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ASSOCIATIVE RULES AND MARKET BASKETS

Abstract. In this article, modern service and commercial organizations collect accurate information about each order made through plastic cards and control computer systems, using data recording and storage technology. collecting a large amount of information about purchases, orders and services made by consumers, identifying patterns in the behavior of buyers by experts in the field of management and marketing, their consumer knowledge, behavior in managing the organization's marketing and product policy and increasing the organization's income and competitiveness, in the field of modern information technologies, the issues of the analysis of statistical data analysis tools collected using the intellectual analysis of data are highlighted.

Key words: associative rules, apriora, market baskets, genetic algorithms, cell processors, intel processors.

INTRODUCTION

The development of computer technology leads to an increase in the amount of data that needs to be stored. This makes it difficult for a person to work with data. The importance of analytics in working with data is undoubtedly huge, because it leads to the construction of knowledge among the "unprocessed data". This knowledge can be used in decision making. Therefore, recently the direction of "knowledge discovery in databases" is developing rapidly. Nowadays, the size of the data warehouse is the main reason for the emergence of new scalable algorithms.

Data Mining is the process of finding useful, previously unknown, practically useful and interpretable knowledge from "unprocessed" data. This knowledge plays an important role in the decision-making process in various areas of human life. [1]

The information revealed by the application of data mining methods should be non-trivial and unfamiliar, for example, average sales cannot be an example of this. Identification of new relationships between the properties of knowledge, one predetermines the properties of the other, and so on. The established knowledge must be applied to new information with some degree of reliability.

Every knowledge should be useful in some direction. This knowledge should be understandable and simple to view for the non-mathematical user. For example, logical constructions easily accepted by humans "if... then...". In addition, these rules can be applied via SQL queries to different MBBTs. If the data obtained at

the beginning is not comprehensible, there must be methods of processing that bring the data to a comprehensible level for the user. Algorithms used in Data Mining require a large number of calculations. Previously, this fact was seen as a difficult problem for Data Mining, but nowadays the development of modern processors has reduced the importance of this problem. [2]

Data Mining in Problem Solving different algorithms and methods are used. Among them, the most widely used are: neural networks, tree-based solutions, clustering algorithms, including scalable algorithms that identify associative relationships between events and causality.

Effectively scalable algorithms for finding associative rules are required as the data warehouse expands day by day. These rules make it possible to solve problems quickly and easily.

used knowledge discovery methods is the associative rule discovery algorithm. First associative rule discovery method called AIS 1993, IBM Almaden Research Center developed by employees. Since then, great attention has been paid to this dish. The mid -90s is the peak period of openings in this direction. Today, mainly Apriori algorithm is used to determine associative rules i is used. Its author is Rakesh Agrawal (Rakesh Agrawal). [3]

Are used to identify regularities between events. As an example of this, it is possible to cite the following statement: a consumer who wants to buy bread has a 75% chance of buying milk as well. [4]

Market basket analysis (market basket analysis) is the search for the most typical, patterned purchases in supermarkets (search for imaginary rules). Market basket analysis is done through database analysis to identify related product combinations. In other words, it defines "paired goods". One of these pairs of goods is key, and the goods purchased with it are companion goods. This analysis helps to determine the rate of purchase of paired products and the probability that the companion product will be purchased with key products.

Literature analysis on the research topic

Foreign scientists on the analysis of associative rules and market baskets, including R. Agrawal, T. Imielinski, A. Swami, R. Srikant. A. Savasere, E. Omiecinski, and S. Navathe, JS Park, M.-S. Chen, and SY Philip, J. Hipp, U. Guntzer, and G. Nakaeizadeh. many results are given in their works.

As one of the effective algorithms A priori and G genetic algorithms are shown.

Research methodology

To solve the given problem, associative rules and algorithms in data analysis and a parallel algorithm for analysis of market baskets adapted for a computing system based on Cell processors were used.

The purpose and objectives of the research. Optimization of analysis of market baskets based on selected methods and algorithms. To achieve this goal, the following issues were resolved:

- Study associative rules and gather theoretical information from existing literature;
 - Apriora - analysis of the algorithm of the associative rule and theoretical information about it;
 - Analysis of the Genetic Algorithm of solving problems of analysis of market baskets;
 - Analysis of a parallel algorithm for solving problems of analysis of market baskets;
 - Analysis of calculations based on learned algorithms;
- Development of reasonable proposals and recommendations for improvement of algorithms and methods.

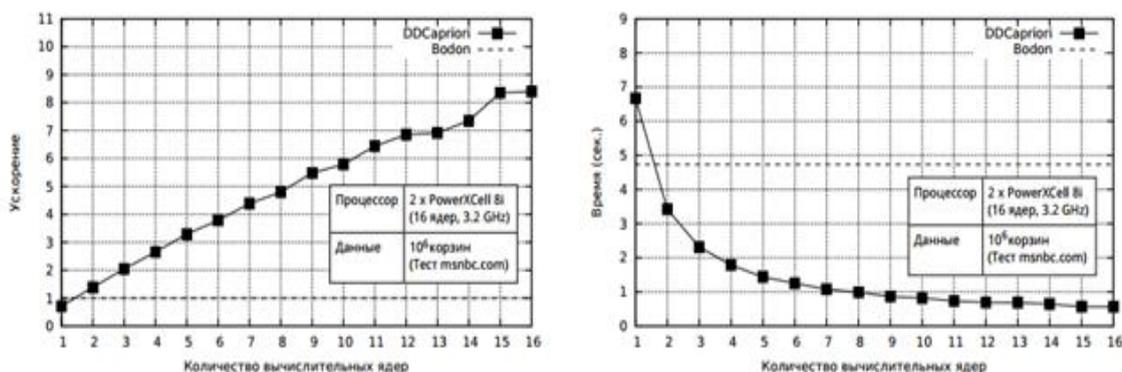
Research results

The theoretical significance of the research is the search for associative rules and the development of algorithms for solving the problems of market basket analysis.

of the dissertation, creation of a parallel algorithm developed on the basis of associative rules and the implementation of data analysis of this algorithm and calculations based on Cell processors.

To evaluate the effectiveness of the developed algorithm, we conducted three series of computational experiments. As external data of the experiments, a standard test set of data on visits to the pages of the website msnbc.com, which was used to evaluate the effectiveness of the Data Mining algorithm, was obtained. Set B test task displays records of visits to site pages. Each record has a label indicating which content category it belongs to. In the experiments, search sets of frequently visited pages were performed.

In the first series of experiments, we determined the speedup of the algorithm depending on the computing core. It is considered one of the best algorithms for solving tasks of market basket analysis today when calculating the acceleration per unit of performance of consistent algorithms. Experiments showed that the DDCapriori algorithm showed a near-linear acceleration.



a) acceleration b) analysis over time

Figure 1. Performance of DDCapriori algorithm

In addition, we compared the dimensions of the developed algorithm and the Count Distribution algorithm for Cell Count Distribution. The comparison showed that the developed algorithm has several good dimensions

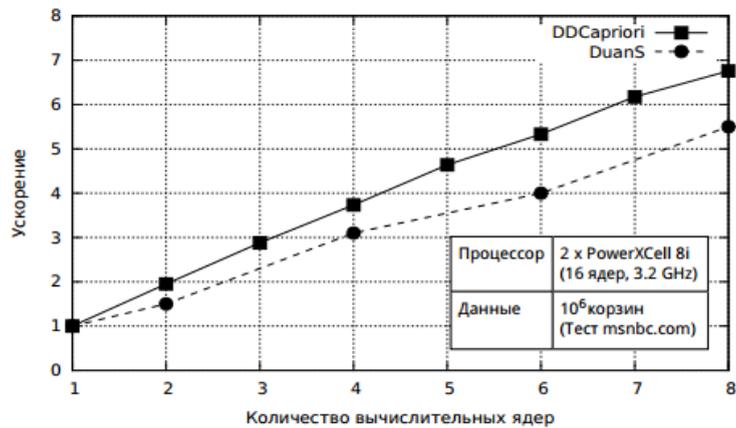
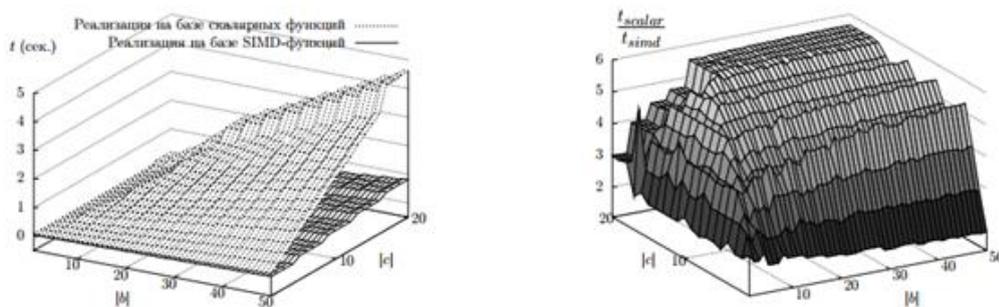


Figure 2. Comparison of DataDistribution and CountDistribution implementation.

In the second series of experiments, we compared the gain from using vector operations with scalar in checking candidate access to the basket as a function of candidate length and basket. The results of the experiments showed that the gain from vector operations is directly proportional to the length of the candidate and the basket.



a) Time check b) vectorial back check _

Figure 3. Checking the candidate's access to the basket with a vector function.

The third series of experiments is aimed at comparing the performance of the developed algorithm on the Cell and Intel platforms. To conduct these experiments, we developed the DDCapriori algorithm for the Intel processor. Together with the SPE-system, POSIX-system is used to do this and vector functions are not used. The results of the experiments are presented in Figure 10.

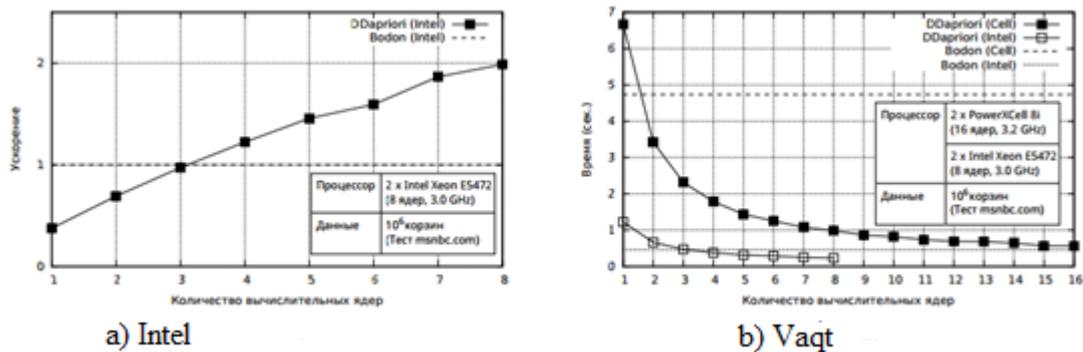


Figure 3. Compare the performance of Cell and Intel processors

Experiments showed that the algorithm on Cell processors showed several better accelerations than the algorithm on Intel processors. But Intel processors provide much faster performance than Cell processors.

Summary

This research leads to the construction of knowledge among the raw data. This knowledge can be used in decision making. Therefore, we can see as a clear example that in recent years, the direction of "knowledge discovery in databases" has been developing rapidly.

Data Mining is the process of finding useful, previously unknown, practically useful and interpretable knowledge from "unprocessed" data. This knowledge plays an important role in the decision-making process in various areas of human life.

In particular, the main concepts of the market basket are explained, Data, which allows processing large amounts of data and finding the necessary information effectively. As one of the levers of mining, associative rules are considered. As mentioned above, the problem of searching for associative rules was originally presented for the analysis of the market basket.

used in purchases, analysis of customer preferences, planning of placement of goods in supermarkets, cross-marketing, segmentation of customer behavior in address shipping. However, the field of application of these algorithms is not limited to trading.

A general method of parallelization was created using the data from the research results.

The basic concepts for the description of the above-mentioned algorithms are expressed.

Practical examples of the directions of market baskets are presented.

A parallel algorithm for solving market basket analysis tasks adapted for a computing system based on Cell and Intel processors is presented. Parallel algorithms are achieved by dividing the set into groups and distributing these groups across computing cores. In this case, the basket set is transferred to each computing core.

The results of computational experiments showing the effectiveness of the proposed algorithm are presented.

Many experiments were conducted with the help of the given algorithm and model, and final conclusions were drawn based on the experimental results.

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ASSOTSIATIV QOIDALAR VA BOZOR SAVATLARI

Annotatsiya. Ushbu maqolada xizmat ko`rsatish va tijorat yo`nalishidagi zamonaviy tashkilotlar plastik kartochkalar va nazorat qiluvchi kompyuter tizimlari orqali qilingan har bir buyurtma to`g`risida aniq ma`lumotlarni yig`ib, ma`lumotlarni yozish va saqlash texnologiyasi yordamida iste`molchilar tomonidan qilingan xarid, buyurtma va xizmatlar haqida katta xajmdagi ma`lumotlarni to`planish, menejment va marketing sohasidagi mutaxassislar tomonidan xaridorlarning xatti xarakatlarida qonuniyatlarni aniqlash, ularning iste`molchilik bilimlari, xatti xarakatlari tashkilotning marketing va mahsulotlar siyosatini boshqarish va tashkilotning daromadi va raqobatbardoshligini oshirishda, zamonaviy axborot texnologiyalari sohasida ma`lumotlarni intellektual tahlil qilish yordamida yig`ilgan statistik ma`lumotlarni tahlil qilish vositalar tahlili masalalari yoritib berilgan.

Kalit so`zlar: Assotsiativ qoidalar, Apriora, Bozor savatchalari, Genetik algoritmlar, Cell protsessorlar, Intel protsessorlari.

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ASSOCIATIVE RULES AND MARKET BASKETS

Annotation. In this article, modern organizations in the field of Service and Commerce collect accurate data on each order made through plastic cards and controlling computer systems, collect data on purchases, orders and services made by consumers with the help of data writing and storage technology, determine the laws in the behavior of buyers by specialists in the field of management and marketing,, the issues of analysis of statistical data collected using intellectual data analysis in the field of modern Information Technology have been highlighted in the management of marketing and product policies of the organization and increasing the income and competitiveness of the organization.

Keywords: associative rules, a Priora, market baskets, genetic algorithms, Cell processors, Intel processors.

KIRISH

Kompyuter texnologiyalarining rivojlanishi saqlash kerak bo`lgan ma`lumotlar hajmining ko`payishiga olib kelmoqda. Bu esa o`z o`rnida insonning ma`lumotlar bilan ishlashini murakkablashtiradi. Ma`lumotlar ustida ishlashda

tahlilning ahamiyati shubxasiz juda katta, chunki bu «ishlov berilmagan ma'lumotlar» orasida bilimlar tuzilishiga olib keladi. Bu bilimlar qaror qabul qilishda qo'llanilishi mumkin. Shu sababli oxirgi payt «ma'lumotlar bazasidan bilim olish» (knowledge discovery in databases) yo`nalishi keskin suratlarda rivojlanib bormoqda. Hozirgi kunda ma'lumotlar omborining xajmi, yangi masshtablanuvchi algoritmlarning kelib chiqishi uchun asosiy sabab bo'lib xizmat qilmoqda.

Data Mining – bu «ishlov berilmagan» ma'lumotlar ichidan kerakli, ilgari taniqli bo'lmagan, amaliy jihatdan foydali va interpretatsiyaga loyiq bilimlarni topish jarayoni hisoblanadi. Bu bilimlar inson hayotining turli yunalishlarida qaror qabul qilish jarayonida muhim rol o`ynaydi.[1]

Data Mining metodlarini qo'llash orqali aniqlangan axborotlar ilgari notrivial va notanish bo'lishi kerak, masalan, o'rtacha sotish bunga misol bo'la olmaydi. Bilimlar xossalari orasida yangi bog'liqliklarni aniqlanishi, biri ikkinchisining hossalari oldindan aniqlashi va hokozalar. Aniqlangan bilimlar yangi ma'lumotlarda ayrim ishonchlilik darajasi bilan qo'llanilishi kerak.

Har bir bilim ayrim yunalishda qo'llanilish orqali foyda keltirishi kerak. Bu bilimlar matematik bo'lmagan foydalanuvchi uchun tushunarli va sodda ko'rishga ega bo'lishi kerak. Masalan inson tomonidan yengil qabul qilinadigan logik-konstruksiyalar orkali «agar... u holda...». Bundan tashqari ushbu qoidalar har xil MBBT uchun SQL-so'rovlari orqali qo'llanilishi mumkin. Mabodo olingan ma'lumotlar tushunarli bo'lmasa, foydalanuvchi uchun ma'lumotlarni tushunarli darajaga olib keladigan kayta ishlash metodlari mavjud bo'lishi kerak. Data Miningda qo'llaniladigan algoritmlar ko'p sonli xisoblashni talab kiladi. Ilgari bu fakt Data Mining uchun qiyin masala sifatida ko'rilar edi, biroq hozirgi paytda zamonaviy protsessorlarning rivojlanishi bu masalani ahamiyatini susaytirdi.[2]

Masalalarni yechishda Data Mining ning turli algoritm va metodlari qo'llaniladi. Ular orasida keng qo'llaniladiganlari bu: neyron tarmoqlari, shajaraviy yechimlar, klasterizatsiya algoritmlari, shu jumladan masshtablanadigan, hodisalar orasidagi assotsiativ aloqalarni va xakozolarni aniklaydigan algoritmlar.

Ma'lumotlar ombori kundan kunga kengayishi sababli assotsiativ koidalarni topish uchun samarali masshtablanadigan algoritmlar talab qilinadi. Bu qoidalar masalalarni qisqa vaqt ichida yechish imkonini beradi.

Bilimlarni aniqlash metodlari orasida keng qo'llaniladigani bu assotsiativ qoidalarni topish algoritmi. AIS deb ataluvchi birinchi assotsiativ koidalarni topish usuli 1993 yil, IBM Almaden tadqiqot markazi xodimlari tomonidan ishlab chiqilgan. Shundan sung bu yualishga katta e'tiborkaratilgan. 90-yilar o'rtasi shu yo`nalishdagi ochilishlarning yuqori davri hisoblanadi. Bugungi kunda assotsiativ koidalarni aniqlash uchun asosan Apriori algoritmi qo'llaniladi. Uning muallifi Rakesh Agravaldir (Rakesh Agrawal). [3]

Assotsiativ qoidalar xodisalar orasidagi muntazamligni aniklashda qo'llaniladi. Bunga misol tariqasida kuyidagi tasdiqni keltirish mumkin: non sotib

olmoqchi bulgan ist'emolchi sut ham sotib olishi mumkinligining extimoli 75%ni tashkil qiladi.[4]

Bozor savatchalarini tahlil qilish (market basket analysis) - bu supermarketlarda eng tipik, shablonli xaridlarni qidirish (tasavvurli qoidalarni qidirish)dir. Bozor savatchalarini tahlil qilish bir-biriga bog'liq bo'lgan tovarlar kombinatsiyalarini aniqlash maqsadida ma'lumotlar bazasini tahlil qilish yo'li orqali amalga oshiriladi. Boshqacha qilib aytganda, bunda "juftli tovarlar" aniqlanadi. Ushbu juft tovarlarning biri kalitli, u bilan xarid qilinadigan tovar esa – xamroh bo'ladigan tovar hisoblanadi. Mazkur tahlil juftli tovarlarni xarid qilish tezligini hamda hamroh bo'luvchi tovar kalitli tovarlar bilan xarid qilinishi ehtimolini aniqlashga yordam beradi.

Tadqiqot mavzusi bo'yicha adabiyotlar tahlili

Assotsiativ qoidalar va bozor savatlarining tahlili bo'yicha chet ellik olimlarning, jumladan R. Agrawal, T. Imielinski, A. Swami, R. Srikant. A. Savasere, E. Omiecinski, and S. Navathe, J.S. Park, M.-S. Chen, and S.Y. Philip, J. Hipp, U. Guntzer, and G. Nakaeizadeh. ishlarida ko'plab natijalar keltirilgan.

Effektiv algoritmlardan biri sifatida Apriora va Genetik algoritmlar ko'rsatilgan.

Tadqiqot metodologiyasi

Qo'yilgan masalani yechish uchun ma'lumotlarni tahlili qilishdagi assotsiativ qoidalar va algoritmlardan hamda Cell protsessorlar bazasidagi hisoblash tizimi uchun moslashtirilgan bozor savatlarini tahlil qilishning parallel algoritmidan foydalanilgan.

Tadqiqot maqsadi va vazifalari. Tanlangan metod va algoritmlar asosida bozor savatchalarini tahlili qilishning optimallashtirish. Ushbu maqsadga erishish uchun quyidagi masalalar yechildi:

- Assotsiativ qoidalar o'rganish va mavjud adabiyotlardan nazariy ma'lumotlarni to'plash;
 - Apriora - assotsiativ qoidasining algoritmini va unga oid nazariy ma'lumotlarni tahlil qilish;
 - Bozor savatchalarining tahlil kilish masalalarini yechishning Genetik algoritmi tahlil qilish;
 - Bozor savatchalarining taxlil kilish masalalarini yechishning parallel algoritmi tahlil qilish;
 - O'rganilgan algoritmlar asosida qilingan hisoblashlarni tahlil qilish;
- Algoritm va metodlarni yaxshilash bo'yicha asosli taklif va tavsiyalar ishlab chiqish.

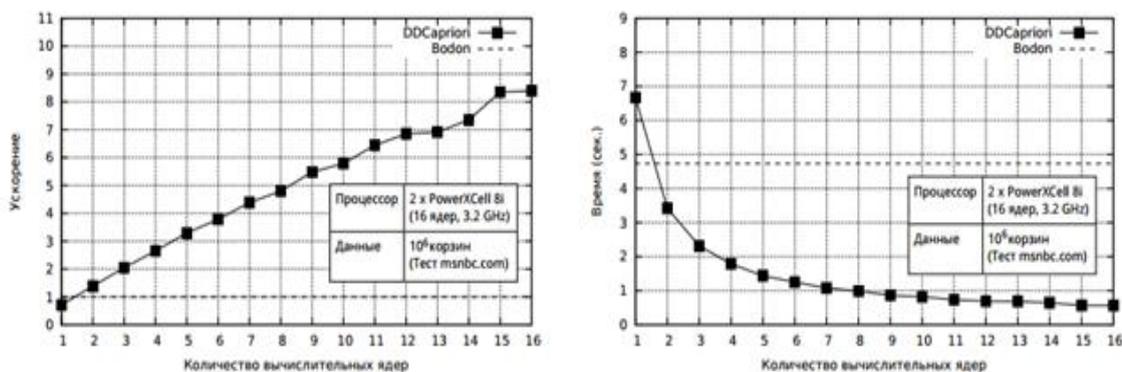
Tadqiqot natijalari

Tadqiqotning nazariy ahamiyati, bozor savatlarini tahlili qilish masalalarini yechish uchun assotsiativ qoidalarni izlash va algoritmlarni ishlab chiqishdan iborat.

Dissertatsiyani amaliy ahamiyati, assotsiativ qoidalar asosida ishlab chiqilgan parallel algoritm yaratish va ushbu algoritm ma'lumotlar tahlilini Cell protsessorlar bazasida hisoblashlarni amalga oshirish.

Ishlab chiqilgan algoritm samaradorligini baholash uchun biz uch seriyadagi hisoblash tajribalarini o'tkazdik. Tajribalarning tashqi ma'lumotlari sifatida Data Mining algoritm samaradorligini baholash uchun foydalanilgan msnbc.com veb sayti sahifalariga tashrif buyurishlar to'g'risidagi standart test to'plam ma'lumotlari olindi. Bto'plam test vazifasi sayt sahifalariga tashrif buyurish bo'yicha qaydlarni aks ettiradi. Har bir qayd qanday mazmuniy toifaga tegishliligi to'g'risidagi belgidan iborat. Tajribalarda tez-tez tashrif buyuriladigan sahifalarning qiduruv to'plamlari amalga oshirildi.

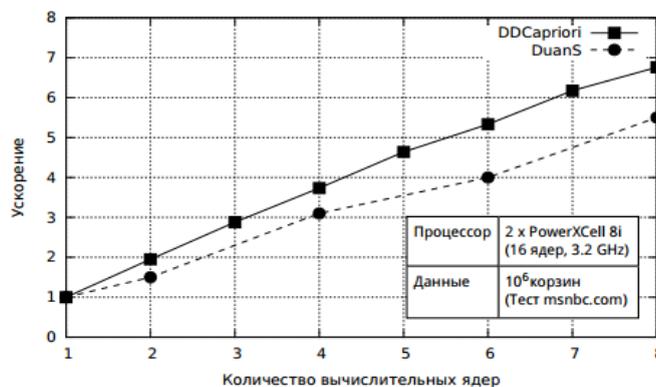
Tajribalarning birinchi seriyasida biz hisoblash yadrosiga bog'liq holda ish vaqti va algoritm tezlanishini aniqladik. Izchil algoritmlarning qabul qilingan unumdorlik birligi uchun tezlanishni hisoblashda bugungi kunda bozor savatini tahlil vazifalarini yechishning eng yaxshi algoritmlaridan biri sanaladi. Tajribalar shuni ko'rsatdiki, DDCapriori algoritmi chiziqliga yaqin tezlanishni namoyon qildi..



a) tezlanishb) vaqt bo'yichida tahlil

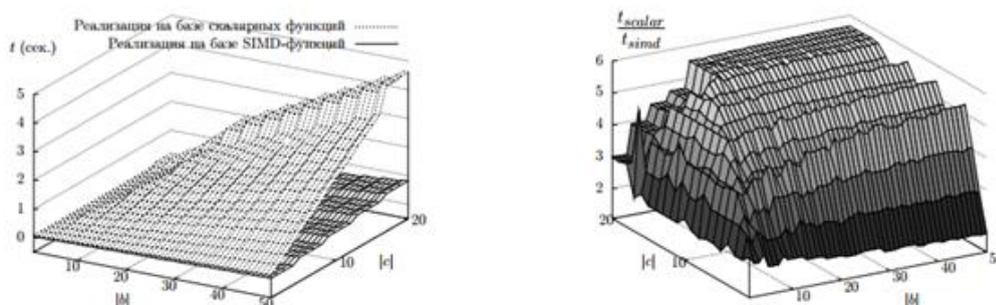
1-rasm. DDCapriori algoritmining ishlash kuchi

Bundan tashqari biz ishlab chiqilgan algoritm va Count Distribution dlya Cell uchun Count Distribution algoritmini o'lchamlarini taqqosladik. Taqqoslash shuni ko'rsatdiki ishlab chiqilgan algoritm bir qancha yaxshi o'lchamlarga ega



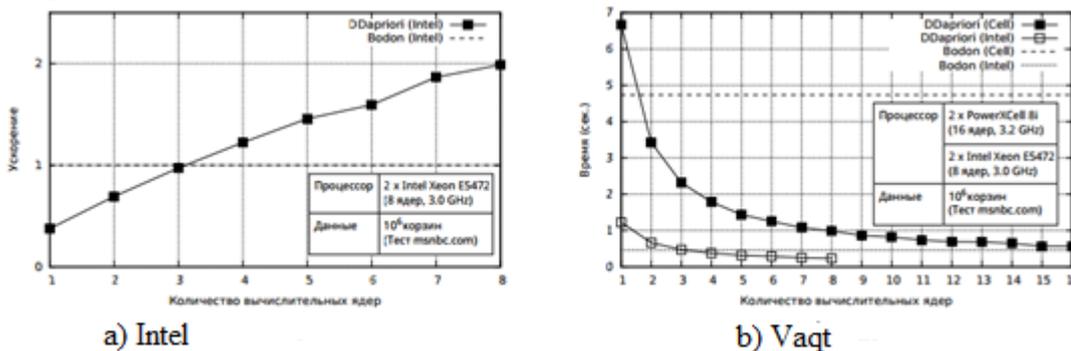
2-rasm. DataDistribution va CountDistribution maststablarni taqqoslash.

Tajribalarning ikkinchi seriyasida biz nomzod uzunligi va savatga bog‘liq holda savatga nomzodning kirishini tekshirishda skalyar bilan birga vektor operatsiyalarini qo‘llashdan yutuqni taqqosladik. Tajribalar natijalari shuni ko‘rsatdiki, vektor operatsiyalaridan keladigan yutuq nomzod va savat uzunligiga to‘g‘ri proporsional.



b) Vaqt bo‘yicha tekshirish b) vektorli orqali tekshirish
3-rasm. Kandidatning korzinaga kirishini vektorli funksiya orqali tekshirish.

Tajribalarning uchinchi seriyasi Cell va Intel platformasidagi ishlab chiqilgan algoritmni unumdorligini taqqoslashga yo‘naltirilgan. Bu tajribalarni o‘tkazish uchun biz Intel protsessoriga mo‘ljallangan DDCapriori algoritmni ishlab chiqdik. SPE-tizimi bilan birga buni amalga oshirishda POSIX- tizimidan foydalaniladi va vektor funksiyalari ishlatilmaydi. Tajribalar natijalari 10-rasmda keltirilgan.



a) Intel b) Vaqt
3-rasm. Cell va Intel protsessorlarini ishlash jarayonini taqqoslash

Tajribalar shuni ko‘rsatdiki, Cell protsessorlaridagi algoritm Intel protsessorlaridagi algoritmga qaraganda bir qancha yaxshi tezlanishlarni namoyon qildi. Ammo Intel protsessorlari Cell protsessorlariga qaraganda ancha yuqori tezkor faoliyatni ta‘minlaydi.

Xulosa

Ushbu tadqiqotda ishlov berilmagan ma‘lumotlar orasida bilimlar tuzilishiga olib keladi. Bu bilimlar qaror qabul qilishda qo‘llanilishi mumkin. Shu sababli so‘nggi yillarda «ma‘lumotlar bazasidan bilim olish» (knowledge discovery in

databases) yo'nalishi keskin suratlarda rivojlanib borayotganini yaqol misol sifatida ko'rishimiz mumkin.

Data Mining – bu «ishlov berilmagan» ma'lumotlar ichidan kerakli, ilgari taniqli bo'lmagan, amaliy jihatdan foydali va interpretatsiyaga loyiq bilimlarni topish jarayoni hisoblanadi. Bu bilimlar inson xayotining turli yunalishlarida qaror kabul qilish jarayonida muhim rol uynaydi.

Xususan, bozor savatchasining asosiy tushunchalari izohlangan, katta hajmdagi ma'lumotlar qayta ishlash va zarur axborotni samarali topishga imkon beruvchi Data Mining dastaklaridan biri sifatida assotsiativ qoidalar ko'rib chiqilgan. Yuqorida ta'kidlaganidek, assotsiativ qoidalarni izlash masalasi dastlab bozor savatchasini tahlil qilish uchun taqdim etilgan.

Assotsiativ qoidalar xaridlar, mijozlarning xohishlarini tahlil qilish, supermarketlarda tovarlarni joylashtirishni rejalashtirish, kross-marketing, manzilli jo'natishda xaridorlarning hatti-harakatlari bo'yicha segmentlashtirishda samarali qo'llanilmoqda. Biroq, ushbu algoritmlarning qo'llanilish sohasi faqatgina savdo bilan cheklanmaydi.

Tadqiqot natijalaridan kelib chiqqan ma'lumotlar yordamida parallelashtirishning umumiy usuli yaratildi.

Yuqorida ko'rsatilgan algoritmlarni ta'riflash uchun asosiy tushunchalari ifodalangan.

Bozor savatlarining yo'nalishlaridan amaliy misollar keltirilgan.

Cell va Intel protsessorlar bazasidagi hisoblash tizimi uchun moslashtirilgan bozor savatlarini tahlil qilish vazifalarini yechishning parallel algoritmi keltirilgan. Parallel algoritmlar to'plamni guruhlarga bo'lishi va hisoblash yadrolari bo'yicha bu guruhlarni tarqatish yo'li bilan erishilgan. Bunda savat to'plami har bir hisoblash yadrosiga uzatiladi.

Taklif qilingan algoritm samaradorligini ko'rsatuvchi hisoblash tajribalari natijalari keltirilgan.

Keltirilgan algoritm va model yordamida ko'pgina tajribalar o'tqazildi va tajriba natijalar asosida yakuniy xulosalar chiqarildi.

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O'zbekiston davlat jismoniy tarbiya va sport unversiteti Farg'ona filiali sport o'yinlari nazariyasi va uslubiyati assisent o'qituvchisi

MAKTABYUQORI SINIF O'QUVCHILARINING JISMONIY TAYYORGARLIGI

Annotatsiya. Farg'ona shahar umumiy o'rta ta'lim maktablari yuqori sinf o'quvchilarining jismoniy, tibbiy-biologik, psixologik tayyorgarlik-larini maxsus matematik–statistik usullarni yordamida pedagogik va ilmiy tahlil natijalari haqida ma'lumot bayon qilingan.

Kalit so'zlar: jismoniy tayyorgarlik, jismoniy tayyorgarlik darajasi, sport sinovlari, yugurish, uzunlikka sakrash, uloqtirish, tortilish, matematik–statistik usullar.

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PHYSICAL FITNESS OF HIGH SCHOOL STUDENTS

Annotation. Information on the results of pedagogical and scientific analysis of physical, medical-biological, psychological preparation of high school students of Fergana using special mathematical and statistical methods

Keywords: physical fitness, fitness level, sports tests, running, long jump, throwing, pull-ups, mathematical and statistical methods.

KIRISH

Yuqori sinf o'quvchilarning "Jismoniy tayyorgarlik darajasi" sport sinovlari test majmuasi asosida jismoniy tayyorgarligining boshlang'ich darajasini tahlil qilish va metodikasini takomillashtirish bo'yicha tavsiyalar ishlab chiqishdan iborat.

