиқлаштириш муҳим аҳамият касб этади. Пул маблағлари ҳисобининг асосий масалалари бўлиб бўлиб пул маблағлари тавсифи, таркиби, ҳисобга олиш усуллари ва ҳисоботи бўлиб ҳисобланади.

9-сон БҲМС “Пул оқими тўғрисидаги ҳисобот” миллий стандартда пул маблағлари, пул эквивалентлари ва пул оқимлари тушунчаларига қуйидагича таъриф берилган:

“Пул маблағлари - кассадаги нақд пул ва талаб қилиб олинадиган депозитлар, шунингдек банкнинг ҳисоб-китоб, валюта ва бошқа счётларидаги маблағлар. Пул эквивалентлари - маълум пул маблағига тез ва осон алмаштириладиган ҳамда қийматидаги ўзгаришлар туфайли унча кўп бўлган қисқа муддатли, юқори ликвидли инвестициялар (молиявий қўйилмалар). Пул оқимлари — пул маблағлари ҳамда улар эквивалентларининг оқими (тушуми) ва чиқими (сарфланиши, чиқиши)дан иборат.”

Стандартда қўйидаги атамаларга таъриф берилган (7-сон МҲХС. 6§):

Пул маблағлари – бу компаниянинг кассаси ва жорий счётларидаги пулларидан ташкил топади.

Пул маблағлари эквиваленти – қисқа муддатли, пул маблағларининг олдиндан маълум бўлган суммасига тез айланадиган ва қиймати ўзгариши салмоқли бўлмаган рискка тортиладаиган тез ликвидли қуйилмалардир.

Молиявий ҳисоб 1 ўқув қўлланмасида (2005) “Пул маблағлари фақат шундай номдагиларни қамраб оладики, қайсики ундан мажбуриятларни зудлик билан сўндириш учун фойдаланиши мумкин бўлади. Пул маблағлари молия муассасаларида жорий счётлардаги қолдиқларни, нақд купьюраларни, монета, валюта, кичик кассалардаги нақд суммалар ва молия муассасалари томонидан зудлик билан амалга ошириладиган депозитлар ва чегириб

олишлар учун қабул қилинадиган корхонанинг кассасига узатиланидан аниқ бўлган пул ҳужжатлари киради.”

Юқоридаги таърифларни тадқиқ қилиш асосида хулоса қилиш мумкинки, пул маблағларига берилган ягона таъриф мавжуд эмас. Барча таърифларда пул маблағлари деганда кассада ва банкдаги депозит счётлардаги пуллар тушунилиши таъкидланган. Айрим таърифларда унинг энг муҳим хусусиятлари фойдаланишда ҳеч қандай тўсиққа эга эмаслиги, тез ликвидли актив эканлиги, молиявий активлар такрибига кириши, харид қилинган товарлар, ишлар ва хизматлар учун тўлов воситаси эканлиги таъкидланган. Юқоридаги таърифларда келтирилган ижобий жиҳатларини ҳисобга олиб пул маблағларига қуйидагича таърифни берамиз:

“**Пул маблағлари** деганда, молиявий актив ҳисобланган ўта тез ликвидли жорий актив бўлиб, харид қилинган товарлар (маҳсулотлар, иш ва хизматлар) ва бошқа мажбуриятлар учун ҳеч қандай тўсиқларсиз тўлов воситасини бажарувчи нақд ва ва талаб қилиб олинадиган депозит счётлар, шунингдек банкнинг ҳисоб-китоб, валюта ва бошқа счётларидаги пуллар ҳамда депозитсиз инструментлар, жумладан чеклар ва пул ордерларига айтилади.”[112]

21-сон БҲМСда пул маблағларини уларнинг қаерда жойлашишига (банкдаги хисоб-рақамлари ёки корхона кассасида) қараб валюта турлари бўйича таснифланган: 1) кассадаги пул маблағлари; 2) ҳисоб-китоб счётидаги пул маблағлари; 3) чет эл валютасидаги счётлардаги пул маблағлари; 4) банкдаги махсус счётлардаги пул маблағлари; 5) пул эквивалентлари; 6) йўлдаги пул маблағлари.

Ушбу фикрлардан кўриниб турибдики, мамлакатимиз олимлари томонидан пул маблағлари, уларнинг эквивалентлари моҳияти ва таркибий қисмлари кўрсатиб берилган. Лекин, уларни классификациялашнинг белгилари ва таркибий қисмлари тўлиқ ишлаб чиқилган, деб бўлмайди.

Халқаро тажрибаларда пул маблағлари ва эквивалентларининг таърифини беришга уринишлар кам. Асосий эътибор уларнинг таркибий қисмларини белгилашга қаратилган. Биз тадқиқот натижалари бўйича чет эл ва мамлакатимиздаги тажрибаларни ўрганиш асосида пул маблағлари ва уларнинг эквивалентларининг амалдаги таснифини маълум бир белгилари бўйича тизимлаштирамиз:

Пул маблағларининг таркибидаги элементлари бўйича: 1) банкдаги депозит счётлардаги қолдиқлар; 2) нақд купюралар ва тангалар; 3) чеклар; 4) пластик карточкалардаги маблағлар; 5) банк драфтлари; 6) пул ордерлари; 7) депозит сертификатлари.

Пул маблағларининг банкда ёки корхонада жойлашганлигига қараб: 1) Корхона бош кассаси (миллий валютадаги касса, чет эл валютасидаги касса); 2) Операцион касса (савдо дўконлари ва бошка объектлардаги касса); 3) банкдаги ҳисоб-китоб счёти (миллий валютадаги ҳисоб-китоб счёти, чет

[112] Тадқиқотлар асосида муаллиф таърифи

эл валютасидаги ҳисоб-китоб счёти, махсус счётлардаги пул маблағлари); 4) йўлдаги пул маблағлари (инкассаторлар, кечки касса, алоқа бўлимлари).

Пул маблағларининг мамлакат ичкарисида ёки ташқарисида жойлашганлигига қараб: 1) мамлакат ичкарисидаги пул маблағлари (мамлакат ичидаги касса ва банкдаги ҳисоб-китоб счётлари); 2) Мамлакат ташқарисидаги пул маблағлари (чет элдаги валюта счётлари).

Валюта турига қараб: 1) Ўзбекистон миллий валютасидаги пул маблағлари (банкда ва кассада «сўм»даги пул маблағлари); 2) Чет эл валютасидаги пул маблағлари (хорижий банклардаги пул маблағлари).

Бюджет ташкилотларида ташкил топиш манбаларига қараб: 1) бюджет маблағлари (бюджет маблағлари кассаси, банкдаги бюджет ҳисоб-китоб счёти); 2) бюджетдан ташқари маблағлар (бюджетдан ташқари маблағлар кассаси ва банкдаги бюджетдан ташқари маблағлар ҳисоб-китоб счёти); 3) махсус маблағлар (банкда махсус маблағлар счёти).

Моддий ва номоддийлигига қараб: нақд пуллар ва электрон пуллар. Электрон пуллар – кредит муассаси томонидан чиқарилган, компьютер хотирасида маълумот кўринишида тақдим этилган, ҳам тўлов воситаси, ҳам муомала воситаси вазифасини, шунингдек пулнинг бошқа функцияларини бажарадиган ва барча имкониятларга эга бўлган банкноталаридир.

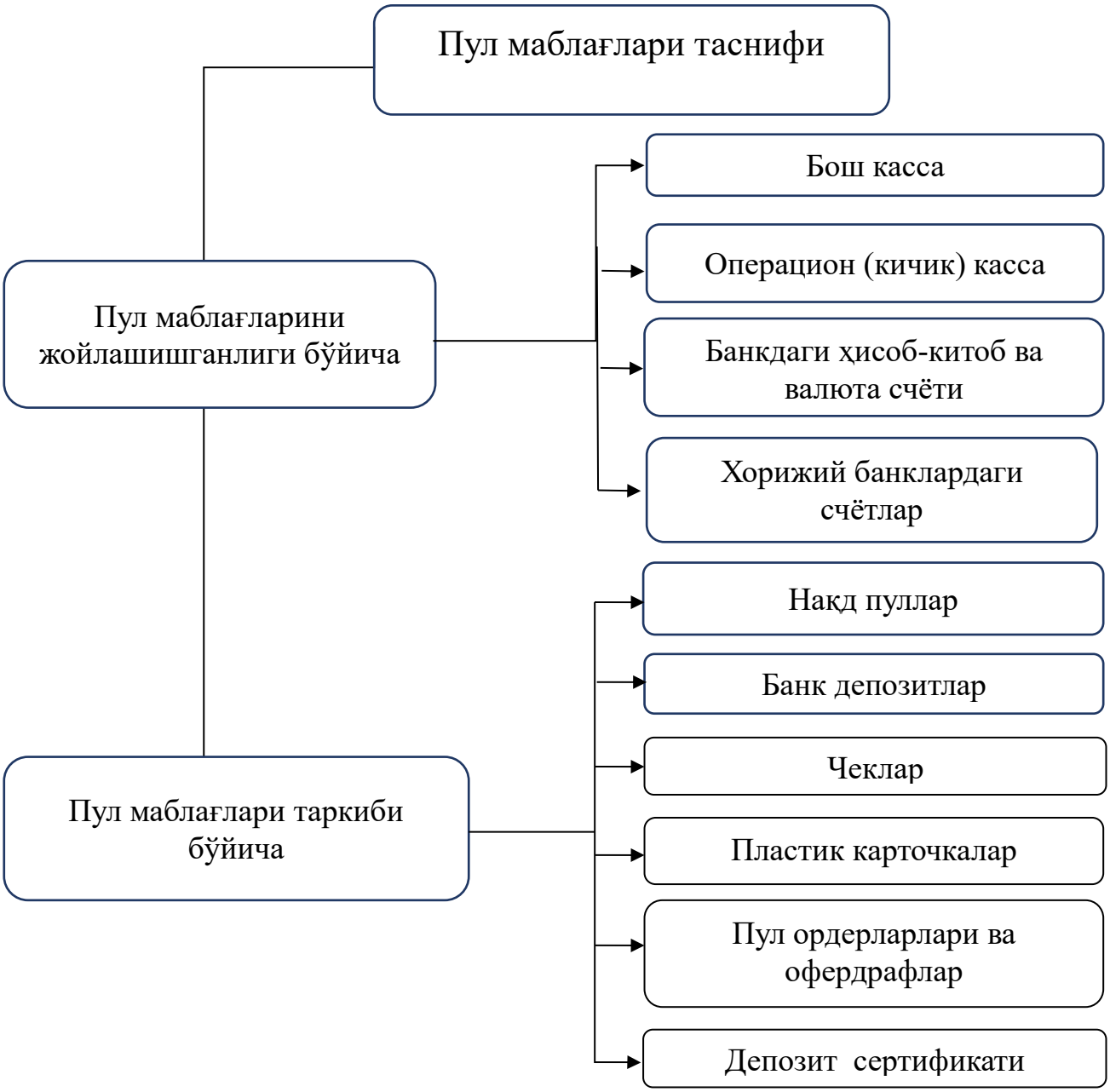
Пул маблағларининг ҳаракати тўғрисидаги ҳисобот пул маблағларининг ҳаракати тўғрисидаги маълумотларни уларнинг операцион, инвестицион ва молиявий фаолияти бўйича классификациялаб тақдим қилади. Халқаро стандартларда (10-17§) ушбу тушунчаларга қуйидагича таъриф келтирилган:

Операцион фаолият – компаниянинг асосий тушум келтирувчи ва инвестицион ва молиявий фаолиятидан ташқари бошқа фаолиятларидир.

Инвестицион фаолият – бу оборотдан ташқари активлар ва пул эквивалентига таллуқли бўлмаган бошқа инвестицияларни харид қилиш ва сотишдир.

Молиявий фаолият – компаниянинг хусусий капитали ва четдан жалб қилинган маблағлари миқдори ва таркибининг ўзгаришига олиб келувчи фаолиятдир.

Операцион фаолиятдан пул маблағларининг ҳаракати кўп жиҳатдан асосан даромад келтирувчи фаолияти билан боғлиқ бўлганлиги сабабли у соф фойда ёки зарарларни аниқлашда иштирок этадиган операцион ва бошқа ҳодисалари натижаси сифатида юзага келади.



2-расм. Пул маблағлари таснифи[113].

Инвестицион фаолиятдан пул маблағлари ҳаракати тўғрисидаги ахборотларни алоҳида очиқлаш муҳим аҳамият касб этади, қайсики у таллуқли харажатларнинг келгуси даромадлар ва пул маблағларининг келиб тушишини таъминлашга мўлжалланган ресурсларни шакллантириш мақсадида амалга ошириш даражасига гувоҳлик беради. Инвестицион фаолиятдан пул маблағларининг ҳаракатига қуйидаги мисолларни келтириш мумкин:

Молиявий фаолиятдан пул маблағларининг ҳаракати тўғрисидаги ахборотларни алоҳида очиқлаш муҳим аҳамият касб этади, қачонки бу

[113] Тадқиқотлар асосида муаллиф ишланмаси

ахборотлар компания учун капитал тақдим қиладиган инвесторлардан келгусида пул тушумига нисбатан талабларини прогнозлаштириш учун зарур ҳисобланади.

Халқаро стандартлдарга мувофиқ операцион, инвестициявий ва молиявий фаолиятдан пул маблағлари оқими таркиби қуйидаги тартибда шакллантирилган (1-жадвал).

1-жадвал

Корхонанинг операцион, инвестицион ва молиявий фаолиятлари пул оқимлари[114]

	Пул оқимлари таркиби
Операцион фаолият	(a) Товарларни сотиш ва хизматлар кўрсатишдан олинган пул тушумлари; (b) ижара тушумлари, гонорар, комиссионлар ва бошқа тушумлар; (c) таъминотчиларга товарлар ва хизматлар учун пул тўловлари; (d) хизматчилар ва улар номидан пул тўловлари; (e) суғурта компаниялари суғурта мукофатлари ва даъволари, бадаллар ва бошқа суғурта рағбатлари сифатиги пул тушумлари ва тўловлари; (f) фойда солиғи пул тўловлари ва компенсациялари, агарда уларда молиявий ва инвестицион фаолият билан боғлиқлик ўрнатиш мумкин бўлмаган ҳолларда; (g) тижорат ва савдо мақсадларида тузилган контрактлар бўйича пул тушумлари ва тўловлари
Инвестицион фаолият	(a) ер, бино ва машина ва асбоб-ускуналар, номоддий активлар ва бошқа узоқ муддатли активлар хариди учун пул тўловлари. Уларга ишланмалар учун капиталлашган харажатлар ҳамда бино, машина ва асбоб-ускуналарни ўзида ишлаб чиқариш билан боғлиқ тўловлар ҳам киради; (b) ер, бино ва машина ва асбоб-ускуналар, номоддий активлар ва бошқа узоқ муддатли активларни сотишдан пул тушумлари; (c) бошқа компанияларнинг ҳиссали ва қарзли инструментлари хариди ва қўшма фаолиятга ҳиссали қатнашиш учун пул тўловлари (пул эквиваленти сифатида кўриб чиқиладиган ушбу инструментлар учун тўловлар ҳамда тижорат ва савдо мақсадлари учун мўлжалланган тўловлардан ташқари); (d) бошқа компанияларнинг ҳиссали ва қарзли инструментлари сотилиши ва қўшма фаолиятга ҳиссали қатнашиш учун пул тушумлари (пул эквиваленти сифатида кўриб чиқиладиган ушбу инструментлар учун тушумлар ҳамда тижорат ва савдо мақсадлари учун мўлжалланган тушумлардан ташқари); (e) бошқа ташкилотларга тақдим қилинган аванс пул тўловлари ва кредитлар (Аванс тўловлари ва молия компаниялари томонидан тақдим қилинадиган кредитларидан ташқари); (f) бошқа ташкилотларга тақдим қилинган авансlар ва кредитларни қоплаш учун ундирилган пул тушумлари (Аванс тўловлари ва молиявий институтлар тақдим қилган кредитлардан ташқари) (g) муддатли контрактлар, опционлар ва своплар бўйича пул тўловлари, қайсики контрактлар тижорат ва савдо мақсадларида тузилган ҳолатлардан ёки молиявий фаолият сифатида классификацияланадиган тўловлардан ташқари. (h) муддатли контрактлар, опционлар ва своплар бўйича пул тушумлари, қайсики контрактлар тижорат ва савдо мақсадларида тузилган ҳолатлардан ёки молиявий фаолият сифатида классификацияланадиган тушумлардан ташқари

[114] 7-сон МҲХС “Пул оқимлар тўғрисидаги ҳисобот” стандарти асосида

Молиявий фаолият	(a) Акциялар ёки ҳиссали инструментлар эмиссиясидан пул тушумлари; (b) эгаларига компания акциялари хариди ёки қопланилиши учун пул тўловлари; (c) таъминланмаган облигациялари, займлар, векселлар, таъминланган облигациялар, закладкали ва бошқа қисқа муддатли ва узоқ муддатли кредитлар чиқаришдан пул тушумлари; (d) кредит суммалари пул қопланиши; ва (e) молиявий ижара бўйича қарзларни камайтириш учун ижрачиларга пул тўловлари

Пул маблағлари ҳисобини такомиллаштиришнинг асосий йўналишларига қуйидагиларни киритиш мумкин:

Пул маблағларини ва эквивалентларини тан олиш, унинг таркибини белгилаш, идентификациялаш масаласи. Ҳозирги кунда амалиётимизда пул маблағларининг таркиби халқаро стандартларга тўлиқ мувофиқ келмайди. Юқорида такидлаганимиздек, бизнинг амалиётимизда нақд пуллар билан, банкдаги ҳисоб-китоб ва валюта счётларидаги, йўлдаги пул маблағлари тушунилади. Хорижий тажрибаларда нақд ва нақдсиз пул маблағлари деган тушунчалар амал қилмайди. Хорижий компанияларда банк тизимида рақамли технологияларнинг кенг қўлланилиши нақд пулларга бўлган эҳтиёжини кескин камайтирган.

Халқаро амалиётда кенг қўлланилаётган тушунчалар, инструментлар бизнинг амалиётимизда етарли даражада қўлланилмай келинмоқда. Буларга масалан молиявий активлар, ҳиссали инструментлар тушунчаларини киритиш мумкин. Иқтисодий фаолият субъектлари бухгалтерия балансида молиявий активлар тушунчаси киритилмаган. Бундан ташқари юқорида хорижий манбаларда келтирилган чек, пул ордерлари, банк драфтлари ёки банк овердрафлари тушунчалари ҳам кенг қўлланилмайди. Кичик касса ва пул маблағларини назорат қилиш амалиётида ҳам салмоқли фарқлар мавжуд. Кичик касса амалиётини халқаро стандартларга мувофиқлаштиришимиз керак.

Пул оқимларини идентификация қилишда муаммолар мавжуд. Масалан, пул оқимларининг операцион, молиявий ёки инвестициявий фаолиятга доирлигини идентификация қилишда илғор хорижий тажрибалардан фойдаланиш етарли эмас деб ҳисоблаймиз. Инвестициявий фаолият билан молиявий фаолиятга доир пул оқимларини аниқ идентификация қилиш мезонларининг йўқлиги соҳада маълум амалий муаммоларни юзага келтирмоқда. Жумладан, инвестициявий фаолиятдаги ҳиссали ва қарзли инструментлари, муддатли контрактлар, опционлар ва своплар бўйича пул тўловлари тушунчалари бўйича услубий кўрсатмалар етарли эмас. Худди шунингдек, молиявий фаолиятда акс эттириладиган ҳиссали инструментлар эмиссияси, таъминланмаган облигациялари, займлар, векселлар, таъминланган облигациялар, закладкали пул тушумлари тушунчалари маълум очиқлашлар ва тажрибаларни талаб этади.

Пул маблағлари ҳисобида энг муҳим масалалардан бири бу пул оқими ҳақидаги ҳисоботни молиявий ҳолат тўғрисидаги ҳисобот ва фойда ёки

зарарлар ҳамда бошқа умумлашган даромадлар тўғрисидаги ҳисобот асосида тузиш услубиётини жорий қилишдир. Ҳозирги кунда амалда амалдаги бухгалтерия баланси ва молиявий натижалар тўғрисидаги ҳисоботнинг таркиби пул оқимлари ҳақидаги ҳисоботни тузишга имкон бермайди. Ушбу таъкидлаб ўтилган учта ҳисоботнинг бир-бирига трансформациясини таъминлаш лозим деб ҳисоблаймиз.

Қайд этилган йўналишларда тадқиқотларни олиб бориш ва натижаларини амалиётга жорий этиш муҳим аҳамият касб этади.

Хулоса ва таклифлар

Пул маблағлари таърифи ва таснифини халқаро стандартлар асосида такомиллаштириш борасида олиб борилган тадқиқотлар бўйича қуйидаги хулосалар қилинди:

1. Пул маблағлари ҳисобидаги долзарб масалалар қайд этиб ўтилди. Улар жумласига пул маблағларини ва эквивалентларини тан олиш, унинг таркибини белгилаш, идентификациялаш масаласи, хорижий манбаларда келтирилган чек, пул ордерлари, банк драфтлари ёки банк овердрафлари тушунчаларини жорий қилиш, кичик касса ва пул маблағларини назорат қилиш амалиётини халқаро стандартларга мувофиқлаштириш масалалари киритилди;

2. Хорижий ва маҳаллий олимларнинг бухгалтерия ҳисобининг объекти сифатида пул маблағларига берилган таърифлар асосида пул маблағларининг такомиллашган таърифи ишлаб чиқилди. Унга мувофиқ, пул маблағлари деганда, молиявий актив ҳисобланган ўта тез ликвидли жорий актив бўлиб, харид қилинган товарлар (маҳсулотлар, иш ва хизматлар) ва бошқа мажбуриятлар учун ҳеч қандай тўсиқларсиз тўлов воситасини бажарувчи нақд ва ва талаб қилиб олинадиган депозит счётлар, шунингдек банкнинг ҳисоб-китоб, валюта ва бошқа счётларидаги пуллар ҳамда депозитсиз инструментлар, жумладан чеклар ва пул ордерларига айтилади. Ушбу таърифда пул маблағларини молиявий актив эканлиги ва унинг таркиби белгиланганлиги эътиборга лойиқдир.

3. Пул маблағларининг таркибидаги элементларига чеклар; пластик карточкалардаги маблағлар; банк драфтлари; пул ордерлари; депозит сертификатларини киритиш ҳамда операцион касса (савдо дўконлари ва бошка объектлардаги касса) тушунчасини кенгайтириш тавсия этилди.

Ушбу таклифларнинг амалиётга жорий этилиши пул маблағлари ҳисобини халқаро стандартларга мувофиқлаштиришга хизмат қилади.

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MEDA OSTI BEZINING EMBRIONAL VA POSTEMBRIONAL RIVOJLANISHIDAGI ZAMONAVIY TUSHUNCHALAR

Annotatsiya: *Ushbu Maqolada meda osti bezining embrional davrdan boshlab, uning postembrional rivojlanishi va fiziologik funksiyalariga oid eng so'nggi ilmiy tadqiqotlar tahlil qilinadi. Maqola meda osti bezining rivojlanishining genetik, molekulyar va fiziologik jihatlarini ko'rib chiqadi, shu jumladan bezning embriogenezdagi asosiy bosqichlari va uning funksional shakllanishi. Shuningdek, bezning kasalliklar, xususan, diabet kabi endokrin kasalliklar bilan bog'liq jihatlari muhokama qilinadi. Ushbu tadqiqotlar meda osti bezining regeneratsiya xususiyatlari, uning rivojlanishidagi patogenetik mexanizmlar va ular bilan bog'liq yangi davolash usullarini tushunishda muhim ahamiyatga ega. Maqolada, shuningdek, postembrional rivojlanishda meda osti bezi hujayralarining differensatsiyasi, insulin ishlab chiqarish jarayonlari va ularning muvozanatining saqlanishi kabi masalalar yoritiladi. Yangi ilmiy yondoshuvlar va texnologiyalar yordamida meda osti bezining rivojlanishining yanada chuqurroq tushunilishi, uni klinikaga tadbiq etish imkoniyatlari haqida so'nggi ilmiy ishlanmalar keltiriladi.*

Kalit so'zlar: *Meda osti bezi, Qandli diabet, pankreatit, atsinar hujayra va kanal hujayra, embriogenez, endoderma , oshqozon osti bezi kurtaklari IDX-1, STF-1.*

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MODERN CONCEPTS IN THE EMBRYONIC AND POSTEMBRYONIC DEVELOPMENT OF THE PANTARUS

Abstract: *This article analyzes the latest scientific research on the postembryonic development and physiological functions of the pancreas, starting*

from the embryonic period. The article reviews the genetic, molecular and physiological aspects of the development of the pancreas, including the main stages of the embryogenesis of the gland and its functional formation. Also discussed are aspects of the gland related to diseases, particularly endocrine disorders such as diabetes. These studies are important in understanding the regeneration properties of the pancreas, pathogenetic mechanisms in its development, and new treatment methods associated with them. The article also covers issues such as differentiation of pancreatic cells, insulin production processes and maintenance of their balance in postembryonic development. With the help of new scientific approaches and technologies, a deeper understanding of the development of the pancreas, as well as the possibilities of its application to the clinic, are presented.

Key words: *Pancreas, Diabetes mellitus, pancreatitis, acinar cell and duct cell, embryogenesis, endoderm, pancreatic buds IDX-1, STF-1.*

Meda osti bezining postembrional rivojlanishi zamonaviy tadqiqotlar va biologik tushunchalar orqali o'rganilmoqda. Ushbu jarayonning bir qator asosiy jihatlari mavjud:

1. Gormonlarning rolini oshirish: Postembrional rivojlanish jarayonida meda osti bezining gormon ishlab chiqarish faoliyati kuchayadi. Insulin, glukagon va boshqa gormonlar metabolizmni boshqarishda muhim ahamiyatga ega bo'ladi. Gormonlarning me'yorida ishlab chiqarilishi organizmning energetik balansini saqlashda asosiy rol o'ynaydi.

2. Hujayra signalizatsiyasi: Meda osti bezida hujayra signalizatsiya yo'llari (masalan, mTOR, MAPK) muhim o'rin tutadi. Ushbu yo'llar hujayralarning o'sishi, differensiyatsiyasi va o'zaro aloqalarini boshqaradi. Signalizatsiya tizimlari muvozanatni saqlashda va patogen ta'sirlarga javob berishda muhimdir.

3. Regeneratsiya va tiklanish potentsiali: Postembrional rivojlanishda, meda osti bezining regeneratsiya qobiliyati o'rganilmoqda. Ba'zi tadqiqotlar, bezning shikastlangan qismlarini tiklash yoki yangi hujayralarni ishlab chiqarish qobiliyatini ko'rsatmoqda. Bu jarayonlar stem hujayralar va hujayra differensiyatsiyasi orqali amalga oshadi.

4. Ekologik va metabolik ta'sirlar: Meda osti bezining rivojlanishi va funktsiyasi ekologik sharoitlar (masalan, ovqatlanish, stress) bilan bog'liq. Ushbu omillar, gormonlar ishlab chiqarilishi va bezning umumiy salomatligiga ta'sir ko'rsatishi mumkin.

5. Genetik va epigenetik mexanizmlar: Postembrional rivojlanish jarayonida genetik va epigenetik omillar muhim ahamiyatga ega. Epigenetik o'zgarishlar, gen ifodasini boshqaradi va meda osti bezining funktsiyalariga ta'sir ko'rsatadi, bu esa rivojlanish va kasallik holatlarida o'z o'rnini topadi.

6. Kasalliklar va patologik holatlar: Meda osti bezining postembrional rivojlanishi turli kasalliklar, masalan, 2-tur diabet, pankreatit va boshqalar bilan bog'liq. Ushbu kasalliklarning mexanizmlarini tushunish, yangi davolash usullarini ishlab chiqishda yordam beradi.

Meda osti bezining embrional rivojlanishi zamonaviy biologiya va genetik tadqiqotlar bilan chuqur o'rganilmoqda. Ushbu rivojlanish jarayoni bir qator muhim tushunchalarni o'z ichiga oladi:

1. Germinal qatlamlar: Meda osti bezining rivojlanishi uchta germinal qatlamdan (ektoderm, mezoderm, endoderm) boshlanadi. Endodermdan kelib chiqadigan hujayralar bezning asosiy strukturalarini hosil qiladi.

2. Gormonlar va signalizatsiya: Embriogeneza jarayonida gormonlar va signalizatsiya molekulalari (masalan, Wnt, Hedgehog, va FGF) muhim rol o'ynaydi. Ushbu molekulalar bez hujayralarining proliferatsiyasini, migratsiyasini va differensiyasiyasini boshqaradi.

3. Genetik boshqaruv: Meda osti bezining rivojlanishi bir qator genlar (masalan, Pdx1, Nkx6.1) tomonidan boshqariladi. Ushbu genlar bezning strukturalari va funktsiyalarini shakllantirishda muhim ahamiyatga ega.

4. Tizimlararo aloqalar: Meda osti bezining rivojlanishi, boshqa organlar va tizimlar bilan o'zaro aloqalarda sodir bo'ladi. Masalan, endokrin tizim va oshqozon-ichak tizimi o'rtasidagi munosabatlar bezning funktsional rivojlanishini ta'minlaydi.

Oshqozon osti bezi epiteliy hujayralarining barcha turlarini keltirib chiqarish qobiliyatiga ega bo'lgan umumiy oshqozon osti bezi progenitatorlari organogenezning boshlanishida hosil bo'ladi (odamda, homiladorlikdan keyin taxminan 29-31 kun (dpc); sichqonlarda, embrion kuni (e) 8-9 atrofida) . Keyinchalik, postnatal ontogenezda endokrin va ekzokrin qismlari hosil bo'ladi (taxminan odam 45-47 dpc va sichqoncha e13,5-e14,5). Homiladorlikning oxiriga kelib, oshqozon osti bezi epiteliyasi differensial hujayralar bilan to'la bo'lib, ular yanada etuklashadi va ko'payadi (odamda kontseptsiyadan keyingi 26 haftadan (wpc) va sichqonchada e16,5). Turli xil differentsiatsiya holatlari pankreatik epiteliya hujayralari tomonidan transkripsiya omillarining ierarxik ifodasi bilan belgilanadi. Bu omillar, jumladan, pankreatik progenitatorlar tomonidan ifodalangan Pdx1, endokrin progenitatorlar tomonidan ifodalangan Neyrogenin 3 (Ngn3) va tabaqalashtirilgan b-hujayralarni belgilaydigan MafA ni o'z ichiga oladi.

Oshqozon osti bezi ikki xil hujayralar populyatsiyasini o'z ichiga olgan organ bo'lib, ovqat hazm qilish traktiga fermentlarni chiqaradigan ekzokrin hujayralar va qon oqimiga gormonlarni chiqaradigan endokrin hujayralar. U endodermadan dorsal va qorin bo'shlig'i kurtaklari shaklida paydo bo'lib, ular birlashib, yagona organni hosil qiladi. Sutemizuvchilar, qushlar, sudraluvchilar va amfibiyalarning gistologiyasi va rivojlanish usuli o'xshash oshqozon osti bezi mavjud, ba'zi baliqlarda esa orol hujayralari Brokman tanasi sifatida ajratilgan. Umurtqasiz hayvonlarda oshqozon osti bezi yo'q, ammo shunga o'xshash endokrin hujayralar ichak yoki miyada bo'lishi mumkin.

Erta oshqozon osti bezi kurtaklari IPF-1 gomeobox genining (shuningdek, IDX-1, STF-1 yoki PDX nomi bilan ham tanilgan) bir xil ifodasini ko'rsatadi, bu mutatsiyaga uchraganida, harakatsizlikka olib keladi. Embrionda heterotopik oshqozon osti bezi paydo bo'lishi, shuningdek, kattalardagi oshqozon osti bezi qayta tiklanadigan metaplaziyalar ikkalasi ham faqat bir nechta gen mahsuloti oshqozon

osti bezi hujayralari holatini o'n ikki barmoqli ichak, o't pufagi va atrofdagi to'qimalardan ajrata olishini ko'rsatadi.

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ОЦЕНКА ВЗАИМОСВЯЗИ ХАРАКТЕРА НУТРИТИВНОЙ ПОДДЕРЖКИ ПРИ ОПЕРАЦИЯХ У ДЕТЕЙ С РАННЕЙ СПАЕЧНОЙ НЕПРОХОДИМОСТЬЮ

Резюме: Цель исследования -*оценка взаимосвязи характера нутритивной поддержки (НП) с течением системного воспалительного ответа у детей с аппендикулярным перитонитом и ранней спаечной кишечной непроходимостью, оперированных видео эндохирургически. Проспективное контролируемое нерандомизированное, одноцентровое исследование. В исследование были включены 92 пациента. Динамика клинических признаков ССВО, уровня С-реактивного белка (СРБ), провоспалительных цитокинов (фактора некроза опухоли, ИЛ-6) и уровень прокальцитонина (ПКТ). В основной группе (49 детей) методом НП была выбрана комбинация раннего парентерального питания с энтеральным зондовым кормлением со 2-х послеоперационных суток, с 3-4-х суток сипинг. В контрольной группе (43 ребенка) полное парентеральное питание начиная со 2-х суток после операции с переходом на сипинговое питание с 4-х послеоперационных суток. Послеоперационный период у детей обеих групп сопровождался сопоставимым ростом содержания СРБ и провоспалительных цитокинов. У детей основной группы ускорялись восстановление нутритивного статуса и нормализация уровня прокальцитонина крови, а также сокращалась длительность ССВО.*

Ключевые слова: *лапароскопия, гастростомия, нутритивной поддержки дети.*

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EVALUATION OF THE RELATIONSHIP OF THE NATURE OF NUTRITIONAL SUPPORT DURING SURGERY IN CHILDREN WITH EARLY COMFORTABLE OBSTRUCTION

Abstract: *The aim of the study was to estimate the interrelation between the type of nutrition support with the course of system infl ammatory response in children with acute appendicular peritonitis and early adhesive ileus obstruction undergoing videoendosurgery. It was a prospective, controlled, nonrandomized unicentral study. 92 patients were included in the study. The endpoints were as follows: dynamics of clinical signs of SIRS, level of C-reactive protein, levels of proinfl ammatory cytokines (tumor necrosis factor and interleykin-6), procalcitonin (PCT) level. 49 patients (main group) received the combination of early parenteral nutrition with enteral tube feeding from the second postoperative day and sipping from the 3-4th days. 43 patients (control group) received the full parenteral nutrition from the second postoperative day with transition to sipping nutrition from the 4th postoperative day. The postoperative period was accompanied by a comparable growth of levels of CRP and proinfl ammatory cytokines. the accelerated recovery of nutrition status, normalization of procalcitoninum level in the blood serum, and reducted duration of SIRS was noticed in the children from the main group.*

Key words: *laparoscopy, gastrostomy, nutritional support for children.*

Острая ранняя спаечная непроходимость кишечника является одним из наиболее частых и грозных осложнений аппендикулярного перитонита у детей [1,3]. Основная причина этого, как правило, заключается в сохраняющемся неконтролируемом абдоминальном очаге инфекции [3]. Внедрение эндохирургических методов лечения этого осложнения во многом способствует внедрению в реальную клиническую практику концепции ускоренного послеоперационного восстановления -ERAS (early rehabilitation after surgery) [7]. По мнению ряда авторов [4-6], применение лапароскопических технологий максимально соответствует принципам ERAS. Наряду с хирургическим вмешательством обеспечение надежного контроля состояния очага воспаления обеспечивается выполнением принципиальных направлений лечения синдрома системного воспалительного ответа (ССВО)-антибактериальной терапией, обеспечением приемлемого транспорта кислорода и поддержанием адекватного белково-энергетического обмена [2]. Известно, что состояние нутритивного статуса является одним из главных факторов, определяющих долговременную выживаемость и качество жизни пациентов отделений интенсивной терапии (ОИТ) [2,3]. Причем в рамках концепции ERAS очень важно раннее восстановление энтерального питания (первые сутки после операции) [7]. Данная категория пациентов требует комплексной поддержки в виде энтерального и парентерального питания, причем, как правило, парентеральный ее компонент осуществляется в раннем послеоперационном периоде. Наиболее приемлемым путем решения этой проблемы может стать

организация сбалансированного парентерального и энтерального питания, способного обеспечить оптимальное соотношение фармаконутриентов [2].

Цель исследования:оценка взаимосвязи характера нутритивной поддержки с течением системного воспалительного ответа у детей с аппендикулярным перитонитом и ранней спаечной кишечной непроходимостью.

Материал и методы исследования: проспективное контролируемое нерандомизированное одноцентровое исследование.

Критерии включения: дети в возрасте от 7 до 14 лет; аппендикулярный перитонит; ранняя спаечная непроходимость, видеоэндохирургическое выполнение операции.

Конечные точки: динамика клинических признаков ССВО, уровня С-реактивного белка (СРБ), провоспалительных цитокинов (фактора некроза опухоли (ФНО-α) и интерлейкина-6 (ИЛ-6)), уровень прокальцитонина (ПКТ). Нами проанализированы результаты тече- ния ближайшего послеоперационного периода у 92 больных с кишечной непроходимостью с 2014 до 2021 г. Для сравнительного исследования эффективности различных видов нутритивной поддержки (НП) было отобрано 2 группы больных: 43 ребенка в контрольной группе (23 мальчика, 20 девочек) и 49 детей (27 мальчиков, 22 девочки) в основной группе. Пациенты были сопоставимы по полу, возрасту, исходному состоянию, и тяжести перенесенного оперативного вмешательства. Средний возраст больных -8,43±4,1 и 8,22±4,2 лет соответственно (p>0,05). Масса тела пациентов в среднем составила 27,31±1,89 кг в контрольной группе и 30,37±2,34 кг в основной (p>0,05). Сопоставимы были и сроки выполнения операции (p>0,05) -3,2±0,7 и 3,1±0,5 суток соответственно после первичного вмешательства. Объективный статус всех больных по классификации ASA соответствовал II-III классу. В основной группе методом НП была выбрана комбинация раннего парентерального питания (с 1-х суток после операции) с энтеральным зондовым кормлением со 2-х послеоперационных суток, с 3-4-х суток сипинг. В контрольной группе полное парентеральное питание (ППП) начиная со 2-х суток после операции с переходом на сипинговое питание с 4-х послеоперационных суток. Пациентам проводили сопоставимую послеоперационную интенсивную терапию, однотипное анестезиологическое обеспечение, сопоставимый объем инфузионной терапии и антибактериальной терапии, послеоперационную аналгезию на основе опиоидов и нестероидных противовоспалительных средств. Оперативное вмешательство всем пациентам проводили видеэндохирургическим путем.

Результаты и их обсуждение У всех больных отмечалась хорошая переносимость препаратов для парентерального и энтерального питания. В течение первых 30 минут от начала его инфузии никаких субъективных ощущений пациенты не испытывали. Аллергических реакций на введение раствора аминокислот в ходе всего исследования не выявлено. Результаты проведенного исследования позволяют заключить, что послеоперационный

период сопровождался развитием лейкоцитоза, лимфопении и относительной гипопротеинемии. В динамике отмечали постепенное восстановление числа лимфоцитов крови и уровня альбумина плазмы крови, причем уровень последнего к 7-м суткам лечения оказывается достоверно выше в основной группе больных Максимальная выраженность ССВО (3 симптома из 4-х) отмечалась на 1-е сутки послеоперационного периода. Однако у пациентов основной группы длительность течения ССВО составила 2 суток, а у больных контрольной группы -3 суток. К 4-м суткам интенсивной терапии у пациентов обоих групп ССВО уже не диагностировался. Каких либо статистически значимых межгрупповых различий по степени выраженности отдельных симптомов ССВО не выявлено. Это может свидетельствовать о сопоставимой переносимой тяжести ССВО у исследуемых пациентов. Послеоперационный период сопровождался ростом уровней СРБ и провоспалительных цитокинов, также в динамике отмечается их снижение к 4-м суткам интенсивной терапии. Каких-либо межгрупповых различий в содержании провоспалительных цитокинов и СРБ в первые 4 суток послеоперацион- ного периода нами не отмечено. У детей основной группы к 7-м суткам лечения отмечается тенденция к снижению степени выраженности прокальцитониновой реакции. В результате проведенного исследования отмечены однонаправленные тренды изменений степени выраженности ССВО и содержания медиаторов воспаления у исследуемых больных. В то же время у пациентов основной группы к 7-м суткам интенсивной терапии достоверно выше уровень альбумина крови и менее выражена прокальцитониновая реакция. Средняя продолжительность лечения в отделении интенсивной терапии составляла 2,5±0,4 суток для детей контрольной группы и 2,3±0,1 суток для пациентов основной группы (p>0,05). Таким образом, использование полноценного сбалансированного энтерального и парентерального питания в раннем послеоперационном периоде сокращает на 1 сутки длительность течения, но не изменяет тяжесть ССВО в послеоперационном периоде. Далее в процессе лечения у детей несколько быстрее оказываются темпы восстановления нутритивного статуса и динамика нормализации уровня прокальцитонина крови. Возможно, на течение ССВО у исследуемых детей оказывают более значимое влияние иные компоненты базовой терапии аппендикулярного перитонита характер эндохирургического вмешательства, качество антибактериальной и инфузионно-трансфузионной терапии. Однако уже имеющиеся данные свидетельствуют о целесообразности внедрения элементов концепции ускоренного послеоперационного восстановления в абдоминальную хирургию детского возраста.

Выводы:

1. Полноценная сбалансированная нутритивная поддержка с первых суток послеоперационного периода у детей с ранней спаечной непроходимостью после аппендикулярного перитонита сокращает на 1 сутки длительность течения ССВО, не оказывая воздействия на сроки лечения пациентов в ОИТ и динамику выброса медиаторов воспаления.

2. У детей основной группы ускоряются восстановление нутритивного статуса и темпы нормализации уровня прокальцитонина крови.

3. Необходимы дополнительные исследования по оценке воздействия характера эндохирургического вмешательства, качества антибактериальной и инфузионно-трансфузионной терапии на динамику течения ССВО у детей с аппендикулярным перитонитом.

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ПРИМЕНЕНИЕ СПИНАЛЬНОЙ АНЕСТЕЗИИ У НОВОРОЖДЕННЫХ И МЛАДЕНЦЕВ

Резюме:Цель: *Цель этого исследования состояла в том чтобы представить*

первые случаи спинномозговой анестезии у новорожденных и младенцев, преждевременно рожденных, чтобы определить ее осуществимость и ее потенциальную безвредность. Действительно спинномозговая анестезия является недорогим методом и может ограничить респираторные осложнения, послеоперационное апноэ что может привести к периоперационным рискам.

Результаты: *Ретроспективное описательное исследование за 3 лет (с 2019 по 2022 год), проведенное в областной детский многопрофильный медицинский центр город Андижан, были записаны файлы данных 29 пациентов, которым планировалась спинальная анестезия. Эти педиатрические пациенты были преимущественно мужского пола (соотношение полов = 2,8) в возрасте 37 дней. Самый маленький ребенок под наркозом весил 880 г, самому младшему было 4 дня. Из них 11 были недоношенными, а 20,3% имели респираторные заболевания. В основном им была назначена пластика грыжи (90%). Спинальную анестезию проводили спинальной иглой Квинке G 25 после 2 попыток гипербарическим бупивакаином в дозе 4 мг. Процент отказов составил 5,8%. ЧСС в течение периоперационного периода была стабильной, осложнений не наблюдалось.*

Ключевые слова: *Спинальная анестезия, новорожденные, младенцы.*

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USE OF SPINAL ANESTHESIA IN NEWBORN AND INFANTS

Resume:Purpose: *The purpose of this study was to present the first cases of spinal anesthesia in neonates and preterm infants in order to determine its feasibility and its potential safety. Indeed, spinal anesthesia is an inexpensive method and can limit respiratory complications, postoperative apnea, which can lead to perioperative risks.*

Results: *A retrospective descriptive study over 3 years (from 2019 to 2022) conducted in the Regional Children's Multidisciplinary Medical Center in Andijan city, data files of 29 patients who were scheduled for spinal anesthesia were recorded. These pediatric patients were predominantly male (sex ratio = 2.8) at 37 days of age. The smallest child under anesthesia weighed 880 g, the youngest was 4 days old. Of these, 11 were premature and 20.3% had respiratory problems. Basically, they were prescribed hernia repair (90%). Spinal anesthesia was performed with a G 25 spinal Quincke needle after 2 attempts with hyperbaric bupivacaine at a dose of 4 mg. The failure rate was 5.8%. Heart rate during the perioperative period was stable, no complications were observed.*

Key words: *Spinal anesthesia, newborns, infants.*

Введение.

Спинальная анестезия (СА) является частью анестезии при операциях под пупком и на нижних конечностях [1]. Впервые спинальную анестезию у детей применил Бир в девятнадцатом веке (1898 г.), затем Бейнбридж (1901 г.) и Грей (1909 г.) [1,2]. В связи со значительными улучшениями общей анестезии (ОА) в середине двадцатого века от этой регионарной анестезии отказались [2]. В 1990-2000 годах спинальная анестезия у новорожденных или недоношенных имела всплеск от 2,1 до 3,6% в регионарной анестезии после упадка практики каудальной анестезии [3,4]. В настоящее время СА в основном выполняют в педиатрической анестезии до 95,4% детей как у новорожденных так и у недоношенных [1,3,5]. СА позволяет предотвратить и уменьшить периоперационные осложнения, даже если ее продолжительность является важным ограничивающим фактором [1,3,6]. Из-за этого ограничения короткая операция наиболее показана при СА [1,5, 7]. Для большей эффективности эту технику должны выполнять опытные анестезиологи [1,8]. В Андижанском областном детском многопрофильном медицинском центре спинальная анестезия проводится с 2013 года. Целью данного исследования является представление первых случаев спинальной анестезии у новорожденных и младенцев, недоношенных чтобы определить его осуществимость и его потенциальную безвредность в Андижане.

Методы.

Было проведено ретроспективное описательное исследование файлов данных плановых педиатрических операций под спинальной анестезией. Исследование проводилось в операционной АОДММЦ с 2019 по 2022 год. Последний является хирургическим справочным центром Андижана, особенно в детской хирургии. Во время периоперационных процедур риски общей анестезии и методы спинномозговой анестезии объяснялись родителям пациентов во время консультации анестезиолога (АС). Их письменное информированное согласие было получено для анестезии и операции и включено в файл анестезии. АК проводили и валидировали анестезиологи (также исполнители СА), прошедшие предварительную подготовку по СА у маленьких детей.

Процедуры анестезии.

Люмбальная пункция считалась успешной когда спинномозговая жидкость (ЦСЖ) оттекала назад. Затем больного укладывали в наклон головы вверх на 45°. В качестве местного анестетика (МА) использовали гипербарический 0,5% бупивакаин (1 мг/кг = 0,2 мл /кг). Спинномозговая анестезия считалась успешной, когда больной перестал двигать нижними конечностями или имело место расслабление анального сфинктера а также когда конверсия ГА или дополнительная местная анестезия (хирургом) на протяжении всей операции не требовалась. Когда спинальная анестезия подействовала ребенку давали соску пустышку с сахарной водой.

Исследуемые параметры и переменные

Изучаемыми переменными и параметрами были пол перинатальные параметры недели при рождении недоношенность масса тела при рождении параметры во время АК постконцептуальный возраст и вес, параметры спинномозговой анестезии процедура люмбальной пункции и спинальной анестезии периоперационные переменные дополнительные процедуры во время SA, хирургические характеристики, продолжительность пребывания в послеоперационной палате восстановления и периоперационная частота сердечных сокращений.

Представление данных Непрерывные переменные выражены в медиане межквартильный 25-75%], а категориальные переменные в частотах.

Полученные результаты

За 7-летний период было показано 29 СА преимущественно мужского пола (*соотношение полов* =2,8) и 11 (28-52) дневных пациентов. Самый маленький пациент весил 880г, а самому младшему было 4 дня. Вес пациентов при рождении составлял 2400 (1995–3025) г, а в день АК -3450 (2800-4240) г. Двадцать семь пациентов были недоношенными в возрасте 33 (27–37) недель при рождении и с корректированным возрастом 40,5

(37-42)CW в день анестезии. Четырнадцать детей (20,3%) имели в анамнезе заболевания органов дыхания. Вмешательство выполняли через 5 [3,4] дней после ИК. Основными показаниями к операции были грыжи длительность хирургического вмешательства составила 27,5 (17,5-40,0) мин в диапазоне от 10 до 65 мин. Всем пациентам периоперационную перфузию выполняли внутривенным катетером G 24. Люмбальную пункцию проводила пациенту с согнутой спиной, в положении сидя или лежа на боку обученная медсестра анестезиолог. Пункцию выполняли в точке пересечения линии соединяющей высшие точки обоих гребней подвздошных костей с осью позвонка. Локализация люмбальной пункции определялась пальпаторно исполнителем СА. В качестве материала использовался 80-мм G 25. Спинальная игла Квинке. Ингаляционная седация потребовалась в 13,0% случаев когда положение пациента было затруднено. Количество пункций 2 [1,2] попытки. Назначалась доза 4 (3,5-4)мг гипербарического 0,5% раствора. Люмбальная пункция была успешной в 97,1% случаев, спинальная анестезия -в 94,2%. Дополнительной местной анестезии со стороны хирурга не

требовалось. Конверсия GA составила 5,8% когда SA не удалось. Частота сердечных сокращений была незначительно постоянной на протяжении всего вмешательства до поступления в послеоперационную палату. Больные находились в послеоперационной палате пробуждения в течение 70 (60-12) минут. Периоперационных осложнений не наблюдалось.