Yuqori sinftajriba guruhi o'quvchilarning "Jismoniy tayyorgarlik darajasi" sport sinovlari asosida jismoniy tayyorgarliklarini IV bosqich me'yorlarini topshirish natijalariga ko'ra boshlang'ich va yakuniy darajasini aniqlashda o'quvchilarning bajarish darajasini belgilash, shuningdek o'quvchilarning tayyorgarlik darajasining yangi me'yoriy talablariga muvofiqligini aniqlash.

ASOSIY QISM

Yuqori sinf o'quvchilarning harakat fazilatlarini rivojlantirish darajasini baholashning asosiy mezoni sifatida biz Farg'ona shahar umumiy o'rta ta'lim maktablarining yuqori sinf o'quvchilarida "Jismoniy tayyorgarlik darajasi" sport sinov testlar majmuasi bo'yicha tanlab olingan testlar asosida pedagogik nazorat

testlari ishtirok etdi. Pedagogik tadqiqotlar 2021 yilning dekabr oyidan 2022 yilning may oyigacha yuqori sinf o'quvchilarning baland va past turnikda tortinish (marotaba), tennis to'pini uloqtirish (m), joyidan turib uzunlikka sakrash (sm), 60 m masafaga yugurish (daqiq) va 1 daqiqa davomida arg'amchida sakrash(marotaba) test me'yorlari bo'yicha randomizatsiya (tasodifiy tanlov) orqali 57 nafar o'g'il bolalar hamda 57 nafar qiz bolalarning natijalari tahlil qilindi.

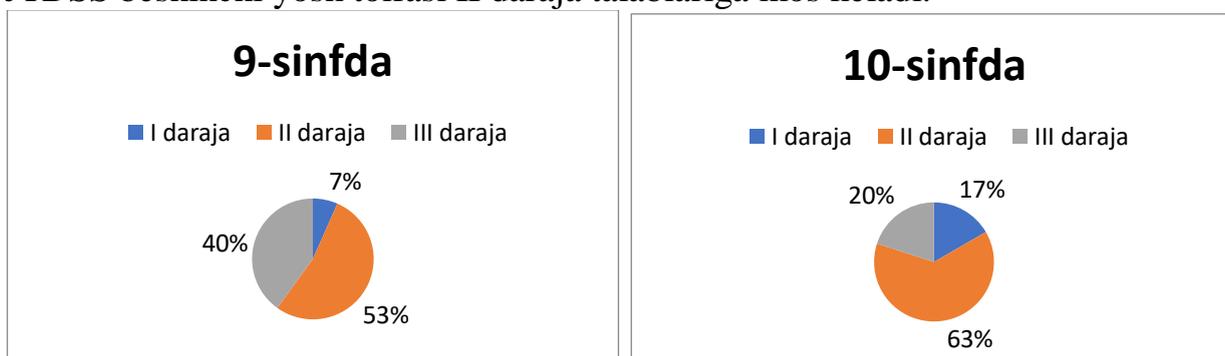
Yuqori sinf o'quvchilarning "Jismoniy tayyorgarlik darajasi" sport sinov test ko'rsatkichlarini matematik statistik uslublari yordamida tahlil natijalari jadvallarda keltirilgan.

Birinchi jadvalda keltirilgan ko'rsatkichlardan ko'rinib turibdiki, 9-sinfda va 10-sinfda o'quvchilar "Jismoniy tayyorgarlik darajasi sport sinovlari" testini 5-toifasi talablarini "60 m masofaga yugurish" sinovining III daraja topshiriq talablarini 9-sinfda o'g'il bollarning 40 foizi, 10-sinf da esa o'g'il bollarning 2foizi bajardi, II daraja topshiriq talablarini 9-sinfda o'g'il bollarning 43.3 foizi, 10-sinfda esa o'g'il bollarning 43.3foizi bajardi, I daraja topshiriq talablarini 9-sinfda o'g'il bollarning 5 foizi, 10-sinf da esa o'g'il bollarning 15 foizi bajardi. O'rta arifmetik qiymat 9-sinfda o'g'il bollari uchun ($\bar{x}=9.7$) qiymati J.T.D.S.S. beshinchi yosh toifasi III daraja talablariga mos kelgan bo'lsa, 10-sinfda o'g'il bollari uchun ($\bar{x}=9.2$) bu qiymatlar JTDSS beshinchi yosh toifasiII daraja talablariga mos keladi. "Joyidan turib uzunlikka sakrash" sinovining III daraja topshiriq talablarini9-sinfda o'g'il bollarning 36.6 foizi, 10-sinfda esa o'g'il bollarning 33.6foizi bajardi, II daraja topshiriq talablarini 9-sinfda o'g'il bollarning 46.6 foizi, 10-sinfda esa o'g'il bollarning 40 foizi bajardi, I daraja topshiriq talablarini 9-sinfda o'g'il bollarning 16.6 foizi, 10-sinfda esa o'g'il bollarning 56.6 foizi bajardi.



O'rta arifmetik qiymat 9-sinfda o'g'il bollari uchun ($\bar{x}=189.5$) qiymati J.T.D.S.S. beshinchi yosh toifasi III daraja talablariga mos kelgan bo'lsa, 10-sinfda o'g'il bollari uchun ($\bar{x}=205.8$) bu qiymatlar JTDSS beshinchi yosh toifasi II daraja talablariga mos keladi. "Baland va past turnikda tortilish" sinovining III daraja topshiriq talablarini9-sinfda o'g'il bolarning 33 foizi, 10-sinfda o'g'il bollarning 0foizi bajardi, II daraja topshiriq talablarini 9-sinfda o'g'il bolarning 53 foizi, 10-sinfda o'g'il bollarning70 foizi bajardi, I daraja topshiriq talablarini 9-sinfda o'g'il

bolarning 13.3 foizi, 10-sinfda o'g'il bollarning 30 foizi bajardi. O'rta arifmetik qiymat 9-sinfda o'g'il bollar uchun ($\bar{x}=8.1$) qiymati J.T.D.S.S. beshinchi yosh toifasi III daraja talablariga mos kelgan bo'lsa, 10-sinfda o'g'il bollar uchun ($\bar{x}=10.2$) bu qiymatlar JTDSS beshinchi yosh toifasi II daraja talablariga mos keladi. "Tennis to'pini uloqtirish" sinovining III daraja topshiriq talablarini 9-sinfda o'g'il bolarning 40 foizi, 10-sinfda o'g'il bollarning 20 foizi bajardi, II daraja topshiriq talablarini 9-sinfda o'g'il bolarning 53.3 foizi, 10-sinfda o'g'il bollarning 63.3 foizi bajardi, I daraja topshiriq talablarini 9-sinfda o'g'il bolarning 6 foizi, 10-sinfda o'g'il bollarning 16.6 foizi bajardi. O'rta arifmetik qiymat 9-sinfda o'g'il bollar uchun ($\bar{x}=33.4$) qiymati J.T.D.S.S. beshinchi yosh toifasi III daraja talablariga mos kelgan bo'lsa, 10-sinfda o'g'il bollar uchun ($\bar{x}=36.2$) bu qiymatlar JTDSS beshinchi yosh toifasi II daraja talablariga mos keladi.



"Bir daqiqa davomida arg'amchida sakrash" sinovining III daraja topshiriq talablarini 9-sinfda o'g'il bolarning 10 foizi, 10-sinfda o'g'il bollarning 30 foizi bajardi, II daraja topshiriq talablarini 9-sinfda o'g'il bolarning 56.6 foizi, 10-sinfda o'g'il bollarning 36.6 foizi bajardi, I daraja topshiriq talablarini 9-sinfda o'g'il bolarning 6 foizi, 10-sinfda o'g'il bollarning 16.6 foizi bajardi. O'rta arifmetik qiymat 9-sinfda o'g'il bollar uchun ($\bar{x}=33.4$) qiymati J.T.D.S.S. beshinchi yosh toifasi III daraja talablariga mos kelgan bo'lsa, 10-sinfda o'g'il bollar uchun ($\bar{x}=36.2$) bu qiymatlar JTDSS beshinchi yosh toifasi II daraja talablariga mos keladi.

XULOSA

Shuni ta'kidlash kerakki, "Jismoniy tayyorgarlik darajasi sport sinovlari" test majmuasining 5 toifasi I darajasime'yoriy talablariga javob beradiganlarning foizi juda kam. Yangi "Jismoniy tayyorgarlik darajasi sport sinovlari" test majmuasining standartlarini amalga oshirish natijalariga ko'ra test me'yorlarini topshirgan 9 "A"-sinf o'quvchilarining jismoniy tayyorgarligining boshlang'ich darajasi yuqori emas edi, misol uchun 9-sinfda 3 bahoga 38 % o'quvchi topshirgan bo'lsa, 10-sinfda 3 bahoga 17 % o'quvchi topshirda demak 21 % ga o'sish bor, 9-sinfda 4 bahoga 45 % o'quvchi topshirgan bo'lsa, 10-sinfda 4 bahoga 50 % o'quvchi topshirda demak 5 foizga o'sish bor, 9-sinfda 5 bahoga 17 % o'quvchi topshirgan bo'lsa, 10-sinfda 5 bahoga 33 % o'quvchi topshirda demak 26 % ga o'sish bor.

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INTERNATIONAL METHODS USED IN TEACHING FOREIGN LANGUAGES: SIMILARITIES AND DIFFERENCES OF AUDIOLINGUAL AND TOTAL PHYSICAL RESPONSE METHODS AND THEIR PRACTICAL APPLICATION

Abstract. This article talks about the international methods that are widely used in teaching foreign languages today, what is their purpose, and how they are put into practice, with the help of examples. In the example of two different methods, the similarities and differences between them and the skills they can develop are discussed.

Keywords: Foreign languages, Huebner, Rivers, audiolingual method, total physical response method, speaking, pronunciation, physical movements.

Introduction

A student who begins to learn foreign languages, first of all, pays great attention to increasing vocabulary. The reason is that the more vocabulary you have in a certain language, the more you will be able to speak that language freely. After all, the main goal of learning a language is to communicate effectively with people around you, including being aware of the news and discoveries happening in around the world, and having the opportunity to become a part of them. As noted, speaking skills are of great importance to foreign language learners, and together with writing skills, it serves as a pillar of the language. Huebner (1969:203) stated that speaking is the most important aspect of communication and is the most used unit in our life compared to reading and listening. According to Rivers (1964), the ability to speak ensures the expression of a person's thoughts, views and feelings. Audiolingual and total physical response methods used in teaching foreign languages are also one of the methods that support the above-mentioned ideas.

As for the audiolingual teaching method, this method is based on oral speech and has a strong theoretical base. Audiolingual method develops speaking and listening skills in learners and expands available opportunities. Since the audiolingual method is based on repetition, it also strengthens the ability to memorize a certain amount. In addition, language teaching and learning through the audiolingual method is a basement for correct pronunciation.

The total physical response method is a vocabulary-based method that mainly teaches words by demonstrating physical movements. This method also makes a significant contribution to strengthening the memory of students. Words in a foreign language are kept in the student's memory for a long time because they are explained with the help of movement.

In the audiolingual method, students are first introduced to words, phrases and sentences. Words that are unfamiliar to them are explained in definitions or in

the languages of which the learners are native speakers. After that, the teacher pronounces sentences in a foreign language in turn. After one full explanation, students gradually begin to pronounce on their own. In this process, the teacher pays attention to the pronunciation of each student and checks them. If he notices a deficiency in someone, he will help them learn the words that they have difficulty mastering in the case of individual work with this student. This process is repeated until the students have completely and accurately mastered the words in the given text or dialogue.

Since the total physical response method is also based on the repetition of words, in this method we can encounter the same processes as in audiolingual. That is, in this method, the teacher starts to teach his students the words, first of all, when he pronounces them clearly. But in this process, another additional action is added: Words are shown using actions. In stage 1, only the teacher pronounces the words and only a few students follow him with the appropriate actions. In the next stages, the rest of the students also take an active part in the process.

Analyses and Results

The practical research of language teaching with the help of audiolingual and total physical response methods is brought to practice through classes. A lesson using the Audiolingual method will be like this. First of all, the teacher presents a certain text to the students. Texts in the form of a simple dialogue are the most convenient for implementing this method:

- Hello, Mary.
- Hello, Anna. How are you?
- Good, are you okay?
- Not bad. The weather is very nice today, isn't it?
- Yes, you are right. I want the weather to be the same tomorrow.

Based on the dialogue given above, language teaching is carried out using the audiolingual method. First of all, the teacher himself reads (tells) the entire text. After that, he begins to repeat the text step by step with the students. Individual approach to each student is important. Therefore, if the teacher returns the text with the whole class at the beginning of the process, he will do this with small groups at the next stages. In this way, he works one-on-one with those who struggle with pronunciation or make mistakes in groups. Now only these learners repeat words and phrases. The teacher will continue to work until the difficulties faced by them are eliminated. Until all the students pronounce the words clearly and fluently, the rest of the text is not allowed to be pronounced. That is why this method has a significant effect on strengthening the memory of students.

In the total physical response method, the teacher teaches certain words by showing actions corresponding to them. These words are often composed of phrases in the tone of command or direction, each of which, when returned, requires a specific action to be performed. For example, together with saying and repeating elementary words such as stand up, sit down, jump, walk, stop, point to the door, point to the chair, point to the desk, actions are also performed. First, the teacher

chooses 2 or 3 volunteers from among the students. The words are spoken only by the teacher, and the actions are performed together with volunteer students by the teacher's signal. This process is repeated several times. Now the range of commands has expanded, and the words given by the teacher have increased. Students follow the same commands as before: stand up, sit down, turn around. Over time, the number and order of words changes. The teacher starts saying the words in a random sequence, faster than the previous ones. Now the teacher chooses one person from among the volunteers to carry out his orders alone and starts to say the words quickly and without a certain order. At the next stage, the class watching them is involved in the process. Each word taught up to this point is repeated and similar actions are performed. After all the students in the class have mastered these words, they will move on to the next level. Now the teacher gives commands that the volunteers have not encountered before. Selected students begin to follow the command with some confusion. The teacher performs actions using not only simple, but also complex sentences.

At the last stage, the teacher writes new words on the board that are different from the previous ones and shows actions. Students copy these words in their notebooks.

That's the end of the lesson. After a while, the same learners are tested. Although they did not speak at all in the lesson, they followed the instructions to the teacher and the students by using the words taught. This shows that the intended result has been achieved through memorization.

Discussions

Audiolingual and total physical response methods have several similarities and differences. In particular, both the teacher and the student participate equally in the mentioned methods. All of them perform a certain task. As for the different aspects, in the audiolingual method not only the teacher but also the students speak. In the total physical response method, speaking is done only by the teacher. In addition, if whole texts are used in the audiolingual method, only small commands are executed in the total physical response and almost all of them consist of movements (actions). In both of them, the necessary materials for teaching are only blackboards, unlike other methods, special textbooks or manuals are not used. In both methods, the learning process takes place relatively quickly, and the result begins to be seen within a short period of time.

Conclusion

Several new methods of language teaching have been created in the modern education system and are being actively used by pedagogues and researchers around the world. Each of them is divided into several categories depending on the age, level of knowledge and learning ability of each student. Audiolingual and total physical response methods are included among such methods and play a major role in teaching. These methods differ from each other and are used in different situations during the lesson. But at the same time, there are certain similarities between them, which serve as important research sources.

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LAKES AND THEIR FORMATION: AYDAR-ARNASOY LAKE SYSTEM

Abstract. The article contains information about the methods of lake formation and the history of the Aydar-Arnasoy lake system in the territory of Uzbekistan.

Key words. lake, Mirzachol, Kyzylkum, Tuzkon, Aydar-Arnasoy lake system (AALS)

Introduction. Lakes are water bodies located far from the sea, filling depressions on the surface of the earth. These depressions are called basins. The lakes were formed as a result of water flowing into the lower areas. They are filled mainly by rain and snowmelt. Water enters the basin through streams, small and large rivers, underground springs and groundwater. It is found in all climatic and landscape zones of the Earth - hot, temperate and cold, with a lot of rain or in arid regions. Depending on whether the water flows out or not, flowing and non-flowing Lake, according to salinity, fresh, brackish, salty and very salty (bitter) Lake, according to the chemical composition of salts, hydrocarbonate and carbonate (HSO_3+SO_4), sulfate (SO_4), divided into chloride (Cl) Lake. The shape and size of the lake changes as a result of siltation and formation of banks.

Methodology. Lakes actively influence the state of nature. They can manage surface runoff, that is, collect water in wet periods of the year and release it to rivers in dry periods, and collect mineral and organic substances that are repeatedly recycled during limnic processes that flow from the catchment with surface and underground water [1].

Hydrological indicators, physical and chemical properties of water, in turn, life activities determine the conditions of development of aquatic animals and plant organisms, which have a significant impact on the natural complex of the lake. In this case, Lakes appear as a complex ecological system reflecting the characteristics of their location.

Lake basins are formed in several ways. For example,

1. Lakes were formed as a result of cracking and deformation of the earth's crust.
2. Sometimes volcanoes are the cause of the formation of lakes - the flow of lava can block the flow of water in valleys and form a basin.
3. Sometimes the crater of an extinct volcano is filled with water.
4. Many lakes occupy basins formed as a result of glacial erosion.

5. On the coast, waves and coastal currents sometimes separate narrow bays from the sea, and over time, bays and river bottoms form lakes.

6. Sometimes the main flow of the river can collect sediment (mud and soil) during the flood and build a valley for itself. As a result, tributary valleys fill up and form lakes. In places where there is limestone under the soil, groundwater dissolves it and carries it away, resulting in the formation of lakes in the place of large underground cavities.

7. In addition, lakes can be created artificially. If a dam is built on a river, it will block the flow of water and result in the formation of a lake.

There are about 250 lakes in Uzbekistan. They are mainly located in the Syrdarya and Amudarya valleys, the Khorezm oasis and the Amudarya delta. According to classification, there are 2 types of lakes in Uzbekistan: 1) mountain, lake, 2) plain Lake

The greater location of lakes in mountainous regions depends on climatic and morphological-hydrographical characteristics, because mountains serve as moisture accumulators that form the flow of rivers.

Due to the uneven distribution of lakes in the territory of Uzbekistan, the extreme diversity of the main natural factors (climate, relief, geological structure and flow) affecting their damage. It was formed as a result of the dryness of the climate of the plains, where large lake areas in the plains, a large number of flowing river waters are formed, and adjacent to the more humid mountains.

Typical representatives of Tekislik Lake: Arnasoy lake system, Dengizkol, Sudochoye, Zarafshan and the lower part of Kashkadarya. Plain The lake is located in the banks of rivers and around irrigated areas. Recently, the plain has been affected by the pollution of all Lake collector-drainage waters in the region. Some non-flowing irrigation-waste Lakes, whose water supply is mainly due to runoff from irrigated fields, are in particularly unfavorable conditions. The bed and bed of some non-flowing lakes move from time to time.

Results and discussion. The Aydar-Arnasoy lake system in the territory of Uzbekistan is a large closed lake in the north-eastern part of Uzbekistan, located in the territory of Jizzakh and Navoi regions. Lake Arnasoy is considered an artificial water reservoir in the system of lakes.

Here, if we take a look at the history of the Aydar-Arnasoy lake system (AALS), before the development of Mirzachol, the place where the lake was formed, in the Aydar salt marsh, consisted of a 20-30 cm layer of salt. deposits were available. Later, as a result of the exploitation of Mirzachol, the lake gradually began to appear as a result of the discharge of water from the ditch. The volume of the lake increased due to the water released from the Chordara reservoir in 1969, when there was a lot of precipitation, and since then the water volume has been 21 km³. In 1969, due to the release of 20 km³ of water from the Chordara reservoir, the water level of Tuzkon lake (which used to supply the population with salt) rose by 10 meters, the water level of Aydar lake rose by 22 meters, and the total area of

the lake system was 2172 km². organized. According to the data, the lake occupied the large Aydar salient at the same time

Haydarkol (also known as Lake Haydar and Lake Aydar) is a lake at the Himalayan foothills of the Nurota range. Haydarkol was created in the late 1960s mainly due to excess water flowing from the Chordara reservoir in South Kazakhstan. The lake is located in the territory of Jizzakh and Navoi regions. The northern shores of Haidarkol are adjacent to the Eastern Kyzylkum. Until 1969, small salt lakes and salt marshes were common in Haidar shorkhogi (bog). Some scientists consider Haidar shorkhag to be an ancient riverbed of Syrdarya.

Due to excessive rainfall in 1968-69, a part of the Syrdarya flow (about 21 km³) was discharged through the Chordara Reservoir and Arnasoy into the Aydar bog, because the Syrdarya basin could not contain so much water to discharge into the Aral Sea. it was Haydarkol (Lake Aydar) was formed in this way[2].

Tuzkan is a saltless lake located in Forish District of Jizzakh Region. Tuzkan is the second lake in Uzbekistan after Aydarkul. Arnasoy belongs to the system of lakes and occupies the eastern part of Kyzylkum desert.

Aydar and Arnasoy lakes, formerly known as Tuzkon, are united and are called the Aydar-Arnasoy lake system. These lakes are the fourth largest in Central Asia. Experts say that the water collected in this system of lakes is two times more than the volume of water in all reservoirs in Uzbekistan. Currently, the total area of the Aydar-Arnasoy lake system is 370,000 hectares, its length is 190 kilometers, and its average width is 21 kilometers. The deepest part is 30 meters, the average depth is 7 meters.

Aydarkol is fed by the flow of Akbulok in Jizzakh region, the Qili discharge of the Sangzor river, Chordara reservoir and the Central Mirzachol discharge flowing into Arnasoy.

Groundwater flowing into the negative part of the water balance of the Aydar-Arnasoy lake system is also included. They come from Nurota mountains, Kyzylkum desert, Mirzachol and Shardara reservoir. The water balance is the amount of precipitation that falls on the surface of lakes for a relatively large part of the inflow side. Due to the fact that the Aydar-Arnasoy lake system stretches from west to east, the amount of precipitation slightly increases from west to east. The output part of the water balance of lakes consists of water that evaporates from the water surface and water that seeps into the ground.

Summary. Thus, in 1969, during the severe winter season, thick snow fell and in March, snow melt formed in the area of the texel, and in the same year, a certain part of water was released from the Chordara reservoir, and it appeared as a result of the water leaving the banks of the Syrdarya. This Aydar-Arnasoy lake system is now turning Kyzylkum into a swamp.

The "Pearl of the Desert", that is, the Aydar-Arnasoy lake system, located in the territory of Jizzakh and Navoi regions, is distinguished by its unique nature, living flora and fauna. One end of it stretches over the desert, steppe and hills of

Arnasoy, Zafarabad, Mirzachol and Farish districts of Jizzakh region, and rests on the deserts of Nurota district and Qizilqum of Navoi region.

Seeing the huge Aydarkol lake in the middle of the desert is a surprise for every tourist. On the shores of Aydarkol, you will see blooming tulips and acacia, water birds, storks and pelicans. People come here to relax from civilization, to fish. Not far from the lake there are resorts where you can stay in comfortable houses, ride camels, visit archeological sites.

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EFFECTS OF MOTOR TRANSPORT EXHAUST GASES ON THE ENVIRONMENT AND HUMAN HEALTH

Annotation. Transport in atmospheric pollution in recent years the weight of the means is increasing. Because cars, planes, locomotives, agricultural machinery, etc. in very large quantities expelling oxygen into the atmosphere (containing about 200 toxic various gases (carbon monoxide, nitrous oxide, hydrocarbons, toxic compounds of lead, dust, dry and others) and pollute it. The atmosphere of cars the world in addition to polluting the air with various toxic gases 3-4 times more oxygen than the population needs to breathe consumes oxygen. 20-30 per year for a car engine consumes the oxygen that a person breathes throughout the year.

Keywords: gas, nitrogen oxide, hydrocarbons, lead compounds, dust, dryness, smog.

Introduction. There are many harmful gases and factors that are released as a result of the activities of various large industrial enterprises, plants and factories, motor vehicles, and other institutions of the national economy. Some people think that these gases that are produced will disappear by themselves. Actually it is not. Some of the ingredients of atmospheric emissions circulate in the environment for many years.

Methodology. In Uzbekistan, the annual emissions from permanent (stationary) sources into the atmosphere reach 1.3 million tons. In particular, sulfuric anhydride is 535,800 tons, hydrocarbons are 427,000 tons, nitrogen oxides are 94,100 tons, and solid particles are 317,400 tons. Due to the complications of these harmful substances, diseases have increased 1.5 times in the cities of Uzbekistan, including: blood-related diseases 4.8 times, endocrine diseases 2.3 times, increased blood pressure 4.8 times, ischemic heart disease 2.5 times, bronchial asthma increased by 20 percent. It is observed that the power (immunity) of the children's body to fight against infectious diseases has decreased by 25-37 percent [1].

Since vehicles are one of the main factors that pollute the air in the city, any goal can be achieved by using various technological processes to reduce the toxicity of the air they pollute or to determine the total amount of waste emitted into the air. However, the failure of exhaust gas measuring devices in many motor transport enterprises and organizations of passenger transport, and the fact that they are used

without passing metrological inspection on time, shows that this issue is still neglected.

Currently, the level of environmental pollution from industrial waste in developed countries has decreased by 10-15 times compared to 10-15 years ago. This is the result of work being done to protect the environment from toxic gases and fumes.

A number of successes are being achieved in our country in this regard in the fight against the factors that have a negative impact on human health. In particular, the decree of the President of the Republic of Uzbekistan "On approval of the concept of environmental protection of the Republic of Uzbekistan until 2030" of October 30, 2019, No. Resolution No. 541 of September 7, 2020, Resolution No. 95 of February 18, 2020 "On Approval of the General Technical Regulation on Environmental Safety" was issued. In them, among other issues, measures aimed at reducing the level of atmospheric air pollution of toxic gas emissions from motor vehicles are clearly defined[2,6].

Results and discussions. Let's look at the amount of toxic gases that pollute the atmospheric air of vehicles.

Internal combustion engines using gasoline and diesel fuel toxic gases from the chimney (per 1000 liters, kg)

Composition of exhaust gases	Type of motors	
	Benzene fuel	Diesel fuel
Gas	27	7,4
Hydrocarbons	24	16
Nitrous oxide	13,5	26,4
Aldehydes	0,5	1,2
3.4benz(a)pyrene	$7,2 \cdot 10^{-1}$	$10,5 \cdot 10^{-1}$
Sulfite anhydride	1,1	4,8
Organic acids	0,5	3,7
Solid particles	1,4	13,2
Lead	0,4	-

Some of the toxic gases released into the atmosphere by this motor vehicle undergo photochemical reactions under meteorological conditions. Nitric oxide breaks down to nitric oxide, resulting in atomic oxygen (oxygen). Aldehyde and ketones generate radicals. Reactions of this type contribute to the origin of the second reactions, resulting in the formation of a complex mixture of gases and acids with a highly toxic composition. These chemicals form photochemical smogs as a result of accumulation in atmospheric air under certain meteorological conditions. Smog (a mixture of toxic substances) causes inflammation of the mucous membranes of the eyes and throat, dries up plants, makes it difficult to see, and in most cases causes unpleasant consequences[7].

According to estimates, every year 1 car takes an average of 4 tons of oxygen from the air and emits 800 kg of carbon dioxide, 40 kg of nitrogen oxides and about 200 kg of various toxic substances, including hydrocarbons. Considering that there

are more than 500 million cars in the countries of the world now, we can be sure that the amount of pollutants emitted into the atmosphere is very large. Motor vehicles pollute atmospheric air by 45.7% with nitrogen oxides and 42% with hydrocarbons. 75.5 million tons or 78% of about 100 million tons of carbon dioxide emitted into the air on Earth in one year are caused by motor vehicles. 60% of urban air pollution with toxic gases is caused by automobile transport.

If we consider the effect of exhaust gas from internal combustion engines that use only gasoline or diesel fuel, it is a colorless toxic gas produced by incomplete combustion of various fuels, and it is present in large quantities in the exhaust gas of internal combustion engines. Carbon monoxide enters the body through the respiratory tract and combines with hemoglobin in red blood cells to form carboxyhemoglobin. This substance cannot bind oxygen, as a result of which there is a lack of oxygen in tissues and cells, first of all, in nerve cells.

In addition, the harmful gases in the air can directly enter the respiratory tract, enter the alveoli of the lungs, blood, or combine with moisture in the mucous layer and inflame it [3,4,5].

Conclusion. There are several measures aimed at preventing artificial pollution of the atmosphere, the most important of which are:

- ✓ It is very important to reduce vehicle gases and fumes. In order to reduce the amount of toxic gas emitted from the car, it is necessary to strictly observe their technical condition and fuel flow to the engine;

- ✓ Regular monitoring of air cleanliness in cities and industrial centers is of great importance in keeping the air of cities clean;

- ✓ In order to protect the atmospheric air from motor vehicle emissions, to ensure that the city's main roads and sidewalks are in order, to establish order at the intersections, to properly change the city construction projects in order to set the traffic on the right track;

- ✓ Expansion of the area of green plants. Green plants filter dirty air, trap dust in their leaves, absorb carbon dioxide and produce oxygen. Transfer a large number of ornamental trees to the streets, such as juniper and chestnut trees (they release phytoncide from themselves and ensure the destruction of toxic microorganisms);

- ✓ It is necessary to increase the number of underground roads, especially at the junctions, to prevent traffic congestion.

- ✓ From the houses near the road, the low-rise ones should be in the front row, then the high-rise houses, and the kindergartens and school buildings should be placed behind them. Only then will we be able to protect people from the toxic gases of motor vehicles.

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PROBLEM EDUCATION AND METHODS OF ITS APPLICATION IN THE LESSON PROCESS

Abstract. An important aspect of organizing and conducting problem-based training is that the teacher must have a good understanding of both its educational and educational functions. A teacher should never give students a ready-made truth (solution), but should motivate them to acquire knowledge, help them to mentally process the information, event, time and events necessary in training and life activities.

Key words. problem-based education, pedagogical skills, seminar, student discussion, didactic.

Introduction. Today, problem-based teaching means problem situations created by the pedagogue during classes and active independent activity of students aimed at solving them. As a result, students acquire professional knowledge, skills and abilities, and develop thinking skills.

Methodology. Problem-based teaching is the most effective method of teaching, based on the theoretical rules of the American philosopher, psychologist and pedagogue J. Dion, and began to spread in the 20s and 30s of the 20th century. In this case, the pedagogue creates a problem situation, directs the student to solve it, organizes the search for a solution [1]. Management of problematic teaching requires pedagogical skills, because the emergence of a problematic situation is an individual situation and requires a differentiated and individualized approach.

The following common methods of creating a problematic situation are noted in the literature:

- to set problematic tasks to explain the nature of events, studied concepts;
- setting a problematic task to find methods of practical application of acquired knowledge;
- encourage students to explain conflicts and inconsistencies between events and facts;
- to encourage the analysis of facts and events that cause conflict between scientific concepts and life imaginations;
- encourage students to compare and contrast facts, events, actions, conclusions;
- to acquaint students with seemingly incomprehensible facts that caused a scientific problem in the history of science [2,3,4].

Result and discussion. It is known that any teaching is based on certain laws of human activity, personality development and the principles and rules of pedagogical science formed on their basis. The process of cognitive activity of a person is based on the objective laws and the didactic principle of solving logical cognitive conflicts.

Being able to get out of a problematic situation is always connected with the understanding of the problem, that is, what is unknown, its verbal expression and solution. If we analyze the problem situation mentally, it is primarily the independent mental activity of students. It leads the student to understand the reasons that caused intellectual difficulties, enter into it, express the problem in words, that is, define active thinking [5,6].

An important aspect of organizing and conducting problem-based training is that the teacher must have a good understanding of both its educational and educational functions. The teacher should never give students a ready-made truth (solution), but should motivate them to acquire knowledge, help them to process the information, event, time and event in their minds that are necessary in training and life activities.

Thus, the task of problem-based teaching is to help students effectively master the system of knowledge and the methods of mental and practical activities, in them is to create the skills of creative application of the knowledge acquired in a new situation, independence of knowledge and solving educational and educational problems.

When organizing a problem situation, it is necessary to take into account the following didactic goals:

- attracting students' attention to the educational material
- to arouse their interest in learning
- revitalizing cognitive activity of students, bringing them to the challenges of intellectual tension,
- it is necessary to be able to demonstrate that the current knowledge, skills and abilities acquired by students cannot satisfy the knowledge requirements that will arise in the future, and to help students analyze educational problems and determine the most rational ways to solve them [7,8].

Seminars can be held in order to ensure the quality of problem-based teaching at the required level, to deepen and expand the knowledge of the information acquired by students. It is known that the primary purpose of conducting such a seminar is to discuss a lecture or information as a group. The effectiveness of the seminar depends on the quality of the students' preparation. It is especially important to work with students preparing lectures and information. Preparation of students for the seminar is organized step by step.

At the first stage, the teacher defines the subject of the student's seminar. When choosing a topic and preparing a future lecture or information, one should not treat them as just a teacher or student, but to make them think about the importance and relevance of the topic discussed in the seminar, to study it in depth

in order to successfully master the subject later. it is necessary to realize the necessity, to be able to plan the current social and scientific problems of the future professional activity. In order to save time and speed up organizational work, it is necessary to recommend to students the literature on the subject, as far as possible, indicating the topics, paragraphs and pages. At the first stage of preparing students for lectures and information, the task of making a detailed plan of the report on its topic is assigned.

In the second stage, during the preparation of the students for the lecture, the teacher discusses with them the plan of the abstract, corrects some of its parts. This, in turn, allows you to quickly correct, clarify, fill in the initial thoughts, and it ultimately increases the quality of the future lecture.

In the third stage, the teacher gets acquainted with the content of the abstract prepared by the student. If necessary, ask him questions, and the student should make appropriate corrections after this conversation. It is also necessary to ask such questions that the student should answer these questions in his speech. At the same time, it is better to discuss the student's presentation style at the seminar.