Обсуждение

В настоящем исследовании спинальная анестезия была запланирована для 69 детей. Эта серия представляет собой первую педиатрическую спинальную анестезию, выполненную с 2013 года в Андижане . В развитых странах таких как США СА была включена с 1977 г., с 262 СА у пациентов в возрасте менее 1 года за 15 лет [9] . Уильямс и др. [5] сообщили о 95,4% педиатрической спинальной анестезии. В Европе ежегодно выполняется от 400 до 500 СА (18% у недоношенных и 5% у новорожденных) [3,10]. В других странах, таких как Индия, в годичном исследовании 102 ребенка (от 6 месяцев до 14 лет) получали спинальную анестезию при ортопедических операциях под пупком и на нижних конечностях [6]. В странах с низким уровнем дохода было проведено несколько исследований детской спинальной анестезии. Эла А.А. и соавт. [11] в Камеруне сообщают о 55 детях, прооперированных под спинальной анестезией. Однако использование спинальной анестезии, особенно в «опасных» или «трудных» ситуациях, привлекательно, поскольку требует меньше периоперационных ресурсов [12]. Спинномозговая анестезия в настоящем исследовании проводилась даже в очень молодом возрасте (27 недоношенных) и с малой массой тела, а 14 детей имели в анамнезе заболевания органов дыхания. Спинальная анестезия в первую очередь показана когда общая анестезия представляет высокий риск (=респираторные осложнения или послеоперационное апноэ из-за болезни легких или недоношенности) [1,7, 10, 13]. СА является «золотым стандартом» у недоношенных (гестационный возраст ≤ 37 недель) и пациентов с высоким риском (недоношенные дети с постконцептуальным возрастом <60 CW) [2,9]. Действительно эта популяция подвержена высокому риску послеоперационного апноэ особенно при проведении общей анестезии. Спинальная анестезия является безопасной альтернативой когда следует избегать интубации трахеи (из-за бронхолегочной дисплазии или респираторных заболеваний) [1,4]. Действительно спинальная анестезия может уменьшить или избежать апноэ [9,10]. Также СА вызывает минимум респираторных осложнений [2,10,14, 15]. В этом исследовании у большинства пациентов были респираторные заболевания (20,3% ринобронхит) и 39,1% были недоношенными. В настоящем исследовании все эти факты мотивировали спинномозговую анестезию. Кроме того характеристики пациентов были очень похожи на исследование Hermanns et al. [13] 34,5 (24-40) недель при рождении 10(5-24) недель постнатального возраста на момент вмешательства и вес 3,5 (2,2-5,2) кг. Операции (длительностью 27,5 [17,5-40,0] мин) в настоящем исследовании представляли собой в основном герниопластику. Спинальная анестезия является золотым стандартом для

операций на нижних отделах брюшной полости и нижних конечностей продолжительностью до 90 минут [1,2,5,7]. Это было похоже на исследование Ela et al. [11] (от 25 до 78 мин) и короче чем результаты исследования Frumiento et al. [9] (15-130 мин). Наиболее опасными операциями являются паховые грыжи [1,2,5,7]. Но другие операции (резекция илеостомы , крестцовая тератома) также могут быть выполнены при СА [11,13]. Спинномозговую пункцию (2 попытки) выполняли в положении сидя или на боку в точке пересечения линии, соединяющей высшие точки обоих гребней подвздошных костей (линия Тюффье) с осью позвонка с шагом 80 мм-G 25. Спинальная игла Квинке. Этот срединный доступ наиболее часто используется при СА у маленьких детей в положении на боку или в положении сидя [6,13,16]. Рекомендуются неонатальные спинальные иглы 25 G [11,13]. Использовали гипербарический бупивакаин 0,5% в дозе 4 [3,5-4] мг. Наиболее часто используемыми местными анестетиками являются тетракаин 0,5% и бупивакаин 0,5% действие которых длится от 90 до 120 минут [1]. Гипербарический бупивакаин (0,5%) применяют в основном в дозе от 0,3 до 1 мг/кг [1,6,13,17]. В настоящем исследовании для всех пациентов 2 анестезиолога предварительно обученных этой методике выполняли СА, чтобы ограничить погрешность. Даже спинальную анестезию может выполнять либо анестезиолог-реаниматолог либо стажер анестезиолога-реаниматолога либо сертифицированная медсестра-анестезиолог, исполнитель СА должен быть хорошо обучен этой технике [11]. У стажеров-анестезиологов показатели успеха существенно отличаются от анестезиологов (83% против 98,9%) частота неудач составляет 28%, а риск тотальной спинальной анестезии составляет приблизительно от 0,63 до 0,8%, если исполнитель не обучен [1,5]. Успех люмбальной пункции составил 97,1% после 2 [1,2] попыток успех СА 94,2%. Поскольку шкала Bromage не поддается оценке среди этой детской популяции успех спинальной анестезии оценивается и основывается на внезапной потере подвижности ног при нормальном тонусе рук и или расслаблении анального сфинктера и возможности выполнения хирургического вмешательства процедура [14,18]. Уильямс и др. [5] сообщили об успехе в 97,4%, что очень похоже на наши результаты. В настоящем исследовании дополнительная местная анестезия хирургом не потребовалась а конверсия GA составила 5,8%. Эта частота неудач была аналогична литературным данным и варьировалась от 1,04 до 24,6% [7,9,17,19]. Домс и др. [19] отмечают что частота неудач составляет 7,5% а в 16% требуется дополнительная анестезия а в 28% случаев требуется более двух проколов. В Качко и.др. [7], конверсия в общую анестезию составила 1,04%. При пластике паховой грыжи Фрумиента и.др. [9] описывают 91,4% адекватной спинальной анестезии, 78,6% отсутствие дополнительной анестезии, 4,5% дополнительной местной анестезии и 2,2% конверсии общей анестезии. Частота сердечных сокращений была стабильной на протяжении всего периоперационного периода. Спинальная анестезия обеспечивает значительную сердечно-сосудистую стабильность и позволяет

избежать брадикардии с минимальными сердечными осложнениями [2,8,10,14,15,18]. Но в ряде случаев у 1,5% больных в операционной наблюдалась брадикардия а 1,9% получали ваголитики [9]. Спинальная анестезия предлагает хороший баланс между безопасностью и периоперационными рисками и представляется безопасной техникой при условии соблюдения противопоказаний; частота осложнений составляет 30% [1,5,10,15]. SA вызывает меньше брадикардии, апноэ, десатурации, требующих послеоперационной респираторной поддержки, чем GA, вентиляция и оксигенация обычно не нарушаются даже у пациентов с высоким риском [8,18,20]. В настоящем исследовании периоперационных осложнений не наблюдалось. В Андижану об этой серии сообщили впервые. Сильной стороной этого исследования являются характеристики популяции (недоношенные, новорожденные и младенцы).

Заключение.

Спинальная анестезия может быть выполнена у маленьких детей даже у очень молодых пациентов с очень низким весом. Грыжесечение было наиболее опасной операцией под спинальной анестезией, которая имела высокий уровень успеха и не сопровождалась последующими осложнениями. Эти первые случаи должны стать мотивом для более широкой и частой практики в Андижане.

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ИНТЕНСИВНАЯ ТЕРАПИЯ НОВОРОЖДЕННЫХ С ПОРОКАМИ РАЗВИТИЯ ЖЕЛУДОЧНО-КИШЕЧНОГО ТРАКТА И ВЫСОКИМ РИСКОМ РАЗВИТИЯ ГНОЙНО-СЕПТИЧЕСКИХ ОСЛОЖНЕНИЙ

Резюме: *В исследование были включены 64 новорожденных (с атрезией пищевода 39,8%, с врожденной низкой и высокой кишечной непроходимостью 60,2%). У всех детей выполнена хирургическая коррекция порока. В группу сравнения вошли 12 новорожденных, получавших в раннем послеоперационном периоде для стабилизации артериального давления 20% раствор альбумина. Контрольную группу составили 52 новорожденных, перенесших аналогичные оперативные вмешательства и получавшие стандартный комплекс инфузионно-трансфузионной терапии. Гнойно-септические осложнения в группе сравнения развились у 1 (8,3%) ребенка, в контрольной группе -у 16 (30,8%). В группе отмечено достоверное ускорение нормализации артериального давления (1,5±0,12 ч) по сравнению с показателями в контрольной группе (26±3,6 ч; $p < 0,001$). Также быстрее в контрольной группе купировался общий отечный синдром (на 3-и сутки) и происходила стабилизация содержания общего белка крови до 54 г/л к 4-м суткам терапии. В контрольной же группе аналогичные показатели были достигнуты к 7-9-м суткам терапии. Кроме того, продолжительность искусственной вентиляции легких в исследуемой группе составляла в среднем 3 сут, а в контрольной около 7 сут.*

Ключевые слова: *новорожденные, шок, гиповолемические состояния, интенсивная терапия, врожденные пороки пищеварительного тракта.*

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INTENSIVE CARE OF NEWBORNS WITH DEVELOPMENTAL MALFORMATIONS OF THE GASTROINTESTINAL TRACT AND HIGH RISK OF DEVELOPING PURULENT-SEPTIC COMPLICATIONS

Abstract: *The study included 64 newborn infants (39.8% with oesophageal atresia, 60.2% with congenital low and high intestinal patency). All patients underwent surgical correction of the defect. 12 newborns were given a 20% albumin solution in the early postoperative period to stabilize AP. The control group was comprised of 52 babies after similar operations treated with standard infusion-transfusion therapy. One (8.3%) child in group 1 developed pyoseptic complications compared with 16 (30,8%) controls. It took 1.5+-0.12 and 26+-3.6 hr to normalize AP in these groups respectively (p=<0.001). Generalized oedema syndrome in group 1 was eliminated on day 3 and blood protein level normalized (to 54 g/l) on day 4 compared with days 3 and 7 respectively in control.*

Key words: *newborn babies, shock, hypovolemic states, intensive therapy, congenital malformations of digestive tract.*

Большое количество осложнений у новорожденных с пороками развития желудочно-кишечного тракта повышает летальность в этой группе больных. По данным разных авторов, у детей с атрезией пищевода она составляет 12-55%, с диафрагмальной грыжей 40-80%, а с гастрошизисом 21-80% (Степаненко С. М.). Отсутствие единого подхода к ведению новорожденных в раннем послеоперационном периоде требует оптимизации интенсивной терапии и поиска новых решений этой проблемы. Не существует единого мнения и об инфузионной терапии в раннем послеоперационном периоде у новорожденных [2,3]. Оперативное вмешательство позволяет произвести радикальную коррекцию врожденного порока развития, но оно не способно корригировать многочисленные биохимические нарушения в организме новорожденного. Основными проблемами, с которыми сталкивается реаниматолог, в раннем послеоперационном периоде у новорожденного являются шок, гипопротеинемия и парез кишечника, приводящие к развитию синдрома полиорганной недостаточности. Коллоидные растворы, согласно данным проведенных исследований [7,8], не имели их явного клинического преимущества перед кристаллоидами при выведении больных из состояния шока, однако авторы всех доступных в литературе исследований и метаанализов[8-11], посвященных указанной проблеме, сравнивают действие на организм кристаллоидных и низкоконцентрированных коллоидных препаратов (гидроксиэтилированный крахмал и растворы альбумина от 1 до 5%). В то же время имеется мало данных литературы о применении высококонцентрированных гиперосмолярных растворов альбумина при противошоковой терапии у новорожденных с высоким риском развития гнойно-септических осложнений [11,13]. Все сказанное делает указанную проблему весьма актуальной. Целью

нашего исследования являлось изучение возможности применения 20% альбумина в раннем послеоперационном периоде у новорожденных с пороками развития желудочно-кишечного тракта.

Материал и методы: В исследование были включены 64 новорожденных с различными пороками развития, находящихся на лечении в отделении реанимации и интенсивной терапии проведенное в областной детский многопрофильный медицинский центр город Андижан: с атрезией пищевода -39,8%, с врожденной низкой и высокой кишечной непроходимостью -60,2%. У всех детей выполнена хирургическая коррекция порока в 1-е и 2-е сутки после установления диагноза. Все дети относились к группе с высокой степенью риска развития послеоперационных гнойно-септических осложнений, так как присутствовал хотя бы один из следующих факторов: позднее поступление новорожденных на этап оказания специализированной помощи; попытка кормления у больных с атрезией пищевода; транспортировка с несоблюдением стандартов неспециализированным транспортом; длительная гипотермия; наличие генерализованной внутриутробной инфекции. Исследовали скорость выведения из шока новорожденных, перенесших оперативные вмешательства на органах брюшной и грудной полости при использовании традиционной схемы и трансфузии высококонцентрированного (20%) раствора альбумина. При этом в ходе проспективного исследования были выделены 2 группы новорожденных. В группу сравнения входили 12 новорожденных в возрасте от 0 до 3 сут, получавших в раннем послеоперационном периоде высококонцентрированный 20% раствор альбумина со скоростью инфузии 10 мл/кг в 1 ч (до стабилизации артериального давления-АД), затем коррекцию водно-электролитных нарушений в объеме физиологической потребности, согласно общепринятым неонатологическим принципам. Контрольную группу составили 52 новорожденных, перенесших аналогичные оперативные вмешательства и получавших в послеоперационном периоде полный стандартный комплекс инфузионно-трансфузионной терапии: 10% раствор глюкозы + физиологический раствор в соотношении 1:1 со скоростью 15 мл/кг в 1 ч, затем препараты гидроксиэтилкрахмала 6% в дозе 3 мл/кг в 1 ч. Все препараты вводили в центральный венозный катетер. Контрольными точками в исследовании были выбраны количество гнойно-септических осложнений, скорость нормализации АД и диуреза в 1-е сутки после операции, выраженность общего отечного синдрома и стабилизация общего белка крови к 10-м суткам, продолжительность искусственной вентиляции легких (ИВЛ). У всех новорожденных про водили мониторный контроль витальных показателей: ЭКГ, систолического, диастолического и среднего АД, насыщения тканей кислородом. До и после введения растворов контролировали показатель гематокрита. Определяли следующие показатели крови: общий белок, электролиты (Na, Ca, K), сахар, креатинин, мочевина, печеночные ферменты (аланини аспартатаминотрансферазы, щелочная

фосфатаза). Статистическая обработка включала оценку достоверности изменений с использованием пакета программ Statistica 6.0.

Результаты и обсуждение: В группе сравнения было отмечено достоверное ускорение нормализации АД (1,5±0,12 ч) по сравнению с показателем в контрольной группе (26±3,6 ч; $p < 0,001$; см.). Также быстрее в группе сравнения купировался общий отечный синдром (на 3-и сутки) и происходила стабилизация уровня общего белка крови до 54 г/л к 4-м суткам терапии. В контрольной же группе аналогичные показатели были достигнуты к 7-9-м суткам терапии. Кроме того, продолжительность ИВЛ в группе сравнения составляла в среднем 3 сут, а в контрольной группе доходила до 7 сут. Необходимо отметить, что в группе сравнения объем противошоковой инфузии для стабилизации АД составил в среднем 70±7,3 мл, или 1/3 от объема свежезамороженной плазмы (СЖП). В контрольной группе он был достоверно больше: 180±19,5 мл, или 1,25 от СЖП ($p \leq 0,05$). Несмотря на это, почасовой диурез в группе исследования достигал 1,5 мл/кг в 1 ч к концу 1-го часа противошоковой терапии, а в контрольной группе диурез достигал уровня 1 мл/кг в 1 ч к концу 1-х суток интенсивной терапии. Проявлений гемодинамической перегрузки в группе сравнения не наблюдали, в контрольной группе частота данного осложнения составляла 5%. О величине гемодинамической перегрузки и адекватности преднагрузки судили, определяя центральное венозное давление и среднее АД. Наиболее частой причиной развития шока, как правило, является кровопотеря. Не менее значимыми для развития критического состояния являются оперативное вмешательство, неадекватный выбор анестезиологического пособия, интраоперационное охлаждение и неадекватная ручная вентиляция во время внутрибольничной транспортировки. Общепринятая терапия шока у новорожденных предусматривает довольно массивную волемическую нагрузку кристаллоидными препаратами и препаратами гидроксиэтилированного крахмала. В тяжелых случаях дополнительно вводят натрия гидрокарбонат с целью коррекции метаболического ацидоза, однако этот метод не является безопасным. Ранними осложнениями такого лечения становятся развитие сердечной недостаточности, гипопротеинемия, парез кишечника вследствие метаболических расстройств [1,5,12]. Развитию указанных осложнений способствуют и анатомо-физиологические особенности периода новорожденности. В первые 2-4 сут жизни у новорожденного отмечаются относительный избыток объема внеклеточной жидкости и одновременно низкая выделительная способность почек. В результате этого гипергидратация новорожденного с шоком является основным ранним осложнением послеоперационного периода и самым неблагоприятным фактором, влияющим на летальность. Применение гиперосмолярных растворов при выведении новорожденного из шока снижает риск гипергидратации и, на наш взгляд, является патогенетически обоснованным. Гипопротеинемия и сопутствующий ей общий отечный синдром развиваются вследствие обширного поступления белка в

операционную рану [4]. В сочетании с задержкой энтерального питания, а также частичного парентерального питания (глюкоза, растворы аминокислот) из-за больших объемов жидкости для инфузии для стабилизации АД это может увеличить выход жидкости в интерстициальное пространство и спровоцировать отек легких и головного мозга [5]. С этой позиции применение 20% раствора альбумина может способствовать наиболее эффективной и быстрой коррекции нарушений при незначительной по объему противошоковой терапии. Парез кишечника, сопутствующий практически каждой тяжелой операции в раннем послеоперационном периоде, способствует транслокации кишечной флоры и развитию септических состояний [5,6]. Так, в группе сравнения гнойно-септические осложнения развились у одного ребенка из 12 (8,3% от общего количества больных в группе). В то же время в контрольной группе такие осложнения встречались гораздо чаще у 16 (30,8%) из 52 новорожденных. Только комплексный подход к решению проблемы раннего послеоперационного периода у новорожденных позволит добиться существенного уменьшения числа осложнений и повышения эффективности интенсивной терапии. С учетом сказанного нами предложены основные пути решения проблем. При контроле биохимических показателей в группах не отмечено достоверных различий уровня трансаминаз, печеночных ферментов, мочевины и креатинина. Таким образом, использование 20% раствора альбумина при шоке у новорожденных с высокой степенью риска развития гнойно-септических осложнений быстро стабилизирует показатели гемодинамики, корригирует гипопротеинемию, а также уменьшает продолжительность ИВЛ. Малый объем волемической нагрузки при использовании 20% раствора альбумина у новорожденных с высокой степенью риска развития гнойно-септических осложнений позволяет адекватно проводить коррекцию электролитных нарушений, а также максимально рано начинать парентеральное питание для восполнения энергетических затрат.

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ФИЗИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ РЕБЕНКА С ПОЗИЦИЙ РЕГИОНАРНОЙ АНЕСТЕЗИИ

Резюме: *В статье приведены возрастные анатомо-физиологические особенности ребенка, знание которых необходимо для эффективного и безопасного использования методов регионарной анестезии у детей.*

Ключевые слова: *регионарная анестезия, педиатрия.*

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PHYSIOLOGICAL CHARACTERISTICS OF THE CHILD FROM THE POSITION OF REGIONAL ANESTHESIA

Resume: *The article presents the age-related anatomical and physiological characteristics of the child, knowledge of which is necessary for the effective and safe use of regional anesthesia methods for children.*

Key words: *regional anesthesia, pediatrics.*

Что больно взрослому, то больно и ребенку любого возраста, пока не доказано противоположное [4]. Структурные компоненты, необходимые для восприятия боли сформированы у плода уже к 25 неделе гестационного возраста. С-волокна, по которым преимущественно передаются ноцицептивное раздражение к задним рогам спинного мозга полностью функциональны с раннего внутриутробного периода [11]. У недоношенных младенцев ноцицептивные рефлексы способны возникать при слабом раздражении и распространение ответа проходит значимо быстрее, чем у детей старшего возраста. Ответная реакция на боль имеет более диффузный характер, быстро истощаются компенсаторные возможности. Повторные, порой безобидные стимуляции, способны вызвать значительное увеличение амплитуды рефлекса за счет снижения порога возбудимости, что отражает сенсибилизацию центральной нервной системы [13]. Дети реагируют на тканевые повреждения изменениями поведения и возбуждением автономных и гормонально-метаболических реакций стрессового типа. В крови увеличиваются концентрации катехоламинов, глюкагона, кортикостероидов. Результатом этого являются соматические и психо-эмоциональные изменения,

вызывающие отдаленные последствия [10]. Основной задачей анестезиологии сегодня является адекватная защита организма пациента от хирургического стресс ответа. Очевидно, что ни один из известных методов общей анестезии в принципе не способен полноценно блокировать прохождение ноцицептивных импульсов ни на спинальном, ни даже на супраспинальном уровне и не предотвращает развитие ответной реакции на хирургический стресс [14]. Доказательную базу преимуществ регионарной анестезии у взрослых (эффективная модуляция стресс ответа, наличие противовоспалительного; антимикробного и антитромботического эффектов, противоопухолевое действие, экономический эффект) на современном этапе с таким же успехом используют и в педиатрической практике [3,9]. В современной анестезиологии утвердилось небезосновательное мнение о том, что безопасность регионарного обезболивания значительно выше безопасности общей анестезии [17]. Техническое оснащение (иглы, нейростимуляторы, ультразвуковая навигация), местные анестетики снижают риски возможных осложнений при проведении регионарных блокад у детей [5], однако необходимо учитывать анатомо-физиологические особенности ребенка.

Учитывая особенности психики ребенка, большинство хирургических вмешательств выполняют под общей анестезией. Однако только сочетание регионарной и общей анестезии (сочетанная анестезия) у детей позволяет обеспечить гемодинамическую стабильность, снизить концентрацию ингаляционных анестетиков и доз миорелаксантов, уменьшить необходимость в послеоперационной респираторной поддержке и способствовать раннему восстановлению функции кишечника. При проведении нейроаксиальных блокад у младенца нужно знать, что к моменту рождения конус спинного мозга заканчивается на уровне L_3-L_4, а твердая мозговая оболочка на уровне S_3-S_4. С возрастом рост позвоночника опережает рост спинного мозга и к 1-году конус спинного будет соответствовать L_1, а твердая мозговая оболочка - S_1 [2]. Линия, соединяющая подвздошные ости (линия Тюффье) у новорожденного, пересекает позвоночник на уровне L_5 и ниже. Рост спинного мозга продолжается приблизительно до 20 лет, а окончательное соотношение спинного мозга и позвоночного канала устанавливается к 5-6 годам. Учитывая перечисленные особенности, нельзя выполнять спинальную анестезию у детей первого месяца жизни выше уровня L_4, иначе высока вероятность повреждения конуса спинного мозга и инвалидизация пациента. Определение уровня проведения блокады должно основываться на тщательном подсчете поясничных позвонков от пояснично-крестцового сочленения [7]. Для детей характерно более низкое давление цереброспинальной жидкости (ЦСЖ), которое существенно варьирует в зависимости от положения тела ребенка. При этом относительный объем ЦСЖ больше: если ребенок весит менее 15 кг, то общее количество ЦСЖ составляет 4 мл/кг массы тела, что по отношению к массе тела вдвое больше, чем у взрослых. Вероятно, это оказывает влияние на частоту развития постпункционной головной боли после спинальной

анестезии, которая у детей встречается значительно реже. При проведении спинальной анестезии у детей отмечается устойчивость показателей сердечно сосудистой системы. Причина стабильности на сегодняшний день не определена. Ее связывают с относительной неразвитостью симпатической нервной системы, блокада которой не приводит к увеличению емкости вен нижних конечностей [12], и/или с минимальным вагусным влиянием на миокард, что компенсирует эффекты десимпатизации [18]. Эпидуральное пространство у детей в шейном и грудном отделах не только относительно, но и абсолютно шире, чем у взрослых. Наличие дорсальной связки (plicamediana dorsalis), способной делить эпидуральное пространство на 2-е камеры, может затруднить проведение катетера и повлиять на распространение анестетиков. Жировая ткань эпидурального пространства очень рыхлая и становится по консистенции более плотной с 7-8-летнего возраста, что влияет на распространение анестетиков. Давление в эпидуральном пространстве, как и у взрослых, ниже атмосферного, поэтому использование «пузырьковой» пробы так же эффективно. В отличие от взрослых у детей при ультразвуковом сканировании нейроаксиальных структур за счет незначительной минерализации костной ткани отчетливо определяются желтая связка, твердая мозговая оболочка и нервные структуры (спинной мозг, конский хвост). С 3-летнего возраста костные ткани становятся плотными и визуализация центральных нейрональных структур становится затруднительной [6, 15].

Особенности периферической нервной системы заключаются в том, что процессы миелинизации заканчиваются только к 12-ти годам жизни [16], что делает проникновение и диффузию местного анестетика легче, соответственно сокращается латентный период начала действия анестезии [8]. В связи с тем, что накопление местных анестетиков миелином с последующим их постепенным освобождением снижено, а местная циркуляция и сосудистая абсорбция у младенцев значительно выше, продолжительность анестезии в сравнении со взрослыми короче. При этом появляется возможность обеспечить адекватную анальгезию растворами местных анестетиков низкой концентрации. Большинство анатомических структур расположено более поверхностно и хорошо визуализируются при ультразвуковом сканировании. У новорожденных отчетливая гиперэхогенность дает возможность верифицировать нервы, которые расположены в непосредственной близости к фасции (бедренный нерв). Сканирование передней брюшной стенки позволяет отчетливо определить межфасциальное пространство между поперечной и внутренней косой мышцами живота, что способствует более простому выполнению блокады поперечного пространства живота по сравнению со взрослыми [1]. Таким образом, знание анатомо-физиологических возрастных особенностей центральных и периферических нейрональных структур позволяет эффективно использовать методы регионарной анестезии у детей с рождения и избегать серьезных осложнений.

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ИНФОРМАЦИОННЫЕ И КОММУНИКАТИВНЫЕ ТЕХНОЛОГИИ

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MACHINE LEARNING ALGORITHMS FOR AUTOMATIC DIAGNOSIS AND PREDICTION OF DISEASES BASED ON MEDICAL DATA

Abstract: *This article uses logical regression method and machine learning algorithms through sigmoid function for automatic diagnosis and prediction of diseases. logical regression method is used in the article, because this method is effective in solving classification problems. Logical regression models allow predicting the presence of various diseases or the level of susceptibility to them based on the patient's data (for example, age, sex, medical indicators, laboratory results, anamnesis). This method is convenient for use in determining the risk of disease and predicting the onset or development of the disease.*

Keywords*: sigmoid function, logical regression, machine learning*

Relevance of the topic:

Uzbekistan aims to transition to a digital economy by 2030. In this period, digitalization in the field of IT is one of the priority areas of national development. This action strategy is aimed at wide implementation in all sectors of the country, especially in the field of medicine.

By 2030, the widespread use of IT infrastructure in the medical field will play an important role in increasing the country's competitiveness.

Early detection of diseases and their timely prediction are of great importance in modern medicine. In this process, the creation of automated diagnostic systems based on the patient's medical history and medical indicators will help to improve the quality of life of patients and increase the efficiency of the healthcare system. This project aims to create a custom web platform using machine learning algorithms for disease diagnosis and prediction.

The logical regression method is used in the project, because this method is effective in solving classification problems. Logical regression models allow predicting the presence of various diseases or the level of susceptibility to them based on the patient's data (for example, age, sex, medical indicators, laboratory

results, anamnesis). This method is convenient for use in determining the risk of disease and predicting the onset or development of the disease.

The main functions of this web platform include:

1. Data entry: Users can enter medical data and other relevant information.

2. Diagnosis and prediction: Initial diagnosis and prediction of future disease risk using logistic regression model based on input data.

3. Visualization of results: Present results using graphs and other visual aids to explain disease risk to the patient.

During the project, machine learning algorithms are fed and optimized with medical data, which increases the accuracy of the platform. Training and testing are used to ensure the accuracy of the data and to fine-tune the models. At the same time, the security and privacy issues of the platform are also taken into account, as medical information is considered confidential and important.

This system helps health workers, saves their time and increases the possibility of early detection of diseases.

Setting the issue:

There are different algorithms for machine learning. They are mainly used for data analysis and forecasting. One of the most famous of them is the following method.

Logistic regression is a statistical and machine learning technique that is often used in binary classification tasks. That is, with the help of this model, we can classify an object or event from two possible categories (for example, "yes" or "no", "0" or "1", "has a disease" or "does not have a disease").

Basic principles:

Logical regression mathematically uses a linear model, which means that the relationship between input features and output is linear. However, the result is only represented by values between 0 and 1. This is done by the "sigmoid" or "logistic" function.