Such a seminar activity usually begins with a reminder to connect the essence and relevance of the discussed topic with the lecture material. After that, students are activated to discuss the studied issue, it is determined that they can demonstrate their knowledge. This is done in two ways: either in the form of an interview based on short-answer and pre-prepared questions, or by monitoring based on remedial test questions.

Experiments show that this method of revealing both knowledge is a quick method and is an important and effective condition for conducting this stage of the seminar. In the process of eliciting students' knowledge, it is determined that their acquired knowledge is sufficient for participation in subsequent seminars and discussions. If the students' knowledge is not enough even after the discussion, it will be explained through the teacher's statement or in the form of an individual conversation with the student. It is better to use one of them if it works. The next option can be relatively effective.

Conclusion. By applying the problem-based learning method in each lecture (seminar) lesson, students (pupils) will be able to develop a special approach to the assigned homework. Problem-based education leads the student to understand the reasons that caused intellectual difficulties, enter into it, express the problem in words, that is, define active thinking. As a result, students acquire professional knowledge, skills and abilities, and develop thinking skills.

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INNOVATIVE TECHNOLOGIES IN THE EDUCATIONAL PROCESS

Abstract. Today, the interest and attention to the use of innovative technologies, pedagogical and information technologies in the educational process is increasing day by day, one of the reasons for this is that until now traditional education has If students are taught only to acquire ready-made knowledge, modern technologies teach them to find the acquired knowledge by themselves, to study and analyze independently, and even to draw their own conclusions.

Key words. education, innovative technologies, pedagogy, information technologies, teacher.

Introduction. At the moment, serious changes are being made in the field of education in our country. Today, all areas of the life of New Uzbekistan have become a field of deep reforms. In this process, it is impossible not to talk about changes in the education system. In recent years, practical work on the organization of the education system based on modern requirements has entered a decisive stage in our country. This is the main goal of all work on the fundamental reform of the education sector. In this regard, the Ministry of Innovative Development, which was established at the initiative of the President, has been fulfilling the role of a necessary assistant to educational institutions. After all, in the "Strategy for innovative development of the Republic of Uzbekistan in 2019-2021" [1], the Ministry of Innovative Development is instructed to introduce new educational programs, modern pedagogical technologies and smart technologies into the educational process in educational institutions. The task of further improving the quality of education (organization of electronic modules and introduction of distance education) has been assigned. The Ministry of Innovative Development has carried out a number of works on the development of the education system in the republic. A number of such changes are being implemented in the field of education in our country.

Methodology. One of the urgent tasks of the modern science methodology is to direct the teacher to the systematic introduction of educational technologies. From this point of view, it is important to combine various types of educational technologies, to focus on the formation of the teacher's skills of data search, collection and analysis, as well as to carry out research activities and solve problems.

Innovation in education means a purposeful process of partial changes leading to changing the purpose, content, methods, and forms of education and training, adapting the educational process to new requirements. They are an important active element of the development of education in general, the implementation of specific tasks in the educational process [2,3]. In this regard, first of all, attention is paid to the functions of education: whether we want it or not, the value orientations have changed, the forms, methods, and technologies of the educational process need to be changed and developed. Therefore, innovations do not appear by themselves, they are the result of scientific research and advanced pedagogical experience of individual teachers and entire teams.

In the professional literature, the following stages of pedagogical innovations are defined:

- ✓ introduce the person to pedagogical innovations;
- ✓ emergence of interest;
- ✓ assumptions;
- ✓ approval;
- ✓ final perception.

Any pedagogical technology must meet the main methodological requirements (production criteria), including: conceptuality, consistency, management ability, efficiency, reproducibility, visualization [4].

Therefore, innovative activity in the science of pedagogy is a purposeful pedagogy based on understanding (reflecting) one's practical experience by comparing and learning, changing and developing one's own practical experience, achieving better results, gaining new knowledge. activity is understood. Every teacher should try to direct the educational process to the student as the main subject of the educational process, in which modern innovations in the educational system will help the teacher [5,6].

In the modern information society, it gives every student access to the global Internet network, the role of the teacher from a simple "interpreter of knowledge" turns into "interpreter of experience" and "interpreter of meaning". The teacher should develop the student's initiative, creative search and independence in decision-making in relation to cooperation and communication [7].

Thus, it can be argued that pedagogical innovations are the result of creative search for original, non-standard solutions to pedagogical problems.

Results and discussion. Each educational technology used in the teaching process to achieve a guaranteed result on the goal can organize a cooperative activity between the teacher and the student-student, both of them can achieve a positive result, educational in the process, the teacher-students can think independently, work creatively, search, analyze, draw their own conclusions, evaluate themselves, the group, and the group evaluates them, and the teacher can create opportunities and conditions for such activities. In our opinion, this is the basis of the learning process.

Today's teacher, despite being a connoisseur of his profession, must be in tune with the times. Today's young people are curious and can use new technologies very well. Making them interested in the lesson, organizing the lesson interestingly using innovative technologies and interactive methods in the course of the lesson requires a great responsibility from the teacher. Today's modern teacher should be able to use information communication technologies (ICT) in his lesson. Organizing the lesson process on the basis of innovative technologies makes the lesson process interesting, makes students active and helps them learn the lesson quickly.

Each lesson, topic, educational subject has its own technology, that is, pedagogical technology in the educational process is an individual process, which is directed, designed in advance and guaranteed based on the needs of the student. is a pedagogical process aimed at giving results[8,9].

Therefore, nowadays, the interest and attention to the use of innovative technologies, pedagogical and information technologies in the educational process is increasing day by day, one of the reasons for this is that until now traditional If in education students are taught to acquire only ready-made knowledge, modern technologies teach them to find the acquired knowledge by themselves, to study and analyze independently, and even to draw their own conclusions. In this process, the teacher creates conditions for the development, formation, learning and upbringing of the individual, and at the same time performs the functions of management and direction.

Conclusion. Getting acquainted with the teaching methods in educational institutions, we can say that time, including the educational process, does not stop. New times dictate new rules. New educational programs help to introduce innovative technologies into the educational process. With their use, training will be more interesting and brighter. Encourages students to improve the quality of education and achieve certain educational results. Undoubtedly, innovative teaching methods have advantages over traditional methods, because they contribute to the development of the student, teach him independence in knowledge and decision-making.

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USING INTERACTIVE METHODS FOR TEACHING ENGLISH TO PEDAGOGICAL STUDENTS

Annotation. This article aims to ensure the formation of intercultural competences of students of higher education institutions through the use of interactive methods in the formation of professional communication of pedagogic students, and theoretical views were studied through literature analysis. The analysis of the methods, methodical systems, approaches, concepts reflected in language teaching in higher education institutions in the field of pedagogy was determined. Also, the article describes the types of interactive methods in detail.

Key words: interactive methods, role-play and simulations, Interactive Whiteboard Activities, Language Games and Puzzles.

Introduction. The new benchmark for involving generations in the education of future generations is interactive learning. It is about giving kids a thorough education that seeks to reinforce the information they learn by giving them examples and real-world experience in addition to a theoretical level of instruction. This teaching strategy's primary goal is to guarantee that pupils really comprehend the material rather than merely memorization and repetition. Beyond a broad range of abilities and academic benchmarks, interactive learning offers other advantages.

If we speak about games we know there are a lot of interesting and active, easy games to use in lessons. Games can be used as an ice-breaker or warm-up at the beginning of class, as an introduction activity for new vocabulary or grammar, as a review exercise at the end of a lesson, chapter or before an exam. If we are still uncertain of what to teach English learners you may want to use or how to go about making them work for our classroom, perhaps the following examples may help us [1, 24]. Using interactive methods for teaching English to pedagogical students can enhance their learning experience and prepare them to incorporate similar strategies in their future classrooms such as role-play and simulations, Interactive Whiteboard Activities, Language Games and Puzzles. Here are several interactive teaching methods tailored for this purpose:

1. **Role-Playing and Simulations:** Engage pedagogical students in role-playing scenarios relevant to teaching English. For example, they can take on roles as teachers and students in simulated classroom settings, practicing language instruction, classroom management, and communication strategies.

2. **Peer Teaching and Collaborative Learning:** Encourage pedagogical students to work in pairs or small groups to teach each other English language

concepts. This fosters collaboration, peer support, and active participation, while also allowing students to develop their teaching skills and receive feedback from their peers.

3. Interactive Whiteboard Activities: Utilize interactive whiteboards or digital platforms to create engaging language learning activities. Students can interact with multimedia content, participate in interactive quizzes, and collaborate on virtual projects, enhancing their language skills in a dynamic and technology-enhanced environment.

4. Language Games and Puzzles: Integrate language games, puzzles, and interactive activities into English lessons to make learning enjoyable and stimulating. Games such as word scavenger hunts, crossword puzzles, and vocabulary bingo can reinforce language concepts while promoting active engagement and friendly competition.

5. Flipped Classroom Approach: Implement a flipped classroom model where pedagogical students review English language materials independently outside of class and engage in interactive activities, discussions, and application exercises during class time. This approach maximizes in-class interaction and facilitates deeper understanding through active learning experiences.

6. Multimodal Projects and Presentations: Assign multimodal projects that require pedagogical students to create presentations, videos, or digital stories in English. This allows them to practice language skills in authentic contexts, while also developing creativity, digital literacy, and presentation skills.

7. Socratic Seminars and Debates: Facilitate Socratic seminars or debates on relevant topics in English language education. Pedagogical students can engage in critical thinking, analysis, and discussion, while also improving their oral communication and argumentation skills in English.

8. Real-World Tasks and Experiences: Integrate real-world tasks and experiences into English lessons to make learning meaningful and practical. For example, students can conduct interviews, participate in community language events, or engage in service-learning projects that involve using English in authentic contexts.

9. Interactive Online Platforms: Utilize interactive online platforms and resources designed for language learning, such as language learning apps, virtual language exchange programs, and online discussion forums. These platforms offer opportunities for autonomous learning, peer interaction, and language practice outside of the classroom.

10. Reflective Discussions and Feedback Sessions: Facilitate reflective discussions and feedback sessions where pedagogical students can reflect on their learning experiences, share insights, and provide constructive feedback to their peers. This promotes metacognitive awareness, self-assessment, and continuous improvement in English language learning and teaching.

By incorporating these interactive methods into English language instruction for pedagogical students, educators can create dynamic and engaging learning

environments that promote active participation, collaboration, and meaningful language learning experiences.

Role-playing and simulations are interactive teaching methods that involve students taking on specific roles and engaging in simulated scenarios. In the context of teaching English to pedagogical students, role-playing and simulations can be used in various ways to enhance language learning and teaching skills.

Pedagogical students can participate in role-playing scenarios where they take on the role of a teacher managing various classroom situations. They can practice techniques for handling disruptions, giving instructions, and facilitating group activities, all while using English as the medium of communication. Students can role-play as language teachers delivering lessons to a class of English language learners. They can design lesson plans, prepare teaching materials, and practice delivering instructions, explanations, and activities in English. This allows them to refine their teaching skills and techniques in a supportive environment.

Conclusion. Overall, role-playing and simulations provide pedagogical students with valuable opportunities to apply English language skills in authentic contexts, develop teaching competencies, and enhance their readiness for future roles as educators. These interactive activities promote active learning, critical thinking, and effective communication, fostering a deeper understanding of language teaching principles and practices.

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PRODUCTIVITY INDICATOR OF SWEET PEPPER

Abstract. In the decision of the President of the Republic of Uzbekistan dated December 29, 2020 on "Measures for the further reform and development of agriculture in 2020-2025", for the next 5 years, 170.5 thousand hectares of cotton fields with low soil fertility and low profitability in our country, 50 thousand hectares of grain fields It is decided to reduce the number of hectares and organize the gradual planting of leguminous grain, fodder, hay, vegetables, sugarcane and potato crops on these areas, which will increase soil fertility and satisfy the population's demand for food and fodder products.

Key words: bell pepper, yield, law, quintal, germination, report.

A third of the gross domestic product and about 95-97% of food products are produced in the republic's agriculture. More than half of the total foreign exchange earnings of the state is received at the expense of export of agricultural products. Now, the growth of the processing industry, the growth of the population, and changes in the demand of the foreign market objectively determine the further development of agricultural production processes that meet ecological requirements.

In Uzbekistan, especially in our region, we aimed to study the technology of growing sweet pepper, one of the most widely used vegetable crops, and to analyze the issue of long-term supply of the demand for sweet pepper as a result of acclimatization.

On February 10, we planted the seeds of the selected variety for the experiment in a specially treated greenhouse with the help of a pen.

Accordingly, we began by measuring the weight of 1,000 seeds of sweet peppers selected for planting in the experiment based on the 3 variant planting scheme. As a result of the measurements, it became clear that the weight of 1000 seeds of the Agapovsky variety was slightly higher than that of other variant varieties, that is, the weight of 1000 seeds was 4.6 g. The seed weight index did not differ significantly in the other varieties, but it showed an index of 4.3 g in the Medal variety and 4.4 g in the Yova variety.

Table 1**Fertilization index of sweet pepper seeds**

Variantlar	The number of seeds sown, pcs	1000 seed weight, gr.	Fertility %	date	Number of 50% ripe seedlings, pcs	Number/ date of 50% ripe seedlings
Agapovski	300	4,6	85%	13.02-16.02.2022	255	14.02.2022
Medal	300	4,3	82%		246	
Yova	300	4,4	71%		213	

In addition, we also analyzed the germination rate of sweet pepper seeds planted between 13.02-16.02.2022 of this year. Agapovsky sweet pepper seed germination rate was 85%. Considering the results of processing and agrotechnical measures carried out simultaneously, compared to the Agapovsky variety, the productivity index of the Medal variety differed by 3%, and the productivity indicator of the Yova variety showed a low result with an indicator of 14%.

All sprouted plant seedlings were subjected to the same agrotechnical measure. In the course of the research, we carried out measures to transfer seedlings grown in greenhouse conditions to the open field environment. On April 14 of this year, we moved the ready-made sweet pepper seedlings to specially treated, humus-enriched open ground.

We planted experimental options based on 3 different planting schemes. We divided the number of 300 seedlings of each option by 3 and planted them on the basis of 3/1 part. [3]

We made phenological observations on seedlings being transplanted to the field and recorded them.

Table 2**Growth and development of sweet pepper**

Options	Planting scheme	Average number of seedlings per hectare, thousand/piece	Planted seedlings, pcs	Plant height, cm	Number of leaves, pcs
1	70x20x1	71,4	99 ta	16-19 sm	6-9
2	70x30x1	47,6	100 ta		4-8
3	70x40x1	35,7	98 ta		4-6

Table 2 shows the phenological indicators of seedlings transferred to field conditions. According to this, by theoretically calculating the number of sweet pepper seedlings planted in each planting scheme on 1 hectare, it was determined that there will be 71,400 seedlings in the 70x20x1 planting scheme.

From this indicator, it can be concluded that the seeds of the Agapovsky sweet pepper variety have a significantly higher germination rate.

It was found that the number of seedlings lost in the Java sweet pepper variety planted in the 70x30x1 and 70x40x1 planting scheme was more compared to other variant varieties. The difference in the middle was almost 4-5. It can be seen that the adaptability of the Yova sweet pepper variety to environmental conditions was low compared to other varieties Agapovsky and Medal varieties.

When we observed the number of ripe fruits of the plant, the highest result in terms of the number of ripe fruits of seedlings planted according to the 70x20x1 planting scheme was shown by the Agapovsky sweet pepper variety, 7.3 pieces, Medal sweet pepper variety 6.5 pieces, and Yova variety 5.2 pieces. organized.

We also compared the signs of development and formation of planted sweet pepper seedlings by the number of leaves produced by the seedling. According to this, it was seen that the Agapovsky variety had 6 to 9 leaves and was significantly different from other variant varieties. The number of leaves of Medal and Java sweet pepper varieties was almost equal, and on average it was between 4 and 8.

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HISTORY OF INTER-ETHNIC RELATIONS IN CENTRAL ASIA AND STAGES OF DEVELOPMENT

Abstract. In Central Asia, inter-ethnic relations are of particular importance. This article discusses the critical aspects of multi-ethnic Central Asian ethno-politics. Since ancient times, cultural, economic and political relations have been established between ethnic groups and peoples living in the region. The ethnic map of Central Asia has been almost unchanged for many centuries. The use of scientific literature and the results of research conducted by many scientists show the complexity of the historical aspect of inter-ethnic relations in Central Asia and the relevance of studying inter-ethnic relations in the region as part of identifying and finding solutions to security problems in the region.

Key words: Central Asia, history, nation, people, inter-ethnic relations, Avesta, titular nation, settler, nomad, Kushan, Turks, Arabs, Mongols, Khans, Shaybani, Soviet rule, independence, national politics.

In each of them, the nation to which the state is named constitutes the majority of the country's population ("titul millat"), but representatives of other, large or small ethnic groups also live in these countries, which constitute a national minority. As a result of the Soviet government's national territorial demarcation in Central Asia in 1924, compact living boundaries of some peoples were defined and new state structures were created, and this process was a result of national policy [7, 378-380]. There is a fairly extensive literature on how artificial the new borders were, how the rights and opinions of certain peoples were neglected, and the blunders and distortions. Assessing the events of the beginning of the history of Soviet power, some researchers note that at that time, by artificially delimiting the borders of the new republics, the Bolsheviks periodically established secret control.

In the example of Central Asia of this period, it is worth noting about the Indo-Aryan tribes located in large areas of the region. In most cases, the determining factor of the relations of that time belonged to different economic and cultural types: on the one hand, peoples engaged in sedentary farming, and on the other hand, nomadic herding tribes [1.56].

Here, two opposing groups of the region's population with different types of governance are pitted against each other. At the same time, the material culture of some archaeological monuments confirms that there were close economic and cultural relations between the Sogds and the Sakas. In Central Asia, such a zone was in the Syrdarya valley, especially in its middle stream [2, 48; 16, 18]. The interaction of the economic and cultural types of Central Asia continued even in the 2nd millennium AD. However, by the end of the 4th century, the ethnic map of the region had become more complicated. As a result of the arrival of Greeks and Macedonians in the II century BC, the emergence of new ethnic groups was also not ignored. The struggle for natural resources intensified, property and wealth were redistributed. In this struggle, the strong won, the losers lost not only resources, but also often ethnic identity, because there was a mixture of ethnic groups, cultures and religions.

The Sogdians should also be included among the peoples of Central Asia who had an influence during this period. In the years 329-327, serious resistance to the army of Alexander the Great was brutally suppressed by massacring the local population, wealth was looted [3, 120-129]. It was at that time that the migration of the Sogds to the east - beyond the Syr Darya border and to Ettiuv - began. New Sogdian settlements began to appear in the territory of nomadic tribes.

Population migration has led to a sharp increase in opportunities for international communication. As a result, during this period, representatives of the Sogds and other settled peoples of Central Asia penetrated to the east, into the depths of Central Asia. Along the routes of the Great Silk Road, Sogdian trading posts and points were established, and their colonial activity reached the Far East. The greatest event of cultural integration in the millennium AD was the Great Silk Road.

The Great Silk Road attracts the attention of many researchers, since many works have been published that reflect the history of trade and cultural contacts, while intercommunal relations, not only between the Sogds and Turks [18,19], but also all the ethnic groups encountered on the Great Silk Road, are still sufficiently not studied.

The period of the late Middle Ages, according to traditional periodization, was a period of real stagnation for the peoples of Central Asia. Until the 17th century, almost the entire territory of Central Asia was occupied by several successive or coexisting states with settled and nomadic populations: Somanids, Ghaznavids, Karakhanids, Seljuks, Khorezmshahs, Chagatai clan, Timur and Timurids, Shaybanids and Ashtarkhanids (8) [9, 7-10] reign continued edn.

The second half of the 19th century can be recognized as a new stage in the development of inter-ethnic relations in Central Asia. As a result of the geopolitical "Great Game", Central Asia fell under the influence and interests of the Russian Empire. The conquest of Central Asia by the Russian Empire again changed the dividing line, gradually European population began to appear in the region in the

form of the Russian colonial administration, officials and military, entrepreneurs, workers and displaced peasants [10; 13].

The implementation of a new national policy by the Soviet state led to the emergence of new state structures - national republics - within the USSR. In these republics, which are named after the ethnonym of their main population, the processes of forming a national state and national self-consciousness begin. In each republic, newspapers and magazines were published in local languages, national schools, cultural and educational institutions, etc. were built. In accordance with these processes, new inter-ethnic relations of the peoples living in Central Asia have also emerged. Aspects of identity and interdependence were formed within the framework of new state structures within the USSR. Almost 70 years of experience (1922-1991) of the USSR in conducting national policy and regulating inter-ethnic relations is sufficiently covered in science.

As for inter-ethnic relations in Central Asia, even though their study was intensive during the Soviet period, the research was one-sided due to strong ideological pressure. Many serious issues were avoided, often inter-ethnic problems were not solved in time and were hidden. As a result, it is known that the crisis of the economy of the former Soviet Union in the late 1980s had a strong impact on the state of inter-ethnic relations. Ethnic and ethnic conflicts occurred in Uzbekistan, Kazakhstan, the Baltic region and the Caucasus region.

The above events led to the disintegration of the multinational Soviet Union into national states. When the USSR collapsed in 1991 and the national republics of the former USSR gained sovereignty, many hidden issues of inter-ethnic relations were exposed and intensified (3). The emergence of sovereign republics in Central Asia not only changed the political landscape of the region, but also affected the state of inter-ethnic relations, the transition of ethnic conflicts to the inter-state level in the new conditions, which, of course, affected the relations between the states of the region.

In conclusion, special attention should be paid to the traditional methods of solving problematic situations when studying the problem. Centuries-long coexistence of different ethnic groups in Central Asia, their various relations will be a rich source for studying the problem. There are always internal and external forces in society, which can be seen in the use of inter-ethnic relations and inter-ethnic conflicts for their own political purposes, and in pitting representatives of different nationalities and population groups against each other. Studying the history of relations between peoples, their great experience of tolerance and positive resolution of many conflict situations in the past, and applying it to the modern reality is important in modern inter-ethnic relations in Central Asia.

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NAMDU Boshlang'ich ta'limda ijtimoiy-gumanitar
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BOSHLANG'ICH SINIF O'QUVCHILARINI SOG'LOM TURMUSH TARZIGA TAYYORLASHDA SHOVQINDAN KUYISHNI OLDINI OLISH CHORA-TADBIRLARI

Annotatsiya. Ushbu maqolada boshlang'ich sinf o'quvchilarining sog'lom turmush tarziga tayyorlash ustuvor vazifa ekanligi, Ta'lim muassasalarida Boshlang'ich sinf o'quvchilaning sog'ligiga ta'sir etuvchi omillardan biri shovqinning ta'siri, shovqindan saqlanishga doir tavsiyalar to'g'risidama'lumot beriladi.

Kalit so'zlar: sog'lom turmush tarzi, faoliyat, shovqin, chora-tadbir, zararli odatlar, o'zaro ta'sir, yondashuv, rejalashtirish, modernizatsiya, faoliyat shakillari, zamonaviy, rivojlanish, shovqin tezligi, daraja.

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MEASURES TO PREVENT BURNS FROM NOISE WHILE PREPARING ELEMENTARY SCHOOL STUDENTS FOR A HEALTHY LIFESTYLE

Abstract. In this article, the priority is to prepare elementary school students for a healthy lifestyle, one of the factors affecting the health of elementary school students in educational institutions is the impact of noise, recommendations on avoiding noise will be informed about.

Key words: healthy lifestyle, activity, noise, action, harmful habits, interaction, approach, planning, modernization, forms of activity, modern, development, speed of noise, level.

KIRISH

O'zbekistonkelajagi iqtisodiy farovonligi va yosh avlodlarning salomatligiga bog'liq. Boshlang'ich sinf o'quvchilarini salomatligini saqlash va mustahkamlash ta'limni modernizatsiya qilishning strategik yo'nalishlaridan biri ekanligi va Boshlang'ich sinf o'quvchilarini salomatligini saqlash va mustahkamlashga qaratilgan.

Boshlang'ich ta'limning davlat ta'lim standarti yo'naltirgan vazifalardan biri: bolalarning jismoniy, aqliy salomatligi va jismoniy rivojlanishini himoya qilish va mustahkamlashdir. Boshlang'ich sinf o'quvchilaridasog'lom turmush tarzini

shakllantirish, uning elementar normalari va qoidalarini o'zlashtirishni, o'z sog'liklarini saqlashlari, sog'lig'i bilan bog'liq muammolarning oldini olish, mustaqillik, faollik, ularning sog'lig'iga g'amxo'rlik qilish va sog'lom turmush tarzini shakllantirish qobiliyatini rivojlantirishga yordam beradi.

ADABIYOTLAR TAHLILI VA MUHOKAMASI

Sog'lom turmush tarzi - bu kasallikning oldini olish va sog'lig'ini mustahkamlashga qaratilgan shaxsning turmush tarzi. Sog'lom turmush tarzi - bu to'g'ri ovqatlanish, jismoniy tayyorgarlik, ma'naviyat va yomon odatlardan voz kechish orqali sog'lig'ini yaxshilash va saqlashga qaratilgan inson hayoti tushunchasi.

Sog'lom turmush tarzi odamlarning o'z salomatliklarini saqlash va yaxshilashga qaratilgan faoliyatidir. Sog'lom turmush tarzi- faol mehnat, kuchli jismoniy va ruhiy yuklamalarni, o'ta xavfli va zararli ta'sir ko'rsatuvchi omillarni engil ko'tara oladigan har tamonlama taraqqiy etgan shaxsning shakllanish shakli.

[1]

Bugungi kunda ta'lim muassasalarida bolalarning sog'lom turmush tarziga tayyorlasda ko'plab omillarga e'tibor qaratilmoqda. Lekin sinf xonlardagi shovqin va uni keltirib chiqaruvchi asosiy sabab bolalarning 38- 40 tagacha bir xonada ta'lim- tarbiya olayotgani, bugungi bolalar tezkor, harakatchan va ular ko'proq faoliyatda, erkin ekanliklaridir. Tajribada kuzatganimizda ayniqsa 1-sinfga yangi kelgan bolalarda ta'lim jarayoniga moslashish davri bo'ladi. Ular maktabni katta o'yin dargohi degan tushuncha bilan kelganlar. Mana shu adaptatsiya davrida pedagoglardan katta mahorat va tajriba talab etiladi. Birdaniga bolalarni partada qimirlamay o'tirish, ortiqcha uy vazifalari berish, aqliy mehnat bilan ko'p vaqt hara katsiz sinf xonasida olib o'tirish shovqinni kelib chiqishiga olib keladi. [2]

MUHOKAMA VA NATIALAR

Shu o'rinda shovqin o'zi nima? Shovqinning sabablari va oldini olish chora-tadbirlariga to'xtalib o'tsak:

Shovqin nima? – Odam uchun yoqimsiz har qanday tovushlar shovqin deb ataladi. Jismlarning bir-biriga urilishi, ishqalanishi va muvozanat holatining buzilishi natijasida hosil bo'lgan havoning elastik tebranish harakati qattiq, suyuq va gazsimon muhitda to'lqin hosil qilib turadi. Bunda muhit zarralari muvozanat holatiga nisbatan tebranish hosil qiladi va bu tebranish tezligi to'lqinlar tarqalish tezligidan ancha kichkina bo'ladi.

Cazsimon muhitda shovqin tezligi quyidagicha aniqlanadi.

$C_{\text{gaz}} = v \cdot m_{\text{Psti}}/p$,

Tovush to'lqinlari ma'lum chegaragacha tarqalishi mumkin. Mana shu chegara oraliq tovush maydoni deb ataladi. Odam qulog'i ma'lum chastatadagi tovushlarni eshitish qobiliyatiga ega. Bu chastatalar 16 Gs dan 20000 Gs gacha bo'lgan diapazonni tashkil qiladi. 16 Gs dan kichik va 20000 Gs dan katta bo'lgan chastotadagi tovushlarni odam qulog'i eshitmaydi va u tovushlar infra va ultra tovushlar deb ataladi.

Shovqin darajasiga va xarakteriga qarab, odam organizimiga har hil ta'sir ko'rsatadi. Unga ta'sir darasining o'zgarishiga shovqinning ta'sir davri va odamning shaxsiy xususiyatlari ham ma'lum rol o'ynaydi. Shuning uchun shovqin barcha uchun bir hil ta'sir ko'rsatadi deb bo'lmaydi. Uncha katta bo'lmagan shovqinlar(50-60 db) ham inson asab sistemasiga sezilarli ta'sir ko'rsatadi. Ayniqsa, bunday shovqinlarning ta'siri aqliy mexnat bilan shug'ullanuvchilarda ko'proq seziladi. Agar shovqin darajasi 85-90 db ga etsa, bunday shovqinlardan har qanday ishlayotgan odamning birinchi navbatda yuqori chastatadagi tovushlarni eshitish qobiliyati susayadi. Shovqinning bosh miya qobig'iga ta'siri natijasida odam asabiylashadi, toliqish jarayoni tezlashadi, psixik reaksiyasi keskin sekinlashadi. Shuning uchun ham kuchli shovqin jarohatlanishga olib kelishi mumkin. Har qanday shovqin natijasida paydo bo'ladigan fiziologik o'zgarishlar oqibat natijasida shovqin kasalligini keltirib chiqaradi. Tovush to'lqinlari bosh miya qobig'i orqali o'tish imkoniyatiga ega. Agar shovqin darajasi kichik bo'lsa (40-50 db), unda suyak orqali o'tgan shovqin ta'siri uncha sezilmaydi. Agar tovush darajasi yuqori bo'lsa, unda uning ta'sir kuchi ortib ketadi va organizmga ko'rsatadigan salbiy ta'siri keskin kuchayadi. 145 db dan ortiq bo'lgan tovush darajasi odam qulog'ining pardasini yirtishi mumkin.

Shovqinning normalarini belgilashda ikki usuldan foydalaniladi. 1) Shovqinni chegara spektri asosida normalash; 2) Shovqinni dBA tovush darajasi orqali normalash. Doimiy shovqinlar uchun birinchi usul asosiy normalash usuli hisoblanadi. Bunda shovqin bosimi darajalari 8 oktava oraliqlarida o'rta geometrik chastotalari 63,125,250,500,1000,2000,4000,8000 Cs larda normalanadi.

Shunday qilib, ta'lim muassasasida shovqun GOST 12.1.003-76 da berilgan yo'l qo'yilishi mumkin bo'lgan darajadan oshib ketmasligi kerak.

Agar sinf honasida shovqin kuchli bo'lsa, shovqin devor, pol, shift va boshqa joylarga tegib ko'p marta qaytishi natijasida xonadagi shovqin 10-15 dB ortib ketishi mumkin. [3]

Shovqinga qarshi kurash chora-tadbirlari quyidagi usullarda olib boriladi.

1) O'quvchilarga shovqinning salbiy oqibatlari haqida tushuntirish ishlari olib borish;

2) Sinf xonalariga akustik ishlov berish;

3) Shovqinni tarqalish yo'lini kamaytirish;

4) Sinf xonasini oqilona rejalashtirish:

Bugungi kunda sinf xonalarini zamon talablari darajasida bezatishga xarakat qilmoqdamiz. Ammo, sinf honasidagi shovqinning ortib ketishi va biror to'siqqa uchrab masalan, devorga, shiftga urilib qaytishini oldini olish uchun shovqinni yutuvchi materiallar bilan qoplash yo'li bilan ishlov berish e'tibordan chetda qolmoqda; shuningdek, shovqin to'lqinlari tegishli mumkin bo'lgan zona maydonini oshirish maqsadida, har hil shovqin yutuvchi vositalardan qilingan plafonlar osish yahshi natija beradi.

Olimlar o'tkazgan tadqiqotlarga ko'ra kuchili shovqinro'y berib turadigan sharoitda o'sib rivojlangan bolalarning asabiy va injiq bo'lishi kuzatilgan. Demak,

hozirgi shovqin-suronli hayot davomida ota-onalar, o'qituvchilar, tarbiyachilar va jamoatchilik yosh avlodni maqsadga muvofiq tarbiyalab chuqur ta'lim berishda tashqi muhit omillariga muhim e'tibor berishlari zarur. [4]

XULOSA

Yodda tutish lozimki, agar shovqin kuchi 70 db dan oshsa kishi oromi buziladi vashu bois har hil nohush holatlar (quloq og'rishi, bosh aylanishi, ko'ngil aynishi, yurak dukillab urishi singarilar) sodir bo'ladi.

Kuchli shovqin dastlab asab tizimining asosiy jarayonlariga putur etkizadi, kishi o'zini tutolmaydigan, salga tutoqib ketadigan, jizzaki bo'lib qoladi. Osoyishta muhit esa insonlarda bosiq va hotirjam bo'lish odatini shakillantiradi. Stress omillar organizm muvozanatini buzadi. Masalan, kuchli shovqin aqliy mehnat qilishda diqqat-e'iborni bir joyga yig'ish, o'qish va yozish yoki biror narsani tushunib olishga to'sqinlik qiladi. Bunda o'quvchi aniq fikr yurita olmaydi, o'qigan narsasining mohiyatini tushunmaydi tez asabiylashadi.

Kuchli shovqin-suronning xazm a'zolari faoliyatiga salbiy ta'siri ma'lum. Dastavval shovqin tufayli xazm qilish buziladi, qorin dam bo'ladi, jig'ildon qaynaydi. Ich ketishi yoki qotishi mumkin. Bunday o'zgarishlar Boshlang'ich sinf o'quvchilarini sog'lom va ruxan tetik bo'lib ta'lim-tarbiya olishlariga to'sqinlik qiladi.

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TEACHING ENGLISH IN THE FIELD OF TOURISM

Abstract. This article provides information about the importance of the English in the field of tourism in today's rapidly developing word and the role of the English language in the development of international tourism.

Keywords: International tourism, English language, international language, world population, mother tongue, development.