The sigmoid function looks like this:

$$\sigma(z) = \frac{1}{1 + e^{-z}}$$

In this case: $z = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots$ is a linear combination of the model (the features and their weights).

e - is the base of the natural logarithm (about 2.718).

σ(z)- is the result of the sigmoid function and has a value between 0 and 1.

The process of logistic regression:

Data preparation: Based on the initial data set, the input features and output target for each observation should be clear.

Building the model: The model is built by training the input features and their associated weight coefficients.

Prediction: After training the model, classification is performed based on the new data.

Why Logical Regression?

Simple and understandable: As it is based on linear models, the results are easy to understand and interpret.

Classification is very convenient: Logistic regression is very effective if the goal is binary classification.

Easy interpretation: It is very easy to understand the results of the model, that is, to determine how each feature affected the classification.

Problem:

If you have a data set called "Disease presence" and you know various risk factors (such as age, physical activity level, dietary habits), you can use logistic regression to predict the presence of this disease. you can predict whether or not.

Formula:

The following formula is used to calculate the logistic regression result:

$$P(y = 1|X) = \frac{1}{1 + e^{-(\beta_0+\beta_1 x_1+\beta_2 x_2+\cdots+\beta_n x_n)}}$$

Here:

- P(y=1|X) - the probability of getting a result of "1" based on certain features X.
- $\beta_0, \beta_1 \ldots \beta_m$ - are parameters of the model, we find them in the process of training.

Fields of application

• **Medicine**: Predicting the presence or absence of disease.
• **Marketing**: Determining whether a customer will buy a product or not.
• **Financial sector**: Classification of loan repayment or loan borrowing.

While logistic regression is a simple and efficient model, it also works well for specific and complex data.

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ARP CACHE POISONING. МЕТОДЫ ЗАЩИТЫ

Аннотация. *В рамках данной статьи рассматривается качественный подход к изучению существующих методов защиты от APR Cache Poisoning на основе проведённого моделирования. Работа была выполнена на ОС ALT Linux. В результатах исследования можно увидеть комплексную реализацию рассматриваемых методов защиты. Работа подчёркивает важность создания и повышения эффективности защитных механизмов в сфере информационной безопасности. Статья будет интересна специалистам в области информационной безопасности, а также начинающим специалистам в сфере IT, которые хотят познакомиться с работой базового протокола обмена данными.*

Ключевые слова: *безопасность сетей, ARP, ARP Cache Poisoning, DAI.*

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ARP CACHE POISONING. METHODS OF PROTECTION

Abstract. *Within the framework of this article, a qualitative approach to the study of existing methods of protection against APR Cache Poisoning based on the conducted modeling is considered. The work was done on ALT Linux OS. In the research results, you can see the comprehensive implementation of the protection methods under consideration. The work highlights the importance of creating and improving the effectiveness of protective mechanisms in the field of information security. The article will be of interest to specialists in the field of information security, as well as novice IT industry specialists who want to get acquainted with the work of the basic data exchange protocol.*

Keyword: *network security, ARP, ARP Cache Poisoning, DAI.*

Введение. В современном мире компьютерная сеть стала неотъемлемой частью нашей повседневной жизни, а именно привычным средством коммуникации. Однако с развитием технологий и увеличением числа пользователей, чьи намерения могут быть отнюдь не добросовестными, возникают новые вызовы и проблемы, связанные с информационной безопасностью. В связи с этим появилась и продолжает существовать необходимость в создании дополнительных аппаратных и программных средств защиты сетевых ресурсов [3].

Address Resolution Protocol (ARP) атаки — это атаки второго уровня модели OSI, которые используют уязвимость данного протокола, а именно отсутствия реализации мер безопасности по отношению нарушений назначений MAC-IP для устройств. Последствия подобных атак зависят от их возникших разновидностей и целей, которые преследуют злоумышленники – так или иначе основной является перехват трафика, предназначенный для конкретного хоста и создающий помехи нормальной коммуникации в сети. Так называемое «отравление APR», представленное на Рисунке 1, происходит по следующему сценарию: чтобы плавно выполнять сопоставление MAC- и IP-адресов, каждый хост в локальной сети поддерживает локальную таблицу, называемую ARP Cache. Из-за «безотказности» протокола злоумышленник, находящийся за устройством ALT1, способен фальсифицировать пакеты, так как каждое устройство в сети может отвечать на запрос ARP независимо от того, адресован ли он ему, а жертва атаки примет его ответ как легитимный [5, С.49-50]. Прежде чем произойдет эта инкапсуляция, хосту-отправителю требуется MAC адрес хоста-получателя: учитывая IP-адрес, ARP может динамически определять MAC-адрес соответствующего хоста, а ALT1 вынуждать хост Router «подменить» истинный MAC-адрес на свой, ломающее логику сопоставления адресов и ARP-таблиц в сети. После проникновения злоумышленнику доступны всевозможные операции с трафиком – хакер может просматривать и изменять пакеты данных, прежде чем отправить его в истинный пункт назначения, или вовсе перекрыть пути коммуникации.

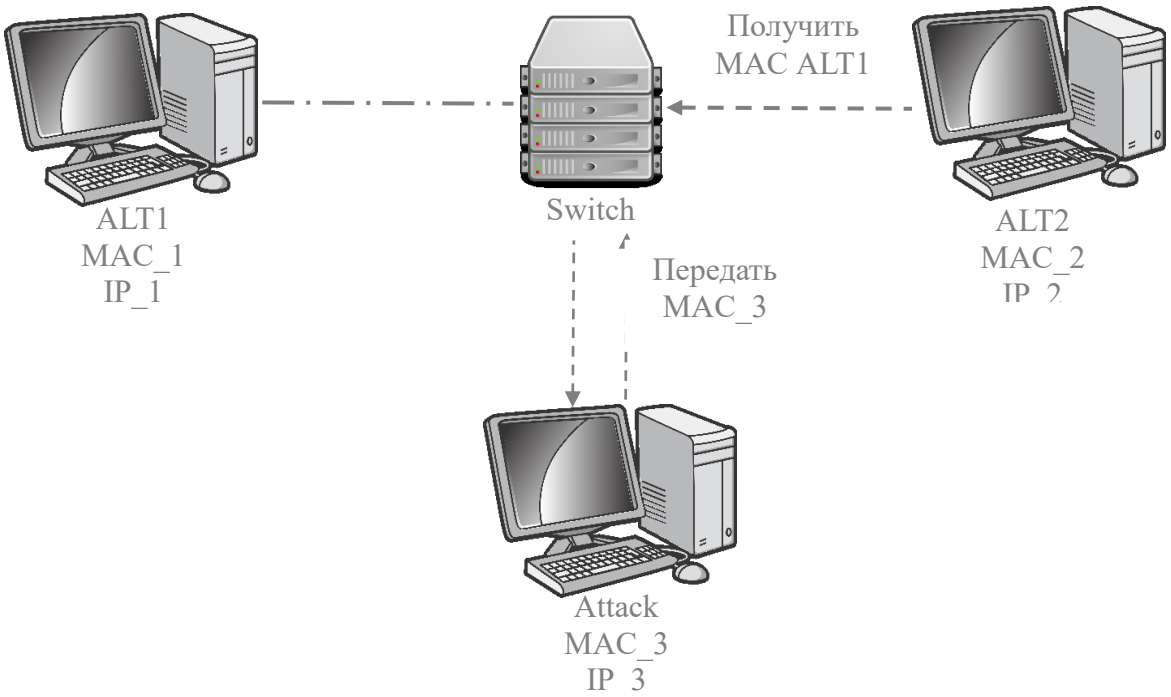

Рисунок 1 – Простейшая топология сети и результат проведения ARP Cache Poisoning Attack

Производители сетевого оборудования и программного обеспечения такие, как Cisco, Eltex, Fortinet и другие, разрабатывают решения для защиты от ARP-атак, предлагая встроенные средства безопасности в свои устройства и системы. Также некоторые организации, как OWASP (Open Web Application Security Project), включают ARP-атаки в свои методики тестирования на проникновение и оценки уязвимостей.

Современные системы также включают методы мониторинга сетевого трафика для обнаружения аномалий, связанных с подделкой ARP, и созданные методы аутентификации ARP, а также иные решения на уровне сети.

Однако существующие методы защиты имеют ряд ограничений, и именно их грамотное комбинирование и развитие будут способствовать ресурсной и интуитивной доступности в выявлении уязвимостей и предотвращению атак на сети.

В рамках данной работы проведён анализ существующих решений по методам защиты от ARP Cache Poisoning, выявлены их сильные и слабые стороны, а также предложены комбинированные подходы и технологии для повышения уровня безопасности в сетях.

Основная цель – выявить практические решения, которые можно интегрировать в существующие инфраструктуры, а также оценке их эффективности, доступности и простоты применения, а также специфических условий пользования. Результаты исследования могут помочь в повышении уровня кибербезопасности и снижения рисков, связанных с атаками на локальные сети.

Исторический обзор. В истории разработки протоколов TCP/IP можно выделить несколько этапов, каждый из которых имел свои особенности и приоритеты. Во времена разработки первых из них аспекты безопасности были не самыми приоритетными и определяющими [2, С.172]. В связи с этим в 1982 г., когда впервые появился протокол ARP, разработчики не предусмотрели аутентификационные механизмы для проверки сообщений [4, С.49], поэтому это привело к острой постановке вопроса о защите от возникших способов атак на сети практически сразу после появления.

Одними из первых способов защиты от ARP Cache Poisoning Attack стали инспекция ARP и статические ARP-записи. Однако, с течением времени и увеличением сложности атак, эти методы оказались недостаточными с позиции своего прямого назначения, помимо всех возможных наложенных ограничений при создании:

1. *Ограничение масштабируемости сети:* использование этих методов исключала возможность быстрого изменения в топологии сети или добавлению новых устройств;
2. *Ограничение функциональности сети:* для эффективной защиты от атак необходимо было проводить постоянную инспекцию, приводящую к дополнительным затратам времени и ресурсов на администрирование;
3. *Ограничение в автоматическом реагировании на атаки* заключалось в отсутствии управления «линиями защиты», а именно к задержкам в обнаружении и реагировании на атаки;
4. *Ограничение анализа трафика:* аналогично *пункту 3* описанные методы могут ограничивать анализ трафика, что затрудняет выявление подозрительной активности и своевременное реагирование на атаку.

На данный момент существуют несколько базовых методов по обеспечению предотвращения ARP атак: статический (сохранился из ранних), динамический и специальные средства мониторинга на примере ARPwatch.

Статические ARP-таблицы. Один из самых простых и эффективных методов защиты от ARP атак, существующих в современных реалиях. Суть заключается в назначении фиксированных пар MAC-IP адресов; доступна совместная работа с инструментами для автоматического сканирования сети и сбора информации.

Ограничением метода является эффективность исключительно в небольших сетях, где количество возможных ARP-запросов ограничено из-за увеличения числа возможных комбинаций MAC-IP адресов.

Статические ARP-таблицы требуют регулярного управления и обслуживания для обновления пар MAC-IP адресов при добавлении или удалении устройств. Регулярное создание резервных копий ARP-таблиц обеспечит возможность восстановления в случае сбоя или атаки. В случае обнаружения подозрительной активности или несоответствий в ARP-таблицах необходимо уведомить администратора сети для принятия соответствующих мер.

Dynamic ARP Inspection (DAI). Способ также активно используется для предотвращения ARP Cache Poisoning атак путём настройки функции безопасности DHCP Snooping или DAI на коммутаторе. В данной процедуре не мало важную роль играет архитектура охраняемой сети, а именно разделение на сегменты (в примере VLAN): когда устройство VLAN с поддержкой DAI получает пакет ARP, оно сопоставляет IP-адрес источника, MAC-адрес источника, идентификатор VLAN и номер интерфейса пакета ARP с записями привязки в таблице DAI, содержащая MAC-адрес источника, VLAN и номер интерфейса – они создаются динамически с помощью отслеживания DHCP. На основе результатов сопоставления принимается решение о том, является ли пакет действительным (пропустить) или подозрительным (отбросить): запись о подозрительных пакетах может быть занесена в журнал событий для последующего анализа или генерации оповещений для администраторов.

Стоит отметить, что только устройства, поддерживающие DAI, могут участвовать в данном процессе, например *MES1428 Eltex* [1], используемый для проведения моделирования.

Специальные средства мониторинга (Arpwatch). Данного типа программы предназначены для отслеживания активности трафика в сети, а именно изменения пар MAC-IP адресов – эти данные могут быть получены из различных источников, включая маршрутизаторы, коммутаторы и конечные устройства.

Методы сбора данных включает в себя активный и пассивный способ: первый отправляет ARP-запросы на устройства в сети, чтобы получить их MAC-адреса и соответствующие IP-адреса для формирования указанной базы данных текущих пар MAC-IP, которая может быть локальной или централизованной; второй использует журналы событий маршрутизаторов и коммутаторов.

Суть работы последнего заключается в регистрации изменений в формате сообщения или отчёта по электронной почте администратору при добавлении или изменении пары в режиме реального времени.

Arpwatch хорошо себя показывает в интеграции с другими сетевыми инструментами и методами защиты: программа предлагает гибкие настройки, обеспечивающие полный контроль и управление сетевой инфраструктурой любой сложности.

Согласно заданной топологии и описанным характеристикам, было проведено комплексное оснащение сети: на ALT1, описанном как пункт назначения, настраиваем статическую таблицу, сопоставляя MAC-IP ALT2 – назначение «доверенного порта» на коммутаторе Switch невозможно в рамках данной топологии, так как все порты, подключенные к конечному пользователю, не являются доверенными [4]. Настройка произведена с помощью команды *arp -s* ***IP_2 MAC_2.***

На самом ALT2 будет применён динамический метод защиты включением функции DAI – для этого предварительно проведена настройка DHCP Spoofing. Основными этапами настройки являются [4]:

1. Добавление ALT2 в access-list командой
   *permit ip host **IP_2** mac host **MAC_2***
   или
   *arp access-list **ALT2**;*

2. Ожидаем заполнение ARP-таблицы;
3. Включаем ARP Inspection в режиме глобальной конфигурации командой, где *vlan* ***<id>*** обеспечивает дополнительную защиту сети за счёт её сегментированности:
   *ip arp inspection vlan **<id>** ;*

4. *Опционально можно добавить дополнительные проверки на соответствие MAC адресов в заголовках ARP и Ethernet:
   *ip arp inspection validate **<option>.***

Анализ трафика с помощью APRwatch проходит на ALT1: согласно алгоритму работы, ложная тревога не будет генерироваться, так как программа полагается только на ARP-трафик путем локальной проверки на соответствующем хосте.

При проведении атаки подозрительная активность была зафиксирована. Результаты исследования и эффективности рассматриваемых методов расположены в Таблице 1 и включают себя как оценку по общепринятым критериям внедрения методов защиты информации (п.1-3), так и анализ с позиции определенных ранее ограничений.

Таблица 1 – Результаты исследования

Критерии	Статический метод	Динамический метод	ARPwatch
	1	**2**	**3**
1. Защищённость[115]	**1**	**2**	-
2. Простота реализации	**1**	**3**	**2**
3. Минимальные затраты на реализацию	**1**	**3**	**2**
4. Решение ограничения функциональности сети:	✕	✓	✓
4.1. Рекомендуемый размер сети	Маленький	Любой	Любой
5. Решение ограничения масштабируемости сети	✕	✓	✓
6. Решение ограничения в автоматическом реагировании на атаки:	✕	✓	✓
6.1. Исключение возможности ложных срабатываний	-	✕	✕
7. Решение ограничения анализа трафика	✕	✕	✓

[115] Ключевой критерий в данной выбоке – доказательство действия данного метода защиты.

8. Совместимость с другими средствами защиты	✓	✓	✓

Эксперимент показал, что существующие методы не являются универсальными в решении вопроса безопасности сетей.

Статический метод является самым простым и эффективным в данной выборке, не требует никаких ресурсов, однако доказывает свою несостоятельность в самостоятельном решении вопроса безопасности в быстро растущей и развивающейся отрасли – его рекомендуется использовать на отдельных машинах и сегментах сети, на которых не планируются изменения.

Динамический метод является одним из самых распространённых в данной выборке, ключевым решением в настоящий момент, однако также имеет ряд недостатков: метод требует ряд дополнительных настроек и накладывает ряд новых ограничений на сеть, например ограничения скорости передачи.

ARPwatch, который имеет наибольшее количество преимуществ по выделенным критериям, представляет из себя лишь вспомогательный элемент для реальных сетей и требует обязательной организационной работы с персоналом по обучению работе с программой.

Заключение. В рамках проведенного исследования была доказана важность разностороннего подхода в обеспечении безопасности от вида атаки ARP Cache Poisoning – ни один из рассматриваемых методов не является универсальным в решении вопросов безопасности; в комплексе же они способны действовать с позиции как активной защиты сети, так и мониторинга сетевой активности с реализацией организационных мер и общих мер обеспечения сетевой безопасности.

Результаты подчеркивают необходимость постоянного совершенствования методов защиты и адаптации к новым угрозам, чтобы оставаться на шаг впереди киберпреступников. В будущих исследованиях может быть развёрнуто тестирование новых технологий обнаружения и предотвращения ARP Cache Poisoning на базе машинного обучения и искусственного интеллекта для повышения точности и скорости реагирования на угрозы.

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O‘ZBEKISTON AHOLI O‘LIMINING GEOGRAFIK XUSUSIYATLARI

Annotatsiya. *Maqolada O‘zbekiston aholi o‘limining geografik (hududiy) xususiyatlari va undagi o‘zgarishlar ko‘rib chiqilgan. O‘zbekiston aholi o‘limining hududlari bo‘yicha go‘daklar hamda onalar o‘lim sabablari va unga ta’sir ko‘rsatuvchi omilar batafsil yoritilgan. Ishda aholi olimining geodemografik jihatlarining tarixiy va zamonaviylik ko‘rinishi baholangan va ulardagi o‘zgarishlarning sabablari tahlil qilingan.*

Kalit so‘lar: *Geodemografik tushunchalar, aholi o‘limi, promille, o‘limning umumiy koeffitsiyenti, aholi salomatligi, umr ko‘rish davomiyligi.*

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THE GEOGRAPHIC FEATURES OF CHILD MORTALITY IN UZBEKISTAN

Annotation: *This article examines the geographical (territorial) characteristics and changes in mortality rates in Uzbekistan. It provides a detailed analysis of infant and maternal mortality causes by region in Uzbekistan, as well as the factors influencing them. The work assesses the historical and contemporary state of the geodemographic aspects of population mortality and analyzes the reasons for the changes observed.*

Keywords: *Geodemographic concepts, population mortality, per mille, general mortality rate, population health, life expectancy.*

Kirish. Inson qanchalik uzoq yashashga urinmasin, oxir oqibat u o’limga yuz tutadi. Bu tabiatning inkor etib bo’lmas qonunidir. Biroq o’limning sodir bo’lish o’rni, vaqti, sabablari va oqibatlari insoniyatni doimo qiziqtirib kelgan masalalardandir. Har qanday jamiyatda sodir bo’ladigan o’lim hodisalari uning qay darajada rivojlanganligi, farovonligi, turmush darajasi, tibbiyot sohasining ahvoli, sanitariya-epidemiologiya holati hamda iqtisodiy-ijtimoiy va siyosiy ahvolidan darak beradi. Har bir mamlakat o’z aholisi salomatligi haqida qayg’uradi, chunki, aholi har qanday mamlakatning eng asosiy resursi hisoblanadi. O‘lim jarayoni aholi takror barpo bo‘lishining eng asosi ikkinchi qismi hisoblanib, avlodlar almashinuvida faol ishtirok etadi. Hududlarni siyosiy, ijtimoiy va iqtisodiy, ayniqsa

tibbiy xizmat ko‘rsatishning rivojlanishi asnosida aholining umr ko‘rish yoshi muntazam ko‘tarilib boraveradi.

O‘zbekiston aholi salomatligi borasida amalga oshirilayotgan islohotlar negizida o‘lim ko‘rsatkichlari sekinlik bilan kamayib bordi. Jumladan, mamlakatda 1991-2023-yillarda o‘limning umumiy koeffitsiyenti har mingta aholiga nisbatan 6,3 kishidan 4,5 kishiga yoki 1,8 kishiga kamaygan.

Umumiy o‘lim holatlarida turli sabablarga ko‘ra yildan-yilga oshib borayotgan bo‘lsa-da, bir yoshgacha bo‘lgan bollar o‘limi mustasno holatda pasayish holatidadir. Ya’ni 2011-yildagi 10,8 promille holatidan 2023-yilda 8,9 promillega pasaygan. Aholi orasida yuz bergan o‘limning 61,9 foizi - qon aylanish tizimi kasalliklaridan bo‘lib so‘ngi 10 yil oralig‘ida yildan-yilga ko‘payib, jami 0,6 foizga ko‘tarilgan, shundan 7,9 foizi – o‘simta kasalliklaridan, 6,2 foizi - nafas olish organlari kasalliklaridan, 4,2 foizi - ovqat hazm qilish a’zolari kasalliklaridan,5,2 foizi - baxtsiz hodisa, zaharlanish va jarohatlanishlardan, 3,2 foizi - yuqumli va parazitar kasalliklardan hamda 11,4 foizi - boshqa kasalliklardan vafot etganligini guvohi bolamiz[1]. O‘lim ko‘rsatkichlari O‘zbekiston hududlari bo‘yicha taqsimlanganda har 1000 aholiga nisbatan olganda barcha hududlarni Z. N. Tojiyevaning “Aholi geografiyasi” kitobida keltirilgan, umumiy aholi o‘limiga tegishli bo‘lgan 4.3-jadvalida keltirilgan, o‘lim koeffitsiyentiga ko‘ra deyarli barcha viloyatlar 10 promilledan quyi darajani tashkil etib, “past” ko‘rsatkichga ega bo‘lib, viloyatlardagi tegishli ko‘rsatkichlar deyarli 4 va 5 promille oralig‘ini ifoda etmoqda. Lekin , ular ichida esa, eng yuqori ko‘rsatkichlar Toshkent shahri (8,1) hamda Toshkent viloyati (6,2) hissasiga to‘g‘ri kelmoqda. Bu esa ushbu hududlarda yechimini kutayotgan talay masalalar borligidan dalolat beradi. Aholi o‘limiga olib keluvchi kasalliklar bilan og‘rigan bemorlar soniga ko‘ra, ya’ni aynan, qon va qon yaratuvchi organ kasalliklariga chalingan bemorlar 2023-yil ma’lumotlariga ko‘ra, qora (o‘ta xavfli hudud) hududlar sifatida Andijon, Farg‘ona, Samarqand viloyatlari anchayin yetakchilik qilmoqda. Andijon viloyatida har ming aholi hisobiga qon va qon yaratuvchi organ kasalliklariga chalingan bemorlar 280,4 kishini tashkil etib, hududlar orasida 1- o‘rinni egallagan. Ushbu holat 2018-yildan 2023-yilga qadar 41,8 promillega ortgan. Xuddi shunday holat Farg‘ona viloyatida har mingta aholining 228,1 ta holatida kuzatilgan. Uchinchi o‘rinda esa Samarqand viloyati 221, 8 promille bilan yetakchilik qilmoqda. Yuqoridagi hududlar aholi tasnifida ham aholining zichlik darajasi bo‘yicha ham oldingi o‘rinlarda. Qizil xavflii hududida)hudud sifatida esa Surxondaryo (132,6 promille), Qoraqalpog‘iston Respublikasi (131,0 promille) va Toshkent shahri (129,5 promille) kiritildi. Ushbu hududlarda ham bu ko‘rsatkich anchagina yuqoridir. Surxondaryoda 2017-2023 yillar oralig‘ida 114,4 dan 158,2 promillega (43,8 promillega) ko‘payib, 25,6 promillega pasaygan.

Qoraqalpog‘iston Respublikasida ham xuddi shunday so‘nggi yillarda 4,1 promillega pasayish holati kuzatilgan lekin Toshkent shahrida esa 2018-yil (96,7 promille)dan 2023-yil (129,5 promille)gacha bo‘lgan oralig‘ida 32,8 promillega oshganligini kuzatamiz. Sariq (ogohlik hududi) hududga esa qolgan viloyatlar kiritildi. Ya’ni Toshkent viloyatida 97 promille, Namanganda 84,9 promille,

Xorazm viloyatida 62,9 promille, Jizzax viloyatida 56,6 promille, Navoiy viloyatida 44,5 promille, Buxoro viloyatida 31,7 promille hamda Sirdaryo viloyatida esa 29,2 promilleni tashkil etadi. Aholining xavfli o‘sma kasalliklariga chalinishi har 1000 holatga nisbatan O‘zbekiston Respublikasi bo‘yicha 22,1 tani tashkil etgani holda, ayollarda 13 promille, erkaklarda esa 10,5 promilledir. Aynan shular jumlasiga lab, og‘iz bo‘shlig‘i, halqum o‘smasi 0,4 dan 0,5 promillega oshgan; qizilo‘ngach o‘smasi 0,8 dan 0,7 promillega tushgan; oshqozon raki 1,8-1,9 dan 1,7 promillega tushgan; to‘g‘ri ichak o‘smasi 0,6 dan 0,7 promillega ortgan; jigar o‘smasi 1,0 va 0,9 oralig‘ida beqaror ko‘rsatkichga ega; sut bezi, bachadon bo‘yni va tanasi, platsentasi, prostata bezi, siydik qopi o‘smasi 6,4 dan 6,6 promillega ortgan. Aynan shu kasallik bo‘yicha birinchi marta tashxis bilan ro‘yxatga olingan kasalliklar soniga ko‘ra umumiy holatda Respublika bo‘yicha 2017-yilda 25 197 ta holat kuzatilgan bo‘lsa, 2023-yilga kelib 22 050 tani tashkil etib, 3 147 taga kamaygan. Viloyatlar bo‘ylab birinchi beshlikda, har ming holatga ko‘ra, Toshkent shahri (3 544 ta), Farg‘ona viloyati (2 426 ta), Toshkent viloyati (2 064 ta), Andijon viloyati (2 002 ta), Samarqand viloyat(1 863 ta) lari, ikkinchi guruhga, Qashqadaryo viloyati (1 680 ta), Buxoro viloyati (1 584 ta), Namangan viloyati (1 421 ta), Xorazm viloyati (1 291 ta), Qoraqalpog‘iston Respublikasi (1 252 ta)hamda Surxondaryo viloyati (1 162 ta) kiritiladi. Qolgan Sirdaryo, Jizzax va Navoiy viloyatlari past ko‘rsatkichlar bilan uchinchi guruhni hosil qiladi. Nafas olish organlari kasalliklari nuqtayi nazaridan, Yurtimizda umumiy holatda kasallanish ko‘rsatkichlari anchayin yuqorilagan. Masalan, umumiy kasallanish holatining 6,2 foizini tashkil etgan holda, har 100 000 aholiga nisbatan 2017-yilda 23,2 kishini tashkil etgan bo‘lsa, joriy yilga kelib, har yuz ming aholining 37 tasi aynan shu kasallik sababi bilan vafot etgan. Bu ko‘rsatkich yaqin 4 yil mobaynida 13,8 kishiga ortganligi kuzatilgan.