Introduction

Today, as in all spheres, the demand for English is growing in the field of tourism development. It is known from world experience that English is not only an international language, but is also the native language of half of the world's population. Based on this, the most comprehensive and most widely spoken language in the world is English. Despite the wide variety of options and many distinctive features, English is rising to the level of the most popular language in the world. In general, the development of major global industries such as economics, politics, science and technology, modern sports, and international tourism, which promote countries on the world stage, occurs directly through the English language. In addition, in world politics, in the organization of interstate relations, in the application of advanced scientific achievements, in international trade, in the process of interethnic transport and communication exchange, during the organization of international conferences, summits and events of national importance for scientists, academicians and doctors of sciences, on the scale of sports competitions between states, the Olympic Games and all international tournaments in the use of digital technologies and gadgets, English acts as the main language.

Literature analysis and methodology

Looking at the place of the English language in world tourism, this language acquires great importance in terms of coverage among the world's population. Most countries of the world have adopted this language as an official one and communicate in English along with their native language. This means that tourists who go on a trip with a desire to relax can arrange an easy and comfortable trip to many countries of the world if they speak English. In addition, for traveling from one country to another, of course, modes of transport are chosen, whether by train,

plane or sea. International air travel, service on flights and at international ports is also provided in English. In addition, most travel agencies operate in English. Tourism - tourism is one of the developing industries that arose as a result of globalization as a result of the increasing needs of the world's population for recreation. Tourism is a branch of the economy that covers and allows the direct development of many industries, including transport, communications, road construction, hotel and catering, service, consumer services, and trade. Tourism is also a major source of financing for some countries. Through tourism, some states support the well-being of their people and living conditions. Tourism is developing in many countries of the world as a single system, bringing significant income to the country's budget. Tourism is not only one of the largest industries in the world, but also one of the fastest growing industries. There are different approaches and definitions to tourism. Tourism is the activity of a person who travels and stays in places outside the ordinary environment, for recreation, work, education or other social purposes, for no more than one year, as defined at the BTT - World Tourism Organization conference in Ottawa in 1991. In article 3 of the Law of the Republic of Uzbekistan "On Tourism", tourism is expressed as follows: "tourism is the departure (journey) of an individual from a place of permanent residence for a period of one year away from the destination (country), without engaging in paid activities for recreational, educational, professional, practical or other purposes. Tourism is a mass form of recreation, meaningful leisure activities. All forms of tourism involve some kind of travel, but not all types of travel are tourism. This area, in turn, is divided into industries, including sports tourism, educational tourism, social tourism, recreational tourism, exotic tourism, eco-tourism, tourist tourism, etc.

The term "English for specific purposes" (English for specific purposes or ESP) appeared in the 60s of the XX century in English-speaking countries both as a scientific direction and as a type of English language teaching that meets the needs of students. The field of specialized English language teaching (ESP) is one of the fastest growing at the moment. This is reflected in university programs offering a master's course in this field, as well as in the emergence of a huge number of courses for international students, scientific communities operate, and international conferences are held [3].

Currently, there are several types of ESP, such as:

1. English for Academic Purposes (English for Academic Purposes) is one of the priority areas of modern language training. The content of this direction is determined, on the one hand, by the practical needs of students related to the fulfillment of academic and professional tasks, on the other hand, by the requirements imposed by educational programs for the quality of language training. This course includes working with a large number of authentic texts, as well as a variety of exercises and tasks aimed at developing and improving lexical and grammatical skills, practicing language and academic skills. This course is most

often used by students around the world, getting a particular profession at a university in their country or abroad [5].

2. English for work (English for Occupational Purposes). This course includes seminars throughout the year for those who require special language skills for work, since in an ever-changing work environment it is necessary to be able to adapt, gain new knowledge and improve efficiency, increasing employment opportunities with a higher degree of remuneration [5].

3. English for Business Purposes is in demand among "non-native" English speakers and is studied for the purpose of doing business with English-speaking countries or companies located outside the English-speaking world, but which nevertheless use English as an international language. In such cases, effective communication is also the object of the exercise. Strict grammar rules

In such cases, they are sometimes ignored, for example, when the sole purpose of the negotiator is to reach the fastest possible agreement [5].

4. English for Professional Purposes (English for Professional Purposes) involves increasing skills in spoken and written English, with the aim of confident self-expression and potential advancement in professional settings. For example, this course is often necessary for doctors to study and implement new technologies, as well as due to the fact that most of the medical literature and terminology have Latin designations [5].

5. English for tourist purposes (English for Vacation Purposes). This course is specifically designed to help professionals in the international tourism industry improve their English communication skills as well as their international tourism techniques. This course will give students a broader understanding of the international tourism sector, as well as equip them with useful skills when working with clients. In addition, this course opens up the boundaries of communication for the average tourist at every stage of their journey anywhere in the world [5].

6. English for Aviation is an English language specifically designed to teach English communication skills to pilots and air traffic controllers, as well as to assist them in achieving and maintaining operational level 4 (now a requirement of the International Civil Aviation Organization). Aviation English also includes the so-called language of flight (the language of a flight), which contains about three hundred words and is a combination of professional "jargon" and simple English. (For example: approach - landing; mayday - a message about a life-threatening alarm; pan-pan - a message about a non-life-threatening alarm; standby - standby mode; wilco - formed from "will comply" means that the pilot has received the message and will follow it; and much more). This vocabulary was created in order to prevent pilots and air traffic controllers from misunderstood each other due to incorrect pronunciation, which could potentially lead to a fatal accident [5].

Discussion

The importance of foreign languages, including English, in the field of tourism is also invaluable. Because there is also a high demand in this area for

qualified employees who speak foreign languages. The leading language of most hotel and service dishes is English. Moreover, as one of the folk sayings says: "The language knows - El knows ". After all, in our rapidly developing time, when you want to become a part of tourism and see the world, go on a trip, enrich your worldview and face the world for other social reasons, learn the language! This is not just a recommendation, it is a time requirement. If you want to know many peoples of the world, be one of the first to learn the news, read scientific materials and samples of literature in the original, learning English is for you! And most importantly, if you intend to travel the world and return to your country with new ideas as a cultural leisure for yourself, start learning English right now!

For our research, it is of interest to study the peculiarities of the English language for special purposes in the field of tourism and hospitality, as well as the specifics of its teaching.

At the moment, the tourism sector is one of the most popular. Many graduates choose to work in the tourism sector after graduating from higher education institutions or receive a second higher education in this specialty. The school English course does not involve obtaining such specific knowledge, therefore this course is intended for students who wish to expand their knowledge of the English language in such a specialty as tourism [7, 8].

Twenty years ago, any teaching was based on the classical methodology, in which most of the time was devoted to the theory of a foreign language. In the lessons, students studied syntactic constructions, new vocabulary, discussed grammatical rules, as well as read and translated texts, did written assignments and sometimes listened to audio recordings. The development of conversational skills took only ten percent of the time of the entire lesson. As a result, the student understood the texts in English and knew the grammatical rules, but could not express his thoughts. That is why in the ESP course for tourism developed by us there is a radically different approach, in which the maximum amount of time is devoted to the development of communication skills, namely listening and speaking [7].

Thus, in the course we have developed, we have applied the following techniques:

Communicative – its main principle is the use of lexical units and grammatical structures studied in lessons in speech, both oral and written. All classes are developed and conducted in a foreign language or with minimal inclusion of native speech. The teacher only guides the students, asks them questions and creates a communicative situation, while 70% of the time of the entire lesson is spoken by the students.

Project-based - initially, this method of teaching English was intended for children, but today it has become more relevant for adults with an elementary level of English and especially for those who want to master it to work in the tourism sector. Its meaning is to use the studied material in practice and is optimal for organizing knowledge control at the end of the whole module.

Intensive - this technique has gained particular popularity among those who seek to learn how to speak English in the shortest possible time. To achieve this seemingly unrealistic goal, a high level of language template and a good basic level of knowledge of the student allows. Due to the study of a large number of stable expressions, their memorization and working out, a student can learn to explain himself in a foreign language and understand the interlocutor in a fairly short time [4].

Conclusion

Thus, it can be concluded that the use of these techniques and techniques in ESP lessons contributes to the expansion and deepening of English language knowledge at a sufficient level to navigate in the field of tourism and hospitality. The developed methods will be effective for teaching project work skills, developing correct pronunciation, helping students overcome the language barrier and learn to engage in conversation with foreign guests without embarrassment and awkwardness and maintain a conversation on various topics (about the traditions and culture of the country, about the sights of the city, etc.). For a person planning to link his future with employment in this field of activity, mastering a professional language is relevant and appropriate, since tourism is not only a way for a person to know the world, but also the most promising area of the economy, which contributes to the intensification of international contacts and the expansion of intercultural ties.

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LINGVO MADANIY ATAMALARNING LEKSIK-SEMANTIK XUSUSIYATLARI VA NAZARIY QARASHLAR

Annotatsiya. Ushbu maqolada nafaqat O`zbekiston, balki butun dunyo bo`ylab olimlarning lingvo madaniyatshunoslikka doir qarashlari, nazariyalari keng o`rganilgan. Lingvomadaniyatshunoslik sohasi bir tomondan tildagi insondagi madaniy omilga, ikkinchi tomondan insondagi til omiliga yo`naltirilgan o`rganilgan.

Kalit so`zlar: Lingvomadaniyatshunoslik, fenomen, antropologik paradigm, "borliqni verbalizatsiyalash".

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LEXICAL-SEMANTIC CHARACTERISTICS AND THEORETICAL CONSIDERATIONS OF LINGUISTIC-CULTURAL TERMS

Abstract. In this article, the views and theories of scientists not only from Uzbekistan, but also from all over the world on linguistic and cultural studies have been extensively studied. It has been studied that the field of linguistics is focused on the cultural factor in the human being on the one hand, and on the linguistic factor in the human being on the other hand.

Key words: Linguistics, phenomenon, anthropological paradigm, "verbalization of existence".

Kirish. Lingvo madaniyatshunoslik til va madaniyat munosabatini aks ettiruvchi fan yo`nalishi bo`lib, Ilmiy bilim turli sohalarining bir-biriga o`tish an`analari XX asr fanining belgilovchiasosiy xususiyatlaridan biri hisoblanadi. Gumanitar fanlar sohasida madaniyatshunoslik bo`yicha tadqiqotlarning, ya`ni inson faoliyatining barcha o`ziga xos tomonlarini hamda uning oldindan belgilab qo`yilgan natijalarini o`z ichiga oladigan madaniyat fenomenini tahlil qilishga intilishning ifodasi bo`ladi.

Hozirgi kunda lingvomadaniyatshunoslik sohasida bajarilayotgan tadqiqotlar asosan "til va madaniyat mosligini parallel tarzda o`rganish va tasvirlashga bag`ishlangan"[1, 25]. Bir tomondan lingvomadaniyatshunoslik tildagi insondagi madaniy omilga, ikkinchi tomondan insondagi til omiliga

yo'naltirilgan. Lingvomadaniyatshunoslik - inson haqidagi fanning bir qismi bo'lib, uning tortish markazi esa madaniyat fenomenidir [1, 222]. Til va madaniyatni xarakterlovchi belgilaming o'xshashligi ularning munosabatini yagona metodologik asosda ko'rib chiqish imkonini beradi. Bu umumiy belgilar quyidagilardir:

1. Madaniyat va til — bu insonning va xalqning dunyoqarashini aks ettiruvchi ong shakllaridanbiridir

2. Til va madaniyat o'zaro muloqotda (dialogda) so'zlashuv nutqida mavjuddir, chunki nutq sub'yekti va uni tinglovchi — bu hamma vaqt madaniyat sub'yektlari bo'lib hisoblanadi

3. Ikkala fenomen individual yoki umumiy mavjudlik shakllariga ega, madaniyat va tilning sub'yekti – hamma vaqt individ yoki sotsium, shaxs yoki jamiyatdir[1, 71].

Ayni paytda inson va jamiyatning ikkita eng muhim o'ziga xos xususiyati o'rtasida muhim farqlar mavjud: 1. Kommunikatsiyaning vositasi sifatida bo'lgan tilda ommaviy adresatga yo'l-yo'riqlar ustun turadi, madaniyatda esa saralanganlik (elitamost) qadrlanadi. 2. Belgi tizimi bo'laturib, madaniyat, tildan farqli ravishda o'zicha tashkil topa olmaydi. 3. Til va madaniyat — turlicha semiotik tizimlardir. Bunday qiyoslash tadqiqotchilarni madaniyat tilga izomorf emas, gomomorfdir (tarkiban o'xshashdir) degan xulosaga olib keladi [2, 39].

Madaniy bilimlar — shu tilda so'zlovchining madaniy-til kompetentsiyasining bir qismidir. "Madaniy bilimlar" bu, bir nechta madaniyatlar va ularning ibratli ifodalarini o'z ichiga olgan so'zlar majmui hisoblanadi. Bu ifodalar ko'p joylashgan turli madaniy va adabiyotlarni o'rganish va tushunish uchun foydalaniladi. Madaniy bilimlar, insoniy tajribani, ularning davrning tadbirlariga, g'oyalariga, tafsilotlariga va o'zaro munosabatlariga oid muhim ma'lumotlarni o'rganish va tushunishda yordam beradi. Bu so'zlar kompetentsiyasi madaniy tillar va madaniyotlardan tushuncha, til, adabiyot, falsafa, ijtimoiy fanlar, san'at va madaniy yozuvlarni o'qish, shuningdek madaniy aloqalar va kommunikatsiyalar bo'yicha tushunchalar, nazariy bilimlarni kiritish va o'rganishga oid tushunchalarni o'z ichiga oladi. Ushbu kompetentsiya insoniy munosabatlar, tarixiy ma'lumotlar, ijtimoiy normativlar va boshqa madaniy tushunchalar bo'yicha tushuncha bilimlarni oshiradi. Madaniy kompetentsiya til kompetentsiyasi bilan mos kelmaydi: "til kompetentsiyasining madaniy kompetentsiyaga o'zgarishi madaniy kod kategoriyalarida til belgilari interpretatsiyasiga asoslangan. Shu turdagi interpretatsiyaga egalik madaniy-til kompetentsiyasidir" [1, 227]. Olamning ikkita modeli — konseptual va til modellarining o'zaro bog'liqligini qayd qilib, Yu.S.Stepanov ulami o'zaro chalkashtirib qo'yishdan ogohlantiradi: Til modelini madaniyatning predmeti sohasiga, va aksincha, madaniyat modelini tilning predmeti sohasiga ko'chirib bo'lmaydi" [3, 15-38]. Yu.S.Stepanov ham lingvistik nazariya uchun, ham madaniyat nazariyasi uchun qo'llaniladigan alohida, ancha umumiy tushunchalar apparatini ishlab chiqishga da'vat qildi. Mana shu lingvomadaniyatshunoslikning

terminologik, tushuncha asosini (fundamentini) tashkil etadi. Ba'zi olimlarning fikricha, lingvomadaniyatshunoslik XX asming oxirgi choragida, tilshunoslikdagi antropologik paradigma mahsuli sifatida paydo bo'ldi. Unga birinchi bo'lib XIX asrda V. fon Gumboldt, o'zining "Inson tillarining tuzilish farqlari va uning insoniyatning ma'naviy taraqqiyotiga ta'siri" nomli kitobida asos solib, til xarakteri va xalq xarakterining bir-biriga bog'liqligini ifodalab bergan. "Turli tillar o'z mohiyatiga, ong va sezgiga ta'siriga ko'ra haqiqatan ham dunyoni turlicha his etishdir" va "tilning o'ziga bo'lgan xosligi millatning mohiyatiga ta'sir etadi, shuning uchun ham tilni sinchiklab o'rganish tarix va falsafa insonning ichki dunyosi bilan bog'laydigan hamma narsani o'z ichiga olishi kerak" [4, 370-377], degan fikr keng tarqaldi. Bunday yondashuvning yangiligi shundan iborat ediki, turli til shakllari ortida olim borliqni tafakkur qilish va anglash uslublaridagi farqlarni ko'rdi va tilda madaniyatning o'ziga xos xususiyatlari mujassamlanadi, degan xulosa chiqardi. V.Gumboldtning g'oyalari XIX-XX asrlarda neogumboldtchilik doirasida rivojlandi. Rossiyada XIX asrda A.A. Potebnya Gumboldtning ilmiy merosini "til faoliyat sifatida" [5,38] degan g'oyasini chuqurlashtirib, tushuntirib berdi. Evropalik neogumboldtchilik vakillari — L. Veysgerber, X. Glints, X. Xoltslar XX asming o'rtalarida tafakkurning tarkibini va fikrning tuzilishini tilning o'ziga xos tuzilishlariga bog'liqligi haqidagi masalani tadqiq qildilar. Neogumboldtchilarning tadqiqotlari tilning "mazmuniy" tomoniga qiziqishni ajratib turadi: "ular turli tillarning semantik sohalarini tahlil qilib, ular o'rtasidagi o'xshashlik va farq qiluvchi jihatlarini aniqladilar. L. Veysgerber "borliqni verbalizatsiyalash" tushunchasini kiritib, uni "borliqni til orqali ishg'ol qilish jarayoni va uni bilish ob'yekti" deb ta'rifladi va shuningdek u tilning ma'nodor jihatlarini qayd etishi va tilni "ta'sir etuvchi kuch" sifatida tasavvur qilishi kerak bo'lgan "yangi grammatika" tuzilishi zarurligi haqidagi tezisni ilgari surdi. Shimoliy amerikalik indeets (xindu)larning tillarini tadqiq qilish natijasida olgan materiallari asosida ular til kategoriyalarining ongga ta'siri mavjud ekanligi haqidagi xulosaga keldilar. Til nisbiyligi faraziga asosan, turli tillarda turlicha kategoriyalarning mavjudligi shundan dalolat beradiki, bu tillarning sohiblari o'zlarini o'rab turgan olamni turlicha tushunadilar.

Xulosa. Shunday qilib, lingvokulturema tarkibida madaniy-tushunchaga oid komponent so'zning tildan tashqari mazmuni va keyingi (tushunchaga oid-predmetga oid) ma'nosi sifatida albatta ishtirok etadi. Til va madaniyatni xarakterlovchi belgilarning o'xshashligi ularning munosabatini yagona metodologik asosda ko'rib chiqish imkonini beradi. Lingvistik adabiyotda til va madaniyatning quyidagi umumiy belgilarining mavjudligi e'tirof etiladi: 1. Til va madaniyat uchun umumiy bo'lgan jihat bu normativlikdir. 2. Tarixiylik esa til va madaniyatning eng mohiyatli xususiyatlaridan biridir. 3. Madaniyat xalqning o'ziga xos tarixiy xotirasidir, chunki til o'zining kumulyativ (to'plovchi) vazifasiga ko'ra kollektiv xotirani saqlaydi va boyitadi.

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RUS VA O‘ZBEK TILLARIDA LISONIY SHAXS KONSEPTININGLINGOMADANIY TALQINI

Annotatsiya: maqolada rus va o‘zbek tillarida lisoniy shaxs konseptining lingomadaniy talqini haqida gap borgan.

Kalit so‘zlar: Rus tili, O‘zbek tili, shaxs kosepti, ligvomadaniy, talqin.

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LINGO-CULTURAL INTERPRETATION OF THE CONCEPT OF LINGUISTIC PERSONALITY IN RUSSIAN AND UZBEK LANGUAGES

Abstract: the article deals with the lingocultural interpretation of the concept of linguistic identity in Russian and Uzbek languages.

Key words: Russian language, Uzbek language, personality concept, linguistic culture, interpretation.

Muloqot jarayonida lisoniy va nolisoniy nutq omillari bir-biri bilan chambarchas bog‘liq bo‘lib, aloqaning turli bosqichlarida ularning rovida sezilarli farqlar mavjuddir. Odamlarni bir-biri bilan tanishtirishda, birinchi taassurotda va suhbatdoshni har qanday toifada – professional, yosh, intellektual, ijtimoiy, jinsi va boshqa ma’lumotlar bo‘yicha tasniflashda nolisoniy omillar muhim ahamiyatga ega.

Lisoniy va nolisoniy aloqa vositalarining o‘zaro ta’sirini maqsadli o‘rganish Rimda (e.a. II-I asrlarda) notiqlik san’ati bilan boshlanadi. Sitseron notiqning barcha his-tuyg‘ulari uning yuzida aks etishi lozim, deb hisoblagan. E.a. I asrda notiqlik san’ati nazariyasi asoschisi Kvintilian imo-ishoralar, xatti-harakatlar, shuningdek, yelkalar, qo‘llar va boshlarning harakati, suhbatdoshning nafasi va ovozini sozlash qoidalarini ishlab chiqdi. Bunda nafaqat notiqlik tajribasi, balki ritorikaning asoslari ham bo‘lgan, ularning maxsus fan sifatida shakllanishi Qadimgi Yunonistonda V-IV asrlarda paydo bo‘lgan.

Verbal ham, noverbal ham aloqa vositalari o‘z tabiatiga ko‘ra aloqa qilishning asosiy – axborot, ekspressiv va pragmatik funksiyalarini bajaradi. Verbal va noverbal aloqa vositalaridan bir vaqtning o‘zida foydalanish suhbatdoshga ta’sir qilish uchun ma’lumotni belgilash, uni yanada ifodali va mazmunli qilish istagi bilan bog‘liq. Noverbal aloqa vositalari muloqotning “ikkinchi reja”sida turishiga qaramay, ular ta’sir qilish funksiyasini yanada samaraliroq bajaradilar.

«Lisoniy imkoniyatlar»dan tanlash asosidagina emas, balki tanlangan lisoniy vositalarni psixik, fiziologik, sof fizik, etnik, tabiiy va hokazo nolisoniy omillar bilan bogʻlanishda qoʻllagandagina erishish mumkin. Lisonidan → nutqqa voqelanish jarayonining juda koʻp omillar bilan aloqadorligini, rang-barang bilim sohalari bilan bogʻlanganligini hisobga olgandagina koʻzlangan samaradorlikka erishish mumkin.

Lisoniy va nolisoniy (milliy, ijtimoiy, ruhiy, sharoitiy, odatiy va h.) omillarning muloqot jarayonida birgalikda murakkab bir hodisa sifatida voqelanishi va muloqot jarayonida maʼlum bir informativ-ekspressiv funksiyani bajarishi tushuniladi.

Nutqiy muloqot deganda - muloqot jarayonida lisoniy va nolisoniy vositalarning birgalikda, hamkorlikda ishlatilishi tushuniladi. Bu nutqiy muloqotning eng birinchi oʻziga xosligidir.

Soʻzlovchi va tinglovchi oʻrtasida til, yaʼni lisoniy umumiylikdan tashqari mulokotning nolisoniy omillardan foydalanishida ham umumiylik boʻlishi lozim.

Ye.A.Petrovaning fikricha, muloqotning dastlabki 12 sekundida suhbatdoshlar 92 % maʼlumotlarni neverbal oladilar. Odamlar orasidagi munosabatlar toʻgʻrisidagi asosiy maʼlumotlar esa, suhbatdoshlar tomonidan suhbatning dastlabki 20 daqiqasida birbirlariga yetkaziladi. Taxminan 1 mingga yaqin neverbal signallar mavjud (A.Piz), baʼzi olimlarning fikriga koʻra, bu raqam 3-5 mingga yetadi va individual signallarning bir nechta variantlari mavjud. L. Brosnaxanning soʻzlariga koʻra, taxminan mingta pozalar, 20 mingga yaqin yuz ifodalari mavjud. Muloqot jarayonida ularning roli ham juda katta. A.Piz amerikalik mutaxassislarning muloqotda lisoniy va nolisoniy maʼlumotlarning oʻzaro bogʻliqligi haqidagi fikrlarini beradi: prof. A. Meyerbian verbal maʼlumot 7 % ni, intonatsiya 38 % ni va neverbal signallar 55 % ni; prof. R. Berdvissl verbal maʼlumot 35 % ni va neverbal signallar 65 % ni tashkil etadi, deb taʼkidlashadi.

A.Pizning taʼkidlashicha, neverbal signal verbal signalga qaraganda taxminan besh baravar koʻproq maʼlumotlarni oʻz ichiga oladi³³. Shaxs sotsial belgilari namoyon boʻlishida lisoniy va nolisoniy vositalar hamkorligi ham muhim ahamiyatga ega. Chunki muloqot sistemasi lisoniy va nolisoniy omillar yaxlitligidan iborat

Lisoniy va nolisoniy omillarning hamkorligi muvofiqlik koʻrinishida namoyon boʻladi, nutqiy sistema tahlilida ulardan birortasining mavqeiga past nazar bilan qarash noʻrin, bunda kompleks tahlil tamoyili ustuvorlik qiladi. «Nutqiy qurilmalarning strukturasi va maʼnosining aniq tavsifini kontekstual yoki, aniqroq aytganda, ushbu tuzilmalarning qoʻllanishiga oid omillarga tayanmasdan turib bilishning imkoni yoʻq». Inson xarakteri, oʻy-xayoli, turmush tarzi uning nutqida va xattiharakatida ifodalanadi. Tuygʻular – bu shaxsning oʻz faoliyati va atrofdagi dunyo bilan munosabatlari jarayoni va natijalarini bevosita boshdan kechirish shaklida aks etadigan subʼektiv psixologik holatlarning maxsus sinfi. Odamning atrofidagi dunyoni baholash ushbu jamiyat tomonidan qabul qilingan qiymat tizimiga asoslanadi. Muayyan jamiyatga tegishli boʻlish, shuningdek,

hissiylik darajasi uning intensivligini ham belgilaydi. Kollektivistik madaniyat hissiy kategoriyalarning individualistik farqlanishidan kattaroqdir va uning vakillari o‘zlarining his-tuyg‘ularini yanada yorqinroq namoyon etadilar.

Tuyg‘ularning boshqariladigan tarkibiy qismlari bilan bog‘liq bo‘lgan mimik-intonatsion ifoda bugungi kunda hissiyot va hissiyotni o‘rganishning muhim yo‘nalishi hisoblanadi, chunki noverbal ifoda shakllari hissiyotlarning ob‘ektiv ko‘rsatkichi bo‘lib xizmat qilishi mumkin. Hissiy kechinmalarda periferik o‘zgarishlar butun tanani qamrab oladi, yuz mushaklari tizimiga va butun tanaga tarqaladi va ekspressiv harakatlar deb ataladi: yuz ifodalari – yuzning ekspressiv harakatlari; pantomima – butun tananing ekspressiv harakatlari; “vokal yuz ifodalari” – ovozning intonatsiyasi va tembrdagi hissiyotlar ifodasidir. Ekspressiv harakatlar nafaqat his-tuyg‘ulsvchqyaarning hamrohligi, balki ularning mavjudligi yoki namoyon bo‘lishining tashqi shakli.

Tuyg‘ularning mimik tarkibiy qismlari nafaqat hissiyotlarning ifodasi, balki hissiyotlar tajribasini kuchaytiruvchi omil hamdir. Ekspressiv harakatlar ma’lum bir haqiqiy funksiyani, ya’ni aloqa funksiyasini bajaradi. Ekspressiv harakatning ramziy ma’nosi aloqa sohasida ko‘p yillik tajribani to‘plash paytida yuzaga keladi. Ekspressiv harakatlarning shakli va turlari bizga tegishli bo‘lgan ijtimoiy muhit tomonidan belgilanadi. Biz tez-tez bu yoki boshqa ifodali harakatni aniq qilamiz, chunki u ma’lum ma’noga ega. Bu reaksiya semantik aktga aylanib, ma’lum darajada nutqni almashtiradi. Noverbal aloqa ko‘pincha go‘zal nyuanslar bilan to‘ldirilgan ko‘rinish, tabassum, yuz o‘ynash, imoishoralar, pozalar, harakatlar tiliga aylanadi, ularning yordami bilan biz jim bo‘lganda ham bir-birimizga juda ko‘p gapiramiz. Nolissoniy xatti-harakatlarning elementlari orasida belgilarning optik-kinetik tizimiga asoslangan ko‘z bilan aloqa mavjud. E. Erikson ruslarda ko‘zlarning o‘ziga xos ekspressivligini, ularni “hissiy retseptorlar sifatida” ishlatilishini aytib o‘tgan. E.Xollning ta’kidlashicha, amerikaliklar ularning suhbatdoshi ularni to‘g‘ri tushunganiga ishonch hosil qilmoqchi bo‘lsalargina ularning ko‘zlariga qarashini ta’kidlagan.

Adabiyotlar:

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THE MAIN DIRECTIONS OF FIGHTING CORRUPTION IN THE WORLD

Abstract. This article discusses the main directions of fighting corruption in the world. The author analyzed the experience of developed countries in the fight against corruption. Corruption is one of the main factors causing the decline of any country. Democratic laws should be the main driver in the fight against corruption.

Key words: corruption, fight against corruption, conventions, moral and legal sanctions, democratic reforms.

Until recently, all kinds of funds were common under law enforcement agencies, which accumulated funds from entrepreneurs seeking additional guarantees of protection from various attacks (primarily, from illegal interference in their activities by employees of law enforcement agencies themselves). Creation of coordination and advisory structures under state authorities and local self-government, consisting of business representatives (councils for entrepreneurship, investment, economic development, etc.). In a number of cases, such structures operate on a club principle, providing members of the “selected club” with actual and formal advantages when receiving state and municipal orders, a kind of “safeguard” guaranteeing non-interference (even legal) in their activities by regulatory and law enforcement agencies.

High-level corruption covers politicians working in government bodies, senior officials and is associated with making decisions that have a high price (lobbying and adoption of laws, government contracts, changes in forms of ownership, etc.). Often both parties interested in a corrupt transaction belong to the same government body. For example, when an official of a lower government body gives a bribe to his superior because the latter covers up the corrupt actions of the bribe-giver or provides additional finances, resources, powers, etc.

One of the latest international documents aimed at combating corruption, namely the Inter-American Convention against Corruption, signed by the member states of the Organization of American States on March 29, 1996 in the capital of Venezuela, Caracas, names the following “cases of corruption”: extortion or receiving directly or indirectly by a government official or person performing government duties, any item of monetary value or other benefit in the form of a gift, favor, promise or benefit to himself or another person or entity in exchange for any act or omission to act performed by him in their public duties, as well as offering or providing such items or benefits to specified persons; any act or omission to act in the performance of his duties by a government official or person

performing public duties for the purpose of unlawfully obtaining benefit for himself or a third party; fraudulent use or concealment of property obtained as a result of these actions; the improper use by a government official or person performing government duties, for his own benefit or the benefit of a third party, of any property owned by the government, company or institution in which the government has a property interest, if the official or person performing government duties has access to that property due to or in the performance of their duties; the improper use by a government official or person performing government duties, for his own benefit or the benefit of a third party, of any kind of secret or confidential information that the official or person performing government duties obtained as a result of or in the course of performing his duties; the diversion by a government official to an independent agency or private person, for purposes unrelated to those for which they were intended, for his own benefit or the benefit of a third party, of any government-owned movable or immovable property, money or securities which such official received as a result of his official position for the purpose of disposal, storage or other reason.

In general, all the manifestations of corruption discussed above are in one way or another connected with bribery of officials. Because of this, they belong to the so-called “hard” or obvious corruption. At the same time, in political practice, subtle (not obvious) manifestations of corruption are quite widespread, which, according to the classification of some authors, are classified as “soft” corruption. These include, in particular: favoritism, lobbyism, nepotism, clanism, localism and some others. It is apparently impossible to compile an exhaustive list of types of corrupt activities. The most common type of so-called “soft” corruption is favoritism, which is understood as the provision of services or provision of resources to relatives, acquaintances, in accordance with affiliation with a certain party, clan, religion, sect and other preferred groups, which negatively affects the quality of government activities and contributes to the inefficient and unfair distribution of public resources among those who have special claims to public office. At the same time, in favoritism itself, nepotism stands out, which is the organization of a system of power built on kinship, and crownism is a system of power based on friends. Nepotism has a completely Russian synonym - nepotism (a form of favoritism when a leader prefers to nominate his relatives and friends for positions).

The problem of favoritism is relevant for many countries in the world community. It is no coincidence, for example, in Art. 13 of the Model Code of Conduct for Civil Servants, annexed to the Recommendation of the Committee of Ministers of the Council of Europe of 11 May 2000 No. R (2000) 10 on codes of conduct for civil servants, states: “a conflict of interests arises in a situation where a civil servant has a personal interest which affects or may affect the objective and impartial performance of his or her official duties” and that “the personal interest of a public servant includes any benefit to him or her personally or to his or her family, relatives, friends and associates, and for persons and organizations with

whom he (she) has or has had business or political relations. This concept also includes any financial or civil obligation incurred by a public servant.” Another manifestation of “soft” corruption is clanism and localism. This phenomenon is based on the awareness that a person belongs to a group separate from society, which has specific corporate interests that differ from the interests of the rest of society, which contributes to the unification of power holders into a special clan, a corporation.

As one author wrote: “The typical employee receives his education at the expense of his many relatives and fellow tribesmen, who patiently put aside money to pay for his education in the expectation that, having reached a high position, he would take care of them... Deep-rooted feelings of kinship compel a person violate and circumvent laws that do not allow him to help his relatives, i.e. to do what he considers his primary duty... In doing this, the employee does not feel remorse, since everyone is doing the same thing, and no one considers such behavior reprehensible.” Clan corruption has become widespread in recent and contemporary Russian political history.

The political elites of a number of constituent entities of the Russian Federation are most susceptible to this phenomenon, especially in the Southern Federal District. Here, as an analysis of modern political practice shows, clanism is not only extremely developed in all spheres of life, but is actually the basis for the formation of a system of government bodies. At the same time, it is no longer limited to the national republics of the North Caucasus, but gradually goes beyond its boundaries, forming corresponding relations at a higher – federal level. The above classification of corruption cannot be considered complete and, to a greater extent, can serve as a kind of basis for further research in this direction.

Moreover, in the context of constantly changing socio-political, economic, psychological and spiritual-ideological situations in the life of modern society, new forms of corruption may appear. This implies the need for constant monitoring of the state and evolution of this phenomenon in order to develop effective anti-corruption measures.