Nafas olish organlari kasalliklari bilan kasallanishda birinchi marta kasallikka chalinish holatlari hududiy jihatlarining tavsifida, har ming holatga nisbatan, Toshkent shahri 726,4 kishini tashkil etib 2017- yilga nisbatan 233,8 kishiga kamaygan, Farg‘ona viloyatida 525,2 kishi bo‘lib oxirgi to‘rt yil oralig‘ida 122,9 kishiga kamaygan, Andijon viloyatida joriy ko‘rsatkich 452,7 kishi bo‘lib 2017-yilga nisbatan 48, 6 kishiga ortgan, Samarqand viloyatida 434, 5 kishini tashkil etgan holatda 41,95 kishiga ortgan, hamda Toshkent viloyatida esa 423,8 kishi kasallanganligini hisobga olsak so‘ngi natijalar 425,5 kishidan, 1,7 kishiga kasallanish holatlari kamaygan.

Ushbu hududlarda aholining boshqa viloyatlardan ko‘ra nisbatan salmog‘i va zichligi ko‘rsatkichlari hisobiga hamda bu omil aynan yuquvchanligi yuqori ekanligi bilan alohida tavsiflanadi. Boshqa viloyat hududlarida ham aholi soniga ko‘ra mutanosib tarqalganligi o‘rganilish davomida ma’lum bo‘ldi. Masalan, Qashqadaryoda har ming holatga ko‘ra 384,5 kishi bo‘lsa, Navoiy viloyatida bu 127, 9 tani tashkil etadi.

Ovqat hazm qilish a’zolari kasalliklari sabab aholi o‘limi ko‘rsatkichlarida ijobiy ko‘rsatkichlar mavjud. Chunki 2011- yilda umumiy o‘limning 5,8 foizini tashkil etgan bo‘lsa 2023-yilda esa 4,2 foizga kamaygan yillar oralig‘ida kamayish

tendensiyasi 1,6 foizni tashkil etmoqda. Ovqat hazm qilish a'zolari kasalliklari bevosita to‘g‘ri ovqatlanish jarayoni bilan uzviy bog‘liqlikni tashkil etadi. Respublikamiz hududida deyarli yuqori ko‘rsatkichlar bilan, noto‘g‘ri ovqatlanish jarayonlari kuzatiladi. Respublikamiz bo‘yicha aynan Ovqat hazm qilish a'zolari kasalliklariga chalinish holatlari yuqori bo‘lgan; Toshkent shahri (691,8 promille), Qashqadaryo viloyati (484,1 promille), Toshkent viloyati (332,3 promille), Andijon viloyati (328,2 promille) hududlari yuqori ko‘rsatkichga egadir. Bunday ko‘rsatkichlarni yana ko‘plab keltirib o‘tishimiz mumkin.

Xulosa o‘rnida shuni aytish mumkinki, O‘zbekiston sharoitida yuqorida keltirilganligi kabi turli sabablarga ko‘ra Andijon viloyati 12,8 promille ko‘rsatkich bilan yuqori pog‘onani tashkil etgani holda 2-va 3-o‘rinlarda Toshkent shahri hamda Xorazm viloyatlari egallagan. O‘zbekistonda yuz bergan bolalar o‘limi jihatidan eng yuqori ko‘rsatkich, 58 foizi dan yuqori qismi perinatal davrda yuz berishi, chaqaloqlar parvarishini yurtimizda tegishli chora-tadbirlar asosida, puxta ishlab chiqilishni taqozo etadi.

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HAYKALTAROSHLIKDA OBRAZ YARATISH MASALASI (MOTAMSARO ONA HAYKALI MISOLIDA)

Annotatsiya: *Ushbu maqolada nafis san`at turi hisoblanuvchi haykaltaroshlikda obraz yaratish masalalari, o`ziga yarasha mashaqqatli jihatlari, haykaltaroshlikning buyuk namunasi hisoblanuvchi Motamsaro ona haykali haqida so`z yuritiladi.*

***Kalit so`zlar:*** *haykaltaroshlik, obraz, haykal, Motamsaro ona haykali, nafis san`at*

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THE QUESTION OF CREATING AN IMAGE IN SCULPTURE (ON THE EXAMPLE OF THE MOTHER OF MOURNING STATUE)

Annotation: *This article talks about the issues of creating an image in sculpture, which is considered an elegant art form, its difficult aspects, and the statue of the Mother of Sorrows, which is considered a great example of sculpture.*

Key words: *sculpture, image, statue, Mourning mother statue, fine art*

Tasviriy san'atning asosiy turlaridan biri bo'lgan haykaltaroshlik san'atida borliqni hajmli shakllar orqali makonda tavsvirlanadi. Stol ustiga qo'yiladigan haykalchalar, ko'cha va xiyobonlarga o'rnatilgan turli haykal va yodgorliklar, binolarning devorlari, tanga va medallarning yuzasidagi bo'rtma tasvirlar haykaltaroshlikning turli ko'rinishlari hisoblanadi.

Haykaltaroshlik asarlari o'rni, bajaradigan vazifasi, ishlanish uslubi va ko'rinishiga qarab turlicha nomlanadi. Haykaltaroshlik asarlari asosan dumaloq va relyef (bo'rtma tasvir) ko'rinishida bo'ladi. Dumaloq haykallarga hamma tomondan aylanib ko'rish mumkin bo'lgan haykallar kiradi. Masalan, maydon va xiyobondagi yirik haykal va yodgorliklar, har xil mayda haykalchalar, taglikka o'rnatilgan haykallar va h.k. Bo'rtma haykallar odatda biror yuzaga bo'rttirib ishlangan bo'ladi. Bunday haykallar bir so'z bilan relyef deb ataladi («relyef» fransuzcha so'z bo'lib, yuza degan ma'noni bildiradi) Relyeflarni faqat old tomondan ko'rish mumkin. Bunday haykaltaroshlik asarlarida; kenglik, tabiat manzaralari ko'rinishi, hayotda sodir bo'lgan voqealar ma'lum muhitda aks ettiriladi.

Haykaltaroshlik asarlari bajaradigan vazifasi, mazmuniga qarab mahobatli, dastgoh, bezak va mayda haykaltaroshlik turlariga bo'linadi. Me'morlik bilan uzviy bog'liq bo'lgan haykaltaroshlik asarlari, yodgorliklar mahobatli haykaltaroshlik turiga taalluqli. Shahar maydonlarida ko'pincha bronzadan quyilgan, marmar granitdan ishlangan mahobatli haykallarni ko'rish mumkin. Bunday haykallar Toshkent, Samarqand, Farg'ona va Vatanimizning boshqa shaharlarida ko'plab uchraydi. Bu haykallar mahobatli (monumental) haykaltaroshlikka mansub. Haykaltarosh L. Jabborovning Amir Temur haykallari, Alisher Navoiy haykali va boshqalar ana shunday haykallar sirasiga kiradi.

Memorial inshootlar («memorial» lotincha — «xotira» so'zidan) ham mahobatli haykaltaroshlikka kiradi. «Jasorat", «Xotira maydoni» memorial majmualari atrof- muhit bilan uyg'unlashib ketadi, shuning uchun bunday ishootlar haykaltaroshlik ansambllari deb ataladi. Yodgorliklar, memorial ansambllarda odatda vatanparvarlik (fikr va tuyg'ulari) aks etgan bo'ladi. Bezak haykaltaroshligiga istirohat bog'lari, xiyobonlar, ko'chalar va binolarning devorlarini bezash uchun ishlangan haykallar kiradi. Bu turda turli hayvonlar (baliq, qurbaqa, laylak va hokazolar), ramziy bezak va shakllar keng qo'llaniladi. Ko'rgazma, uylarga qo'yishga mo'ljallangan haykallar dastgoh haykaltaroshligi turiga taalluqlidir. Bu tur san'at asarlarini har bir badiiy muzeyda ko'rish mumkin. U yaqindan turib tomosha qilinadi. Shuning uchun u ancha nozik ishlangan bo'ladi, ularda insonning ichki dunyosi o'z ifodasini topadi. Bular portretlar, turli haykallardir.

Haykaltaroshlikda yog'och, tosh, granit, marmar, metall, beton, ganch kabilar xom-ashyo tarzida ishlatiladi. Haykaltarosh haykalning mazmuni va o'rnatiladigan o'rniga qarab turli xil xomashyoni tanlaydi: maxsus loy, suyak, sement, gips..., qimmatli metallar — oltin, kumush, nikellar ham haykaltaroshlikda xomashyo bo'la oladi.

Haykaltaroshlikda rang deyarli ishlatilmaydi. Asar rangini odatda haykal uchun tanlangan xomashyo (marmar, granit, bronza va hokazolar) belgilaydi. Xalq haykaltaroshligida haykallarni bo'yash hollari uchraydi. Jumladan Sharq haykaltaroshligida qadimda haykallarni bo'yash keng tarqalgan. Haykaltaroshlikning yana bir ko'rinishi- qadimdan keng tarqalgan turi terrakota («terrakota» italyancha so'z bo'lib, pishirilgan loy, demakdir). Loydan yasalib, maxsus pechlarda pishiriladi. U pishirilgandan so'ng qizil, ba'zan sarg'ish tusga ega bo'ladi. Keng ma'noda esa loydan yasalib, pechda pishirilgan haykaltaroshlik asarlari tushuniladi. Haykaltaroshlikning bu turi o'zbek san'atida qadimdan rivojlangan, bugungi kunda ham bu san'at ko'pchilikni o'ziga jalb etgan. Yuqorida tilga olingan H. Rahimova haykallari terrakotaga mansub Terrakota iqtidorli yoshlar markazi, to'garaklarda keng o'rganiladi.

O'zbekistonda haykaltaroshlikning barcha turlari taraqqiy etgan. Uning rivojida haykaltaroshlardan A. Ahmedov, A. Boymatov, I. Jabborov, M. Musaboyev, O. Ro'ziboyev, J. Quttimurodov, H.Husniddinxo'jayev, У. Shapiro kabilarning hissalari katta.

O`zbek haykaltaroshligida juda katta kashfiyot bo`lib hisoblanuvchi, ajoyib obraz haqida so`z yuritadigan bo`lsak, Motamsaro ona haykali - ikkinchi jahon urushida halok bo‘lgan O‘zbekistonlik jangchilar xotirasiga bag‘ishlab Toshkent shahrida 1999 yilda bunyod etilgan, “Xotira va qadrlash” maydoniga o‘rnatilgan haykal. Unda farzand(lar)i urushdan qaytmagan motamsaro ona qiyofasi aks ettirilgan. Onaning yuzlarini ajin bosgan, qaddi bukilgan, g‘amga to‘la nigohlari yerga qadalgan. U ikki qo‘lini o‘ng tizzasi ustiga qo‘ygancha chuqur o‘yga botgan. Onaning boshini quyi solgancha, o‘ychan o‘tirishi xalqimiz mentalitetidan kelib chiqib ishlangan. Sharq kishisidagi bosiqlik, vazminlik, g‘amni ichiga yutish va sirtiga chiqarmaslik xarakteri mohirlik bilan aks ettirilgan. Vaholangki, ona uchun farzand dog‘idan ham ortiq alamli azlb yo‘q. Buning ustiga farzandining xoki begona joylarda qolib ketgan yoki taqdiri noma’lum bo‘lsa. Motamsaro ona haykali og‘ir judolikka chiday olmay dodu-faryod qilayotgan onaning emas, balki ana shu judolikni ichiga yutgan, ichki iztiroblarini yuzaga chiqarmay, chuqur qayg‘uda o‘tirgan haqiqiy sharq kishisi, o‘zbek onasining timsolidir. Haykalning liboslari ham mohirona ishlangan. Ona yenglari keng va uzun sharqona ko‘ylakda, boshiga katta ro‘mol tashlab qo‘yilgan holda aks ettirilgan. Liboslar onaga o‘ziga xos ulug‘vorlik baxsh etib turibdi. Shu bilan birgalikda mazkur liboslarda ona obrazi muqaddas, beg‘uborlik va farishtasifatlik kasb etgan. Motamsaro ona haykali farzandi ikkinchi jahon urushida halok bo‘lgan yoki bedarak yo‘qolgan minglab O‘zbekistonlik onalarning timsolidir. Xotira va qadrlash maydonida Motamsaro ona haykali bilan birgalikda ayvonlar ham qurilgan bo‘lib, mazkur ayvonlar tokchalarida ikkinchi jahon urushida halok bo‘lgan barcha O‘zbekistonlik jangchilar ism-sharifi bilan bitilgan varaqlanadigan bronza kitoblar o‘rnatilgan. Bugungi kunda yangi turmush qurayotgan yoshlarning Motamsaro ona haykali poyiga guldastalar qo‘yishi an’anaga aylangan. Xotira va qadrlash kuni, turli bayram va marosimlarda ham ushbu maydonda turli tadbirlar uyushtiriladi. Xotira va qadrlash maydoni hamisha xalqimiz bilan gavjum.

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СОВРЕМЕННЫЕ МЕТОДЫ СИНТЕЗА КЕРАМИЧЕСКИХ ФЛЮСОВ НА ОСНОВЕ МЕСТНЫХ РЕСУРСОВ УЗБЕКИСТАНА

Аннотация:*В данной статье представлен обзор современных методов синтеза керамических сварочных флюсов с использованием местных минеральных ресурсов Узбекистана. Рассмотрена минерально-сырьевая база страны, включающая каолины, бокситы, кварциты, полевые шпаты и другие материалы, пригодные для производства флюсов. Проведен анализ традиционных и инновационных технологий синтеза, таких как сол-гель методы, механохимический и гидротермальный синтез, плазмохимические методы и применение нанотехнологий. Оценена применимость этих методов к узбекскому сырью с учетом его химического и минералогического состава. Обсуждаются технологические, экологические и экономические аспекты использования местных ресурсов в производстве керамических флюсов. Выявлены перспективы внедрения современных методов в промышленность Узбекистана, а также предложены рекомендации по развитию научных исследований и подготовки кадров в этой области. Статья направлена на содействие развитию отечественных технологий и укрепление сырьевой независимости страны в сфере сварочных материалов.*

Ключевые слова: *керамические флюсы, местное сырье Узбекистана, каолин, бокситы, кварциты, полевые шпаты, сол-гель метод, механохимический синтез, гидротермальный синтез, плазмохимический метод.*

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MODERN METHODS FOR THE SYNTHESIS OF CERAMIC FLUXES BASED ON LOCAL RESOURCES OF UZBEKISTAN

Abstract:*This article studies the crystallographic and phase transformations in ceramic fluxes when using Uzbek raw materials. It is established that its unique chemical composition contributes to the formation of useful phases and improves the properties of ceramics. Technological aspects of raw material application are discussed, and recommendations for optimizing processes are proposed. The use of Uzbek raw materials is recommended to enhance the quality and efficiency of ceramic material production.*
Keywords: *ceramic fluxes, Uzbek raw materials, crystallographic transformations, phase transformations, mullite, glass phase, sintering, process optimization, chemical composition, heat treatment.*

Узбекистан обладает богатой минерально-сырьевой базой, которая предоставляет значительные возможности для производства керамических флюсов. Среди основных минеральных ресурсов страны особое место занимают каолин, бокситы, кварциты, полевые шпаты и другие материалы, обладающие свойствами, необходимыми для синтеза флюсов.

Каолиновые месторождения Узбекистана характеризуются высоким содержанием алюмосиликатов, что делает их ценным сырьем для керамической промышленности. Каолиновые глины обладают оптимальным соотношением оксидов кремния и алюминия, что способствует получению флюсов с необходимыми физико-химическими свойствами. Бокситы, богатые оксидом алюминия, являются еще одним важным компонентом, обеспечивающим высокую термостойкость и прочность керамических флюсов. Кварциты, содержащие высокий процент диоксида кремния, служат основным источником кремнезема, который играет ключевую роль в формировании структуры флюса. Полевые шпаты, благодаря содержанию щелочных металлов, таких как калий и натрий, снижают температуру плавления флюсов и улучшают их текучесть.

Анализ химического и минералогического состава местных материалов показывает их высокую пригодность для синтеза керамических флюсов. Соотношение основных оксидов в каолинах, бокситах и кварцитах соответствует требованиям к сырью для производства флюсов с заданными свойствами. Наличие примесей в минимальных количествах не оказывает существенного влияния на качество конечного продукта, а в некоторых случаях может даже улучшать его характеристики. Исследования показали, что узбекские минеральные ресурсы обладают стабильным составом, что важно для обеспечения постоянства свойств флюсов при промышленном производстве.

Географическое распределение и доступность минеральных ресурсов в Узбекистане благоприятствуют их эффективному использованию в промышленности. Месторождения каолина сосредоточены в регионах с

развитой транспортной инфраструктурой, что облегчает их добычу и транспортировку к местам переработки. Бокситовые месторождения отличаются большими запасами и удобными условиями эксплуатации, позволяя организовать долгосрочную добычу сырья. Кварциты и полевые шпаты также широко распространены по территории страны, обеспечивая устойчивое снабжение промышленности необходимыми материалами. Эксплуатационные характеристики месторождений, включая глубину залегания, качество сырья и доступность, создают предпосылки для экономически эффективного производства керамических флюсов на основе местных ресурсов[1].

Таким образом, богатая минерально-сырьевая база Узбекистана, характеризующаяся разнообразием и качеством материалов, предоставляет широкие возможности для развития производства керамических флюсов. Химический и минералогический состав местного сырья соответствует требованиям современной промышленности, а географическое распределение и доступность месторождений облегчают их освоение и использование. Это создает прочную основу для внедрения современных методов синтеза керамических флюсов, способных повысить конкурентоспособность отечественной продукции на международном рынке и способствовать экономическому росту страны.

Керамические флюсы играют ключевую роль в сварочных процессах, обеспечивая защиту расплавленного металла от атмосферных воздействий и улучшая качество сварного шва. Они классифицируются по химическому составу и функциональным свойствам на основные, кислые и нейтральные флюсы.

Основные флюсы характеризуются высоким содержанием основных оксидов, таких как оксид кальция (CaO) и оксид магния (MgO). Они используются при сварке высоколегированных и углеродистых сталей, способствуя раскислению металла и предотвращению образования трещин.

Кислые флюсы содержат преимущественно кислые оксиды, например диоксид кремния (SiO_2) и оксид алюминия (Al_2O_3). Они применяются для сварки низкоуглеродистых и низколегированных сталей, обеспечивая хорошую текучесть шлака и качественное формирование шва.

Нейтральные флюсы имеют сбалансированный состав основных и кислых оксидов, что делает их универсальными для различных типов сварки. Они обеспечивают стабильную дугу и минимизируют вероятность дефектов.

Таблица 1. Классификация керамических флюсов по химическому составу

Тип флюса	Преобладающие оксиды	Применение
Основные	CaO, MgO	Высоколегированные и углеродистые стали
Кислые	SiO_2, Al_2O_3	Низкоуглеродистые и низколегированные стали
Нейтральные	Сбалансированный состав CaO, SiO_2	Универсальное применение

Физико-химические свойства керамических флюсов, такие как температура плавления, вязкость и смачиваемость, существенно влияют на процесс сварки. Температура плавления должна быть оптимальной, чтобы обеспечить эффективную защиту сварочной ванны. Вязкость флюса влияет на текучесть шлака и его способность удалять примеси. Смачиваемость определяет, насколько хорошо флюс взаимодействует с расплавленным металлом, что влияет на формирование шва[2].

Таблица 2. Физико-химические свойства различных типов керамических флюсов

Свойство	Основные флюсы	Кислые флюсы	Нейтральные флюсы
Температура плавления, °C	1300–1500	1100–1300	1200–1400
Вязкость	Высокая	Низкая	Средняя
Смачиваемость	Умеренная	Высокая	Высокая

Роль флюсов в сварочных процессах не ограничивается только защитой расплавленного металла. Они также стабилизируют сварочную дугу, влияют на скорость охлаждения шва и формируют шлаковую оболочку, которая предотвращает окисление. Правильный выбор флюса улучшает механические свойства сварного соединения и повышает производительность процесса.

Использование местных ресурсов Узбекистана для производства керамических флюсов открывает возможности для создания материалов с заданными свойствами. Например, высококачественные каолины могут служить источником Al_2O_3 в кислых флюсах, а полевые шпаты — источником K_2O и Na_2O, снижающих температуру плавления.

Таким образом, понимание классификации и свойств керамических флюсов позволяет оптимизировать их состав с учетом особенностей местного сырья. Это способствует повышению эффективности сварочных процессов и улучшению качества продукции, что имеет значимое значение для развития промышленности Узбекистана.

Керамические флюсы являются неотъемлемой частью современных сварочных технологий, и совершенствование методов их синтеза играет ключевую роль в повышении эффективности и качества сварочных процессов. В настоящее время существуют как традиционные, так и инновационные методы синтеза, которые позволяют получать флюсы с улучшенными

характеристиками, оптимизировать производственные процессы и снижать затраты.

Традиционные методы синтеза керамических флюсов основаны на высокотемпературной плавке и спекании исходных материалов. Сырьевые компоненты, такие как оксиды металлов и минеральные вещества, смешиваются в определенных пропорциях и подвергаются термической обработке при температурах от 1200 до 1500 °C. Этот процесс требует значительных энергозатрат и длительного времени выдержки, но обеспечивает получение флюсов с приемлемыми свойствами для большинства стандартных сварочных операций.

Инновационные методы синтеза направлены на преодоление ограничений традиционных технологий путем использования новых подходов, позволяющих снизить энергозатраты, улучшить свойства флюсов и повысить экологическую устойчивость производства. Среди таких методов особое внимание уделяется сол-гель технологиям, механохимическому синтезу, гидротермальным и плазмохимическим методам, а также применению нанотехнологий.

Сол-гель методы основаны на переходе исходных компонентов из раствора (золя) в гелеобразное состояние с последующим образованием твердого материала при относительно низких температурах (обычно ниже 500 °C). Это позволяет получать флюсы с высокой однородностью, контролируемой пористостью и мелкодисперсной структурой. Использование сол-гель методов снижает энергозатраты и позволяет точно регулировать химический состав и свойства конечного продукта[3].

Механохимический синтез включает в себя высокоэнергетическое измельчение исходных материалов в специальных мельницах, что приводит к активизации их поверхностей и ускорению химических реакций при более низких температурах. Этот метод позволяет получать наноструктурированные флюсы с улучшенными физико-химическими свойствами, такими как повышенная реакционная способность и улучшенная смачиваемость расплавленного металла.

Гидротермальный синтез осуществляется в водных растворах при повышенных температурах и давлениях, что способствует растворению и переосаждению веществ с образованием новых фаз. Этот метод позволяет синтезировать флюсы со специфической кристаллической структурой и морфологией частиц, что положительно сказывается на их функциональных характеристиках в сварочных процессах.

Плазмохимические методы основаны на использовании низкотемпературной плазмы для проведения химических реакций при относительно низких энергозатратах. В плазменной среде достигаются высокие скорости реакций и образуются продукты с высокой степенью чистоты и однородности. Плазмохимический синтез позволяет получать флюсы с уникальными свойствами, недостижимыми при традиционных методах.

Нанотехнологии открывают новые возможности в синтезе керамических флюсов за счет использования наночастиц и создания материалов с наноструктурированной организацией. Введение наночастиц в состав флюсов позволяет существенно улучшить их реакционную способность, механические свойства и стабильность при высоких температурах[4].

Таблица 3. Сравнительная характеристика методов синтеза керамических флюсов

Метод	Температура процесса	Энергозатраты	Размер частиц продукта	Преимущества
Традиционный	1200–1500 °C	Высокие	Микрометровый	Простота технологии, доступность оборудования
Сол-гель	<500 °C	Низкие	Нанометр–микрометр	Высокая однородность, контроль состава
Механохимический	Комнатная – 200 °C	Средние	Нанометр	Низкая температура, наноструктура
Гидротермальный	100–300 °C	Средние	Микрометр	Специфическая структура, чистота фаз
Плазмохимический	500–1000 °C	Низкие	Нанометр	Высокая скорость, чистота продукта
Нанотехнологический	Варьируется	Варьируются	Нанометр	Улучшенные свойства, новые функциональные возможности

Применение этих современных методов к узбекским минеральным ресурсам представляется перспективным направлением развития отечественной промышленности. Местные сырьевые материалы, такие как каолин, бокситы и кварциты, обладают необходимыми свойствами для использования в инновационных технологиях синтеза. Например, сол-гель методы могут эффективно применяться для переработки каолина в высокочистые алюмосиликатные флюсы, а механохимический синтез позволяет преобразовывать бокситы в наноструктурированные материалы с улучшенными свойствами.

Гидротермальные методы могут быть использованы для синтеза флюсов на основе кварцитов, обеспечивая получение продуктов со специфической морфологией и фазовым составом. Плазмохимические технологии, несмотря на необходимость специализированного оборудования, позволяют получать высококачественные флюсы при относительно низких энергозатратах, что может быть экономически выгодно при использовании местного сырья.

Применение нанотехнологий в синтезе керамических флюсов на основе узбекских ресурсов открывает новые горизонты в улучшении их свойств и расширении функциональных возможностей. Создание нанокомпозитных материалов на основе местного сырья может существенно повысить конкурентоспособность отечественной продукции на мировом рынке.