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LINGUISTIC AND DIDACTIC BASIS OF TEACHING ENGLISH TO ARCHITECTURE STUDENTS

Annotation. The linguo-didactic foundation of language instruction is examined in this essay. According to research, the linguodidactic theory of language phenomena is significant because it aims to optimise the educational process and includes a methodological idea of the didactic language of the language learning technique as well as the linguodidactic base of linguistic meaning. Its components serve as language didactics' theoretical foundation.

Key words: Linguistic Foundation, Language Acquisition Theories, Linguistic Analysis, Language Skills Development.

The linguistic and didactic basis of teaching English to architecture students encompasses the principles and methodologies rooted in both language instruction and pedagogy. Here's a breakdown of these foundations:

Linguistic Foundation:

- Language Acquisition Theories
- Linguistic Analysis:
- Language Skills Development

Language Acquisition Theories: Understanding theories of language acquisition, such as behaviorism, cognitivism, and constructivism, helps educators tailor language instruction to suit the cognitive and developmental needs of architecture students.

Linguistic Analysis: Analyzing the linguistic features of English relevant to architecture, such as specialized vocabulary, technical terminology, and discourse patterns, guides the selection of instructional materials and activities.

Language Skills Development: Focusing on the four language skills—listening, speaking, reading, and writing—ensures a comprehensive approach to language instruction that addresses both receptive and productive language abilities.

Didactic Foundation:

- Pedagogical Theories:
- Learning Styles and Preferences
- Assessment and Feedback
- Intercultural Competence:

Pedagogical Theories: Incorporating pedagogical theories such as constructivism, communicative language teaching, and task-based learning informs

instructional practices that prioritize student-centered, interactive, and experiential learning.

Learning Styles and Preferences: Recognizing the diverse learning styles and preferences of architecture students helps educators employ varied teaching strategies and methods to accommodate individual differences and optimize learning outcomes.

Assessment and Feedback: Implementing formative and summative assessment strategies and providing timely and constructive feedback support student progress and inform instructional planning and adaptation.

Intercultural Competence: Promoting intercultural competence through exposure to diverse cultural perspectives, practices, and communication norms fosters students' awareness, empathy, and adaptability in cross-cultural interactions.

When teaching English to architecture students, educators integrate these linguistic and didactic foundations to design and deliver effective language instruction tailored to the specific needs, interests, and goals of the learners. This may involve selecting authentic materials related to architecture, incorporating project-based tasks and simulations, and providing opportunities for language use in real-world contexts relevant to the field of architecture. Additionally, integrating technology, promoting collaborative learning, and fostering critical thinking and problem-solving skills are key components of teaching English to architecture students within a linguo-didactic framework.

Indeed, understanding language acquisition theories is crucial for educators when tailoring language instruction to meet the needs of architecture students. Let's delve into these theories and how they can inform language teaching:

Behaviorism: This theory posits that language learning occurs through imitation, repetition, and reinforcement. Behaviorists emphasize the role of environmental stimuli and conditioning in language acquisition. In language teaching, behaviorist principles may manifest in activities like drilling, repetition exercises, and positive reinforcement of correct language use. While behaviorism alone may not fully explain language acquisition, its principles can still inform instructional techniques, particularly for developing basic language skills and automaticity in language use.

Cognitivism: Cognitivist theories view language learning as a mental process involving cognitive structures and information processing. According to this perspective, learners actively engage with language input, make connections, and construct internal representations of language rules and patterns. Educators can apply cognitivist principles by providing meaningful input, scaffolding learning tasks, and promoting cognitive engagement through activities like problem-solving, critical thinking, and concept mapping. Cognitivism emphasizes the importance of comprehension, memory, and cognitive strategies in language learning, which are particularly relevant for architecture students who may benefit from understanding complex technical language and concepts.

Constructivism: Constructivist theories propose that learners actively construct knowledge and meaning through interactions with the environment. Language learning, from a constructivist perspective, involves learners' active engagement in authentic communicative tasks, social interaction, and reflection on their experiences. Educators can facilitate language acquisition by providing opportunities for meaningful communication, authentic language use, and collaborative learning experiences. For architecture students, constructivist approaches may involve project-based learning, discussions on architectural design principles, and real-world tasks that require language use in architectural contexts.

Conclusion. By integrating insights from behaviorism, cognitivism, and constructivism, educators can create a balanced and dynamic language learning environment that addresses the cognitive and developmental needs of architecture students. These theories provide valuable frameworks for designing effective instructional strategies, selecting appropriate learning activities, and fostering language development in a way that is engaging, meaningful, and relevant to the field of architecture.

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THE IMPORTANCE OF USING NEW PEDAGOGICAL TECHNOLOGIES IN TEACHING A FOREIGN LANGUAGE FOR STUDENTS THE FACULTY OF ECONOMICS

Annotation. This article is about the use of pedagogical technologies in teaching English for students of the Faculty of Economics. The main goal we have set ourselves by using modern technology in learning, a foreign language is to show how technology can be used effectively to improve the quality of foreign language teaching to students and shape and develop their communication culture and practical knowledge in mastering a foreign language.

Key words: finance, accounting, marketing, international trade, clients, economic concepts.

Introduction. Teaching a foreign language to students of the faculty of economics can be a valuable and rewarding experience. Here are some tips on how to effectively teach a foreign language to these students:

1. Understand their needs: Students of the faculty of economics may require language skills related to their specific field. For example, they may need to focus on business vocabulary, economic terms, and specific language skills required for international communication. Tailor your lessons accordingly to address these needs.

Understanding the specific language needs of students in the faculty of economics is essential for designing effective language teaching strategies. Here are some key considerations:

➤ **Industry-specific Vocabulary:** Students in economics may require specialized vocabulary related to finance, accounting, marketing, and international trade. Language instructors should prioritize teaching terminology and concepts relevant to their field of study to ensure students can communicate effectively in professional settings.

➤ **Business Communication Skills:** Students of economics often need to develop strong business communication skills, including writing professional emails, reports, and presentations. Language courses can incorporate activities that simulate real-world business scenarios to help students practice these skills in a supportive environment.

➤ **Cross-cultural Communication:** With globalization, economists often work in multicultural environments and interact with colleagues, clients, and stakeholders from diverse backgrounds. Language instruction should address

cross-cultural communication norms and etiquette to prepare students for international business interactions [2, 22].

➤ **Reading and Analyzing Academic Texts:** Economics students must be able to comprehend and analyze complex academic texts, research papers, and economic reports written in the target language. Language courses can include reading comprehension exercises and discussions on economic theories and current issues to improve students' academic literacy.

➤ **Language for Specific Purposes (LSP):** LSP focuses on teaching language skills tailored to students' professional or academic needs. Language courses for economics students should be designed with a focus on practical language use in their future careers, whether it be in finance, consulting, research, or international business.

➤ **Authentic Materials and Case Studies:** Incorporating authentic materials, such as financial reports, business articles, and case studies, can provide students with valuable insights into real-world economic contexts and terminology. Analyzing authentic materials helps students bridge the gap between language learning and their future professional endeavors.

➤ **Internship and Job Preparation:** Language programs can offer internship opportunities or job preparation workshops to help economics students apply their language skills in real-world settings and prepare for future career opportunities requiring language proficiency.

We believe that teaching foreign languages in higher education today should be aimed at mastering all its main functions from the point of view of improving scientific and educational knowledge. In particular: educational (knowledge of the world, language, self-awareness), regulatory (interaction with people), value-oriented (expression of opinion, evaluation, expressed the development of views and beliefs emotional-evaluative), as well as ethical tasks (the ability to establish a verbal relationship with other people, the ability to maintain it) [8, 135].

By understanding the specific language needs of students in the faculty of economics and tailoring language instruction accordingly, educators can better equip them with the linguistic and communication skills necessary for success in their academic and professional pursuits.

2. Use real-life examples: Incorporating relevant and practical examples from the world of economics into your language lessons. This could include case studies, business news articles, or examples from international business transactions. Connecting language learning to their field of study will increase student engagement and motivation.

Incorporating relevant and practical examples from the world of economics into language lessons can enhance students' understanding of both language concepts and economic principles. Here are some ways to integrate real-life examples into language instruction:

➤ **News Analysis:** Begin language lessons by discussing current economic news articles from reputable sources. Analyze the language used in the articles

while also discussing the economic concepts and events they describe. This approach not only improves language comprehension but also enhances students' awareness of global economic issues.

➤ **Case Studies:** Integrate case studies from business and economics into language lessons. Students can read and discuss cases related to market trends, business strategies, economic policies, and international trade. Encourage students to analyze the language used in the cases and discuss the economic implications of different scenarios.

➤ **Role-Playing Activities:** Organize role-playing activities based on economic situations, such as negotiating a trade agreement, managing a budget, or presenting a business proposal. Assign roles to students and have them communicate using appropriate language and economic terminology. This hands-on approach helps students apply language skills in realistic contexts.

➤ **Business Simulations:** Use business simulations or economic games to engage students in interactive learning experiences. Simulations can simulate real-world economic scenarios, such as managing a company, investing in the stock market, or participating in a global trade simulation. Students can communicate with each other in the target language while making decisions and solving problems.

➤ **Economic Debates:** Organize debates on controversial economic issues, such as globalization, income inequality, or environmental sustainability. Divide students into teams and have them argue different perspectives using persuasive language and evidence-based arguments. Debates promote critical thinking, language fluency, and understanding of economic concepts [5, 25].

By incorporating real-life examples from the world of economics into language lessons, educators can make language instruction more engaging, relevant, and effective. These examples not only improve language proficiency but also deepen students' understanding of economic concepts and their applications in the real world.

Conclusion. In my conclusion, by integrating discussions of cultural practices, etiquette, and business customs into language lessons, educators can prepare economics students to communicate and collaborate effectively in global business environments. These discussions not only enhance students' cultural competence but also contribute to their overall success as professionals in the economics field.

We remember to adapt our teaching methods to meet the specific needs and learning styles of the students in the faculty of economics. With an understanding of their requirements and effective instructional strategies, we can help them develop language skills that will benefit their future professional endeavors.

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MODELING A RADIO LINK IN CELLULAR MOBILE COMMUNICATIONS

Annotation. The article examines the role of radio communications and radio broadcasting, in which the ultrashort wave range has proven attractive due to the possibility of building multi-channel radio links, allowing simultaneous multiple independent transmissions using one network of radio stations.

Key words: radio communications, radio links, command lines, software package, routine maintenance, maintenance, telecommunications equipment.

For radio communications and radio broadcasting, the ultrashort wave range has proven to be attractive due to the possibility of building multi-channel radio links, allowing simultaneous multiple independent transmissions using one network of radio stations. In this range, it is possible to carry out high-quality broadcasting due to the low level of atmospheric and industrial interference and the possibility of using such types of modulation as frequency, which makes it possible to reduce the effect of interference. Finally, small, highly directional antennas can be easily created in this range. All these circumstances will lead in the near future to the fact that all local broadcasting will be transferred to the ultrashort wave range.

Commands are transmitted over several channels on one carrier frequency; The radio communication system in this case is called a command multichannel radio link. Based on the method of channel division on the receiving side, multichannel radio links are divided into radio links with frequency, time and code division of channels.

The use of pulse types of modulation, in which an informative signal is transmitted by changing one of the parameters of short-term high-frequency pulses lasting fractions (units) of microseconds with repetition periods of about 10 - 4 s, opens up the possibility of transmitting pulses carrying other information in pauses. The operation of multi-channel radio links with time division of channels is based on this principle. Due to the short pulse duration, the line bandwidth is a few megahertz or more, so operating frequencies are usually selected in the centimeter range. The number of channels in such radio links reaches several tens and even hundreds.

Resonant relays of mechanical and electrical types are used to separate (select) signals of different frequencies from a common signal that has a complex spectrum. For example, resonant relays are the main elements of decoders of multi-channel radio links with frequency division of signals into channels on the receiving side. They are also widely used in decoder radio command lines for aircraft and other radio-controlled models.

Multichannel radio links, in addition to radio telemechanical systems, are widely used in radio relay communications. When constructing them, they mainly use the ultrashort wave range, which has great potential for expanding the bandwidth of radio devices and reducing mutual influence between channels. Multichannel radio links can be with continuous and pulsed radiation. The choice of the type of modulation in a multi-channel radio link is determined by the properties of the transmitted signals, the number of channels placed in the radio link and other factors.

From a consideration of the principle of operation of a multi-channel radio link with time division of channels, it follows that the transmitting device emits several (according to the number of channels) pulses in one cycle, which are modulated in a certain way by the signal voltage of its channel. In the diagram shown in Fig. 19 - 9, switch K performs pulse amplitude modulation. In multi-channel radio links with time division of channels, pulse-width, pulse-phase and pulse-code modulations are also used.

This operation can be repeated at a third frequency. However, the multi-frequency TWT mode, which is also found in multi-channel radio links, should be used with caution due to the reduction in saturation power, mutual modulation and suppression of some signals by others. On multi-channel radio links this may cause crosstalk.

The required number of channels of a radio telemetry system, depending on the task for which it is intended, can reach up to 50 or more. Based on the methods of channel division, multichannel radiotelemetry systems are divided into frequency division systems, time division systems, code division systems and combined channel division systems. The principles of construction, composition, circuits of encoders and decoders, as well as the features of radio transmitting and radio receiving devices of multi-channel radio lines of telemetry systems and radio lines for transmitting commands in command control systems have much in common.

Multi-channel radio links with code division of channels: Recently, the code method (channel division) has been increasingly used. With code selection, each channel is assigned a specific code group (combination) of pulses.

The code consists of pulses located in a group relative to each other at specified time intervals. The combination of time intervals between pulses is a characteristic of the code group and cannot be the same for different channels. With sequential code formation, each code group is assigned its own time interval.

The sequence of pulses at the output of the modulator of a multi-channel code division radio link has the form shown. Here, the code group of each channel consists of three pulses, the relative position of which is determined by time intervals that are different for different channels. These groups repeat periodically with a period of Hz (transmission cycle). During the modulation process, the parameters of all pulses of the channel code group change simultaneously without changing the intervals.

The most common type of primary modulation in code division radio links is pulse modulation (PM), in which, under the influence of the modulating voltage, a temporary (phase) shift of the code group of pulses relative to its clock position occurs (the position of the code group on the time axis in the absence of modulation).

The time shift of the working code group of the channel on the receiving side is measured relative to another code group - the reference one, the position of which does not change during modulation. All channels may have one or more reference code groups in a transmission cycle.

A radio link with sequential code formation resembles a multi-channel radio link with time-selected channels. If with time division of channels the main feature by which pulses are distributed on the receiving side is the temporal position of the pulses, then with code division the difference in signals is determined by the structure of the code group.

The principle of distributing channel pulses over the corresponding time intervals of channels using electronic switching devices is based on the delay of the pulse of each research channel relative to the pulse of the previous channel for a certain time, including the time interval of the channel and the guard interval between the channels.

On the receiving side of the radio link, after the pulses are distributed over the appropriate channels, they are demodulated (detection). This is how the transmitted messages in each channel are highlighted.

In many radiotelemetry systems used in studying the time dependence of the parameters of certain devices, pulse sequences of channels are not demodulated, but recorded on photographic film.

Subsequently, the photograms are deciphered. Using the method of time division of channels allows you to create relatively simple in design, reliably operating radio links with a large number of channels. In this case, the mutual influence of the channels turns out to be less significant than with frequency separation of the channels.

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THE ROLE OF MODERN INFORMATION AND COMMUNICATION TECHNOLOGIES IN TEACHING LESSONS IN MATHEMATICS AND COMPUTER SCIENCE

Abstract: this article describes software tools: training programs, training programs, monitoring programs, test programs, information and reference programs, their characteristic features and the appropriateness of use at various stages of teaching mathematics and computer science. The possibilities of using a computer in mathematics lessons are revealed.

Key words: software, methodology, stages of teaching mathematics, computer science, and computer.

In the third millennium, the role of information activity, and within it, the active, independent processing of information by a person, making creative, new decisions in various situations using technological means, is unusually increasing. This circumstance makes significant changes to the education system of secondary schools. One of the changes is related to the need to develop information and communication competence in schoolchildren. An effective means of developing this type of competence in students is the use of pedagogical software by the teacher in the learning process.

Pedagogical software tools (PPS) are training programs, demo programs, games, various kinds of tests, sets of tasks according to difficulty levels in the form of text files, etc.

For rational use, it is useful for the teacher to have printouts of the teaching staff catalog with annotations in the mathematics classroom; For storage, it is advisable to have an archive of originals and first copies of programs on floppy

disks. When developing teaching staff, one should be guided by the main requirement - they must form a single program-didactic whole with educational information that is available in textbooks, teaching aids, and meet state educational standards in the subject.

Let us characterize and describe the methodology for working with certain types of teaching staff when teaching mathematics in secondary schools.

Training programs. They serve the purpose of presenting students with any new information and organizing the process of assimilating it. The program must take into account the initial level of knowledge, skills and abilities of students. The structure of such a training program usually includes the following blocks: registration of entry into the program, initial control, presentation of the material in small doses with exercises and step-by-step control of assimilation, final control, statistics block

In mathematics lessons, the teaching program can be used by students when learning new material, at the stages of primary consolidation and training repetition. It should be noted that at the stage of training repetition, the teacher usually uses training programs in working with low-performing students or with those who have gaps in the material under consideration for some reason.

Training programs. Their goal is to practice one (or a small number) of skills on a fairly large set of tasks of the same type with limited time working with the program. Program structure: registration of entry into the program, initial control, stage-by-stage presentation of exercises (with systematic control of correct execution), intermediate and final control, statistics block.

Such programs are used in skills development lessons and at the stage of generalizing and systematizing repetition. It is necessary to highlight the requirements for this type of program: they must evaluate the result and, in case of an incorrect answer, demonstrate the correct answer; give a final assessment with a comment and, if possible, give the material a playful character, especially in mathematics lessons in primary school.

Monitoring programs – their goal is to check the results of students' assimilation of certain material. As a rule, the student is given a task (a list of questions, a system of tasks), each answer is evaluated by displaying a response on the screen; if the student makes a mistake, the program allows you to enter a new answer; after the second error, the correct answer is displayed on the screen and the transition to the next question occurs. Based on the results of the work, generalized information is displayed: the total number of questions, the number of correct answers, assessment and recommendations for the student.

Control programs are used at the stage of corrective repetition, as well as for intermediate control.

Test programs. The class of programs is quite wide. These programs are used with great success by teachers of specialized schools at the stage of career guidance.

Finding the correct answer when working with such programs requires students to be able to systematize material and search for patterns from a limited

set of data, which is undoubtedly important when teaching mathematics. The greatest value of tests lies in the formation of certain creative skills. When compiling test programs in mathematics, the goal most often is to develop and determine the level of generalized knowledge in solving basic basic as well as non-standard problems.

The structure of the test program is similar to the structure of the simulator program, however, the degree of correctness control here is stricter (the answer is entered only once).

Information and reference programs have become a necessary companion for a student in a 21st century school, the purpose of which is to store a large amount of information and provide quick access to its individual units. When teaching mathematics, such programs can replace explanatory dictionaries, reference books, encyclopedias, etc. This is especially true at the stage of generalizing and systematizing repetition, when material studied by students over several years is considered. In this regard, the ability to connect school computers to powerful data banks and obtain hard copies is very promising. Widespread use of such programs is possible at all stages of schoolchildren's education.

Simulation programs. The goal is, using a computer, to reproduce the course of physical, chemical, biological, technical experiments in the form of computer simulation, to explore the properties of a certain mathematical model obtained as a result of the formalization of an educational task.

Such programs can be used when studying new material (applied problems are demonstrated, showing the feasibility of introducing new mathematical concepts), at the stages of deepening and generalizing-systematizing repetition. When working with modeling programs, it is important that the student can control the progress of computer modeling by changing the process parameters. This contributes to the development of students' research skills and encourages them to make independent decisions when working with creative problems.

Software tools. They ensure the execution of operations that arise in educational practice, for example, compiling tables, word processing.

In elective mathematics classes, you can use the program for finding prime numbers given by V.S. Malakhovsky in his book [1]. The problem of finding prime numbers has been of interest to humanity since the time of the school of Pythagoras, and interest in it continues today. Since 1957, computers have come to the aid of people in solving this problem; by demonstrating a program for finding prime numbers, the teacher has the opportunity to introduce students to the history of solving this problem, which is of great educational importance.

Game programs

1. Trainers, their goal is to teach some knowledge, skills, and ways to solve problems. They can be used in any lesson if the didactic goal of the game program corresponds to the didactic goal of the lesson.

2. Entertaining. They are used outside of school hours to fill students' leisure time.

Currently, the process of teaching mathematics is not complete without the use of a computer.

Naturally, a computer cannot replace a live teacher. But it will help make his work easier, interest students, and provide a more visual, completely new perception of the material, so a modern mathematics teacher needs to master the methodology of using a computer in the process of teaching mathematics.

We will show the possibilities of using a computer at different stages of learning mathematics.

1. When learning new material.

A). The computer can be used as a part of the lesson after the teacher's lecture to provide feedback on the mastery of the material.

b). Independent work of students to study new material using a computer:

– the teacher informs the topic of the lesson, the goal (what the student must learn), dictates the questions that the students must answer after mastering the material;

– students, 1-2 people each, work with the training program and independently study the topic;

– the teacher conducts an initial reinforcement repetition of the material (frontal survey, final interview, oral test).

V). Deepening knowledge on a new topic:

– the teacher explains new material;

- independent work of students with a computer into which the educational program is loaded, i.e. there is a secondary repetition of new material in order to understand it more deeply and remember it.

G). Differentiated learning.

The teacher prepares in advance pedagogical software (PPS), containing various options for systematized tasks. If some of the students approached learning a new topic earlier, while others are not yet ready for this, then a program teaching the new topic is loaded into the computer, and the strong students move forward, and the weak ones work with the teacher on the old material.

2. Testing knowledge, skills and abilities.

Along with the method of oral questioning (traditionally), a condensed survey is used (using computer technology (CT)). Control programs are compiled in accordance with educational standards. Students complete the exercises in a notebook, only the answer is entered into the computer. The teacher needs the records to identify gaps and errors.

Checking homework: first, the teacher finds out from the front what results have been obtained, then, using CT, he organizes the individual work of students to complete tasks similar to homework. Such work in a mathematics lesson has a double effect:

– the teacher has the opportunity to check the independence of doing homework;

- students repeat the material and improve their skills.

Controlled independent work using CT allows the teacher to take an individual approach to students and free them up in the lesson, freeing up time for individual work, as a rule, with low-performing students.

3. Consolidation of knowledge and skills.

At this stage, it is advisable to use training programs, monitoring programs, and test programs. The following organization of work in a mathematics lesson is possible:

A). Each student solves a problem on a given topic and chooses the level of difficulty. Then those who completed the first task correctly receive the next one, the rest, together with the teacher, sort out the mistakes made.

b). Training “in twos” – weak and strong, the program is designed for the average, but the strong are given an additional task.

V). The teacher has three programs: for average, weak, strong. The class is divided into three groups. The weak and average work on the board with a teacher, and the strong work on the computer. Then the average ones switch to computers, and the strong ones are offered a creative task. Later, the weak take a place at the computer. It should be noted that such organization of the teacher’s work will require great skill from him.

From the above we can conclude that the use of computer technology in the process of teaching mathematics:

- arouses the interest of students;
- brings variety and emotional coloring to the lesson;
- develops students’ attention and intelligence;
- promotes intensification of learning;
- allows the teacher to carry out differentiated teaching.

With the help of information and communication technologies, the path to a new world of knowledge is opened, and the opportunities for self-development and self-education are expanded. As part of improving independent work skills, schoolchildren prepare reports, abstracts, and presentations on a given topic; develop group projects

It has become relevant to hold electronic conferences of various types: real-time conferences; teleconferences – time-delayed discussions.

Thus, the use of computer teaching technologies makes it possible to modify the entire teaching process, implement a model of student-centered learning, intensify classes, improve students’ self-training, thereby preparing students for further self-education.

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WAYS TO IMPROVE ENERGY EFFICIENCY IN LARGE PANEL HOUSES DURING RECONSTRUCTION

Abstract. This article examines methods for improving the energy efficiency of buildings when reconstructing residential buildings from large panels. The causes of energy loss in buildings and structures are also considered. The results obtained are compared with European countries and methods for improving energy efficiency are outlined.

Key words: buildings, large panels, reconstruction, energy efficiency, energy consumption, growth dynamics, housing construction, foreign methods, causes, methods of elimination.

Introduction

In the years of independence, extensive work was carried out in the field of architecture and construction, as well as in all other fields, to improve the infrastructure of the cities and villages of our country, and to raise the beautification works to a higher level.

Currently, buildings are being built according to outdated building codes and regulations, energy efficiency and energy conservation are neglected in the design and construction of buildings, and this process is contributing to excessive energy consumption and the total volume of toxic gases being released into the air across the country.

By 2030, taking into account the task of halving the energy capacity of the gross domestic product compared to 2017, there is a need to set clear target parameters for reducing energy consumption for enterprises and organizations.

Conducted Research

- Determination of temperature-humidity characteristics of the internal environment of residential buildings operated in the city of Jizzakh;
- to study the effect of microcracks in the wall and cracks in the seams between the walls on the thermal and technical properties of the external barrier;
- Design of rational thermal renovation of the outer walls of residential buildings in operation in the city of Jizzakh;
- development of recommendations on the organization of thermal protection of the external walls of residential buildings in long-term operation.

The doubling of energy consumption in the world in the last 30 years [1] proves how high the demand for fuel energy resources will be in the near future. Therefore, the issue of energy saving is one of the urgent problems due to the increase in the amount of energy consumed in the world in such sharp pictures.

According to the information of the International Energy Agency and the Center for Economic Research, the population, gross domestic product, etc. taking into account the growth, the amount of energy consumed in Uzbekistan by 2030 will be from 60 million t.n.e. to 150 million t.n.e. can increase. Taking into account the sharply continental climate of Uzbekistan (dry-hot in summer and cold in winter), cooling in summer and heating in winter alone lead to energy consumption of 24.5 million tons of oil equivalent (mln.t.n.e.) in 1 year.

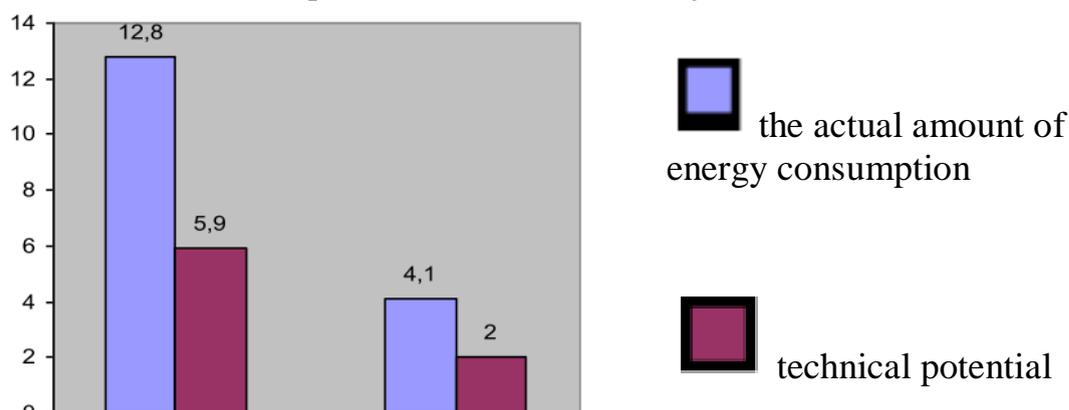
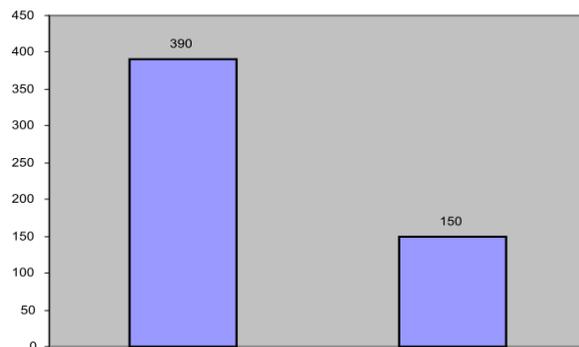


Figure 1.1. Energy saving potential of civil buildings (mln.t.n.e.)

The main opportunities for energy saving in Uzbekistan are related to the field of operation of civil buildings, and a large amount of energy consumption falls on residential buildings with insufficient external thermal insulation. According to experts, it is possible to save more energy in the housing stock than in public buildings by applying energy-saving measures (Figure 1.1).

Due to the aging of residential buildings and engineering networks in Uzbekistan, the relative amount of energy consumed in these buildings is 390 kWh per 1 m² per year, while in the countries of the European Union this figure is equal to 150 kWh (Figure 1.2).



in Uzbekistan **In the countries of the Euro Union**
 Figure 1.2. Relative energy consumption per year per 1 m² area (kWh/ m²)

Also, the normative value of the heat transfer coefficient given in the QMQ valid in Uzbekistan is considered low compared to the index in developed foreign countries (table 1.1).

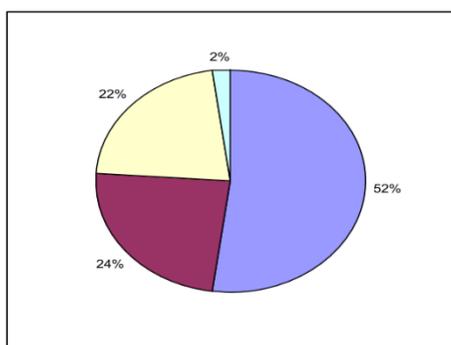
Table 1.1

Standard values of the heat transfer coefficient (W/(m² OS))

Name of States	For external walls	For attic roofing	For windows and doors
Germany	0,5	0,3	1,6
Finland	0,28	0,22	1,9
Belarus	0,5-0,4	0,33	2,0
Uzbekistan	0,71-0,45	0,6-0,4	2,56-2,38

The main reason for the above cases is that more than 90% of residential buildings in Uzbekistan were built 25 years ago and do not meet modern energy efficiency standards. As a result, on average, 35% of energy resources are lost through external walls, 25% through roof covering, and 10% through windows and doors, designed on the basis of technologies and standards that do not meet energy-saving requirements, and not constructed based on modern materials [2]. To prevent these losses, it is necessary to apply certain measures for designing and reconstructing residential buildings in an energy-efficient manner. According to experts in the field, the effectiveness of the measures used is presented in the diagram (Figure 1.3).

The diagram shows that it is possible to save more than 50% of energy only by improving the external thermal insulation coating of the building. Also, 22% can be saved by modernization of engineering networks, and 24% by using heat energy accounting system [2].



1. 52% due to thermal insulation;
2. 24% due to thermal energy accounting;
3. 22% due to the modernization of engineering networks;
4. 2% due to renewable sources.

Figure 1.3. Measures to ensure energy efficiency of civil buildings

It is necessary to follow the following main architectural and constructive principles of energy-efficient residential buildings [1]:

- optimization of the architectural-compositional form of the building;
- optimal placement of the building in relation to the setting of the sun;
- increase the thermal resistance of the external barrier structure of the building;
- increasing the thermal resistance of light-transmitting structures, which are considered transparent structures of the building;
- improvement of ventilation structure in buildings, etc.

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MAIN PROBLEMS OF ENGLISH PHRASEOLOGY AND APPROACHES TO ITS STUDY

Abstract. A significant place in linguistic research is occupied by phraseology - a branch of lexicology that studies the semantic, morphological, syntactic and stylistic features of phraseological units.

Key words: Phraseological units, double meaning, linguists, vocabulary, lexicology, speaking skills, composition, characteristic features of phraseological units.

Phraseological units represent the most picturesque and expressive part of the vocabulary of the language, reflecting customs, traditions of the people, references to its history, folklore. Phraseology, according to linguists, is the most democratic component of the dictionary, taken from the depths of the language of the people.

Phraseological units are characterized by a double meaning, and the meanings of the constituent words of a stable phrase create a certain picture, but the actual meaning of the whole unit has little or nothing to do with this picture, creating a completely new image.

The starting premise of lexicology as a science is the statement that the vocabulary of any language is not a mechanical set of words, but is a certain system, the elements of which are correlated and interconnected, subject to the internal laws of this system. It is quite natural that such a linguistic science as phraseology is connected with lexicology (from the Greek phrasis - expression, phrase, saying and logos - teaching), which investigates the lexical-semantic compatibility of words, stable language turns, phraseological units, one of the most important properties of which there is the reproducibility of their complete linguistic units. From this point of view, phraseological units are similar to lexical units (words), therefore, phraseology as a science is therefore closer to lexicology.

Different approaches of scientists are distinguished. Some believe that phraseologists should study only word combinations. Others expand the sphere of phraseology at the expense of proverbs, sayings, catchphrases, aphorisms and other speech formations.

The problems of phraseology were dealt with by many scientists, among them S. Bally, L. Smith, C. Hockett, I.O. Baudouin de Courtenay, O.V. Kunin,

V.V. Vynogradov, O.O. Potebnia, I.V. Arnold, T.I. Arbekova, E.F. Arsentieva, V.D. Uzhchenko, and others.

Scientists still have not reached a single conclusion regarding many questions of phraseology.

V.V. Yelyseeva notes that, despite the fact that phraseological units are combinations of words, they are viewed by linguists not from the standpoint of syntax, as free combinations, but from the standpoint of lexicology. The reason for this is, first of all, that in a free phrase it is possible to replace any component within the framework of this model, and in a phraseological combination the connection between the components is rigid and replacing one of them is impossible without destroying the meaning of the entire unit. Another reason why phraseological units belong to the objects of lexicological research is the presence of such a combination of common features with a word. Like a word, a phraseological unit is not formed in the process of speech from units of a lower level, but is reproduced as a ready-made block.