Внедрение современных методов синтеза керамических флюсов способствует не только технологическому развитию, но и имеет положительный экологический эффект. Снижение энергозатрат и температуры процессов уменьшает выбросы парниковых газов и других загрязняющих веществ. Использование местного сырья сокращает транспортные расходы и снижает экологический след производства.

Таким образом, обзор современных методов синтеза керамических флюсов свидетельствует о значительном потенциале их применения в условиях Узбекистана. Комбинация инновационных технологий и богатой минерально-сырьевой базы страны позволяет создавать высококачественные материалы для сварочной промышленности, способствуя ее развитию и повышению экономической эффективности.

Современные методы синтеза керамических флюсов предлагают широкие возможности для эффективного использования местных минеральных ресурсов Узбекистана. Анализ соответствия химического состава узбекского сырья требованиям различных методов синтеза является ключевым этапом в оценке его пригодности и потенциала для промышленного применения.

Химический состав местных материалов, таких как каолин, бокситы, кварциты и полевые шпаты, во многом соответствует требованиям современных методов синтеза керамических флюсов. Например, высокое содержание оксида алюминия (Al_2O_3) в бокситах делает их идеальным сырьем для сол-гель методов, где требуется высокая чистота исходных компонентов. Каолин с оптимальным соотношением оксида кремния (SiO_2) и Al_2O_3 подходит для механохимического синтеза, позволяя получать флюсы с наноструктурированной организацией.

Таблица 4. Химический состав узбекского сырья и соответствие методам синтеза

Сырье	Основные компоненты	Рекомендуемые методы синтеза
Каолин	SiO_2, Al_2O_3	Механохимический, сол-гель
Бокситы	Al_2O_3, Fe_2O_3	Сол-гель, гидротермальный
Кварциты	SiO_2	Гидротермальный, плазмохимический
Полевые шпаты	SiO_2, Al_2O_3, K_2O, Na_2O	Нанотехнологический, сол-гель

Технологические аспекты использования узбекского сырья требуют учета необходимости предварительной обработки материалов. Например, бокситы могут содержать примеси железа, что требует этапа обогащения для удаления избыточного Fe_2O_3 перед применением в сол-гель методах. Каолиновые глины могут нуждаться в очистке от органических примесей и

диспергировании для повышения эффективности механохимического синтеза.

Возможность масштабирования производственных процессов является важным фактором при выборе метода синтеза. Сол-гель методы и механохимический синтез обладают высоким потенциалом для масштабирования благодаря относительно низким требованиям к оборудованию и энергозатратам. Гидротермальные и плазмохимические методы, хотя и обеспечивают получение материалов с уникальными свойствами, могут быть более сложными в промышленной реализации из-за необходимости специализированного оборудования и строгого контроля параметров процесса.

Практические примеры успешного применения местных ресурсов Узбекистана в синтезе керамических флюсов подтверждают их высокую эффективность. Исследования показали, что использование узбекского каолина в механохимическом синтезе позволяет получить флюсы с улучшенной реакционной способностью и повышенной стабильностью при высоких температурах. Внедрение сол-гель методов с применением обогащенных бокситов приводит к получению высокочистых флюсов, пригодных для специализированных сварочных процессов.

Таблица 5. Примеры применения узбекского сырья в современных методах синтеза

Сырье	Метод синтеза	Результаты
Каолин	Механохимический	Наноструктурированные флюсы с высокой активностью
Бокситы	Сол-гель	Высокочистые флюсы для специальных применений
Кварциты	Гидротермальный	Флюсы со специфической кристаллической структурой
Полевые шпаты	Нанотехнологический	Композитные флюсы с улучшенными свойствами

Эти примеры демонстрируют потенциал узбекского сырья для использования в передовых технологиях синтеза керамических флюсов. Однако для успешной промышленной реализации необходимо преодолеть ряд технологических вызовов, включая оптимизацию параметров процессов, разработку эффективных методов предварительной обработки сырья и обеспечение стабильности качества продукции[5].

В целом, применимость современных методов синтеза к узбекским ресурсам подтверждается как теоретическими исследованиями, так и практическими экспериментами. Комбинация богатой минерально-сырьевой базы и передовых технологий открывает перспективы для развития отечественного производства керамических флюсов, что способствует повышению конкурентоспособности промышленности Узбекистана на международном рынке.

В заключение следует отметить, что использование современных методов синтеза керамических флюсов на основе местных ресурсов Узбекистана открывает значительные перспективы для развития сварочной промышленности страны. Богатая минерально-сырьевая база, включающая каолин, бокситы, кварциты и полевые шпаты, предоставляет широкие возможности для производства высококачественных керамических флюсов с улучшенными физико-химическими свойствами.

Инновационные методы синтеза, такие как сол-гель технологии, механохимический и гидротермальный синтез, позволяют оптимизировать технологические процессы, снизить энергозатраты и минимизировать негативное воздействие на окружающую среду. Применение этих методов к узбекским ресурсам способствует снижению зависимости от импорта, сокращению производственных затрат и повышению конкурентоспособности отечественной продукции на международном рынке.

Экологические преимущества, выражающиеся в снижении выбросов парниковых газов и уменьшении использования ископаемого топлива, соответствуют глобальным тенденциям устойчивого развития и экологической ответственности. Экономические выгоды, включая сокращение энергозатрат и транспортных расходов, повышают эффективность производства и стимулируют инвестиции в отрасль.

В целом, интеграция современных методов синтеза керамических флюсов с использованием местных ресурсов Узбекистана создает прочную основу для устойчивого развития промышленности, способствует экономическому росту и улучшению качества жизни населения. Дальнейшие исследования и внедрение этих технологий в промышленность являются важными шагами на пути к укреплению позиции Узбекистана в мировой сварочной индустрии.

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РАЗРАБОТКА БЛОК-СХЕМЫ ИССЛЕДОВАНИЯ КОМПЛЕКСА СВОЙСТВ КАРБАМИДНЫХ ПОЛИМЕРНЫХ КОМПОЗИТОВ

Аннотация. *В статье рассмотрена разработка блок-схемы исследования комплекса свойств карбамидных полимерных композитов, что позволяет систематизировать подход к оптимизации их эксплуатационных характеристик. Проанализированы принципы научного исследования как циклического процесса, а также представлены критерии оценки и оптимизации свойств композитов для гидротехнического применения. Предложены показатели, такие как призменная прочность, ударная вязкость, износостойкость, водопоглощение и водостойкость, в качестве ключевых параметров оптимизации. Исследование подтверждено экспериментально-производственной проверкой, результаты которой направлены на использование композитов в гидромелиоративном строительстве.*

Ключевые слова. *Карбамидные полимерные композиты, гидротехнические материалы, блок-схема исследования, оптимизация свойств, реологические характеристики, водостойкость, износостойкость.*

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DEVELOPMENT OF A FLOWCHART FOR STUDYING THE PROPERTIES OF UREA-BASED POLYMER COMPOSITES

Abstract. *The article examines the development of a flowchart for studying the properties of urea-based polymer composites, enabling a systematic approach to optimizing their performance characteristics. The principles of scientific research as a cyclic process are analyzed, and criteria for evaluating and optimizing the properties of composites for hydraulic engineering applications are presented. Indicators such as prismatic strength, impact toughness, wear resistance, water absorption, and water resistance are proposed as key parameters for optimization. The study is validated through experimental and production testing, with results aimed at the application of composites in hydraulic reclamation construction.*

Keywords. *Urea polymer composites, hydraulic engineering materials, research flowchart, property optimization, rheological characteristics, water resistance, wear resistance.*

Принципы анализа сложных систем с выделением основных элементов и взаимодействий между ними необходимо применять не только к изучаемому объекту, но и к самому процессу научного исследования. Такой анализ позволяет обеспечить четкую логику исследования, обосновать его процедуру, выделить как эвристические, так и формализуемые до уровня стандарта его этапы [1, 2].

Научное исследование проводится по циклической схеме, причем каждый новый его цикл в силу накопления новой научно-технической информации и появления новых идей и методов решения задач проходит на более высоком качественном уровне. Таким образом, реализуется известный процесс развития науки как системы по спирали. Объективная необходимость ставит на повестку дня проблему обеспечения надежности полимерных композитов в сложных условиях эксплуатации при обеспечении заданной технологической вязкости композиций.

В рамках поставленной проблемы был выбран объект исследования - наполненные карбамидные композиционные строительные материалы. Ранее проведенный нами аналитический обзор информации позволил сформулировать цель работы — улучшение эксплуатационных свойств материаловных свойств карбамидных композитов, а также их однородности и гарантированных уровней качества при обеспечении заданных реологических характеристик технологической смеси за счет оптимизации фракционного (зернового и минералогического) состава наполнителя, включающего тонкодисперсный карбид кремния.

Согласно поставленной цели, выбраны выходы системы Y и критерии их оптимизации (Таблица 1) [5,6]. Так, на этапе реологических исследований в качестве критерия оптимизации технологических свойств принята эффективная вязкость η (Па·с), которая оценена при разных скоростях деформации $\dot{\varepsilon}$=(1/3;1;3;9) с$^{-1}$, причем основной является эффективная вязкость при $\dot{\varepsilon}$=1 с$^{-1}$.

На этапе исследований физико-технических свойств композита в качестве критериев оптимизации приняты:

призменная прочность композитов в сухом и водонасыщенном состоянии соответственно R_n и $R_{\text{п}}^b$, МПа;

прочность на растяжение при изгибе R_n, МПа;

ударная прочность a, кДж/м²;

износостойкость $И$, которая оценивается количеством часов, затрачиваемых на уменьшение массы композита на 1 г, ч/г;

водопоглощение W, % по массе, которое определялось за первые сутки в соответствии со стандартам, а также через 1 и 4 месяца;

водостойкость K_W , % как отношение призменной прочности композитов в водонасыщенном состоянии к призменной прочности композитов в сухом состоянии.

Показатели R_n,R_u, a, $И$ и K_W необходимо максимизировать, а показатель W минимизировать.

При оценке обеспеченности эксплуатационных свойств карбамидных композитов в качестве критериев оптимизации были выбраны вероятностные показатели Y_α и a_R.

$Y_{0.5}$, Y_{10} – минимально возможные с риском α=0.05 и 0.1:

призменная прочность в сухом и водонасыщенном состоянии;

$K_{0.5}$ - коэффициент водостойкости, который необходимо максимизировать;

W_{95} - максимально возможное водопоглощение с риском α=0.95,

которое необходимо минимизировать для обеспечения гарантированных уровней эксплуатационных свойств конструкционных композитов.

Таблица1

БЛОК-СХЕМА ИССЛЕДОВАНИЯ

ГИДРОМЕЛИОРАТИВНОЕ СТРОИТЕЛЬСТВО И СТРОЙИНДУСТРИЯ

ПРОБЛЕМА

•ОБЪЕКТ ИССЛЕДОВАНИЯ

• ЦЕЛЬ РАБОТЫ

Экспериментально-производственная проверка результатов моделирования

КРИТЕРИИ КАЧЕСТВА:
- **а.1. Реологические показатели**
- **а.2. Общие физико-механические свойства композита**
- **а.3. Особые физико-механические свойства (водостойкость, износостойкость и др.) композита**
- **а.4. Вероятностные показатели водопоглощения, призменной прочности композитов в сухом и водонасыщенном состоянии**

Технико-экономический анализ результатов

МЕТОДИКА ИССЛЕДОВАНИЯ
Экспериментально-статистическое моделирование на основе алгоритмизированного планирования эксперимента.

ЭКСПЕРИМЕНТ И МОДЕЛИРОВАНИЕ

Основные этапы исследования	**Реология композиций**	**Физико-механические свойства композита**	**Вероятностные показатели**
Группы критериев:			
а.1 η, Па·с	+++	++	+
а.2 R_n, R_u, МПа	-	+++	++
a кДж/м^2	-	+++	-
а.3 $И$, ч/г	-	+++	++
W, %	-	+++	+++
K_w, %	-	+++	+++
а.4 Y_{05}, Yqs	-	-	+
Факторы: Н/Р	+	+	+
q, %	+	+	+
Q, %	+	+	+
υ, с	+	-	-
Модель и план эксперимента	**Квадратичная B_4**	**Квадратичная B_3**	**Неполная кубическая по плану 3^2**
	1. Выявление структурообразующей роли факторов 2. Условие минимизации расхода смолы	**1. Оценка структурообразующей роли факторов** **2.** Принятие компромиссного решения	**1. Принятие решения с учетом вероятностных показателей**

- вероятность получения композита с качеством ниже нормативного уровня, которую необходимо максимизировать. Согласно предъявляемым требованиям к материалам гидротехнического назначения уровни этих показателей приняты для призменной прочности композитов в сухом

$R_{\text{п норм}}$=65 и 70 МПа и водонасыщенном состоянии

$R^{b}_{\text{п норм}}$= 56 и 59.5 МПа, причем для последних обеспечиваются конкретные уровни водостойкости композита соответственно K_w=0.8 и 0.85.

В табл. 2 приведены оценки критериев качества полимерсодержащих КСМ с учетом требований [3, 4, 5] к материалам гидротехнического назначения, а также технологических особенностей их производства.

Таблица 2

Критерии качества и их оценки

№ п/п	Критерии и направление их оптимизации	Значение критериев при оценке		
		отлично	**хорошо**	**удовлетворительно**
1.	$\eta \rightarrow min$	менее 60	60...80	80...100
2.	$R_n \rightarrow max$	более 70	65...70	60...65
3.	$R^{b}_{\text{п}} \rightarrow max$	более 30	25...30	20...25
4.	$a \rightarrow max$	более 2,5	2,3...2,5	2,0...2,3
5.	$И \rightarrow max$	более 6	5...6	4,5...5
6.	$W \rightarrow min$	менее 3,5	3,5...4	4...4,5
7.	$K_w \rightarrow max$	более 85	80...85	75...80

В качестве основных факторов, влияющих на свойства композита, приняты степень наполнения, доля отходов производства абразивных материалов и доля крупного наполнителя, а на этапе исследования реологических свойств технологической смеси и вязкость смолы – как вязкость основного матричного материала.

Важнейшим этапом исследования является экспериментально-производственная проверка результатов моделирования. На этом этапе происходит перенос всех выводов, полученных на предыдущем этапе, на основной объект по аналогии [1] и принимается решение об использовании результатов в гидромелиоративном строительстве, в частности выбирается состав композита для водоизносостойких плит, удовлетворяющего требованиям к материалам гидротехнического назначения.

Выводы

1. Разработанная блок-схема исследования позволяет структурировать процесс изучения свойств карбамидных композитов, обеспечивая системный подход к их оптимизации.

2. Выделены основные параметры, влияющие на эксплуатационные свойства композитов, включая степень наполнения, состав наполнителя и вязкость матричного материала.

3. Предложенные критерии оптимизации, такие как минимизация водопоглощения и максимизация прочностных характеристик, обеспечивают целенаправленное улучшение свойств материалов.

4. Экспериментальная проверка подтвердила возможность применения разработанных композитов в гидромелиоративном строительстве для изготовления водоизносостойких плит.

5. Исследование демонстрирует практическую значимость оптимизации состава наполнителей и матричного материала для создания композитов с гарантированными уровнями эксплуатационных характеристик.

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ПРАКТИЧЕСКОЕ ИСПОЛЬЗОВАНИЕ ТЕОРЕТИЧЕСКИХ ОСНОВ БОРОЗДКОВОЙ ТЕХНОЛОГИИ ОРОШЕНИЯ

Аннотация: *В статье рассматриваются преимущества трубопроводной и бороздковой систем орошения, основанных на технологии распределения расхода воды. Показаны основные преимущества таких систем: сохранение структуры почвы, минимизация потерь воды, повышение эффективности использования водных ресурсов и снижение затрат. Представлены данные о значительном повышении производительности труда и снижении капитальных затрат по сравнению с современными системами капельного орошения. Обсуждается простота конструкции оросительных систем и возможность их изготовления на месте из доступных материалов. Также отмечается потенциал автоматизации процессов орошения и обеспечения точного учёта воды.*

Ключевые слова: *трубопроводная система орошения, бороздковое орошение, распределение расхода воды, сохранение структуры почвы, экономия воды, автоматизация, коэффициент использования воды, повышение производительности труда.*

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PRACTICAL APPLICATION OF THEORETICAL FOUNDATIONS OF FURROW IRRIGATION TECHNOLOGY

Abstract: *The article discusses the advantages of pipeline and furrow irrigation systems based on the technology of water flow distribution. Key benefits of these systems are highlighted, including soil structure preservation, minimization of water losses, increased efficiency of water resource utilization, and cost reduction. The data demonstrate significant improvements in labor productivity and reductions in capital costs compared to modern drip irrigation systems. The simplicity of the irrigation system design and the feasibility of local production using readily available materials are also emphasized. Additionally, the potential for automating irrigation processes and ensuring accurate water accounting is noted.*

Keywords: *pipeline irrigation system, furrow irrigation, water flow distribution, soil structure preservation, water savings, automation, water use efficiency, labor productivity enhancement.*

Демографическая ситуация в Андижанской области – высокая плотность населения и растущая потребность в земельных ресурсах в различных сферах социальной жизни – привела к интенсивному освоению предгорных склонов, которые ранее считались абсолютно непригодными для сельскохозяйственного производства. На этих землях применялись традиционные методы бороздкового орошения, технологии и опыт, перенесённые напрямую с равнинных территорий. В результате это оказало значительное негативное влияние на экологическое состояние предгорий и прилегающих к ним территорий. Нарушение экологического состояния проявилось в таких последствиях, как поднятие уровня грунтовых вод, заболачивание, засоление, усиление ирригационной эрозии, обвалы и образование оврагов на склонах.

Неправильная организация орошения, игнорирование технического состояния оросительных сетей, отсутствие своевременных ремонтных и восстановительных работ приводили к тому, что с каждого гектара ежегодно смывалось до 80–100 тонн плодородного верхнего слоя почвы. Кроме того, возникала суффозия почвы, то есть образование крупных пустот в нижних слоях, что вызывало заболачивание прилегающих равнинных территорий и другие опасные последствия. В последние годы проблема нехватки воды в регионе усилилась, что ставит под угрозу выведение из производственного оборота освоенных за последние полвека трудоёмким трудом земель.

Уместно подчеркнуть, что основными недостатками традиционной техники бороздкового орошения являются неравномерное распределение влаги вдоль длины борозд и значительные потери воды на сток и фильтрацию, достигающие 60–65%. Проблемы нехватки водных ресурсов и недостатки бороздкового орошения не могут быть решены только путём выбора оптимальных вариантов элементов техники орошения, как это делается на равнинных территориях.

На основе широкомасштабных реформ, проводимых в нашей стране, распределение оросительной воды и применение современных экономичных технических средств позволяют удовлетворить потребности сельскохозяйственного производства в пределах существующих водных ресурсов, даже в периоды вне вегетации. Вместе с агротехнологическими преимуществами традиционного бороздкового орошения, которое ранее считалось консервативным методом, внедрение принципов распределения воды с использованием современных экономичных технических средств обеспечивает достижение высокой эффективности.

Теоретические основы, на которых базируется распределение расхода воды, включают рекомендации академика А.Н. Костякова. Его метод решения

уравнения баланса движения водного потока в борозде демонстрирует следующие численные взаимосвязи:

$$X = \frac{q_э t^{\alpha}}{\chi n v_0}$$

Отношения между расходами воды, подаваемыми в борозды, и длиной их течения можно выразить следующими неравенствами:

$q_1 > q_2$ при условии:

$$q_2 / q_1 < \ell_2 / \ell_1$$

Где:

q_1 – подача воды в борозду, л/с;

q_2 – распределённый расход воды, л/с;

ℓ_1, ℓ_2 - расстояния, пройденные водой за одинаковое время, м.

Материалы исследований, проведённых в производственных условиях, подтверждают, что при соотношении расходов воды q2/q1=0.008…0.8 за период 1,0–5,0 часов отношение $\ell 2/\ell 1$ принимает значения в диапазоне 0,038–0,9, подчиняясь вышеуказанной закономерности.

Если $q_1 = j \cdot q_2$, то есть расход q_1 распределяется из j-ти точек, то:

$$\frac{j \cdot q_2}{q_1} \angle \frac{j \cdot \ell_2}{\ell_1}$$

Имея указанное неравенство, можно утверждать, что длина пути, пройденного потоком воды с расходом q_1 за одинаковый период времени, всегда меньше суммы длины увлажнённых участков в случае, если тот же объём воды распределяется из нескольких точек. Из этого следует, что технология «Распределение расхода воды» позволяет сократить продолжительность процесса орошения и повысить качество увлажнения по сравнению с традиционной технологией бороздкового орошения.

Для применения на сложных рельефных предгорных массивах мы рекомендуем технику и технологии орошения, основанные на принципе «Распределение расхода воды». Полив осуществляется за счёт равномерного распределения воды из нескольких точек на очень коротких расстояниях (1,5–4,0 м) вдоль борозд, проложенных вдоль рядков посадок.

Рекомендуемая трубопроводная и бороздковая система орошения обладает следующими преимуществами:

– Сохраняется структура почвы, предотвращается смыв частиц и обвалы на склонах.

– Полностью устраняются потери воды на сброс, а также значительно сокращается инфильтрация воды в нижние слои активного горизонта, что повышает коэффициент использования воды до 0,98.

– Экономия воды составляет 2–2,5 тыс. куб. метров на каждый гектар по сравнению с действующими технологиями орошения.

– Производительность труда поливальщиков увеличивается в 10–12 раз.

– Капитальные затраты на каждый гектар существенно ниже, чем для современных систем капельного орошения.

– Низкие требования к мутности воды в системе устраняют необходимость в дополнительных отстойниках и очистных сооружениях.

– Коэффициент увлажнения вдоль длины борозды не ниже 0,95.

– Конструкция оросительной системы проста и понятна, а трубы из полиэтилена, применяемые в промышленном производстве, могут быть изготовлены в хозяйственных мастерских.

Благодаря тому, что предлагаемая оросительная технология основана на использовании трубопроводных систем, она предоставляет возможности для автоматизации процессов орошения. Это также позволяет обеспечить точный и регулярный учёт воды, что является актуальной задачей на сегодняшний день.

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ПРИМЕНЕНИЕ ОХЛАЖДАЮЩИХ ЖИДКОСТЕЙ ПРИ ТЕРМИЧЕСКОЙ ОБРАБОТКЕ ДЕТАЛЕЙ, ИСПОЛЬЗУЕМЫХ НА ПРОМЫШЛЕННЫХ ПРЕДПРИЯТИЯХ

АННОТАЦИЯ:*Приведен обзор охлаждающей способности применяемых в производстве жидкостей для термической обработки. Механические свойства металлов в сильной степени зависять от стабильности охлаждающей способности жидкости. Показано улучшение механических свойств покрытия, зоны соединения покрытия с основным металлом и самого металла при охлаждении водным раствором полимера Na-КМЦ.*

Ключевые слова: *охлаждающая жидкость, термическая обработка, охлаждающая способность, электроконтактное припекание.*

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THE USE OF COOLANTS IN THE HEAT TREATMENT OF PARTS USED IN INDUSTRIAL ENTERPRISES

ABSTRACT:*An overview of the cooling capacity of heat treatment fluids used in production is provided. The mechanical properties of metals are highly*

dependent on the stability of the cooling ability of the liquid. An improvement in the mechanical properties of the coating, the zone of connection of the coating with the base metal, and the metal itself has been shown when cooled with an aqueous solution of Na-КМЦ polymer.

Key words: *coolant, heat treatment, cooling ability, electrocontact sintering.*

Использование воды и масел при термообработке металлов является одним из традиционных охлаждающих жидкостей, широко применяемых в промышленности.

Охлаждающая способность этих жидкостей, физическое и физико-химическое воздействие на добываемый металл, структурные изменения при охлаждении в воде и маслах достаточна изучены.[1,2].

Известно, что охлаждающая способность воды и масла различна. При термообработке с использованием масла максимальная холодопроизводительность наблюдается около 400 °С, а при охлаждении в воде максимальная холодопроизводительность находится при 250 °С, то есть охлаждающая способность масла меньше, чем у воды.

Такая разница увеличивает риск превращения структуры в перлит при закалки многих конструкционных сталей. При охлаждении закаленной детали в воде высокая охлаждающая способность соответствует температурному диапазону, в котором происходят мартенситные изменения, вызывающие деформацию или растрескивание детали. С целью создания оптимальных условий для уменьшения или устранения этих негативных последствий в закалки, определение состава жидкости проводится уже давно и ведутся исследования в различных направлениях. Для получения удовлетворительных результатов при закалки охлаждение должно быть медленных при высоких температурах, быстрым в диапазоне температур A и M_n меньшей скоростью при мартенситном превращении. [1].

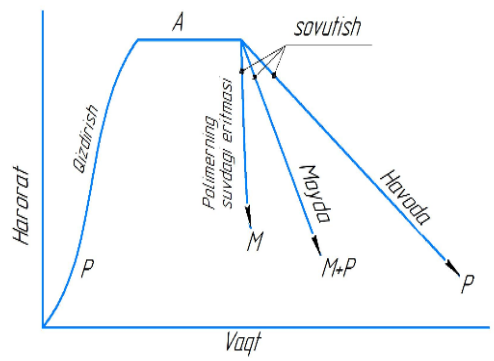

Рис 1. Влияния охлаждающих жидкостей на структурные изменения. Структуры: А-аустенит; М-мартенсит; Р-перлит.

Охлаждения заготовки между высокой охлаждающей способностью воды и масла позволяет обеспечит желаемую структуру и механические свойства металла. Однако в настоящее время цены на индустриальные масла

растут, существует большая опасность их возгорания, очистка отработанных масел, т.е. экологические требования, являются проблемой на производственных предприятиях.

В результате многих исследований, проведенных в республике и за рубежом, на практике в производстве используется различные составы жидкостей. Поскольку раствор полимеров в воде дает хороший эффект, среди охлаждающих жидкостей большой интерес и внимание вызывают именно такие жидкости. То есть следует отметить, что использование нескольких жидкостей с различной охлаждающей способностью или их смеси может дать ожидаемые результаты. [2.3].