This feature indicates that the phraseological unit, like the word, contains a single lexical meaning. So, the phraseological unit is a non-modeled combination connected by semantic unity.

Analyzing the phraseological structure of the language, O.V. Kunin gives the following definition: "A phraseological unit is a stable combination of lexemes with a completely or partially reinterpreted meaning."

According to Arbekova: "A phraseological unit is a combination of words with a low combinatorial index, which is due to the structural and systemic features of the components (or one of them) or the special nature of the relationship of the word combination to reality, as well as the combination of these two factors" [2].

Phraseological units have certain features. N.N. Amosova points to four characteristic features defined by U.J. Ball: [1].

1. Phraseological units does not allow significant changes in the order and composition of words, with the exception of grammatical changes (mainly in the category of gender and tense) or those cases when there are certain commonly used variations of it.

2. Phraseological units cannot be formed on the basis of a false analogy (on the basis of the idiom "to be partial to a glass of wine with one's lunch" - "to like to tip a glass after breakfast" it is not possible to form the idiom "to be impartial to brandy" in meaning "not to like brandy").

3. Phraseological unit has a once-and-for-all set value.

4. Except for those cases when the context is able to show the meaning of the phraseological unit, its meaning is mostly impossible to guess.

The concept of idiomaticity is not clearly defined. Some linguists believe that the term idiomaticity requires an explanation [3]. There was a point of view that a phrase that could not be translated literally was considered idiomatic. It follows from this that if idiomaticity is considered as the main characteristic feature of phraseological unit.

The term idiomaticity is understood as a lack of motivation from the point of view of those for whom the given language is native. Since we are referring to the English language, this means that the phraseology includes only those phrases that are considered unmotivated by English people, for example: red tape, to kick the bucket and the like. This approach, as emphasized, is called intralinguistic.

In other words, idiomaticity should be judged within the language, not outside it.

Many phraseological units were formed on the basis of observations of the behavior, appearance, and life of animals.

Reinterpretation of the meaning, stability of the composition, once and for all established meaning, etc. are characteristic features of phraseological units. One of these factors - namely, a partial or complete rethinking of the meanings of the components of the phraseological unit is a necessary (though not sufficient) condition for their presence of imagery. It is thanks to this factor that we can talk about imagery as a characteristic feature of most idioms:

- to go off at half-cock
- back the wrong horse
- tell it to the gray horses

Creating the effect of imagery is achieved through the use of metaphor, metonymy, comparison:

white horses; to kill two birds with one stone; to change horses in the midstream; red as a lobster/ as a turkey-cock; to buy a pig in a poke.

Verbs are called phraseological units with generalized semantics of a procedural feature, objectified in verbal grammatical categories of form, state, manner, person, time. In a sentence, verbs perform the syntactic function of a predicate.

Main subclasses:

1. The most numerous subclass is phraseological units with the V+N structure. To shoot (throw) the bull, to play the hog, to see the elephant, to play the bear, to raise/wake snakes, to smell a rat. The same subclass includes a subtype of phraseological units with a prepositive noun extension with a possessive pronoun: V+pron.+N: To eat smb\'s toads, to cook somebody\'s goose.

2. V+adj.+N, the constant component of which is an adjective: to beat/flog a dead horse, to back the wrong horse.

3. V+N+prep.+N: Take the bear by the teeth, take the bull by the horns, to let the cat out of the bag. Also here we include phraseological units expanded by adjectives or possessive pronouns: To help a lame dog over a stile, to have bats in one\'s belfry.

4. V+N+N: To die a dog\'s death, to be bee\'s knees.

5. V+comp.+V: comparative component "like/as". To act like a chameleon, to run like a deer/hare/rabbit, to grin like a Cheshire cat.

6. V+and+V, as well as complex phraseological units with the structure V+N+and+V+N with noun expansion: To give a dog a bad/ill name and hang him,

to run with the hare and hunt with the hounds, to strain at a gnat and swallow a camel.

7. This list is supplemented by other structures such as V+prep.+N; V+N+adv; V+N+prep. etc.

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CREATING A SYSTEM OF EQUATIONS AND SOLVING PROBLEMS RELATED TO THEIR SOLUTION

Abstract. Electronic educational resources are educational materials that are reproduced by electronic devices.

Key words: creating, system, equations, solving, problems, related, solution.

The introduction of e-Learning resources into the educational process does not exclude traditional teaching methods, but harmoniously complements and combines with them at all stages of education: familiarization, training, application, control. The use of e-Learning resources in the learning process provides great opportunities for independent creative and research activities of students. E-Learning for a teacher is an opportunity not to write daily and painstakingly notes for lessons; apply control tests or modules almost every day, saving yourself from lengthy checks; assigning objective grades (they are given by the computer); solve the problem of children's interest in the subject (it's no secret that even the "weakest" student will prefer computer testing to a test).

For a student, e-Learning resources are, first of all, an opportunity to really learn. They allow you to perform more full-fledged practical activities at home - virtual visits to museums, observations of production processes, laboratory experiments, etc. Also, the student will be able to independently certify their own knowledge, skills, and abilities without the participation of a teacher or a parent who will prompt him or her to give the right answers - everything is already laid down in the e-Learning Program. As for research work, e-Learning resources allow not only to study descriptions of objects, processes, and phenomena, but also to work with them in an interactive mode.

Classification of e-Learning resources can be carried out in several directions: In terms of creation technology, these are resources consisting of visual or audio content;

- by type of content – electronic reference books, quizzes, dictionaries, textbooks, laboratory work, control and measurement materials; by type of application – for work both directly in the classroom and for independent work of students.

All e-Learning resources are divided into three main types: Theory – obtaining information. Resources that make the learning process more visual, accessible, and interesting. Practice – this section contains simulators. Their goal is to form and consolidate the practical skills and abilities of students on each topic.

The presence of "help" and "hint" modes in this section helps students who have made mistakes to analyze the solution and make appropriate corrections. Practice is a kind of section content simulators. Their goal is to form and consolidate to practice skills and abilities of students on their topic. You're a presence of "help" and "hint" modes he is such a section helps students and have made mistakes, then analysis you are a solution and make appropriate correction. Information modules:

An interactive lecture is a sequence of animations that are accompanied by text or voiceover.

When working with these modules, you can turn the sound on or off, pause by pausing the module, and enlarge the screen. You can look at the scenes sequentially, and after you've finished watching all the scenes, you can go back to any scene and work through it in more detail. Practical modules:

They are a set of tasks. As a rule, the tasks in the workshops are arranged in order of complexity from scene to scene. Each time the module is launched, the numerical data in the tasks changes.

Control modules: These are sets of tasks that show the student's result with a record of the time and number of attempts. information acquisition module (I-type); Practical training module (P-type); Monitoring module (in general, attestation) (K-type).

All information modules AND have the following structure:

1. Informational part containing text, animations, video clips and interactive models.

2. Security questions.

3. A brief synopsis.

P-modules provide students with opportunities and tools to apply the acquired knowledge in practice, to consolidate this knowledge, as well as to develop skills and abilities based on it. The difference between this type of module and the others is that there is a "Hint" feature that the student can use. The K-type module presents tasks that are similar to the U-type tasks. Except that when you complete these tasks, you are not given the opportunity to receive a hint and complete the task again. The K-type tasks have primarily a control function and can be used as control and measurement materials. Among the main types of lessons, the following three can be distinguished:

- a lesson of introduction (explanation) of new material;

- a lesson to consolidate knowledge, skills and practice skills;

- a lesson of generalization and control of knowledge, skills and abilities.

The lesson of introduction (explanation) of new material can be built in the form of: the teacher's story (conversation), lecture, excursion, Workshop, research laboratory work, playful training session, etc.

A lesson to consolidate knowledge, skills and practice skills can be built in the form of: laboratory work, Problem-solving workshop, Lab, Simulation, Problem Seminar, playful training session, etc.

A lesson of generalization and control of knowledge, skills and abilities can be built in the form of: discussion, consultation, interview, theoretical test, practical test, public review of knowledge, laboratory work, Lab, independent work, Test.

In the lessons of explaining new material, electronic educational resources help the teacher to present the material clearly and intelligibly. With e-Learning Resources, the component of learning – the acquisition of information – changes. It is one thing to study textual descriptions of objects, processes, and phenomena, but it is quite another to see them and study them interactively.

The goal of this type of lesson is to teach students new material. In addition, during the lesson, in the course of studying new material, work is also underway to organize and consolidate what has been previously learned. It is impossible to study new material without recalling, analyzing, relying on the material already covered, without applying it to the conclusions of some new propositions. The goal of this type of lesson is to teach students new material.

To do this, schoolchildren should be involved in solving such didactic tasks as the assimilation of new concepts and methods of action, independent search activities, and the formation of a system of value orientations.

You can start a new introduction lesson with a problematic question that students don't yet know the answer to, but with the help of the new topic, they will be able to answer it. You can offer to do an assignment that students think they can do, but in fact they don't have enough knowledge to do it yet. The following sequence is possible:

1. New material should be studied not in class, but by offering the next educational block of I, P, K-modules (FCIOR) as homework.

2. There is no need to conduct a sample survey, with which the lesson usually begins, it is enough to look at the results of students' home self-certification, and there will be much more information about the current state of the educational process than as a result of a traditional, even frontal survey.

3. Instead of a one-sided presentation of the educational material, it is necessary to organize answers to the questions that arose during the homework, then in the process of discussion, which requires detailing, additions, and explanations from the teacher, it is necessary to formulate general conclusions.

4. If individual educational trajectories have been used, it is reasonable to give students the opportunity to compare and argue about the results of theoretical and practical assimilation of new knowledge, skills, and abilities from different, in general, subject areas. In this version, the lesson takes place mainly in the form of active communication. Such creative work of a teacher requires appropriate training. On the other hand, the main advantages are an increase in the efficiency of the educational process and the strengthening of the educational function. The lecture form of lessons is expedient when studying new material that has little to do with previously studied, considering material that is difficult for independent study, presenting information in large blocks, in terms of implementing the theory of enlargement of didactic units in teaching, performing a certain type of tasks on

one or more topics, sections, applying the studied material in solving practical problems.

Activation of students' cognitive interest at the lecture can be carried out by using a problem situation that arises in solving a mathematical, practical or applied problem. Applied problems are the main source of mathematical problem situations, so you should focus on their wide use in the development of scenarios for all types of lessons. In the course of the educational process, the I-type module can be used as a whole or its separate parts. In order to achieve the maximum pedagogical result, it is advisable to organize work on the development of the I-type module by students in two forms:

1. An individual form of work that allows you to take into account the individual characteristics of each student;

2. Work in pairs.

At the same time, the teacher can act as a coordinator, employee, or assistant.

When completing tasks from the P-type, the number of times one task can be completed is unlimited, after the first completion, the student can use the "Hint" button to get help with the task. It is advisable to use P-type e-learning not only to review and consolidate the knowledge gained, but also to create new opportunities for students to obtain additional information.

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ROLE OF ICT IN TEACHING NATURAL NUMBERS

Abstract: in this article discusses about role of ICT in teaching natural numbers.

Key words: ICT, role, teaching, natural, numbers.

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THE IMPACT OF CLIMATE AND SOCIO-DEMOGRAPHIC CHANGES ON EMPLOYMENT: THE CASE OF CENTRAL ASIA

Abstract. Climate change may have a significant impact on the labor market by causing disproportionate damage to marginal labor returns across sectors. However, this potentially significant channel through which climate change may affect social welfare has received insufficient attention.

Keywords. Renewable Energy, Climate Change, Socio-Demographic Change, Green Transformation, Central Asia, Employment Structure.

1. Introduction. The rise in air temperature in Central Asia is twice the global average, the number of extremely hot days has doubled, and a third of the glaciers have melted. Soil degradation, regular dust and sandstorms, water scarcity, air pollution, loss of biodiversity, sharp decline in agricultural productivity, and many other factors have a negative impact on the quality of life for population and labor productivity in the region.

According to the Paris Agreement, countries aim to ensure that global warming does not exceed 1.5⁰ C and increase socio-economic benefits. According to research by the International Renewable Energy Agency, the return on investment in the renewable energy industry is projected to increase GDP by 2.5 percent by 2050 and increase global employment by 0.2 percent compared to employment in traditional business activities [1]. The Global Cooling Pledge for COP 28 includes 66 national government signatories committed to working together with the aim of reducing cooling-related emissions across all sectors by at least 68 per cent globally relative to 2022 levels by 2050.¹ Based on the results of the study of the impact of climate change on employment in the case of Central Asia, it was found that the volume of CO₂ that causes climate change, the reduction of its amount per capita, the increase in the consumption of renewable energy, the composition of employment, and the amount of GDP per capita increase the tension.

2. Study site. In an efficient economy, there is the task of efficient use of resources and the task of increasing the well-being of society, including not only

¹ https://unfccc.int/sites/default/files/resource/Summary_GCA_COP28.pdf

meeting the material needs of society but also the task of increasing the standard and quality of life in general.

3. Methods. To estimate the contribution of climate change to employment in 5 Central Asian countries' economies, we employ an econometric approach with panel data. Equation (1), which represents the empirical model to be estimated, has the following form: where i is certain country index and t is adequate timeline. The multifactor regression equation was used in the research method.

$$\text{Ln(EMPL)}_{it} = \beta_0 + \beta_1 \text{Ln(N)}_{it} + \beta_2 \text{Ln(HGHpercapita)}_{it} + \beta_3 \text{Ln(GDPpercapita)}_{it} + \varepsilon_{it} \quad (1)$$

The dependent variable Ln(EMPL)_{it} is expressed by the logarithm of employment. Among the explanatory variables, it is of particular interest the variable CO₂ emission per capita, measured by the logarithm (LnHGHpercapita). In addition, given their relevance as explanatory factors in this relationship, we also control for the effect of GDP per capita, expressed in its logarithm form (LnGDPpercapita), and population Ln(N)_{it} which measures the extent to which an economy relies upon allocation labor resources to use its human resources. The coefficient β_{\square} is a country-specific effect that captures time-invariant observed country characteristics, and ε_{it} is the error term.

We make use of a balanced panel dataset composed of 5 Central Asian countries in the period between 1990 and 2023, where data are available for all the variables and countries. This is a panel of countries with similarities.

4. Results.

This section presents and discusses the results of the estimation model to test the observed positive relationship between renewable energy expansion (REN) and employment (EMPL). The 2SLS regression model was used in table 4. Population and per capita CO₂ emissions were taken as endogenous factors.

. An increase in CO₂ per capita affects population size, life expectancy, the number of children per mother, and the growth of GDP per capita.

Table 4.

Correlation between CO₂ emissions, demographic and socio-economic factors, 1990-2023

2SLS Variation difference:	(1) Employment in agriculture	(2) Employment in Industry	(3) Employment in Service
Demographic factors(P= Rural Population; Life expectation;Fertility (births per woman))			
ln(N)	2.11e-11	-5.29e-10	2.12e-11
	4.70e-11	3.23e-10	4.60e-11
Ecological factor (CO2=REC per capita)			
ln(HGHpercapita)	.000026	-.0001488	.000027
	.0002094	.0006723	.0002047
Socio-economic factors			
ln(GDP per capita)	-3.94e-07	-4.68e-07	-3.94e-07

	3.58e-07	5.13e-07	3.50e-07
Diagnostic tests:			
Number of obs	158	158	158
R-squared	Within-0.9700	Between-0.8700	Overall-0.9800
F-test for hypothesis H0	107.02 [0.0000]	56.92 [0.0000]	52.03 [0.0000]
Durbin-Wu-Hausman test	3.28 [0.1942]	4.81 [0.4401]	4.75 [0.4466]
Hansen J test	.61467943 [.26459927]	.20559914 [.0976922]	.30149821 [.260282]
Breusch-Pagan / Cook-Weisberg test for heteroscedasticity	1.32746 [0.5149]	1.84 [0.1748]	4.78 [0.0288]

To determine which model specification is the most appropriate, the standard F-test for fixed effects was conducted. Results validate the null hypothesis that the pooled 2SLS model is more adequate than the fixed effects model. The results of our empirical study reveal robust evidence of a positive and statistically significant effect from REC on employment in agriculture and service sectors through the Central Asian economy.

5. Discussion.

The main and dominant element of climate warming is CO₂. From 2020 to 2060, China formulated the goal of making the country carbon neutral. Technological innovation increases the use of renewable energy and increases the efficiency of coal, oil, and natural gas use [2].

The role of green technology innovation and ICT employment in China's intensification of decarbonization was studied by Hongye Sun [3]. The research clarified that a green economy, investing in technologies, and increasing the use of ICTs, will reduce the spread of harmful substances into the environment. The importance of the cooperation of countries, the power of information diffusion, and the introduction of technological innovations will increase. To do this, it has adopted a low-carbon strategy for transition to a green economy and development at a high level.

6. Conclusions. The volume of waste, the increase in toxic substances in the air, in densely populated areas, sharply affects the health of the population and increases the quasi-exogenous death rate. The main cause of climate change is the increase of CO₂ in the air. Climate change, including global warming, has contributed to the decline in agricultural employment in Central Asian countries. Increasing climate change shocks the energy system, and various uncertainties arise.

The increase in the consumption of renewable electricity in Central Asian countries from 1990-2023 had a positive effect on the reduction of CO₂ per capita. The rate of decrease in the share of employment in agriculture among the population of Central Asian countries with high population growth is somewhat

lower. There is a correlation between an increase in life expectancy at birth, a decrease in the number of births per woman during the fertile period, and an increase in GDP per capita.

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GEOGRAPHIC-TOPONIMIC ANALYSIS OF THE FORMATION OF THE NAMES OF EUROPEAN AND ASIAN COUNTRIES

Abstract. In the article, the geographical features of the territory, which are an important indicator in the formation of the names of European and Asian countries, are explained on the example of the names of the countries, in which it was determined that the natural geographical aspects of the place were the most involved in the formation of toponyms.

Key words: toponym, country, state, geographical location, state of the place, territoriality.

Introduction. Names clearly capture important aspects of the nature of a place. Therefore, most names reflect the natural conditions of the place, geographical location, relief, type of geographical object, climate, and a specific feature of the landscape. Below we aim to analyze the formation of the names of European and Asian countries from a geographical and toponymic point of view.

The main part. The following scientific and research institutions deal with the geography and names of European countries: the Belgium Geographical Institute, the Bulgarian Geographical Society, the Portugalies Research Council for Natural Sciences (founded in 1936), the Romanian Geographical Scientific Research Institute, which began its work in 1944, etc [1].

There are countries on the European continent that are named according to their geographical location, situation and specific features, terrain:

- Austria is actually derived from the German word "Osterreich" which means "east" and "reich" means "land", i.e. "eastern country". In modern German it is called "Osterreich". In the 9th century, the country was the easternmost part of the Frankish Empire. Charlemagne called the country "Ostmark" (Eastern Frontier). The term "Ostarrichi" appeared for the first time in the XI century [2]. Today, the Republic of Austria is characterized by its location in the center of Europe.

- Albania mountainous country. The root "alb" means "white" or "mountain". During the Arab era, the name of Albania was replaced by "Arron". The country is called "Shqiperia" among local residents. This word means "eagle". Apparently, the eagle was the totem of the Albanians. The inhabitants of the country call themselves Shkiptar. Albania is a "country of mountains".

- Andorra Located on the Iberian Peninsula, it is a Basque term. The word Andorra means "andurrial" - "bare". Andorra means "bareness".

- Great Britain is a kingdom located in Western Europe. The word "great" is used as a reference to the majesty of the island. There are the following opinions about the term Britain: some scholars believe that it is derived from the name of Celtic tribes "Britti" and "Brit" means "swamp" [3]. The phrase "foggy Albion" is also used in the naming of Great Britain. This is because the British Isles have many foggy days for most of the year.

- In the name of the Denmark kingdom, we can see a name related to the relief. The word "dhen" in the name of the country is German and means "low" or "flat". The word "Mark" means "border", and the toponym known as "Denmark" was formed. "Denmark" means "lower border".

- Island island means "land of ice" in the Dutch language based on the toponym "Iceland". Ireland is used in the sense of Irish "Eire" and Celtic "weriudan" - "fertile land", i.e. "abode of the goddess of fertility" of the Celts. In 1937, in the new constitution of the country, Ireland was declared as the "Independent State of Eire" [4]. Eire (Eire) is the official name of Ireland from 1937 to 1949. If we think of Ireland as a western island, we are referring to Europe, and the Irish people formed on the island. The name Netherlands has been used since the end of the 15th century, and this term became the name of the country with the name "nider" - "low", "land" - "land", that is, "land in the lowlands". Also, the second unofficial name Holland was in use until January 1, 2020.

- The word Montenegro means "black mountain" in the Slavic language. Since 2011, the London Geographical Society has published a new edition of the political map of the world. On this political map, Montenegro was marked as "Monte-Negro". Montenegrin was called "black mountains" by the Venetian military because of the appearance of the Lovcen mountain in the country or its dark leafy forests [5]. The name of the country was debated as Duklja until the 11th century, then Zeta, and Montenegrin in the Slavic language from the 15th century.

- The name Ukraine originally referred to some Russians in the south-west and meant "kray" - "border". In the late 16th and early 17th centuries, it spread to all Ukrainian lands and became the ethnic name of the Ukrainian people. Ukraine is a Slavic word meaning "border area". This name was expressed as a generic noun and later became an ethnonym [6]. Today, the word "kray" is used in the sense of "country". Thus, the toponym was the reason for the emergence of the ethnonym. During Tsarist Russia, Ukraine was called Malo Russia.

- The name of the Aland Islands is used in the Swedish language in the sense of "aland - "water-place", i.e. land between waters" [7]. It is one of the island countries dependent on Finland in the Gulf of Bothnia of the Baltic Sea.

There are also countries named after water bodies on the European continent.

- The country of Bosnia and Herzegovina included two territories that were independent from each other. The large part in the north (Bosnia) is named after the river Bosna, and the small area in the south takes its name from the German

noble title "duke". This honorary title was given to the territory belonging to Stefan Vičić by Emperor Frederick IV in 1448. Stefan Vičić proclaimed himself duke in 1448 and his lands were named Herzogovina.

- There are 3 different hypotheses about the naming of Lithuania, and according to historical data, this name was mentioned for the first time in 1009. First, the Neman River was formerly known as Leyta or Lista. Based on this name, the name Lithuania was born. The second comes from the name of the Lista people who lived here. The third is defined as "lietus" - "rain". In Lithuanian it is called Lituva.

- There are also different opinions about the name of the country of Moldova. The first is derived from the name of a river in Romania called Moldova. River water was used because the river is rich in minerals. "Molde" is the German term used for this type of fossil. The second one originates from the name of the Moldovan people living in this country [8]. Thirdly, according to some researchers, there are assumptions that this name is related to the word "Maldiv", "Molid" - "pine".

Some natural features are expressed in the names of several countries located in Asia: The term Vietnam was first used in the 16th century by a poet named Nguyen Binh Khiem in his book "Vietnam was created". In 1804-1813, Emperor Zia Long introduced the use of this term in official documents. Until the 10th century, the local people called the country Annam. The meaning of the word Vietnam is the southern country.

On the map of Asia, Nepal is located in the form of a long right angle. The name of this country, when translated from Sanskrit, means the place at the foot of the mountain, which is very similar to its geographical situation. The Indians called their river "Sindhu", the Persians called it "Hindu", and the Greeks further distorted this word and called it "Indus" (Indians call their homeland Bharat in Hindi) [9]. One of the Asian city-states, Singapore, got its name from the name of the city founded by the British in 1819. The name of the city means "city of lions" in Sanskrit.

Azerbaijan, one of the Caucasian countries, is known as the "land of fire". After the Arab conquest in the 7th century, Aderbeygon got its current name. S.Karaev emphasizes the opinion that after the collapse of the Median state, the Atropaten state will appear in its place, and perhaps the ethnonym of Azerbaijanis is derived from the name of this state [10]. In connection with the religion of Zoroastrianism, it is called "the country of fire worshipers", and according to another assumption, it is explained by oil extraction.

We can see that the names of the island countries of Asia are mainly related to natural conditions (East Timor, Bahrain, Japan, Cyprus, Maldives, Singapore, Indonesia, Sri Lanka). There are also names that are formed by the location of certain peoples in the territory, and later in the name of the countries, the combination of the people and the territory.

Conclusion. Europe and Asia are the cradles of ancient civilizations. This subregion, which unites the Mediterranean Sea and the Arabian Peninsula and its adjacent territories, is distinguished by the antiquity of its toponymy. The geographical features of the region are the leading factor in the formation of place names of the country, and the geographical features of the place are reflected in the place name. Also, in the formation of the names of the countries of the continent, the names related to the ethnic origin of the place are the majority.

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WRITTEN WORKS OF SECONDARY SCHOOL STUDENTS

Annotation. This article is connection with incoming requests about the types of written work of students, the frequency of control work, their verification, requirements for maintaining student notebooks, as well as in order to prevent overload of students, are explained the following.

Key words. Control work, classroom, textbook, training, lesson, grade, volume, calligraphy.

Assessment and measurement play a key role in informing educators' practice in classrooms, students' understanding of their own learning, parents' capacity to support their children's success in school, and policy-makers' decision-making.

Types of student written work:

1. The main type of classroom and home written work by students is educational work, which includes:

- exercises in... foreign languages, the types and volume of which are determined by assignments from textbooks and teaching aids for teachers.

II. Number and purpose of student notebooks

1. To complete all types of training work, as well as short-term written tests, students must have the following number of notebooks:

- in foreign languages - 2 notebooks, including 1 for all educational work, in addition, 1 notebook on calligraphy in grade V and 1 notebook for writing foreign words in grades VI-X....

III. The procedure for checking students' written work

1. -... notebooks... in a foreign language... in grades IX-X are checked randomly, however, each notebook must be checked at least once per academic quarter;

- notebooks for exercises in foreign languages are checked after 2-3 lessons, a notebook on calligraphy in grade V - after each lesson, and dictionaries - 1-2 times a month.

2. Work on errors, as a rule, is carried out in the same notebooks in which the corresponding written work was carried out....

5. When checking notebooks in... foreign languages, the teacher emphasizes and does not correct errors. Students are given the task of correcting mistakes or performing work to prevent the repetition of similar mistakes.

6. For all tested tests, including short-term ones, the teacher gives grades and records them in the class journal.... When checking student notebooks... only the most significant of the checked works are evaluated (and graded in the journal).

When assessing students' written work, teachers are guided by the appropriate standards for assessing the knowledge, skills and abilities of schoolchildren. The Ministry of Education proposes to bring the recommendations set out in this letter to all school heads and use them in the work of schools from the beginning of the academic year. Previously issued instructions on the issues set forth in this letter are considered no longer valid.

In connection with the order of the Minister of Education "On the written work of students in secondary schools," is created a brief commentary on the provisions set out in the order regarding the maintenance and checking of notebooks in foreign languages in a secondary school. Writing in a foreign language in a secondary school does not serve as a learning goal, therefore all written work of students is considered exclusively as a learning tool that contributes to the mastery of reading and speaking; Taking into account these basic provisions, the nature of written work, the time and place of its implementation and the types of notebooks are determined. Student notebooks used when teaching a foreign language can be divided into three types:

1. Calligraphy notebooks (Grade V).
2. Notebooks for performing written educational work (grades V-X).
3. Notebook-dictionary (grades VI-X).

From this classification it follows that in the fifth grade at the initial stage, when writing as a means of learning is aimed at developing foreign language calligraphy skills, students, complete all written tasks only in notebooks of the first type, i.e., in calligraphy notebooks. For calligraphy work, an ordinary notebook with one line, 12 sheets in volume, is used. It is not recommended to complete calligraphy assignments in thicker or general notebooks: the soft cover may lose its aesthetic appearance over time and require replacement, and the number of pages in a general notebook significantly exceeds the volume of calligraphy assignments offered in educational complexes.

Sum up, in the subject "Russian language", students write in notebooks with one line and, thus, are accustomed to working in notebooks of this type. Students sign the calligraphy notebook in the prescribed manner, in Russian. In this case, accordingly, a single version of the name of the notebook is used: "Notebook for work in the English (German, French, Spanish) language."

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CREATING A SYSTEM OF EQUATIONS AND SOLVING PROBLEMS RELATED TO THEIR SOLUTION

Abstract. The article presents theoretical and experimental results on the use of error-free calculations for solving systems of linear algebraic equations. Solving systems of linear algebraic equations is one of the fundamental problems of mathematics. In particular, it arises when solving boundary value problems for differential and integral equations, to which real problems of technology, physics, economics, and mathematics are reduced.

Key words: calculations, system of linear algebraic equations, parallel calculations, computational complexity.

Many problems of theoretical and applied mathematics are brought to the solution of a system of linear equations of the first degree. For example, problems of interpolation with the n -order polynomial using the values of the function given at n points or approximation of the function using the method of mean squares are brought to the solution of the system of linear equations of the first order.

A system of linear algebraic equations.

The source of the formation of a system of linear equations of the first order is the approximation of continuous functional equations with finite difference equations. Solving the system of first-order linear equations is divided into two methods, i.e. exact and iterative methods.

An exact method means finding an exact solution to a problem as a result of the exact execution of a finite number of arithmetic operations.

In iterative methods, the solution of a system of linear equations is found as a limit of successive approximations.

System of linear equations and their solution. Many practical, including economic, problems lead to the concept of a system of linear equations.

DEFINITION 1: A system of m linear equations with n unknowns is a system of the following form:

Here, a_{ij} and b_i ($i=1,2, \dots, m; j=1,2, \dots, n$) are given and arbitrary fixed numbers, the numbers a_{ij} are the coefficients of the system (1), and b_i are the free terms is called In this system, x_j ($j=1, 2, \dots, n$) are unknowns, and it is required to find their values.

Using the sum symbol, system (1) can be briefly written as follows:

Now we introduce the rectangular matrix A composed of the coefficients a_{ij} of the system of linear equations (1) or (2), the matrix X and V formed from the unknowns x_j and free terms b_i .

Then, using matrix multiplication, (1) the system can be written in the following matrix form, which is compact and convenient:

$$AX=V. (4)$$

DEFINITION 2: The solution of the system of linear equations (1) or (2) is said to be such numbers $x_1=a_1, x_2=a_2, \dots, x_n=a_n$ that when they are put into the system of equations, each equation is satisfied, i.e. until 'grey becomes equal.

Solutions of the system if the column matrix is written in the form In this case, the column matrix X consisting of n numbers is one solution of the system.

For example, for a system of equations with $n=3$ unknowns and $m=2$ $x_1=1, x_2=-2$ and $x_3=5$ or the numbers that make up the dominant matrix are the solution. Indeed, if we put these numbers into the equations of the given system (5), we will have correct equalities.

Checking for the existence of a solution to a system and, if it exists, finding it is called solving the system. There can be three cases when solving a system of linear equations.

Case 1. Sistema has a solution and this solution is unique. For example,

$$x_1=2 \text{ and } x_2=-5$$

are unique solutions for the system.

Case 2. The system has a solution, and this solution has more than one. For example, it is possible to directly check that $x_1=-5, x_2=26$ and $x_3=43$ are also solutions for the system (5) above.

Case 3. The system has no solution. For example, the system has no solution because there are no numbers whose sum is both 1 and 0 at the same time.

We will consider the method of solving the system of linear equations by successive elimination of unknowns, that is, the Gaussian method.

This method has several calculation methods. One of them is Gaussian complex path.

Let this system be given Suppose that $a_{11} \neq 0$ (the leading element), otherwise we change the places of the equations and move the equation with a non-zero coefficient in front of x_1 to the first place.

All the coefficients of the first equation in the system are divided by a_{11} ,

$$x_1 + b_{12}(1) x_2 + \dots + b_{1n}(1) x_n = b_{1(n)+1} (2)$$

we generate, here

$$a_{12} = b_{12}(1), \dots, a_{11n} = b_{1n}(1), a_{1,1n+1} = b_{1(n)+1} a_{11}$$

or briefly $b_{1j}(1) = a_{11j} / a_{11} (j \geq 2)$. Using equation (2), it is possible to eliminate x_1 in the remaining equations of system (1). For this, equation (2) is successively multiplied by a_{21}, a_{31}, \dots , and the second, third, etc. of the system, respectively. subtract from Eqs. As a result, the following system is formed. where $a_{ij}(1)$ are the coefficients

$$a_{ij}(1) = a_{ij} - a_{i1} b_{1j}(1), (i, j \geq 2)$$

is calculated using the formula.

Now we perform similar substitutions on system (3). To do this, divide all the coefficients of the first equation in system (3) by the leading element $a_{22}(1) \neq 0$,

$$x_2 + b_{23}(2) x_3 + \dots + b_{2(2n)} x_n = b_{2,(2n)+1} \quad (4)$$

we generate, here

(2) a

$$b_{2j} = a_{22}(1) \quad (j \geq 3)$$

Using the equation (4) in the following equations of the system (3), we eliminate x_2 as above, we come to the system, here

$$a_{ij}(2) = a_{ij}(1) - a_{i2}(1)b_{2j}, \quad (i, j \geq 2)$$

The process of eliminating unknowns is continued, and we assume that this process can be completed up to m -step, and at m -step we have the following system. here

a (m)

(m) m_j , a(m)

$$b_{mj} = a_{mm}(m) \quad i_j = a_{ij}(m-1) - a_{im}(m-1)b_{mj}(m) \quad (i, j \geq m+1).$$

Let m be the number of the last possible step. There can be two cases: $m=n$ or m . If $m=n$ is a triangular matrix and the system (1) is equivalent to the following we will have a system. From the last system one can find x_n, x_{n-1}, \dots, x_1 in sequence (6) finding the coefficients of the triangular system is called the straight walk of the Gaussian method, and finding the solution from the system (7) is called the inverse walk of the Gaussian method.