Раствор полиакриламида также применяется в промышленности в качестве охлаждающей жидкости. Однако с изменением температуры жидкости стабильность свойства охлаждения снижается, и наблюдается ее объединение с деталью и выход из ванны в процессе закалки.

При приготовлении и использовании охлаждающих жидкостей можно модифицировать растворы натрий- карбоксилметилцеллюлозы (Na-КМц), добавлять в раствор различные ингибиторы для повышения коррозионной стойкости в зависимости от требований рабочего места, а возможности снижения затрат можно найти в отличается изготовлением крупных деталей. Известно, что основным показателем охлаждающей жидкости является холодопроизводительность. Охлаждающую способность определяют методом анализа кривых охлаждения, полученных в температурно-временных координатах. Большинство методов обнаружения являются относительными, т. е. дают информацию о процессах, происходящих на поверхности обнаруживаемой детали.

Основные показатели охлаждающих жидкостей следующие:

Максимальная скорость охлаждения, V_{max}; температура, при которой обеспечивается максимальная скорость T; скорость охлаждения в диапазоне температур 700÷500 °С; скорость охлаждения при 300 °С; время охлаждения до 200 °С.

Среди этих показателей изменение температуры измеряется на поверхности в центре термозондов для контроля качества используемой жтдкости.

Эксперименты проводились на качества используемой жидкости. Эксперименты проводились на образцах из стали 40Х. Химический состав образцов стали представлен в таблице 1. В качестве охлаждающей жидкости был выбран Na-КМЦ в воде.

таблица 1

Количество элементов, %						
ГОСТ 4543-2016	C	Mn	Cr	Ni	Si	Cu
	0,35-0,50	0,5÷0,8	0,8÷1,1	до 0,3	0,17-0,37	до 0,3
Образец	0,46	0,60	0,9	1,22	0,28	0,15

Натриевая соль карбоксиметилцеллюлозы (Na-КМЦ) ОСТ-6-05-386-80 и состав добавляемой буры жидкости определяют по ТУ 8429-77. [4].

В результате экспериментов, в процессе исследования научно-технической базы установлено, что натриевая соль Na-КМЦ способна обеспечить необходимые механические и технологические свойства при термообработке различных сталей, дешева, от огня, не отделяет вредных веществ, легко готовится на предприятиях.

Окрашивание деталей в растворе Na-КМЦ связано со свойством образовывать пленку на поверхности детали. Пленка сначала образуется в том месте, где тепле распространяется быстро, т. е. в том месте, где толщина или другие размеры детали относительно малы, т. е. в этом месте распространение тепла уменьшается. Образование пленки зависит от плотности раствора, возможности образования слоя. Этот процесс обеспечивает одинаковую твердость поверхностей закаливаемой деталей. В ходе экспериментов раствор полимера перед началом процесса осаждения смешивался со сжатым воздухом. В этом случае исключается возможность расслоения раствора.

Равномерно изменения охлаждающих свойств при охлаждении в растворе полимера положительно влияет на структурные изменения [6]. Мартенситные превращения в растворе и высокая температура охлаждения обеспечивают повышение в растворе и высокая температура охлаждения обеспечивают повышение прочности металла на 20-25 % и пластичности на 20-30 % по сравнению с охлаждением в масле. В экспериментах разрушение образцов, обнаруженное в растворе полимера (а) и масле (б) при испытании на ударную вязкость, представлено на рисунках 2-а, б.

Рис 2. Образец, полученных в растворе полимера (а)

Образец закаленных в масле (б)

Испытание проводилось на основании требований ГОСТ 9454-78.[6].

Закаления в растворе полимера в зоне стыка покрытия и детали повышает усталостную прочность детали. При высокой скорости охлаждения при литье крупногабаритных деталей в раствор аустенит начинает превращаться в мартенсит в результате быстрого охлаждения поверхностей части, а во внутренней части детали формируется аустенитная структура из-за высокой температура.

Для восстановления размеров съеденных деталей применяются различных способы покрытия. Основной металл покрытия и зоны соединения отличаются друг от друга по своим структурным и механическим свойствам. Для изучения влияния охлаждающей жидкости на детали с покрытием образцы замачивали в масле и растворе полимера.

В проведенных экспериментах электроконтактным методом на поверхность образцов из стали 40Х наносилось покрытие из композиционных порошков ПГ-СР-4. Такие эксперименты позволяют определить воздействие раствора полимера на основной металл, зону соединения. и покрытие. В зависимости от технологических особенностей метода и размеров деталей при нанесении покрытия электроконтактным методом процесс увеличения теплового потока зависит от направления движения, размер аустенитных зерен становится легче.

В преведенных экспериментах установлено, что мартенситные изменения раствора полимера в воде в интервале температур (300÷100°С) выше, чем в других охлаждающих средах. В этом диапазоне температур наблюдается увеличение пластической деформации при мартенситных превращениях высокоскоростного охлаждения. Процесс аналогичен процессу термомеханической обработки при низкой температуре, то есть увеличивается ударная вязкость зоны соединения основного металла. Наблюдалось хрупкое разрушение образца, погруженного в масло, упругое разрушение образца, погруженного в растворе полимера. В среде раствора полимера происходить дробление зерен погруженного металла, увеличивается ударная вязкость.

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ОПТИМИЗАЦИЯ КОНТРОЛЬНЫХ ПРОЦЕДУР НА ЭТАПЕ ИТОГОВОЙ И ПРОМЕЖУТОЧНОЙ ПРОВЕРКИ СТРОИТЕЛЬНОГО ОБЪЕКТА

Аннотация. *Статья посвящена методам контроля качества строительной продукции, разработанных при участии внутренних контрольно-ревизионных групп заказчика на этапе проверки эффективности работы строительного контроля. Оптимизация процесса проведения строительного контроля предлагается путем унификации контрольных мероприятий посредством разработки чек-листа и внедрением современных программных средств распознавания текста.*

Ключевые слова: *аудиторские процедуры, исполнительная документация, оптимизация, проверки, строительный контроль.*

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OPTIMIZATION OF CONTROL PROCEDURES AT THE STAGE OF FINAL AND INTERMEDIATE INSPECTION OF A CONSTRUCTION OBJECT.

Annotation*. The article is devoted to methods of quality control of construction products, developed with the participation of the customer's internal control and audit groups at the stage of checking the effectiveness of construction control. Optimization of the construction control process is proposed by unifying*

control activities through the development of a checklist and the introduction of modern text recognition software.

***Key words**: audit procedures, as-built documentation, optimization, inspections, construction control.*

Согласно пункту 2 приказа от 16 мая 2023 г. № 344/пр исполнительная документация (далее – ИД) подписывается лицом, осуществляющим строительство, представителем застройщика, технического заказчика, лица, ответственного за эксплуатацию здания, сооружения, или регионального оператора по вопросам строительного контроля, представителем лица, осуществляющего подготовку проектной документации и т.д. [1]

В связи с принципом ведения и характером ведения комплектации ИД очень сложно разделить и сдать частями. Из-за нечетких требований по подготовке ИД и неэффективной работы строительного контроля заказчика, подрядчик при комплектовании ИД на ежемесячное выполнение к формам КС-2 и КС-3, а также на сдачу в эксплуатацию, часто необоснованно не подтверждает принятые работы исполнительной документацией, что влечет за собой риск в части отказа инвестору в принятии НДС к вычету, что, как следствие, может повлечь за собой начисление штрафов, а также может привести к риску некачественного выполнения работ и, как следствие, повышение риска аварийности. Исходя из практики контрольной работы налоговых органов и судебной практики, важнейшим условием для вычета НДС, также, как и признания расходов в целях налогообложения прибыли, является реальность хозяйственных операций. Право на обоснованную налоговую выгоду по НДС должно быть подтверждено и обосновано документально [3].

С целью повышения эффективности деятельности заказчика и своевременного предотвращения рисков, при участии внутренних контрольно-ревизионных групп заказчиков проводятся проверки эффективности работы строительного контроля на этапах производства и приемки работ. По итогам проверок аудиторской группой составляются рабочие документы для занесения информации, полученной в ходе проведения контрольных мероприятий, формируется отчет о результатах анализа указанной информации, о наличии или отсутствии аудиторских замечаний, нарушений, недостатков, выявленных в ходе проверки.

Оптимизация процесса проведения строительного контроля предлагается путем унификации контрольных мероприятий при осуществлении технического надзора за объектами капитального строительства линейной части магистральных газопроводов посредством разработки чек-листа «Аудиторские процедуры при проведении проверки эффективности осуществления строительного контроля заказчика на этапах приемки и производства работ».

Подробнее информация представлена в Таблице 1.

Таблица 1

№ п/п	Наименование	Комплект ИД	Наличие полного комплекта, да/нет	Рабочий документ
1	Проверка полноты и качества оформления Общего журнала работ.	Общий журнал работ		-
2	Проверка полноты и качества оформления специальных журналов, в том числе: Журнала производства земляных работ, Журнала сварки сварных соединений, Журнала изоляционно-укладочных работ и ремонта изоляции.	Журнал производства земляных работ, Журнал сварки сварных соединений, Журнал изоляционно-укладочных работ и ремонта изоляции		-
3	Проверка наличия и своевременности оформления актов освидетельствования скрытых работ.	Акты освидетельствования скрытых работ		-
4	Сверка дат выполнения работ, вида и объема работ, указанных в разделе 3 Общего журнала работ, с аналогичными данными, отраженными в Журнале сварки сварных соединений.	Общий журнал работ, Журнал сварки сварных соединений		Сопоставление массивов данных в Microsoft Excel, выявление отклонений
5	Сверка дат выполнения работ, вида и объема работ, указанных в разделе 3 Общего журнала работ, с аналогичными данными, отраженными в Журнале производства земляных работ, а также с актами освидетельствования скрытых работ (по земляным работам).	Общий журнал работ, Журнал производства земляных работ, Акты освидетельствования скрытых работ (по земляным работам)		Сопоставление массивов данных в Microsoft Excel, выявление отклонений
6	Сверка дат выполнения работ, вида и объема работ, указанных в разделе 3 Общего журнала работ с аналогичными данными по Журналу изоляционно-укладочных работ и ремонта изоляции, а также с актами освидетельствования скрытых работ (на абразивную очистку, обеспыливание и обезжиривание участка трубопровода, подготовленного под установку ТУМ/ нанесение ленточного покрытия, Актами приемки уложенного и	Общий журнал работ, Журнал изоляционно-укладочных работ и ремонта изоляции Акты освидетельствования скрытых работ (на абразивную очистку, обеспыливание и обезжиривание участка трубопровода, подготовленного под установку ТУМ/ нанесение ленточного покрытия).		Сопоставление массивов данных в Microsoft Excel, выявление отклонений

	забалластированного трубопровода с приложением исполнительной геодезической схемы.	Акты приемки уложенного и забалластированного трубопровода с приложением исполнительной геодезической схемы.		
7	Сверка дат выполнения работ и видов работ, указанных в Актах приемки выполненных работ по форме № КС-2 с Общим журналом работ, Журналом производства земляных работ, Журналом сварки сварных соединений, Журналом изоляционно-укладочных работ и ремонта изоляции, а также Актами освидетельствования скрытых работ	Акты приемки выполненных работ по форме № КС-2, Общий журнал работ, Журнал производства земляных работ, Журнал сварки сварных соединений, Журнал изоляционно-укладочных работ и ремонта изоляции, Акты освидетельствования скрытых работ		Сопоставление массивов данных в Microsoft Excel, выявление отклонений
8	Проверка наличия сертификатов, паспортов на трубу, краны и другие важнейшие виды МТР.	Сертификаты, паспорта на трубу, краны и другие важнейшие виды МТР.		-
9	Проверка подтверждения сроков действия сертификатов, паспортов на трубу, краны и другие важнейшие виды МТР.	Сертификаты, паспорта на трубу, краны и другие важнейшие виды МТР, Журнал сварки сварных соединений		Сопоставление массивов данных в Microsoft Excel, выявление отклонений
10	Проверка наличия Актов о результатах проверки изделий, Актов входного контроля МТР.	Акты о результатах проверки изделий, Акты входного контроля МТР		-
11	Проверка наличия и полноты заполнения Журнала входного контроля материалов и оборудования.	Журнал входного контроля материалов и оборудования.		-
12	Сверка номеров труб, указанных в сертификатах с номерами труб, указанными в Актах о результатах проверки изделий.	Сертификаты, паспорта на трубы, Акты о результатах проверки изделий		Сопоставление массивов данных в Microsoft Excel, выявление отклонений
13	Сверка номеров труб, указанных в Актах о результатах проверки изделии, с номерами труб, указанными в Журналах сварки сварных соединений.	Акты о результатах проверки изделий, Журналы сварки сварных соединений		Сопоставление массивов данных в Microsoft Excel, выявление отклонений
14	Проверка соответствия ФИО сварщиков и № клейма согласно Схеме расположения	Схема расположения сварщиков, Журнал сварки сварных		Сопоставление массивов данных в

	сварщиков и Журналу сварки сварных соединений с данными Допускных листов сварщика и Протоколов допускных испытаний, Приказов о присвоении личных клейм сварщикам и списков сварщиков.	соединений, Допускной лист сварщика и Протокол допускных испытаний. Приказ о присвоении личных клейм сварщикам и список сварщиков.		Microsoft Excel, выявление отклонений
15	Проверка соответствия количества выполненных стыков, отраженных в Журнале сварки сварных соединений, представленных Заключениях РК, ВИК, УЗК, Журналу учета выполненных работ формы № КС-6а и Актам приемки выполненных работ формы № КС-2.	Журнал сварки сварных соединений, Заключения РК, ВИК, УЗК, Журнал учета выполненных работ формы № КС-6а, Акты приемки выполненных работ формы № КС-2.		Сопоставление массивов данных в Microsoft Excel, выявление отклонений
16	Проверка соответствия даты и номера оформленных Заключений по контролю качества сварных соединений (ВИК, УЗК, РК) с данными Журнала сварки сварных соединений и Журнала контроля качества сварных соединений неразрушающими методами, пленками РК.	Заключения РК, ВИК, УЗК, Журнал сварки сварных соединений, Журнал контроля качества сварных соединений неразрушающими методами, пленки РК.		Сопоставление массивов данных в Microsoft Excel, выявление отклонений

Сопоставление данных и выявление отклонений осуществляется в программе Microsoft Excel путем составления план-факт таблицы. Стандартная план-факт таблица состоит из нескольких блоков: в левой части — название показателя, в центре — данные с планом и фактом, в правой — отклонение (в абсолютных величинах, в процентах).

Принимая во внимания объем исполнительной документации, аудиторы на этапе обработки информации сталкиваются с проблемой переноса информации с бумажного носителя в массивы данных для целей анализа.

В качестве направления оптимизации можно рассмотреть применение современных программных средств распознавания текста (изображения), основанных на нейронных сетях, что позволяет в кратчайшие сроки выполнить оцифровку большого количества бумажных документов. Одним из примеров такого программного обеспечения (далее – ПО) является свободно распространяемый продукт Tesseract. В основе данного ПО лежит рекуррентная нейронная сеть, особой архитектуры, называемой «Долгая краткосрочная память». [8] Архитектура данной сети состоит из двух компонентов: ячейка – хранит информацию, фильтр – управляет прохождением информации через ячейки. Такая архитектура позволяет избежать проблемы в распознавании необходимой информации из-за

увеличения расстояния между актуальной информацией и точкой ее применения.

Также, следует отметить, что данное ПО имеет большое количество обученных языковых моделей (>192) [9], что позволяет обрабатывать не только документы на родном языке для пользователя, но и документы на других языках, не прибегая к дополнительным затратам. В качестве входных данных могу выступать следующие форматы: NG, JPEG и TIFF. Распознанная информация может быть выведена в следующие форматы: plain text, hOCR (HTML), PDF, invisible-text-only PDF, TSV и ALTO, что позволяет в удобной форме предоставить информацию для конечного пользователя.

Выгрузка данных из актов освидетельствования скрытых работ может производиться при помощи программных средств распознавания текста (изображения), что сокращает время проведения проверки в части переноса массива данных в Microsoft Excel вручную.

Необходимость заполнения и проверки большого количества комплектов документов на бумажном носителе существенно затрудняет работу строительных организаций и строительного контроля заказчика, не подтверждение объемов выполненных работ, указанных в КС-2, исполнительной документацией приводит к налоговым рискам.

Таким образом, унификация контрольных мероприятий посредством разработки и применения чек-листа «Аудиторские процедуры при проведении проверки эффективности осуществления строительного контроля заказчика на этапах приемки и производства работ» позволит повысить качество строительной продукции, сократить затраты труда и времени на проведение строительного контроля техническим заказчиком.

Также, разработка ПО, основанного на нейронных сетях, позволит в кратчайшие сроки выполнить оцифровку большого количества бумажных документов и сократить сроки проведения проверки. Данное ПО может использоваться в строительных организациях с последующей автоматической интеграцией в информационную модель объекта строительства.

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СТАНОВЛЕНИЕ И РАЗВИТИЕ ВООРУЖЕННЫХ СИЛ РЕСПУБЛИКИ ТАДЖИКИСТАН

Аннотация: *в статье речь идёт о Вооруженных Силах Республики Таджикистан, из развитии и становлении, их современном состоянии. Целью статьи является становление и развитие ВС Таджикистана. Показано, что ВС республики имеет многовековую историю, на протяжении которой у них были периоды подъёма и спада. Во многом развитие и модернизация ВС происходило при активном участии Российской Федерации. Делается вывод о том, что ВС республики продолжают совершенствоваться и в настоящее время защищают свои государственные границы, а также южные границы СНГ.*

Ключевые слова: *Вооруженные Силы, Республика Таджикистан, Российской Федерации.*

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FORMATION AND DEVELOPMENT OF THE ARMED FORCES OF THR REPUBLIC OF TAJIKISTAN

Abstract*: the article deals with the Armed Forces of the Republic of Tajikistan, their development and formation, and their current state. The purpose of the article is the formation and development of the Armed Forces of Tajikistan. It is shown that the Armed Forces of the republic have a centuries-old history, during which they had periods of rise and decline. In many ways, the development and modernization of the Armed Forces took place with the active participation of the Russian Federation. It is concluded that the Armed Forces of the republic continue*

to improve and are currently protecting their state borders, as well as the southern borders of the SNG.

***Keywords**: Armed Forces, Republic of Tajikistan, Russian Federation*

Становление и развитие Вооруженных Сил всегда привлекало внимание исследователей и практиков: историков, представителей военных профессий и т.д. поскольку Вооруженные Силы любого государства составляют его мощь и являются тем подразделением, от которого в первую очередь зависит охрана границ государства.

Несмотря на то, что Таджикистан небольшое государство, оно на протяжении своей истории имело свои хорошо укомплектованные и готовые к бою Вооруженные Силы.

Развитие Вооруженных Сил Таджикистана по данным исследователей насчитывает многовековую историю. На протяжении всего периода армия республики была достаточно укомплектована для отражения вражеских атак и защиты государства [2, с. 36].

Однако с распадом СССР Вооруженные Силы республики потеряли свою мощь, поскольку их основой были советские вооруженные силы, ушедшие с территории республики после распада Союза. Однако Российская Федерация приняла непосредственное участие в помощи Таджикистану в вопросе становления и укрепления Вооруженных Сил Республики Таджикистан. Это, с одной стороны, было продиктовано тем, что в девяностых годах прошлого века обстановка в Центральной Азии и самом Таджикистане была неспокойной. С другой стороны, у России в этот период были союзнические обязательства перед республикой Таджикистан, а также интересами в сфере коллективной безопасности [1, с. 6].

Пик российско-таджикского военно-технического сотрудничества приходился на период распада СССР, когда в Таджикистане происходила гражданская война [4, с. 74].

При участии России в 1993 году в соответствии с решением Совета глав государств участников СНГ в Таджикистане были созданы коллективные миротворческие силы, в основе которых находилась 201 мотострелковая дивизия.

В январе 1992 года Указом Главы государства Таджикистан был образован Комитет обороны Республики Таджикистан и начат процесс формирования национальной гвардии. В этом же году было образовано Министерство обороны Таджикистана. Это послужило началом создания Вооруженных Сил Республики Таджикистан. Формально и юридически Вооруженные Силы Республики окончательно сформировались в апреле 1994 года. Отмечают день основания ВС Таджикистана 23 февраля [3, с. 35].

Формирование ВС Таджикистана происходило в сложной военно-политической обстановке. После окончания гражданской войны в армии страны наблюдалась нехватка офицерского состава. Кроме того, материально-

техническая база также отсутствовала. Все это негативным образом отражалось на боеготовности Вооруженных Сил.

Основу таджикской армии составляли формирования народного фронта, представляющие собой разрозненные боевые отряды, возглавляемые полевыми командирами, каждый из которых преследовал свою цель.

В 2000 году при содействии России приступил к боевому дежурству первый таджикский дивизион противовоздушной обороны. С 2001 года первый таджикский дивизион противовоздушной обороны стал выезжать на учения к границам с Россией.

Как показывает анализ исторических документов и статей, Вооруженные Силы Таджикистана, их становление и развитие в XX-XXI веке во многом связано с участием в этом процессе РФ.

Выше отмечалось то, каким образом РФ на современном этапе своего развития способствовала укреплению ВС Таджикистана. В 2004 году в данном вопросе между РФ и Таджикистаном начался новый виток развития. Он заключается в модернизации Военных Сил Республики Таджикистан. В 2012 году между странами было подписано Соглашение о статусе и условиях пребывания российской военной базы на территории Таджикистана [2, с.10].

Также была создана совместная региональная система ПРО, которая в настоящее время защищает границы Республики Таджикистан. Кроме того, данная ПРО даёт новые преимущества в военной разведке.

Современные ВС республики Таджикистан на равных конкурируют с ВС других стран. Опыт боевых действий показал, что отличительной чертой армии Таджикистана является подготовленность к ведению боевых действий в горных условиях, в условиях ограниченной видимости и маневра. Также армия хорошо проявляет себя в случае возникновения локальных вооруженных конфликтов, в борьбе с вооруженными бандформированиями [5, с. 230].

Подводя итог вышесказанному, можно сделать вывод, что ВС Таджикистана имеет многовековую историю, на протяжении которой у них были периоды подъёма и спада. Не смотря на возникавшие сложности ВС республики защищало свои границы. Большую роль в становлении, модернизации ВС республики Таджикистан играла РФ. В текущем и прошлом веке РФ помогала усиливать мощь ВС Республики Таджикистан, что способствовало укреплению границ республики и развитию Вооруженных Сил в целом.

Вооруженные Силы Республики продолжают совершенствоваться и в настоящее время защищают свои государственные границы, а также южные границы СНГ.

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СОВРЕМЕННЫЕ ТЕХНОЛОГИИ УПРАВЛЕНИЯ ОРГАНИЗАЦИЕЙ

УДК 005.95/.96

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ТЕОРЕТИЧЕСКИЕ АСПЕКТЫ ПРОЦЕССА ОТБОРА ПЕРСОНАЛА В ОРГАНИЗАЦИИ

Аннотация: *Настоящее исследование посвящено изучению процесса отбора персонала, являющегося важным элементом кадровой политики и обеспечивающим успешное функционирование организаций. Результативный процесс отбора специалистов позволяет формировать эффективные профессиональные коллективы, что, в свою очередь, способствует повышению общей производительности труда и уровня квалификации. Этап рекрутинга включает в себя целый ряд мероприятий, направленных на привлечение и удержание человеческих ресурсов, а применение современных методов рекрутинга станет предметом нашего анализа в этой работе.*

Ключевые слова: *кадровая политика, персонал, отбор, подбор, процесс отбора персонала.*

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THEORETICAL ASPECTS OF THE PERSONNEL SELECTION PROCESS IN THE ORGANIZATION

Abstract: *This study is devoted to the study of the recruitment process, which is an important element of personnel policy and ensures the successful functioning of organizations. An effective process of recruiting specialists allows you to form*

effective professional teams, which, in turn, contributes to an increase in overall labor productivity and skill levels. The recruitment stage includes a number of activities aimed at attracting and retaining human resources, and the use of modern recruitment methods will be the subject of our analysis in this work.

Key words: *personnel policy, personnel, selection, recruitment, personnel selection process.*

Обеспечение качественного отбора сотрудников представляет собой основной процесс, аккумулирующий знания и умения, необходимые для реализации стратегии компании. Отправляясь на рынок труда, организация должна учитывать важность формирования внутреннего кадрового резерва, а именно, процесса, который положительно сказывается на долгосрочной устойчивости бизнеса. Управление персоналом состоит из многообразных процессов, среди которых отбор сотрудников остается в центре внимания, необходимым для обеспечения конкурентоспособности на современном рынке, где требования к качеству услуг и продуктов постоянно возрастают.

Существует множество трактовок процесса отбора кадров в современных исследованиях, каждая из которых рассматривает его с различных позиций и аспектов. М.Т. Лукьянова описывает процесс отбора как способ определения набора критериев для достижения целей и задач в области человеческих ресурсов. Они вводят более узкий контекст, в котором подчеркивают важность и целенаправленность процесса отбора, чтобы сформировать оптимальный коллектив, основываясь на количественных и качественных параметрах, соответствующих организационным целям и задачам [4, с. 311].

В.Н. Елкина приводит свою точку зрения на проблему отбора кадров и утверждает, что этот процесс часто остается за пределами внешнего контроля. Основная цель такого подхода - формирование эффективной команды, способной успешно достигать поставленные профессиональные цели и задачи [3, с. 323]. Это подразумевает наличие у руководителей и сотрудников специфических навыков и личных качеств, что непосредственно влияет на эффективность всей организации.

Согласно А.А. Артемьеву задача отбора кадров - это упорядоченный набор действий, цель которых - выявление и отбор достойных кандидатов [1, с. 8].

А.И. Башкина описывает процедуру отбора как комплекс мероприятий, направленный на нахождение кандидатов, наиболее соответствующих требованиям занимаемой должности [2, с. 15].

Е.А. Рослякова анализирует ключевые аспекты отбора кадров, акцентируя внимание на том, насколько важно учесть как профессиональные, так и личностные качества кандидатов [6, с.16].