We have a system of linear equations in which the number of unknowns is equal to the number of equations we got acquainted with Cramer and matrix method of solving. This method is weak the downside is that there are too many when the number of unknowns is somewhat large calculations have to be done. For example, four lines with four unknowns for solving the system of equations by the Cramer method, five of the fourth order it is necessary to calculate the determinants. The fourth-order determinant is something when spreading over row or column elements, the distribution has four third orders determiner participates.

Methodology of teaching solving problems by forming equations.

The mathematics textbook is supposed to teach students to solve some problems by creating equations. To learn how to solve simple problems of adding, subtracting, multiplying and dividing unknown numbers by creating equations and solving text problems using equations together with examples strengthening the knowledge of students is an important task. The main goal is to create a foundation for the formation and development of logical thinking skills, to be able to express one's thoughts independently, to expand the students' thinking worldview, and to train their intelligence and the virtue of present-responsibility.

The mathematics textbook is intended to teach students to solve some problems by creating equations. In order for students to learn to solve problems with equations, they will need to separate the given and desired quantities in the problem. Solving simple problems using equations begins in second grade. In the second grade, simple problems on finding the unknown components of addition, subtraction, multiplication and division operations are solved by the method of creating equations.

Determine which equations they are when you start solving a system of equations. Methods for solving linear equations are well studied. Nonlinear equations are often unsolvable. There is only one special case, each of them is almost individual. Therefore, the study of solution techniques should begin with linear equations. Such equations can even be solved purely algorithmically.

If the system is specified with clear numerical coefficients, then the calculations will be less cumbersome. But the general solution allows us to consider that the denominators for the unknowns found are exactly the same. And the figures show some patterns of their construction. If the size of the system of equations is greater than two, then the elimination method leads to very inconvenient calculations. Only algorithmic solutions have been developed to avoid them. The simplest of them is Kramer's algorithm (Kramer's formulas). To study them, you need to know what a system of general equations of n equations is.

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PRINCIPLES OF IMPROVING ACCOUNTING IN BUSINESS ACTIVITIES OF THE ENTERPRISE

Abstract: as you know, small business occupies an important place in the country's economy. While small business is successfully practiced in the economy, it effectively affects the economic-social development of the country and reduces social tension. The most urgent issue is the maximum simplification of accounting procedures for small business entities, taking into account the limitations of financial resources, without harming the performance of the tasks assigned to the business entity. A small enterprise has the right to choose its own form of accounting based on the needs of its activities and management, their complexity and number of employees. At the same time, a small enterprise, observing the basic principles of accounting, can adapt the applied accounting registers to the specifics of its work. When organizing accounting for a simplified form of accounting, small enterprises are advised to draw up a working plan of accounts based on a standard accounting plan. One of the main problems for most small enterprises is the inability to correctly understand the need to organize accounting. In practice, such cases also occur that accounting policies are often erroneous, without comprehensive analysis, that is, developed exclusively for tax inspection. This ultimately leads to the suspension of the performance of the following main tasks of accounting: the formation of complete and reliable information about the processes and results of economic activity; ensuring the availability and movement of property, control over the rational use of production resources; identification of internal production resources; timely prevention of negative phenomena in financial and economic activity; assessment of the actual use of identified resources. In this article, the features of accounting in small enterprises are studied, the main problems are identified and ways of improving accounting are proposed.

Keywords: accounting, accounting standards, small enterprise, accounting problems, accounting policy.

Introduction

In modern business conditions, accounting performs one of the most important functions of managing the activities of an economic entity, guaranteeing profit, ensuring the profitability of financial and economic activities. Enterprises, including small business entities, independently carry out accounting in accordance with regulatory legal acts, taking into account the needs and scope of activities, the needs of the management, the number of employees, as well as the current taxation procedure, choosing its form.

Further development of market relations in our country is directly related to the adaptation of the management system in enterprises of various industries to new requirements - the rules of accounting procedures carried out in these entities. "Accounting consists of an organized system of collection, recording and generalization of accounting information, as well as the compilation of financial and other reports on its basis, by taking into account all economic operations in a holistic, continuous, document-based way."

Accounting is directly related to the development of the personality society, the procedure for its functioning. American field scientists professors B. Needles, H. Anderson and practitioner According to Coldwells: "accounting is considered a link between economic activity and people making management decisions"[2]. The history of the formation and development of accounting was inextricably linked with the progress of society, changes in the social sphere. Western scholar M.R. Matthews and H.B. In their textbooks, the Pereras substantiated the connection between social progress and accounting as follows: "... while changes in the social sphere have become the main factor in accounting, in turn, social changes are also inextricably linked with the development of accounting."

Methodology

OECD scientist, professor M. Ostonakulov's textbook also reflects the connection between the life of society and accounting: "even since the basis of the life of society is the production of material goods, the account was used in order to observe what is happening in the social life of people, to take into account the weapons and labor items that exist in society, as well as labor processes"[4]. A well-known Russian scientist, professor V.F. Paliy defines the subject of accounting as: "... the subject of accounting consists of the processes associated with capital, its increase or decrease, introduced as funds for the activities of the enterprise."

Professors from Harvard University (USA) R. Anthony and Dj. In the textbook of Riss, the content of accounting is expressed as follows: accounting – "...it is the process of identifying, measuring and transmitting economic information for the purpose of making reasonable assessments and decisions by users of information".

The set of methods of accounting in small enterprises is reflected in the accounting policy. Current issues that should be reflected in the formation of accounting policies include:

- 1) functions and structure of accounting of small enterprises;
- 2) features of the process of document circulation and processing of accounting data;
- 3) systematization of accounting and tax accounting;
- 4) working plan of accounting accounts, which includes synthetic and analytical accounts necessary for maintaining accounting in accordance with the requirements for the timeliness and completeness of accounting and financial (accounting) reporting;

5) primary accounting documents and accounting and tax accounting registers, which are used for the registration of economic activity processes and are not provided for by sample forms of primary accounting documents, as well as forms of internal accounting;

6) other decisions necessary for proceedings.



Fig. 1. Accounting policies

It is worth noting that in small business entities, accounting is characterized by some features that are not characteristic of medium and large enterprises:

It is worth noting that in small business entities, accounting is characterized by some features that are not characteristic of medium and large enterprises:

1. The separation between accounting clerks according to the division of Labor is partial or incomplete. In most cases, accounting is carried out by one official (accountant), and in some cases, the accounting service acts as an independent structural unit.

For business entities with a large number of counterparties, a wide range of manufactured and sold goods and significant staff of employees, the accounting department functions as an independent structural unit consisting of several employees, each of which is allocated a group of accounts, for which information is collected, processed, reflected in accounting accounts and accounting registers are formed. However, it should be noted that in small enterprises, the control function is limited to the established accounting area, as a result of which systematically conscious or random errors occur in accounting. It follows from this that, on the one hand, the chief accountant is a person interested in distributing the work of employees in order to increase responsibility for the results, on the other hand, taking into account the peculiarities of the activities of small enterprises, only

the work of highly specialized employees will not be worthwhile, since in this case it will be necessary

In order to solve problems of such appearance, the head of the enterprise and chief accountants must rely on the qualification reference of specialists and other staff positions, which ensures the correct selection, placement and use of personnel, an effective mechanism for determining functions, powers and responsibilities between employees, and also helps in setting unified approaches to setting tasks and qualification requirements.

2. The performance of relevant and unusual functions that must be performed by the chief accountant or an employee of the accounting department by other branches of the business entity is also carried out. In small enterprises, the accounting department often performs the tasks of working with employees, solves legal problems, prepares projects and contracts, draws up a package of documents, draws up business and performs other functions of financial management.

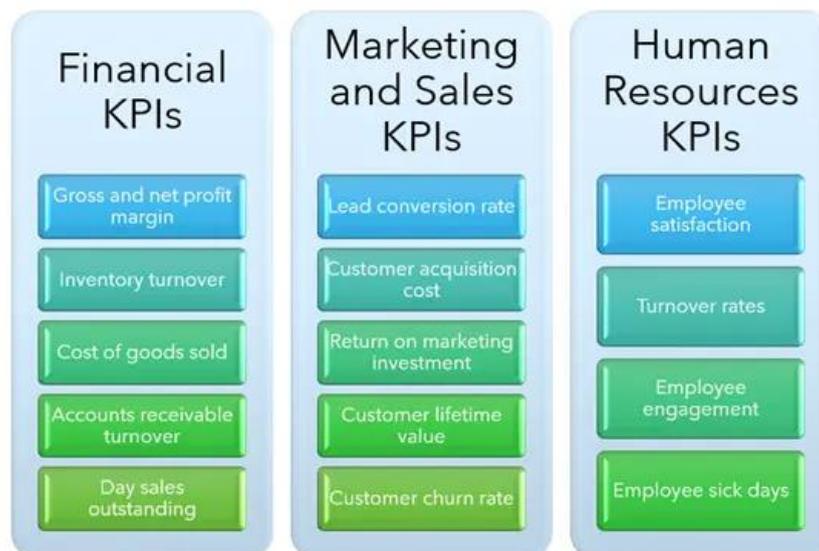
3. Significant impact of legislation in the field of taxes and taxation on accounting. Since small enterprises have limited financial and technical capabilities for maintaining financial, managerial and tax accounting at the same time, small enterprises are forced to give preference to one of these accounts, and, as a rule, to a tax account.

4. Small enterprises depend on the standard software of accounting automation, which makes it impossible to adapt to the characteristics of the business entity. Obviously, the use of software products in accounting can significantly facilitate and reduce the paper work of an accountant, but at the same time, a decrease in the level of understanding of the characteristics of employees in accounting for operas, the principles of making two-way entries, etc.

In this regard, the researcher E.N.As Potexina noted, the general problems inherent in the maintenance of accounting in small enterprises include:

1) absence or imperfection of the structure and functions of the accounting department of the enterprise;

2) the fact that the main elements of the accounting policy of the business entity, taking into account special taxation regimes, help to determine the relationship between accounting and tax accounting, are not analyzed



Another researcher is A.A. Popova believes that as an important problem of accounting for small businesses, it is necessary to optimize the process of accounting for income and expenses in accordance with the requirements of tax legislation, in particular, to use the general taxation system in the procedure for calculating income tax, to conduct separate accounting for types of activities under special tax regimes.

The main element of the accounting policy of any economic entity is the Working Plan of accounts, which includes synthetic and analytical accounts, which are used in accounting in accordance with the requirements for the completeness, timeliness and reliability of accounting and reporting.

Today, the standard accounting plan and instructions for its application are used for the accounting of financial and economic activities of economic entities, and on their basis-regardless of ownership and organizational and legal form, it is necessary to carry out accounting in accordance with the method of making two - way entries in all economic entities.

In small business, two issues in the development of a policy of non-compliance are considered: the first is the use of even forms of headscarves from officially defined forms of startup documents or the introduction of additional forms into officially defined forms. to determine the procedure for the circulation of documents in the accounting of the enterprise, and the second. development of a plan of working accounts of the buxgalteria account at the enterprise.

When applying a simplified system of accounting accounting, it is allowed to harmonize the listed registers of economic accounting in accordance with the characteristics of its activities. But it is necessary to comply with the requirements in this regard:

- to a single methodology of accounting accounting, to the principle of two-fold writing;
- analytic property to the interconnection of synthetic property data;

- to reflect all cell operations to joppasi in the CIS registers;
- to refer to the account based on the initialization documents;
- to be collected and sorted according to the necessary indicators for the compilation of financial statements of the data of beginner documents.

The maintenance of accounting accounting is divided into gropus on the tail:

- initialization of all cell operations to the corresponding initialization cell formation orcali Yoppa;
- entering data in startup documents into the registry;
- compilation of financial statements.

In the accounting policy of the enterprise should be taken into account the missing links in high. Chunonchi, the policy of accounting illuminates the specific aspects of the Uzi in the structure and use of initiating documents at the enterprise: in the process of Khojaly, kandai initiating documents are drawn up, who make and sign documents, by whom documents are processed again, requisites of documents and etc.

It should be noted that the procedures of the simplified accounting system are established in the national standard of accounting of the Republic of Uzbekistan No. 20 (BHMS), which is called "on the procedure for simplified accounting and the structure of reports by small business entities" [9]. Paragraph 1.2 of the standard states that it is valid in one Cator with the general coils established by the requirements of the accounting accounting act, but does not express withdrawal from the conundrous requirements of the standard accounting act. As stated in Paragraph 22 of the standard, in allocida's detailed reflection, measurement and disclosure of operas and sermons, it is laced in thepik along with the Bosca national standards of accounting accounting.

However, this standard has the following disadvantages:

- the changes that occur in the standard account plan are not taken into account, which undoubtedly makes the proposed working Account plan impossible for use by the business entity. The developed corrections are fundamental in nature, since in some cases they change the process of reflecting the facts of economic activity, and it is impossible to mechanically replace old numbers with new ones.

The developed variant of the working accounts plan did not take into account the specifics of the business entity, compiled using a simple summing of the synthetic positions of the standard accounts plan.

Conclusion

Practitioner-researchers point out many different perspectives on the use of a single standard account plan for all branches of business. In Particular, E.N. Potexina believes that the role of a single account plan serves the purposes of both a financial and a management account; a financial account is linked to accounts reflected in the balance sheet, and a management account to accounts without balances and turnover [7]. E.E.Koba notes that a single account plan-which makes it difficult to reflect the specifics of the production enterprise.

When developing new accounting standards, the opinions of both above-mentioned practitioners-researchers should also be taken into account, since there are general rules for ensuring the unity of reflection of the facts of financial and economic activity, applying a standard accounting plan for property and obligations, reporting, but at the same time when applying a standard accounting plan, it will be difficult Business entities can take into account the peculiarities of their activities as much as possible when developing a working plan of the account. In order to carry out methodological assistance to small business entities, it is important to develop a regulatory legal document reflecting the characteristics of the economic subject and the specifics of accounting.

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ANGIOTENSIN-CONVERTING ENZYME INHIBITOR LISINOPRIL: FEATURES OF USE IN CARDIOLOGY

Abstract. The renin-angiotensin system plays an important role in the development of cardiovascular diseases. Over the past decade, numerous studies have been conducted that have examined the clinical effectiveness of angiotensin-converting enzyme (ACE) inhibitors in various clinical conditions.

Keywords: ACE, cardiology, effectiveness, enzyme, disease.

INTRODUCTION

ACE inhibitors (according to currently available data) are generally not superior to other classes of antihypertensive drugs in terms of their effect on the prognosis of arterial hypertension (AH). However, the advantage of ACE inhibitors as first-line drugs for hypertension can be considered in patients with concomitant heart failure, left ventricular systolic dysfunction or diabetes mellitus, previous myocardial infarction or stroke, as well as in patients at high risk of coronary disease. The effectiveness of drugs in this group in these samples was confirmed in special studies [1–3].

MATERIALS AND METHODS

Recently, data have appeared on the possibility of a beneficial effect of ACE inhibitors on the prognosis of life of patients with uncomplicated ischemic heart disease (HOPE, EUROPA studies), in connection with which the issue of including this group of drugs in the mandatory list of drugs prescribed was decided - for this disease (along with aspirin, β -blockers and statins).

RESULTS AND DISCUSSION

The group of ACE inhibitors is quite large. These drugs differ from each other in the following parameters:

- chemical structure (presence or the absence of a sulfhydryl group, some other structural features of the molecule);
- metabolic features (whether the drug is metabolized or not metabolized during the first passage through the liver);
- peculiarities of drug excretion from the body (only by the kidneys or both the kidneys and the liver);
- tissue specificity;
- duration of action. The presence of a large number of ACE inhibitors poses a difficult task for clinicians in choosing a specific drug for a specific patient. The question arises to what extent the above-mentioned differences between ACE

inhibitors affect their clinical effectiveness and whether these differences should determine the choice of a particular drug. The answer to this question is generally negative, primarily because today there is no reason to believe that these particular features determine the clinical effectiveness of a particular drug from the group of ACE inhibitors.

Since, as noted above, the main effect of ACE inhibitors is their ability to improve the prognosis of diseases, it is fundamentally important whether this ability is inherent to the same extent in all drugs in this group. Please note that the evidence base regarding the effect of a particular ACE inhibitor on disease outcomes varies greatly for different drugs. This raises the question of how far the effects proven for one drug can be attributed to another drug from the same group (this question actually arises when considering other groups of drugs, not just ACE inhibitors), in other words, how universal is the concept of “class effect”.

C. Furberg, in a number of publications devoted to this issue [4, 5], comes to the unequivocal conclusion that in no case can the effect of improving patient survival achieved by using one drug be transferred to another a drug of the same class (it proves this in different groups of drugs, in particular statins). In relation to ACE inhibitors, this idea can be illustrated, for example, by the fact that not all ACE inhibitors have proven their effectiveness in the treatment of patients with uncomplicated ischemic heart disease: while ramipril and perindopril significantly improved the prognosis of this disease (HOPE and EUROPA studies), quinapril did not have such an effect (QUIET study) [2]. According to C. Furberg, only a few ACE inhibitors today can be considered drugs with proven effects (he includes 5 drugs: captopril, enalapril, lisinopril, ramipril, trandolapril); It is these drugs that should be given preference in real clinical practice (at least for those diseases for which the effectiveness of specific drugs from this group has been proven).

Lisinopril, unlike many ACE inhibitors, is not a prodrug and is not metabolized in the liver; it is excreted unchanged by the kidneys. The half-life is about 12 hours (increases significantly with impaired renal function). Lisinopril has low tissue specificity, being significantly inferior in this regard to such drugs as quinapril, benazepril, ramipril, perindopril. A typical side effect for ACE inhibitors—dry cough—is observed much less frequently when taking lisinopril (1.6%) than when taking captopril, perindopril and enalapril (5.1; 2.2 and 7% respectively) [3]. This may be due to the low lipophilic properties of lisinopril, which affect the accumulation of the drug in tissues. Like all ACE inhibitors, lisinopril is a metabolically neutral drug. Despite its unremarkable pharmacological properties, lisinopril is one of the most popular ACE inhibitors, primarily due to the fact that it has been used quite actively in large controlled studies.

Lisinopril was one of the first ACE inhibitors, which was proven to improve the prognosis of life in patients with acute myocardial infarction. The GISSI-3 study (Gruppo Italiano per lo Studio della Sopravvivenza nell'Infarto Miocardico) on more than 19,000 patients showed that the administration of lisinopril starting from the first day of acute myocardial infarction for 6 weeks (initial dose 5 mg per

day, then 10 mg per day) contributed to a statistically significant reduction in overall mortality both compared with the control group and compared with the group receiving transdermal nitroglycerin (hazard ratio 0.88; 95 % confidence interval 0.79–0.99), as well as a significant improvement in left ventricular function. This difference persisted after 6 months. The positive effect of lisinopril on the outcome of the disease was also revealed in a subgroup of elderly patients. The incidence of recurrent myocardial infarction, post-infarction angina, cardiogenic shock and stroke did not differ between the lisinopril and placebo groups [3].

The ATLAS (The Assessment of Treatment with Lisinopril and Survival) study is very important from the point of view of using evidence-based medicine data in real clinical practice [4]. This double-blind, randomized study included 3164 patients with heart failure of NYHA functional classes II–IV. All patients were randomly assigned to two groups: those receiving lisinopril in low doses (2.5–5 mg per day) and those receiving lisinopril in high doses (32.5–35 mg per day). These doses, according to preliminary data, corresponded to the doses of other ACE inhibitors that contributed to a significant reduction in mortality in heart failure. The duration of observation was 39–58 months.

In fact, the ATLAS study compared ACE inhibitor therapy, which is recommended based on the results of controlled studies, with therapy with the same drugs, which is most often actually prescribed to patients (it is well known that ACE inhibitors are used in everyday clinical practice in patients with heart failure). usually prescribed in minimal doses [12]) to prevent severe hypotension.

Although there was no significant difference in overall mortality between groups in the ATLAS study (mortality difference was 8% in favor of patients treated with high doses, $p = 0.128$), treatment with high doses significantly reduced the risk death and hospitalization from any cause (by 12% compared with the use of low doses, $p = 0.002$), as well as the risk of death and hospitalization due to cardiovascular diseases (by 9%, $p = 0.027$). It is interesting that clinical improvement (dynamics of the class of heart failure) was expressed approximately equally in the groups treated with low and high doses of lisinopril.

CONCLUSION

Currently, the ACE inhibitor lisinopril is a well-studied drug that has been used in a number of large controlled studies and has proven its effectiveness in chronic heart failure, acute myocardial infarction (starting from the first day), complicated by impaired left ventricular function, as well as with hypertension. Of course, this drug should be prescribed exactly as it was done in the above-mentioned studies, and only then can the doctor expect to obtain the same results in terms of improving the prognosis of the disease.

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THE IMPORTANCE OF CARVELAND IN THE TREATMENT OF MAJOR CARDIAC DISEASES

Abstract. The article is devoted to β -blockers, classification, features of mechanisms of action, indications. The place of carvedilol in the treatment of cardiac patients is highlighted.

Keywords: β -blockers, method, mechanisms of action, carvedilol, cardiovascular diseases.

INTRODUCTION

Beta-blockers (BB) are one of the classes of drugs that have made the most significant contribution to the fight to reduce morbidity and reduce the risk of death from various cardiac pathologies: arterial hypertension (AH), myocardial infarction (MI), chronic heart failure (CHF).

MATERIALS AND METHODS

BBs are highly sensitive to the corresponding receptors, block adrenergic receptors from the effects of endogenous catecholamines and do not cause conformational changes in protein receptors (their sensitivity). The main therapeutic effects of BB are determined by the ability to block the effect of mediators on the β 1-adrenergic receptors of the myocardium and the weakening of the effect of catecholamines on membrane adenylate cyclase of cardiomyocytes with a decrease in the formation of cAMP.

The most famous classification of BD is based on the fact that β -adrenergic receptors are heterogeneous. β 1 receptors are mainly present in the heart muscle, and β 2 receptors are present in the lungs and peripheral vessels. When blocking β 1-adrenergic receptors of the myocardium, the excitability of the pacemaker is inhibited, heart rate decreases, the speed of impulse transmission through the conduction system of the heart slows down, and contractility decreases. Blockade of extracardiac β 2-adrenergic receptors is associated with undesirable effects of treatment: spasm of peripheral vessels, increased tone of bronchial muscles, deterioration of blood lipid composition, hypoglycemia, increased insulin resistance.

RESULTS AND DISCUSSION

BBs are similar in structure, but differ in cardioselectivity, the presence or absence of internal sympathomimetic activity, lipophilicity, and membrane-stabilizing effect. Selectivity is determined by the affinity for β 1- or β 2-adrenergic receptors. Non-selective BBs act equally on both types of β -adrenergic receptors.

Selective blockade of β -adrenergic receptors, causing a decrease in cardiac output, is not accompanied by a significant increase in peripheral vascular resistance and deterioration of bronchial patency. Cardioselectivity provides a slightly more pronounced effect of BB on diastolic blood pressure (BP). At the same time, the negative chronotropic effect at rest and during physical activity, as well as the decrease in cardiac output with selective and non-selective blockade of β -adrenergic receptors are expressed to approximately the same extent. The subgroup of non-selective BBs includes propranolol, nadolol, sotalol, timolol [1].

Some BBs are characterized by internal (intrinsic) sympathomimetic activity (ISA). BBs with ICA cause a decrease in heart rate to a lesser extent, mainly at rest, but partly also during exercise. This property was initially regarded as an advantage of this subgroup of BAB. However, it was subsequently shown that the ability to improve the prognosis of patients who have suffered an MI is determined primarily by the negative chronotropic effect of BB. Drugs with BCA (oxprenolol, pindolol, acebutolol) do not reduce the risk of cardiovascular death, and therefore their scope of clinical use is limited.

Some BBs (carvedilol, nebivolol) have a vasodilating effect, the mechanisms of which differ. Carvedilol causes a decrease in vascular tone due to blockade of α 1-adrenergic receptors, nebivolol - due to increased synthesis of nitric oxide in the endothelium. Carvedilol also has an additional direct vasodilating effect.

BBs differ in their ability to dissolve in fats. Fat-soluble drugs penetrate biological membranes well, which, in particular, determines their cardioprotective effect. Lipophilicity is a property that determines the ability of BB to penetrate the blood-brain barrier and bind to central β 1-adrenergic receptors, therefore, influence the tone of the vagus nerve and form an antifibrillatory effect. Some BBs (carvedilol, pindolol, betaxolol, propranolol, acebutolol) at concentrations exceeding therapeutic ones have a quinidine-like or local anesthetic effect. Thanks to this property, they stabilize the action potential of cardiomyocytes. Membrane-stabilizing activity at therapeutic doses of drugs has no practical clinical significance.

It is customary to distinguish three generations of BBs: non-selective (I generation), β 1-selective (II generation) and with vasodilating properties (III generation). Each subsequent generation differs from the previous one in the appearance of new properties useful for use in clinical practice.

An important characteristic of BB is the half-life, which is determined by the properties of the drug itself, as well as the functional state of the kidneys and liver. In most cases of BB use (especially in patients with hypertension and CHF), it is necessary to strive for a stable blockade of β -adrenergic receptors, since fluctuations in neurohumoral stimulation have a negative effect on the progression of the disease and contribute to damage to target organs even more strongly than constantly increased neurohumoral stimulation. In this regard, long-acting BBs, which are characterized by a uniform concentration of the drug in the blood plasma throughout the day, have an advantage over short-acting drugs.

The ability to block the influence of mediators on β 1-adrenergic receptors of the myocardium and weakening the influence of catalytic

cholamines on membrane adenylate cyclase of cardiomyocytes with a decrease in the formation of cAMP determine the main therapeutic effects of BB, which allows them to be widely used for the treatment of both pathology of the cardiovascular system and a number of other diseases. Among cardiac diseases, indications for prescribing BB are hypertension, stable and unstable angina, "silent" myocardial ischemia, supraventricular and ventricular arrhythmias, myocardial infarction, starting from its acute phase, dissecting aortic aneurysm, hypertrophic cardiomyopathy, digitalis intoxication, mitral prolapse valve, long QT syndrome, tetralogy of Fallot, mitral stenosis, CHF, somatoform dysfunction. Good results have been obtained with the use of BB for migraine, delirium tremens, thyrotoxicosis, hyperparathyroidism, essential tremor, anxiety, glaucoma, and portal hypertension.

The most controversial issue was the use of BB for CHF. Currently, due to changes in views on the pathogenesis of CHF, the possibilities of using BB for this pathology have been reconsidered. There is evidence that the use of beta-blockers may reverse the development of left ventricular dilatation or, at least, slow down its development. The end to this issue was put in 1999, when a number of large multicenter studies were completed (CIBIS II, MERIT HF, BEST, COPERNICUS). The last of these studies was conducted to compare the effect of carvedilol and placebo on overall mortality in patients with severe CHF. The risk of death in patients even with very severe CHF decreased by 35% when treated with carvedilol, and was independent of age, gender, race, and the genesis of heart failure. It is also significant that the effect of carvedilol on mortality was noted in the category of patients with very low ejection fraction.

The metabolic effect of carvedilol is less pronounced than that of other non-selective BBs. It does not affect plasma glucose levels in patients with non-insulin-dependent diabetes mellitus. Unique to BB is the effect of carvedilol on the blood lipid spectrum. Under the influence of carvedilol, the level of total cholesterol, low-density lipoproteins and triglycerides decreases, and the content of high-density lipoproteins in the blood plasma increases.

CONCLUSION

Thus, Carveland is a modern BB, the use of which is advisable for most cardiac diseases, including patients with comorbidity in metabolic syndrome, diabetes mellitus, and chronic kidney disease.

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DISTINCTIVE FEATURES OF THE DEVELOPMENT OF PROFESSIONAL ENGLISH SPEAKING SKILLS

Abstract. This article provides a foundational framework for understanding the distinctive features of professional English speaking skills development. By delving deeper into the specific needs of your target audience and exploring the resources and methodologies highlighted in the annotated bibliography, you can tailor this information to create a comprehensive and effective training program.

Keywords: Professional English, Speaking Skills, Language Learning, Pedagogy, Communication Skills.

Introduction: Professional English speaking skills are crucial for success in various globalized fields. This article explores the distinctive features associated with developing these skills, drawing upon relevant research and outlining a framework for effective learning. Through this article we delve into the unique challenges and opportunities faced by learners, analyze effective pedagogical approaches, and highlight key considerations for optimizing professional English speaking skill development.

The ability to effectively communicate in English has become paramount for professionals across diverse sectors. Whether it's negotiating international deals, delivering presentations, or participating in collaborative projects, strong English speaking skills are essential for navigating the complexities of the globalized workplace. However, developing these skills presents unique challenges compared to general English language learning. This article aims to shed light on the distinctive features associated with professional English speaking skill development and provide valuable insights for educators and learners alike.

Methods: This analysis draws upon a comprehensive review of relevant research articles, scholarly publications, and pedagogical resources on professional English speaking skills development. The review process involved identifying key themes, analyzing theoretical frameworks, and evaluating empirical findings. Additionally, insights from expert practitioners and language educators were incorporated to enrich the understanding of the subject matter.

Developing professional English speaking skills requires a multifaceted approach that caters to the specific needs of learners. Traditional classroom methods, such as lectures, discussions, and role-playing exercises, provide a structured learning environment. Technology-assisted learning tools, including online courses, pronunciation software, and virtual simulations, offer flexibility and personalized learning experiences. Immersion programs, where learners live and

work in English-speaking environments can significantly accelerate skill development.

Results: The analysis revealed several distinctive features that characterize the development of professional English speaking skills:

✓ Domain-specific vocabulary and terminology: Professional contexts necessitate mastery of specialized vocabulary and terminology relevant to the specific field.

✓ Discourse competence: Learners need to develop the ability to structure their spoken communication effectively, using appropriate discourse markers, transitions, and persuasive language.

✓ Cultural awareness and sensitivity: Adapting communication style and content to diverse cultural contexts is crucial for successful interactions in the global workplace.

✓ Fluency and accuracy: Balancing fluency with grammatical accuracy is essential for maintaining clarity and professionalism in spoken communication.

✓ Confidence and assertiveness: Effective communication in professional settings often requires projecting confidence and assertiveness while maintaining respect and diplomacy.

Discussion: Based on the identified features, several key considerations emerge for optimizing professional English speaking skill development:

➤ Curriculum design: Learning materials and activities should be tailored to the specific needs and contexts of the target learners, incorporating relevant domain-specific content and real-world scenarios.

➤ Pedagogical approaches: Interactive and learner-centered methods that promote active participation, collaboration, and feedback are essential for developing effective communication skills.

➤ Authentic materials and tasks: Utilizing authentic materials like professional presentations, case studies, and simulations provides learners with exposure to real-world language use and communication demands.

➤ Intercultural communication training: Integrating intercultural communication training equips learners with the necessary skills to navigate diverse cultural contexts effectively.

➤ Confidence-building activities: Role-plays, simulations, and opportunities to practice speaking in front of audiences can help learners build confidence and overcome communication anxiety.

Conclusion: Developing professional English speaking skills requires a focused and multifaceted approach that addresses the distinctive features associated with this specific domain. By incorporating domain-specific content, interactive methods, authentic materials, and intercultural awareness training, educators can create effective learning environments that empower learners to thrive in the globalized professional landscape.

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EFFECTIVE ORGANIZATION OF PROMOTION OF LEARNING FOREIGN LANGUAGES AND ACHIEVEMENTS OF LEARNERS OF FOREIGN LANGUAGES

Abstract. This article describes in detail the interest in learning foreign languages among today's youth, the achievements of those who know foreign languages. In addition, the dissemination of foreign languages and foreign language certificates were mentioned.

Key words: publicizing; method; activity; organization; system.

According to the decision of the President of the Republic of Uzbekistan "On measures to bring the activities of popularization of learning foreign languages to a qualitatively new level in the Republic of Uzbekistan" dated May 19, 2021 No. PQ-5117, as well as foreign languages In order to effectively implement organizational measures to popularize learning, the Cabinet of Ministers decides:

1. Resolution PQ-5117 of May 19, 2021 of the President of the Republic of Uzbekistan "On measures to bring the activity of popularizing the study of foreign languages to a qualitatively new level in the Republic of Uzbekistan":

Coordinates the activities of state bodies and organizations, local executive authorities and state educational institutions in popularizing the teaching of foreign languages;

establishes relations with foreign and local partners and arranges to attract their financial, organizational and methodological support to popularize the study of foreign languages in the country;

together with the ministries and agencies, develops and implements methodologies that enable the professional activities of civil servants to be carried out in foreign languages;

determines comprehensive measures to popularize learning of at least ten foreign languages that are in high demand;

develops qualification requirements and assessment criteria for teachers of foreign languages and organizes the process of awarding them a qualification category based on the principle of openness;

The Quality Control of Education under the Cabinet of Ministers together with the State Inspection approves the list of internationally recognized certificates assessing the level of knowledge of foreign languages and the correspondence between the levels of national and internationally recognized certificates determining the level of knowledge of foreign languages.

Nowadays, the demand for learning foreign languages in our country is increasing. In this place, the demand is not only increasing, but conditions are being created for every person learning the language. In order to learn the language from a young age, many foreign languages are taught in schools and kindergartens, and the number of language learners is increasing. Reworked and high-quality textbooks are being developed for high-class students, which will make it easier for them to learn the language and gain quality knowledge. In addition, the number of language-oriented schools and lyceums is increasing. All these things are useful for each person to learn the language and flourish in our country during his life and for his own interests.

In addition, effective methods of language learning are being used and taught in educational institutions. Not only foreign language students, but students of all majors are learning a foreign language. They have obtained foreign language certificates. As a result, they are getting a master's degree abroad. Methods of popularizing language teaching are being imported from abroad and are being tested in many universities of our country. Our students who went to study abroad from our country, as a result of their active participation in the events held abroad, took the highest places and justified the trust of our country and compatriots.

Nowadays, those who know foreign languages are not only abroad, but also in Uzbekistan. It creates great opportunities for young people who know the language. For example: Teachers who get C1 level pay 50% of their monthly salary. In addition, young people who know the language receive large amounts of money in various companies, business centers, and educational centers. All of this is due to his knowledge of the language and diligence.