Изучение существующих научных публикаций показывает, что для термина «отбор персонала» отсутствует единое и однозначное определение. Разнообразие трактовок подчеркивает необходимость разработки

обобщающего определения, которое упрощенно сочетало бы все ключевые аспекты данного процесса. В соответствии с этим, можно предложить следующее определение: отбор персонала - это целенаправленный процесс, состоящий из привлечения, оценки и выбора кандидатов, отвечающих всем профессиональным и личностным критериям конкретной должности.

Главная задача в процессе отбора - это не только поиск и привлечение необходимых сотрудников, но и обеспечение организации квалифицированными кадрами на длительный срок. Эффективный отбор включает в себя формирование банка резервов, который будет полезен при замещении сотрудников, оставляющих свою должность по различным причинам, таких как увольнение или выход на пенсию. Это также подразумевает возможность перемещения сотрудников внутри компании для игры на их сильных сторонах, а также способность адаптироваться к изменениям в бизнес-стратегии. В результате такой работа с кадрами создает устойчивый кадровый состав, способный адаптироваться к изменениям, и гарантирует, что организация всегда сможет эффективно выполнять свои задачи.

При отборе научных сотрудников учреждения принимаются во внимание несколько критериев: заинтересованность в работе; наличие практического опыта в соответствующей области; соответствие профессиональных и личных качеств должностным требованиям; знание системы управления и особенностей работы организации.

Каждая организация сталкивается с непростым процессом формирования команды, который предполагает многогранное применение различных подходов и приемов, а также каждый этап характеризуется своими особенностями. В своих исследованиях О.А. Пушкина выделяет несколько основных стадий этого трудоемкого процесса [5, с.169]:

– предварительный анализ резюме и сопроводительных писем;

– тщательное изучение личностных и профессиональных характеристик кандидата;

– оценка профессиональных навыков и умений;

– окончательное назначение на должность.

Представим на рисунке 1 основные этапы отбора персонала:

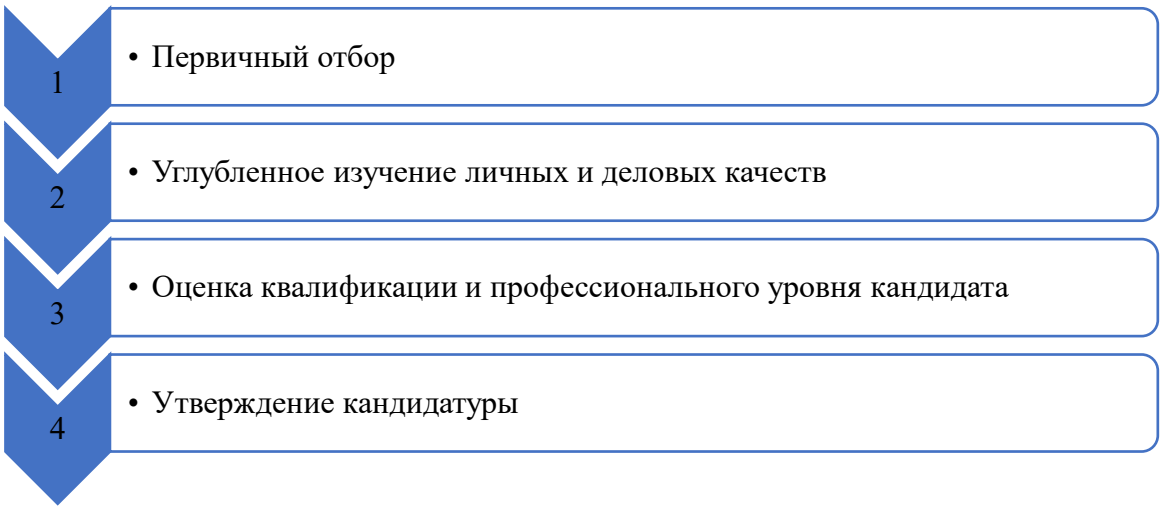

Рисунок 1 – Этапы процесса отбора персонала в организации

Процесс отбора работников в условиях высокой конкуренции на современном рынке требует применения новых методов и подходов, которые позволяют не только находить, но и удерживать квалифицированные кадры. В связи с этим актуальность таких подходов возрастает.

На сегодняшний день можно выделить несколько методов отбора сотрудников, каждый из которых имеет свои особенности и преимущества, как показано на рисунке 2.

К числу основных методов отбора персонала можно отнести рекрутинг, скрининг, Executive Search и хедхантинг.

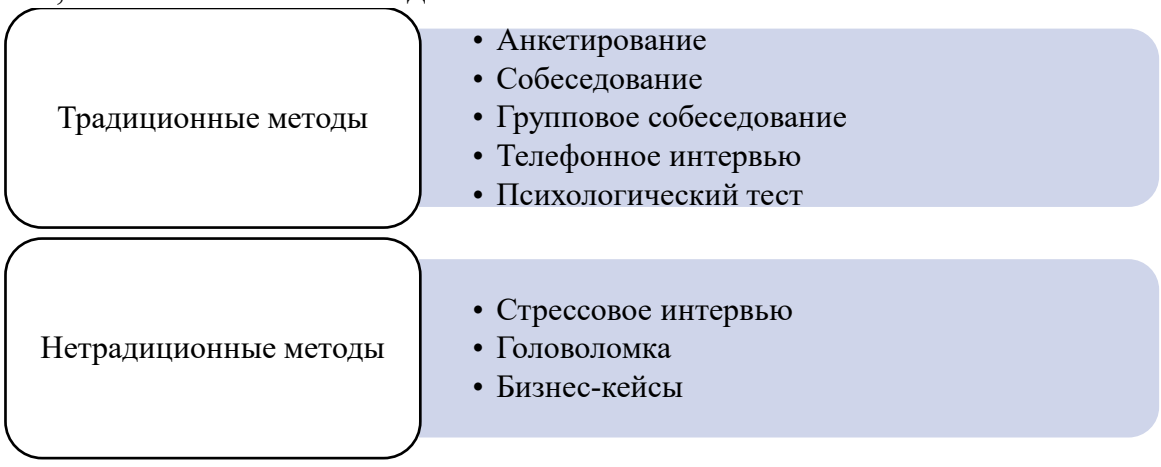

Рисунок 2 – Основные методы отбора персонала

Рекрутинг представляет собой процесс активного поиска и привлечения специалистов на сложные и высококвалифицированные должности. Главной целью рекрутинга является привлечение наиболее подходящих кандидатов из широкой аудитории соискателей. Этот метод требует создания и распространения информации о вакансиях для привлечения кандидатов. Кроме того, необходимо обеспечить баланс между стоимостью рекрутинговых

услуг и качеством подбора, что достигается благодаря тщательному отбору и анализу резюме, а также собеседованиям с кандидатами.

Скрининг - это быстрый и экономически выгодный способ отбора персонала. В процессе скрининга используются заранее определённые профессиональные критерии для поиска наиболее подходящих кандидатов. Его оптимально применять в случае массового набора сотрудников, так как весь процесс подбора может занять не больше десяти дней. Такой подход несёт в себе множество преимуществ - не требует больших временных затрат и позволяет обработать большое количество заявок за короткий период. Тем не менее, стоит учитывать, что скрининг, как правило, не учитывает личностные и психологические качества кандидатов. Из-за этого, потенциальные сотрудники могут не соответствовать корпоративным стандартам компании.

Executive Search - это специализированный подход к поиску и привлечению потенциальных сотрудников, который нацелен на кадры самого высокого уровня. Основное отличие Executive Search от традиционных методов заключается в том, что компании не подаются объявления о вакансиях, что позволяет находить наиболее подходящих кандидатов, которые могут быть неактивными на рынке труда. Кроме того, благодаря такому подходу внимание уделяется не только профессиональным навыкам кандидата, но и его личностным качествам, а также корпоративной культуре и бизнес-параметрам компании-работодателя. Данный метод максимально эффективно подходит для быстрого заполнения вакансий, отвечающих требованиям компании, и позволяет находить специалистов, которые не находятся в активном поиске работы.

Несмотря на данные преимущества, применение Executive Search не исключает использование традиционных методов отбора персонала. К сожалению, универсальной методологии, которая подходит для всех компаний, не существует. Поэтому для более глубокого анализа опыта, навыков и личностных качеств кандидатов, HR-менеджеры должны применять разнообразные методы отбора персонала. Это обязательно повысит результативность отбора персонала, и поможет более тщательно и объективно оценить личные качества сотрудников и их готовность интегрироваться в корпоративную культуру компании.

Таким образом, отбор персонала является ключевым направлением деятельности в сфере управления людьми. Основная цель управления состоит в том, чтобы максимально эффективно использовать все ресурсы организации, обеспечивать экономическую выгоду и создавать конкурентные преимущества компании через профессиональное управление человеческим капиталом.

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ТЕОРЕТИЧЕСКИЕ АСПЕКТЫ УПРАВЛЕНИЯ КАДРОВЫМ РЕЗЕРВОМ В ОРГАНИЗАЦИИ

Аннотация: *В статье рассматриваются важнейшие аспекты создания кадрового резерва, включая актуальные подходы к его формированию, а также методы оценки квалификаций и развития потенциала специалистов. Важно отметить, что система кадрового резерва в компании является не просто инструментом для замещения сотрудников, а важной стратегической единицей, влияющей на внутреннюю структуру и динамику командной работы. Успешно функционирующая система кадрового резервирования помогает справляться с кадровыми изменениями и адаптироваться к новым вызовам на рынке труда.*

Ключевые слова: *кадровая политика, персонал, подбор и отбор персонала, кадровый резерв, формирование кадрового резерва.*

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THEORETICAL ASPECTS OF PERSONNEL RESERVE MANAGEMENT IN AN ORGANIZATION

Abstract: *The article examines the most important aspects of creating a personnel reserve, including current approaches to its formation, as well as methods for assessing the qualifications and developing the potential of specialists. It is important to note that the personnel reserve system in a company is not just a tool for replacing employees, but an important strategic unit that influences the internal structure and dynamics of teamwork. A successfully functioning personnel reserve*

system helps to cope with personnel changes and adapt to new challenges in the labor market.

Key words: *personnel policy, personnel, recruitment and selection of personnel, personnel reserve, formation of personnel reserve.*

Формирование эффективного кадрового резерва представляет собой сложный и многоуровневый процесс, требующий от управления компании комплексного подхода, основанного на серьезном анализе и планировании. В условиях быстрой смены условий ведения бизнеса становится очевидным, что только благодаря продуманной кадровой политике можно обеспечить не только стабильность, но и гибкость команды. Для осуществления этой задачи необходимо формировать резерв по различным уровням квалификации и компетенции.

Научные исследования в области формирования кадрового резерва активно развиваются. Например, М.Е. Коршунов определяет кадровое резервирование как динамический процесс, включающий в себя выявление и подготовку специалистов, готовых занять вакантные должности в будущем. Он подчеркивает, что кадровый резерв должен быть нацелен на преемственность в управлении, что повышает эффективность работы руководителей и способствует стабильности внутри организации [3, с.388].

В свою очередь, М.Н. Шавровская указывает, что кадровый резерв включает в себя группу сотрудников, обладающих необходимыми знаниями для выполнения специфических задач. Он акцентирует внимание на интеграции системы кадрового резерва с мотивацией труда, что является важной составляющей в эффективном управлении кадровым ресурсом и позволяет достичь высоких результатов в работе [5, с. 106].

А.Р. Сухоруков и Н.Ф. Сухорукова в своих исследованиях выделяют кадровый резерв как активный механизм управления человеческими ресурсами, направленный на оптимизацию работы организации. Это элементарная система, которая включает в себя процессы подбора и назначения работников на ключевые должности, что подчеркивает А. Чарыева [6, с. 107; 7, с. 432].

И.Н. Ковалева акцентирует внимание на том, что кадровый резерв формируется через стратегическое планирование, предоставляющее возможность быстро закрывать вакансии, соответствующие заранее установленным критериям [2, с. 238].

Также стоит отметить, что Е.А. Бюллер, А.П. Бахова, С.К. Чиназирова, Д.Ш. Нагоева, М.Н. Михайлюк подчеркивают, что кадровый резерв формируется из числа сотрудников, которые обладают необходимыми компетенциями и не требуют значительных затрат на переквалификацию [1, с. 972]. Опираясь на вышеуказанные определения, можно выделить ключевые аспекты, подчеркивающие ценность кадрового резерва в компании.

Наиболее точное описание кадрового резерва представлено в работах А.Г. Недвига, где он включает в себя группу работников, готовых к

выполнению новых задач и обладающих необходимыми знаниями и навыками. Это отражает важность профессионализма и инициативности сотрудников, готовых к новым вызовам [4, с.471].

Кадровый резерв включает специалистов с необходимыми квалификацией и мотивацией для динамичного реагирования на задачи предприятия. Авторитетные исследования в этой области акцентируют на значимости подготовки таких кадров, что работодатели ищут их на основе опыта коллег, возможностей к выполнению нового функционала и первоочередного обучения.

Кадровый резерв в организации - это шанс повысить гибкость сотрудников, минимизировать фонд оплаты труда на их обучение и создать надежное профессиональное окружение, уменьшая увольнения таких работников, которые получат назначение выше классных должностей. Такой подход обеспечивает быструю замену кадров при необходимости.

Создание структур кадрового резервирования решает оптимизацию работников в штате. Резервирование сводит к нулю вероятность колебаний именно от иного трудового договора с прерыванием деятельности работника в штате.

Резервирование дольше срока службы представляет активный способ воспроизводства высоко квалифицированного персонала в будущей профессиональной деятельности. А создание резервов кадров становится необходимой формой подбора более опытных сотрудников, что приводит к более мощному структурированию всех работников с результатом на необходимые профессиональные качества.

Среди внутренних кандидатов выделяются специалисты с внушительной квалификацией и хорошим пониманием корпоративных ценностей и культуры. Воспользовавшись их опытом и знаниями, можно сократить множество убытков при внедрении новых сотрудников.

Кадровый резерв - важное направление в управлении персоналом. Для того, чтобы формирование кадрового резерва было эффективным, необходимо учитывать ряд факторов.

На первом этапе анализа следует оценить личные и профессиональные качества работников для выявления их потенциала. Это позволит отобрать наиболее перспективных кандидатов. На следующем этапе необходимо обосновать соответствие уровней квалификаций кандидатов требованиям, а также их возрастом, что даст возможность четко проследить их соответствие.

Стоимость каждого кандидата должна быть ниже стоимости вакансии, на должность должны быть по два резервиста и более, для того чтобы обеспечить выбор кандидата на должность. На каждом посту выбираем за определенный срок, специальное необходимо обеспечивать.

Также данная процедура должна проходить открыто и прозрачно, поскольку это повышает доверие у сотрудников и интерес у потенциальных кандидатов.

Формирование кадрового резерва - это комплексный процесс, который включает в себя целый ряд методов и инструментов, направленных на выявление способных работников, готовых занять ключевые позиции в будущем.

На рисунке 1 представлена схема, показывающая ключевые методы, направленные на успешное создание кадрового резерва [6, с.108].

Главным этапом создания резерва является глубокий анализ личностных и профессиональных характеристик потенциальных работников. На этом этапе важно установить соответствие между квалификацией кандидата и требованиями вакансии. Учитываются образование, опыт работы и особые личные качества. К последним относятся навыки лидерства, командное взаимодействие и общение. На основе собранной информации осуществляется отбор на свободные должности.

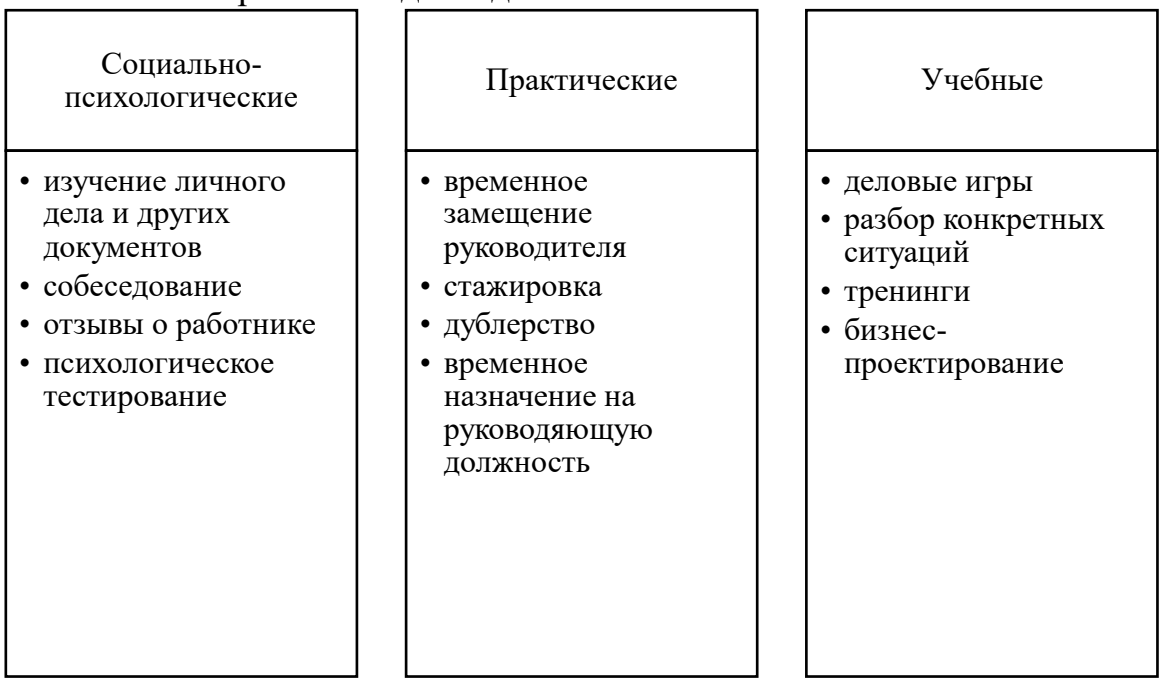

Рисунок 1 – Методы формирования кадрового резерва

В качестве основного инструмента для формирования кадрового резерва используются различные методы, как показано на рисунке 1. К ним относятся: биографический подход, интервью, экспертные оценивания, тестирования, оценка личностных и профессиональных качеств, практические тренинги, ролевые игры и другие [3, с.389]. Эти подходы позволяют более подробно проанализировать потенциал кандидатов и их готовность справляться с поставленными задачами на различных уровнях.

Таким образом, кадровый резерв включает сотрудников, обладающих нужными компетенциями и способностями для выполнения новых должностных функций, что способствует успешному решению задач компании и достижению ею высоких результатов. Создание кадрового резерва является важной составляющей системы управления карьерным ростом сотрудников. В условиях непредсказуемых изменений на рынке кадровая

политика предприятия должна способствовать созданию комфортной обстановки для различных категорий сотрудников, включая их карьерный рост и профессиональную активность. В этом контексте формирование кадрового резерва служит важнейшим инструментом, сочетающим в себе элементы оценки, подготовки и развития потенциала сотрудников. Подобная система делает возможным не только удержание ключевых специалистов, но и их дальнейшую подготовку для принятия важных решений и выполнения стратегических задач.

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РАЗРАБОТКА МЕТОДИКИ ФОРМИРОВАНИЯ СЛУЖБЫ ЭКОНОМИЧЕСКОЙ БЕЗОПАСНОСТИ И ВНУТРЕННЕГО КОНТРОЛЯ ОРГАНИЗАЦИЙ

Аннотация: *В статье рассматриваются вопросы организации службы экономической безопасности и внутреннего контроля. Предлагается использовать поэтапную методику формирования службы экономической безопасности и внутреннего контроля организаций, а также систему разработанный рекомендаций. Разработанный методический инструментарий обеспечит повышения уровня экономической безопасности организаций и нейтрализует ряд негативных угроз.*

Ключевые слова: *внутренний контроль, экономическая безопасность, методика, служба экономической безопасности, служба внутреннего контроля.*

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DEVELOPMENT OF A METHODOLOGY FOR THE FORMATION OF THE ECONOMIC SECURITY AND INTERNAL CONTROL SERVICE OF ORGANIZATIONS

Abstract: *The article deals with the organization of the economic security and internal control service. It is proposed to use a step-by-step methodology for the formation of the economic security and internal control service of organizations, as well as a system of developed recommendations. The developed methodological tools will ensure an increase in the level of economic security of organizations and neutralize a number of negative threats.*

Keywords: *internal control, economic security, methodology, economic security service, internal control service.*

Предприятия и организации в современных условиях современного бизнес-пространства постоянно сталкиваются с различными изменениями, вызовами и рисками. Непрерывное обеспечение необходимого уровня экономической безопасности организаций является ключевым элементом

эффективного управления и предотвращения возможных финансовых потерь, репутационных рисков и других негативных последствий. В основе системного и постоянного обеспечения достаточного уровня безопасности лежит эффективная работа службы экономической безопасности и внутреннего контроля [1]. Поэтому, грамотная организация и постоянное совершенствование данной службы является актуальной задачей в условиях высокорисковой и быстроизменяющейся внутренней и внешней среды организаций и предприятий.

Предлагается методика формирования службы экономической безопасности и внутреннего контроля организаций. В основе методики организации службы экономической безопасности и внутреннего контроля лежит необходимость понимания текущего состояния дел в компании [2]. На первом этапе проводится анализ существующих бизнес-процессов, активов и обязательств компании, а также выявляются слабые места и потенциальные риски.

Этот этап особенно важен, так как он позволяет сформировать представление о том, где необходимы наиболее строгие меры контроля. Такой анализ даёт возможность увидеть картину текущих угроз и разработать стратегию для их минимизации. В условиях современных российских предприятий, которые зачастую сталкиваются с нестабильностью рыночной среды и непрозрачностью контрагентов, данная работа требует особой тщательности [3].

Следующим шагом является разработка концепции экономической безопасности. Здесь в соответствие с методикой необходимо определить миссию и цели службы экономической безопасности и внутреннего контроля, которые должны быть интегрированы в стратегию развития организации. К целям службы экономической безопасности и внутреннего контроля относится не только защита активов и предотвращение убытков, но и обеспечение устойчивого развития бизнеса за счет эффективного управления рисками. Разрабатываемая концепция службы безопасности должна учитывать контекст организации, а также включать механизмы взаимодействия всех подразделений компании. Система экономической безопасности не только обеспечивает реакцию на угрозы, но и выполняет активную работу по их предупреждению.

Формирование структуры службы экономической безопасности и внутреннего контроля является следующим этапом. В зависимости от размера и сложности компании структура может включать несколько уровней управления и контроля. Необходимо определить функции каждого сотрудника и разграничить зоны их ответственности. В условиях производства строительно-монтажных работ это особенно актуально, так как контроль должен охватывать не только обслуживающие процессы, но и производственные процессы на строительных объектах. Важно, чтобы специалисты по безопасности имели возможность оперативно реагировать на

возникающие угрозы и взаимодействовать с руководством для принятия решений.

После формирования структуры службы следует внедрение системы внутреннего контроля. Контрольные процедуры должны быть направлены на минимизацию выявленных рисков и включать меры по мониторингу, анализу и реагированию на отклонения. Внедрение таких процедур требует использования современных информационных технологий, что позволяет автоматизировать процессы сбора и обработки данных. Важно отметить, что контроль должен быть постоянным и регулярным. Только так можно добиться эффективного функционирования службы экономической безопасности и внутреннего контроля.

При использовании данной методики следует использовать систему рекомендаций, которая представлена на рисунке 1.

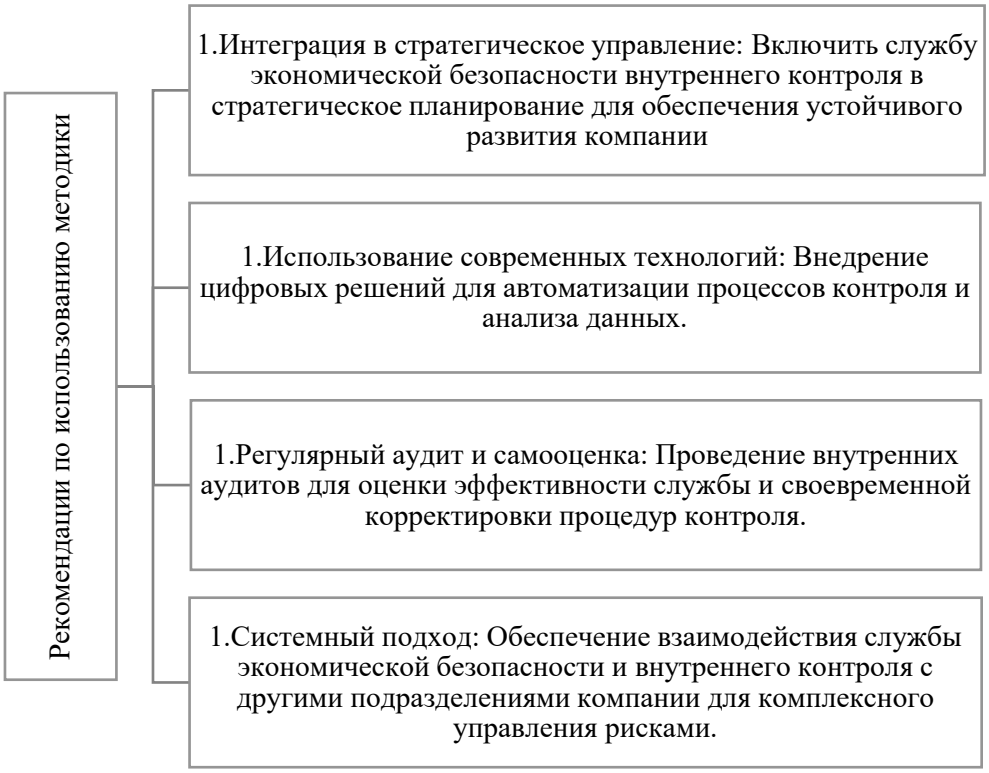

Рис. 1. Система рекомендаций по использованию методики организации службы экономической безопасности и внутреннего контроля

Подводя итог, можно сказать, что на каждом этапе предлагаемой методики необходимо учитывать контекст предприятия. В условиях производства строительно-монтажных работ это означает контроль за качеством материалов, соблюдением технологий и выполнением подрядных обязательств. Эффективная организация всех этапов позволяет создать надежную систему защиты активов компании и обеспечить ее устойчивое развитие.

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