Therefore, our youth should not abuse the current conditions, set high goals for themselves, always strive forward, learn many foreign languages, become knowledgeable and skilled professionals for the future generation.

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REGENERATION OF ZEOLITE CATALYSTS

Abstract. The use of a zeolite catalyst in the alkylation of gasoline with styrene is a well-characterized fuel component for internal combustion engines with a content of 6.51% by mass of aromatic hydrocarbons released into the environment. Aromatic hydrocarbons are mainly represented by light kerosene-naphthenic hydrocarbons formed during combustion. Due to the increase in the minimum amount of harmful substances, the catalyst eventually loses its properties, so these catalysts need to be renewed periodically.

Key words: gasoline, catalysts, zeolites, regeneration, hydrodearomatization, dearomatization, thermogravimetry, without recirculation.

INTRODUCTION: The current and prospective environmental requirements for gasoline and kerosene limits are increasing year by year, especially the western European countries have met the emission standards since 2000. Euro-3 motor gasoline, which regulates the maximum amount of benzene to no more than 1.0% (ARC not higher than 42%). Since 2005, the Euro-4 standard has started to work, which limits the amount of ArU more strictly (up to 30%). In the future, the content of ArG in the composition of motor gasoline should be reduced to 20-25% (including benzene to 0.8%, and then to zero), and Euro-5 will allow to obtain higher standards. [1].

The catalytic hydrodearomatization process is carried out at high pressures. Although extraction processes dearomatizations proceed at relatively low temperatures and pressures, the extractors used are often not environmentally safe. [2,3].

Development of technology for dearomatization of gasoline and kerosene fractions by alkylation, selection of effective heterogeneous zeolite catalysts is of urgent and practical importance. [4].

Alkylation to effective zeolite catalysts, industrial process development, dearomatization of motor fuels by alkylation on heterogeneous catalysts is an urgent problem, taking into account the trend of transferring processes in the world oil refining and petrochemical industry. [5].

DISCUSSION: The hydrogen structure of ZSM5 zeolite structure catalyst by alkylation with dearomatization and aromatic hydrocarbons (ArH) with gasoline-kerosene fractions included in their composition turned out to be the most effective [6,7]. thus, when gasoline is aromatized by styrene alkylation, the highest

conversion of aromatic hydrocarbons is observed in the mass ratio. Aromatic hydrocarbons: olefin equal to 1:1 (76.1%), with complete conversion of styrene, the amount of aromatic hydrocarbons in the gasoline fraction was 6.51% by mass. The amount of aromatic hydrocarbons in gasoline after alkylation of benzene with styrene was determined, as well as ArU: styrene ratio 1:0.2 and 1:0.5. [8].

RESULT: The conversion rate of aromatic hydrocarbons under these conditions was 17.35 and 38.0%, respectively. The octane numbers of given dearomatized gasoline samples are listed in the table below.

Table 1. Octane numbers of dearomatized gasoline samples

№	Gasoline samples	residual Amount of ArU, mass%	Octane number, IM
1.	real	22.58	86
2.	It is relatively unflavored ArU: styrene =1:0,2	19.42	84
3.	It is relatively unflavored ArU: styrene =1:0,5	15.31	79
4.	ArU dearomatized in: styrene =1:1	6.51	72

As can be seen from the table, the reduction of ArU content contributes to the reduction of OC in dearomatized gasoline samples. One of the most effective methods of regeneration of used catalysts and adsorbents is thermal desorption, the main characteristic of which is the dependence on energy. Thermogravimetry method is usually used to determine this relationship. [12,13]. Differential thermal composition of regeneration modes for coked samples of catalysts containing zeolite was studied, samples of catalysts with different coke contents were analyzed. [9].

It is known that the supply of air for regeneration in industrial processes contains a large amount of incomplete combustion products, including oxygen, which definitely worsens the environment. [10]. Therefore, it is necessary to achieve a reduction in the regeneration time, so that the energy costs and the environmental situation in production will be much better.

Derivatographic studies of coked catalysts were carried out in a branded device Paulik-Paulik-Erdey in the temperature range of 20-1000°C and a heating rate of 10 °C/min (Fig. 1-2). Usually TG, DTG and DTA curves are shown in fig. 1 and 2. Research conditions:

- the mass of the catalyst - 500 mg; - TG sensitivity - 100 mg
- DTG sensitivity 1:10; - DTA sensitivity 1:5;
- heating rate 10 °C / min.

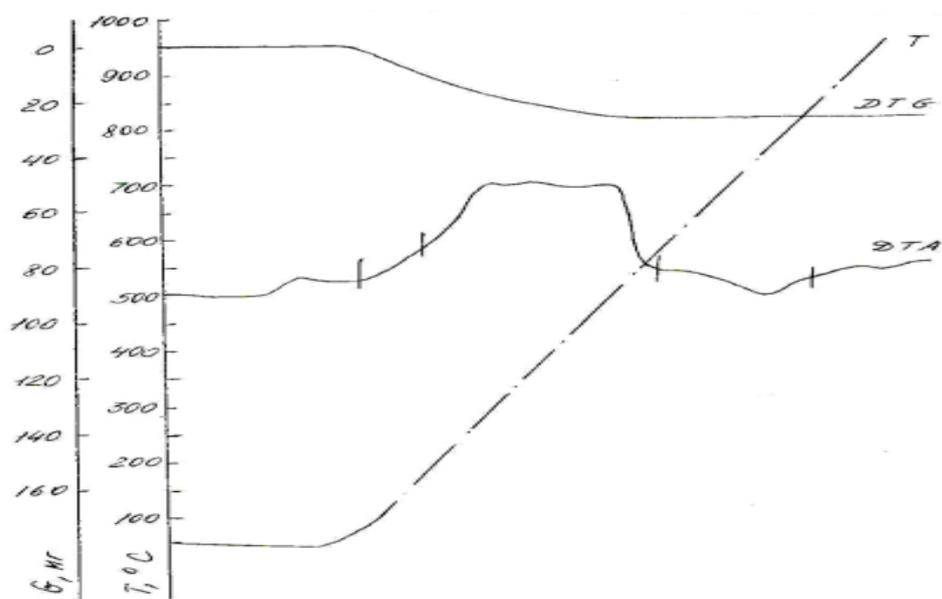


Figure 1. Derivatogram of the original sample HZSM-5.

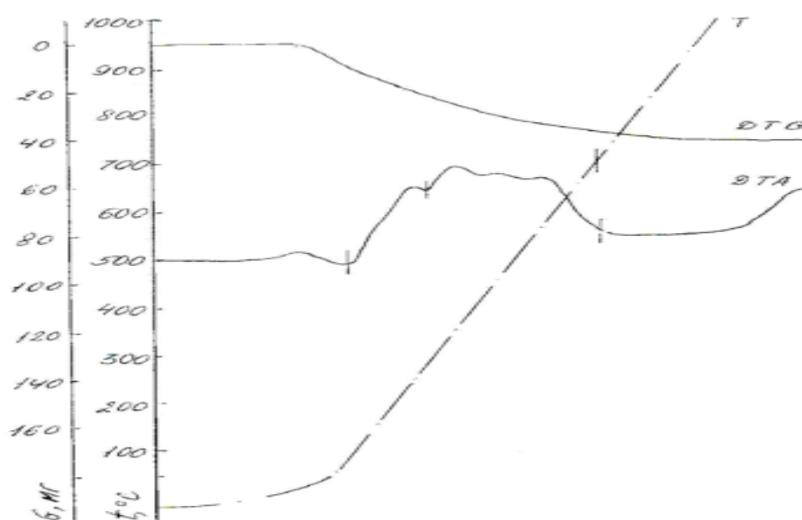


Figure 2. Derivatogram of the coked sample HZSM-5 (3.4 mt of coke in the catalyst). As can be seen from the figures, weight loss for the catalyst with heating of catalysts without coke deposits. [10]. Here, an endothermic effect is observed in the temperature range 30-210°C, which can be explained by the removal of adsorbed water from the internal structure. catalyst. [12,13].

An increase in temperature up to 900 °C is accompanied by a rather smooth decrease in the mass of the catalyst, apparently due to the dehydroxylation of its surface. A slight endothermic effect is observed along with weight loss in the interval temperature 680-850 °C. This effect can be explained by the destruction of the crystalline pore.

Derivatographic studies have shown that coked catalysts also lose moisture. The amount that increases in the temperature range of 30-210 °C is most likely the composition of tar coke deposits.

It was found that the components of diesel gasoline are obtained with the help of catalysts. Oxidation products are regenerated with the help of circulation, the octane number of components of motor gasoline obtained in catalysts is not small in size, and the nitrogen-oxygen mixture is regenerated without recirculation. Therefore, it is possible to reduce the consumption of technical nitrogen used for the regeneration process, and it is proved that it is possible to increase the octane number of gas emissions while maintaining the quality characteristics of the resulting component. [14].

Thus, the optimal temperature range for regeneration was determined. The samples of the studied catalysts in the lower range than the initial temperature are structural changes of the catalyst, i.e. 680 °C (apparently the maximum regeneration temperature should not exceed 550-600 °C). [15]. The technique of regeneration of catalysts for nitrogen-oxygen has been improved. Also, the activity of the catalyst in the process of dearomatization of gasoline was studied.

CONCLUSION: One of the most effective methods of regeneration of spent catalysts is thermal desorption of adsorbents, which is its main characteristic. The dependence of the desorption energy of the adsorbed substance on the degree of adsorption filling is considered as surfaces. To determine this relationship, the thermogravimetry method is usually used. We studied methods of recovery of coked samples containing zeolite. Catalysts samples of catalysts with different coke contents were dearomatized gasoline using differential thermal analysis.

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THE SIGNIFICANCE AND PLACE OF ORGANIZATION BASED ON INNOVATIVE PEDAGOGICAL TECHNOLOGIES IN EDUCATION

Annotation. It is known that raising a healthy, well-rounded generation of our country's youth, a person with creative and intellectual potential, a comprehensively developed person, mentally and physically healthy, has been defined as one of the priority tasks of the state policy. is being implemented.

Keywords: innovation, pedagogical technology, quality of education, IT specialists, innovative approach, artificial intelligence, robotics, virtual reality.

Educational standards necessary to ensure the effectiveness of science, practical advanced pedagogical experience unit and interrelation of students receiving education in higher education on the basis of state educational standards., rules, level and quality indicators embodying in themselves, requires becoming a qualified specialist. The level of preparation of the students for the specialty they have received should meet the requirements of the time and the market economy. This puts demands on us teachers, such as finding progressive methods of creative research teaching, making effective use of non-traditional methods of teaching from the achievements of the sciences. under the guidance of the teacher, it is appropriate to use new methods of conducting the educational process by the student. In this case, the content of higher education, the components of educational activity, its pedagogical and psychological characteristics and laws, the ways and means of its composition, assimilation, acquisition methods should be inculcated in the students.

An example of this is the Law on Education and the National Personnel Training Program of the Republic of Uzbekistan. The development of our country, respect and attention at the world level requires the education of the future generation to be strong and knowledgeable in all aspects. The second stage of the National Personnel Training Program is to improve the quality indicators in the educational process, i.e. to train competitive, high-level specialists in accordance with world standards. Finding solutions to these complex problems and their wide application in practice set huge tasks for future preschoolers and teachers. In this regard, as specific tasks, the improvement of the direct educational process, the implementation of modern pedagogical technologies of teaching, the wide use and introduction of technical tools are defined. Today, educational technologies for teaching in the field of pre-school education and methodological recommendations for their application are described in higher educational institutions. These recommendations are designed taking into account the rules of technology of

education, including the methods and tools for the development of training technologies, their important features.

It is also possible to use these methods of modern pedagogical communication technologies in teaching classes in preschool educational institutions. Currently, it can be seen from the world experience that new, modern methods and tools of teaching are entering the educational process and are being used effectively. In particular, innovative and modern pedagogic ideas are being implemented in preschool education areas of higher educational institutions: the teacher should not be the only source of learning, but the organizer, consultant of the students' independent work process, should be a manager of the educational process. It is these ideas that underlie the development of educational technology. It is important to use modern pedagogical methods of teaching and information technologies for students to master subjects. It uses electronic textbook methodical manuals, handouts, virtual stents and newly published modern literature. It is known that development has its influence in every sphere. Due to progress, research, updates are introduced. It is one of the new information and communication systems to ensure the fundamental reform of the education system.

For teachers, the computer is not only a modern teaching method, but also creates opportunities to further improve their professional skills. In particular, —Computer technology creates conditions for the practical expansion of educational information projects for the pedagogue, that is, it gives an opportunity to clearly imagine the situation of the use of colors, graphs, and multiplications. Using a computer expands the educational process of the pedagogue. Teaching is not limited to the use of a computer, but also creates an opportunity for the pedagogue to change the level of problems and assignments to students in various options.

In the digital economy, payments for services and goods are often made using electronic money, and this is a clear example of this process. The digital economy is based on the widespread use of information and communication technologies (ICT), which play an important role in various aspects of the modern technological and business world. In this article, we examine the role and functions of ICT in the digital economy.

1. Communication and communication: ICT enables real-time instantaneous transmission of information and communication. They allow people to communicate with each other regardless of distance, exchange information in any format - text, voice, video, etc. Thus, ICT contributes to the development of global communications and the creation of international network communities.

2. E-commerce: ICT plays an important role in the development of e-commerce or online trading. They allow companies to sell goods and services online, accept payments, manage orders and ensure delivery. E-commerce opens access to global markets and improves business efficiency.

3. Digitization of processes: ICT enables automation and optimization of various business processes. They help to improve the management of production,

logistics, finance and other aspects of enterprise activity. Digitization of processes also helps to reduce costs and increase efficiency.

4. Big Data and Analytics: ICT provides a wealth of data and information that can be analyzed and used to make business decisions. Big data and analytics enable companies to understand market needs, predict trends, improve processes and increase competitiveness. ICT also helps in creating tools for data visualization and performance monitoring.

5. Innovation and development: ICT is a platform for creating and developing new technologies and innovations. They support research and development in artificial intelligence, robotics, virtual reality and many other areas. ICT helps to create new business models and expand the boundaries of possibilities. Thus, information and communication technologies occupy a central place in the digital economy. They provide effective communication, development of e-commerce, digitization of processes, data analysis, innovation and development of new technologies. They help companies stay competitive and people get new opportunities to learn, work and play.

In the process of education, a unit of learning and education is formed based on the values of culture. In the process of education, a person is prepared for the social and professional roles he has to perform in social life. Changes in science and technology have a serious impact on the education system. Without raising the quality and level of education, it is impossible to introduce scientific and technical achievements into production and increase its efficiency.

One of the important requirements in the application of educational technologies is to achieve high results in a short time without spending too much mental and physical effort. also, monitoring the activities of students, assessing the level of knowledge, skills and qualifications acquired by them requires a high pedagogical skill from the teacher and a new approach to the educational process.

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OF INFORMATION AND COMMUNICATION TECHNOLOGIES ROLE AND DUTIES IN THE DIGITAL ECONOMY

Annotation. Digital technologies are increasingly entering all areas of everyday life. everything from communication and purchasing goods to manufacturing and government activities is moving to a virtual environment and all these are signs of a great future. digital transformation is covering the whole world, and Uzbekistan is no exception to global trends.

Keywords: modern technology, internet and e-economy, e-business, e-commerce, digital economy, optimization.

In our country, 2020 was declared the "Year of Science and Digital Economy" and the development of the concept of the national strategy "Digital Uzbekistan - 2030" began, its draft was presented to the public for discussion. The labor markets and business relationships we experience in the near future are also facing significant changes. New information communities are being formed, worldviews are expanding, and above all, favorable social conditions are being created for the young generation, which manifests its ambitions and contributes its knowledge to the foundation of our future.

There are many definitions of the new technological order in the economy, the most widely accepted being the "digital economy" (web economy, Internet and e-economy): economic activity based on digital technologies related to e-business and commerce. In the digital economy, payments for services and goods are often made using electronic money, and this is a clear example of this process. The digital economy is based on the widespread use of information and communication technologies (ICT), which play an important role in various aspects of the modern technological and business world. In this article, we examine the role and functions of ICT in the digital economy.

1. Communication and communication: ICT enables real-time instantaneous transmission of information and communication. They allow people to communicate with each other regardless of distance, exchange information in any format - text, voice, video, etc. Thus, ICT contributes to the development of global communications and the creation of international network communities.

2. E-commerce: ICT plays an important role in the development of e-commerce or online trading. They allow companies to sell goods and services online, accept payments, manage orders and ensure delivery. E-commerce opens access to global markets and improves business efficiency.

3. Digitization of processes: ICT enables automation and optimization of various business processes. They help to improve the management of production, logistics, finance and other aspects of enterprise activity. Digitization of processes also helps to reduce costs and increase efficiency.

4. Big Data and Analytics: ICT provides a wealth of data and information that can be analyzed and used to make business decisions. Big data and analytics enable companies to understand market needs, predict trends, improve processes and increase competitiveness. ICT also helps in creating tools for data visualization and performance monitoring.

5. Innovation and development: ICT is a platform for creating and developing new technologies and innovations. They support research and development in artificial intelligence, robotics, virtual reality and many other areas. ICT helps to create new business models and expand the boundaries of possibilities.

Thus, information and communication technologies occupy a central place in the digital economy. They provide effective communication, development of e-commerce, digitization of processes, data analysis, innovation and development of new technologies. They help companies stay competitive and people get new opportunities to learn, work and play.

The digital economy is developing rapidly. According to economists, in the near future, all participants in this sector can receive significant "digital dividends". Among them, the issues of reducing the unemployment rate and reducing the cost of production are discussed. Over the years, the classical view of the economy has been revised, and models of well-established relationships and procedures have been developed. However, the rapid development of information and communication technologies has radically changed the forms of communication and penetrated into all spheres of life. Thanks to the rapid development of the document, it is now possible to effectively carry out all necessary business operations and exchange documents impersonally and with high efficiency. And it's already happening cheaper and faster.

In addition, in modern society, the term "information society" is often used - this is the type of society in which information and knowledge are the most valuable assets. The driving force behind economic development today is not innovators, but the resources they use. Digital technology, in turn, gives them a higher level of value.

It reduces overall economic costs by comparing and disseminating large amounts of information. In addition, the rate of economic growth is increasing several times. In addition, as a valuable commodity, information and communication technologies serve as a tool for high-level management decision-making. The use of information and communication technologies in everyday life helps to speed up and simplify many daily tasks (paying utilities, providing banking services to individuals, booking chips on the Internet, etc.).

Information and communication technologies (ICT) play a key role in the digital economy, ensuring continuous operation of information systems and

connections between people, devices and organizations. Some roles and functions of ICT in the digital economy:

1. Data processing: ICT enables the collection, storage, processing and analysis of large amounts of data. It helps companies make better data-driven decisions and improve decision-making processes.

2. Communication: ICT provides effective communication channels between people and organizations, including email, instant messaging, video conferencing, and social media. It improves communication, collaboration and information sharing between different parties.

3. Electronic commerce: ICT enables electronic commerce, the buying and selling of goods and services over the Internet. It helps to develop online commerce and create new business models, including online stores, classifieds, and digital platforms.

4. Automation and optimization of processes: ICT enables the automation and optimization of business processes, which increases the efficiency and productivity of organizations. For example, the use of ICT can simplify inventory management, production processes and customer service management.

5. Innovation: ICT plays an important role in stimulating innovation and developing new products and services. They enable the creation and implementation of new technologies that change the way industries work and interact, such as artificial intelligence, blockchain, the Internet of Things, and cloud computing.

6. Improve access to information and education: ICT enables a wider range of people to access information and education. They provide opportunities for online education, distance learning and access to information through the Internet. This serves to increase the level of education and develop human capital.

In general, ICT is the basis of the digital economy, providing the necessary tools and solutions for various industries and fields of activity. They improve efficiency, cooperation, innovation and information availability, contributing to the development of the Economy and Society as a whole.

• In this regard, it should be noted that currently the potential for future development of information and communication technologies is significantly increasing based on:

• • transition to the knowledge economy, which is one of the main factors in the development of the digital economy;

• development of electronic state and socially important services for the population;

• cooperation of innovative business entities with universities, laboratories, technology parks, business incubators, which allows the emergence of radically new types of products and services;

• development of electronic business and formation of new legislation and technological mechanisms for electronic transactions;

- cost optimization in the development of information technology infrastructure models.

The organizational and economic factor of strengthening the role of information and communication technologies in ensuring the effective functioning of the state management system is currently one of the main conditions for the development of the digital economy in the country. In this case, it is necessary to pay special attention to the IT outsourcing market, the widespread use of mobile devices and software, and the development of an advanced cloud infrastructure that is used to solve complex analytical tasks.

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AVOID TOXIC GASES AND CHEMICALS

Annotation. In this article, the direct effect of atmospheric air on the atmosphere and the layer of nitrogen of toxic gases, heavy metal residues emanating from various factories and factories. The damage caused by factories and factories on the territory of the Republic to our atmosphere is caused by gases and ways to eliminate them, a brief description of the acid rains observed in the cities is given.

Keywords: volcanoes, forest, anthropogenic, microorganisms, cosmic dust, soot, sulfur dioxide, freon, troposphere, fog-smog, greenhouse effect.

It is known that the rapid development of industry in the world increases the release of toxic gases into the atmosphere and greatly damages agricultural crops. According to the results of long-term monitoring, the amount of environmentally harmful chemical compounds, substances and elements of combustion products entering the atmosphere doubles every 12-14 years, and therefore the problem of atmospheric pollution is one of the global problems. Atmospheric pollution refers to the change in its composition and properties that negatively affects human health, animals, plants and ecosystems. The atmosphere is polluted by natural and artificial means. Sources of artificial pollution include energy, industrial enterprises, transport, household waste, etc.

First of all, the problem of effective use of natural resources can be shown. It is through various human activities that the issues of increasing natural disasters, the problem with water resources and so on during the diversion of water, underground, quantity of Agriculture and as various natural occupations are addressed in this process.

In the second place, environmental problems can be calculated. Examples of this include environmental heating, performing miracles, carrying environmental love, taking space into the environment, etc. Environmental impact-the problems of licking are also important. This type of problem can be related to the risks of Natural Resources, loss by ecosystems, increased biodiversity, contamination of toxic substances, etc.

Currently, 75% of atmospheric pollution corresponds to human sources and 25% to anthropogenic sources. According to the aggregate state, compounds that pollute the atmosphere can be divided into four groups: solid, liquid, gaseous and mixed compounds. The main substance and compounds that pollute the air include aerosols, solid particles, dust, soot, nitrogen oxides, carbon monoxide SO, SO₂, sulfur oxides, metal oxides, etc. Tens of thousands of substances and compounds

have been released into the atmosphere, and the compounds they have combined have not been thoroughly studied. The effect of such unknown compounds on living things, including human health, has not been accurately assessed.

Chemical, physical, acoustic noise, heat, electromagnetic pollution of the atmosphere have reached high levels in large cities and industrial regions. The most dangerous pollution of the atmosphere is radioactive contamination. The main sources of radioactive contamination are nuclear weapons tests, disasters in nuclear power plants. Radioactive contamination leads to an increase in cancer and other diseases. Strong air pollution negatively affects human health, all living things. In cities and industrial regions, there is an increase in cases of nervous, cardiovascular, chronic bronchitis, emphysema, shortness of breath and pulmonary cancer among people. An increase in eye diseases and children's diseases has been recorded. In the air of the city are carcinogenic substances in industrial enterprises and vehicle waste (benz(a)pyrene, aromatic hydrocarbons), as a result of their chronic action, cancer diseases are caused. Lead compounds in the exhaust gases of the vehicle are also particularly hazardous to human health.

Artificial anthropogenic pollution of the atmosphere. Since the second half of the 19th century, the intensive development of production in the world, in particular in capitalist countries, has accelerated the artificial pollution of the atmosphere.

In artificial pollution of the atmosphere:

- Road Transport ranked first (40%)
- Energy industry second place (20%)
- Enterprise and organization production third place (14%)
- Agricultural production (26%) corresponds to.

Depending on the amount of dust in the atmosphere, the gods are divided into 4 indicator levels:

1. 0.3 mg/m^3 -this indicator is pure. This indicator mainly includes the atmospheric air of small urban territories without rural areas and industry.

2. 0.6 mg/m^3 - this indicator is considered less contaminated. This indicator mainly includes the atmospheric air of populated areas of developed cities.

3. 1.0 mg/m^3 - this indicator is considered heavily contaminated. This indicator mainly includes the atmospheric air of industrial suburbs of industrialized cities.

4. 3.0 mg/m^3 - this indicator is more contaminated than the norm.

This indicator mainly includes the atmospheric air of the gods of enterprises of the industry, which dressing large amounts of dust waste.

In the Republic of Uzbekistan, atmospheric air pollution is one of the main environmental problems. The fact that the cities are located mainly in the mountain ranges and mountain ranges, the climate is hot and dry, has led to a relatively high level of atmospheric air pollution in Uzbekistan. Atmospheric air in Uzbekistan is especially heavily polluted in the Tashkent and Fergana economic regions, where the population, industry and transport are highly concentrated. Pollution of the

atmosphere negatively affects the health of the population, the condition and yield of plants, buildings, metal structures, historical monuments, etc. As a result of the transition of Uzbekistan to market relations and the implementation of various environmental measures in recent years, there is a relative decrease in the amount of emissions thrown into the atmosphere. The contribution of moving sources in the gross release of polluting compounds is in excess.

An analysis of the literature shows that the role of the atmosphere on a global scale is incredibly large. In developed countries, industries are developing widely, that is, heavy industries are directly damaging the atmosphere by heavy metals, various levels of radioactive substances, residues of petroleum products, various chemical compounds that are leaking into the environment and, of course, into atmospheric air. In the end, it is necessary to develop measures to reduce as much as possible atmospheric harmful substances in the processes listed above. Global air temperature rise Arctic ice melt with rapid snapshots of the world world the water level of the oceans increases seasonally, soil erosion the desertification level increases and of course the end of the whole of ecotism and the immediate atmosphere is causing the air to be damaged by toxic gases of different levels. By preserving the biosphere and atmosphere, we will end up preserving our health.

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YAKKAKURASHLARDA MASHG'ULOTLARNING INTENSIVLIGINI ANIQLASH METODOLOGIYASINI TAHLIL QILISH

Annotatsiya: bugungi kunga qadar turli xil sport turlari bo'yicha sport mashg'ulotlari nazariyasi va amaliyotida turli xil tayyorgarlik davrlarida hajm, intensivlik va yuklamaning davomiyligini tanlash va samarali nisbati bilan bog'liq bir qatorda qarama-qarshiliklar mavjud bo'lib, ular butun sport faoliyati davomida jangovar sport turlari bo'yicha sport mahoratining samarali o'sishini ta'minlaydi.

Kalit so'zlar: yakkakurash, texnika, mashg'ulot, tahlil, Yuklama.

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ANALYSIS OF THE METHODOLOGY OF DETERMINING THE INTENSITY OF EXERCISES IN MARTIAL ARTS

Abstract: in the theory and practice of sports training in various sports, to this day, there are a number of contradictions related to the choice and effective ratio of volume, intensity, and duration of the load in various periods of training, ensuring effective growth of sportsmanship in martial arts throughout a sports career.

Keywords: martial arts, methodology, training, analysis, load.

Zamonaviy sport darajasi sportchining qobiliyatlari va imkoniyatlarini har tomonlama o'rganishga, rivojlanishi yuqori sport natijalariga erishishga imkon beradigan xususiyatlar va fazilatlarni ta'kidlashga asoslangan chuqur individual yondashuvni talab qiladi. Nazariy tahlil shuni ko'rsatdiki, yosh sportchilarning individual tayyorgarligini boshqarish tizimini takomillashtirishning asosi o'spirinlarning tug'ma va orttirilgan konstitutsiyaviy xususiyatlarini o'sishi va rivojlanishi davrida turli xil tashqi omillar ta'sirida moslashish va xulq-atvor strategiyasini hisobga olgan holda individual tipologik xususiyatlarni tizimlashtirishning funktsional-vaqtinchalik printsipi hisoblanadi.

Jangovar sport turlarida (sambistlar) vosita fazilatlari va ko'p qirrali tayyorgarlikning rivojlanish darajasini aks ettiruvchi eng informatsion testlar

aniqlandi. Shunday qilib, tezlik-quvvat tayyorgarligi darajasini baholash uchun siz quyidagilarni qo'llashingiz mumkin: bir joydan uzunlikka sakrash, bir joydan balandlikka sakrash, 10 soniya mobaynida yotgan holda qo'llarni bukish va kengaytirish., 10 soniya mobaynida baland turnikda osilgan holatda tortilish., 10 soniy mobaynida chalqancha yotgan holda tanani egish va kengaytirish.;

- kuch darajasini baholash uchun: shtangani dast ko'tarish, shtangani siltab ko'tarish, ko'krakdan siqibshtangani ko'tarish, qo'l dinamometriyasi, son ekstansor dinamometriyasi, pastki oyoq, magistral, elka fleksorlari va magistral;

- maxsus chidamlilik va funksional tayyorgarlikni baholash uchun o'ziga xos yuklar bilan to'rt daqiqalik va bir daqiqalik testlarni o'tkazish;

- texnik va taktik tayyorgarlik vosita qobiliyatlari zaxirasini, raqobatbardosh faoliyatning faolligi va samaradorligini aniqlash, murakkab texnik harakatlar va raqobatbardosh ko'rsatkichlarni ekspert baholash asosida belgilanadi.

O'quv jarayonini optimallashtirishda muhim omil psixologik tayyorgarlikdir. Psixologik tayyorgarlik darajasini aks ettiruvchi ob'ektiv mezonlar ularning tayyorgarligidan qoniqishni sub'ektiv baholash, ixtiyoriy fazilatlarini baholash, yutuqlarga bo'lgan ehtiyoj, o'z-o'zini hurmat qilishdir. Og'ir vazn toifasidagi kurashchilar katta mushak massasiga ega ekanligi aniqlandi, buning natijasida tezlik qobiliyati va texnikaning o'zgaruvchanligi pasayadi, ammo kuch zarbalarini bajarish qobiliyati oshadi. Nisbatan kichik mushak massasiga ega bo'lgan engil va o'rta vazn toifasidagi kurashchilar yuqori harakatchanlik va turli xil texnik-taktik harakatlar bilan ajralib turadi. Ruhiy holatlarni o'rganish shuni ko'rsatadiki, sambistlar "Termometr" testi bo'yicha 7 shartli birlikdan iborat bo'lgan ko'rsatkichlarni 12,5 shartli birligigacha etarli darajada baholaydilar.

Shaxsning rasmiy dinamik xususiyatlarining o'rtacha darajasi aniqlandi. Sambist kurashchilar guruhidagi temperamentning ta'rifi aralash yuqori emotsional tip ustun ekanligini ko'rsatdi. O'tkazilgan tadqiqotlar shuni ko'rsatdiki, o'quv yuklarini individual ravishda normallashtirish uchun eng munosib o'zini o'zi baholash 0,782 - 0,850 shartli birliklar doirasida. Shu bilan birga, sambist kurashchilarda o'z qadr-qimmatini oshirib yuborish ularning mashg'ulot va raqobatbardosh faoliyatdagi faolligini rag'batlantirishga olib keladi. Sambist kurashchilarni hozirgi psixofizik holatni etarli darajada o'z-o'zini baholash uchun o'qitish metodikasi ishlab chiqilgan shkala bo'yicha sub'ektiv sezgilarni 0 dan 15 shartli birligigacha tasniflashga asoslangan holda ishlab chiqilgan. (0-5-qoniqarli, 6-10-yaxshi, 11-15-ajoyib).

Metodologiya quyidagi protseduralarni o'z ichiga oladi:

- Subyektiv baholash asosida kurashchilarning mashg'ulotdan oldingi dam olish sharoitida hozirgi holati va ishlashi aniqlanadi.

- Odatdagi qizdiruvchi mashqlardan keyin mashg'ulot vazifalarini bajarishga hozirgi holati va tayyorgarligi aniqlanadi.

- Turli yo'nalishdagi o'quv vazifalarini bajargandan so'ng, hozirgi holat va mushaklarning hissiyotlari aniqlanadi. Mashg'ulotning yakuniy qismida

sportchilar bajarilgan qizdiruvchi mashqlarning samaradorligi va hajmini tahlil qildilar. Natijalar murabbiyning ob'ektiv ko'rsatkichlari va ekspert bahosi bilan taqqoslandi. O'quv mashg'ulot yuklarini individual me'yorlash usuli quyidagi ketma-ket bajarishni o'z ichiga oladi:

1. Ishlashning hozirgi darajasini o'z-o'zini baholash (ishlab chiqilgan o'lchovga muvofiq).

2. Yuklama hajmini sub'ektiv baholash (ishlab chiqilgan o'lchovga muvofiq).

3. Mashg'ulotningning afzal yo'nalishini aniqlash (tezlik kuchi, qarshiliksiz, kuch va boshqalar).

4. Nazoratni ob'ektivlashtirish uchun yurak urishi qayd etildi. Sambo kurashchilarining mashg'ulot yuklarini individual ravishda me'yorlash usulini qo'llash samaradorligi etarli darajada o'zini o'zi baholash asosida eksperimental ravishda asoslanadi. Pedagogik tajriba shuni ko'rsatdiki, eksperimental guruh kurashchilari nazorat guruhidagi sportchilardan tezlik-kuch tayyorgarligi darajasi bo'yicha 8,2 foizga, kuch-quvvat bo'yicha 25 foizga, maxsus texnik-taktik tayyorgarlikda 16,0 foizga, psixologik jihatdan barcha ko'rsatkichlar bo'yicha 15,6 foizga, sport ko'rsatkichlari bo'yicha 30 foizga ustun bo'lgan. Vaziyatlarning sub'ektiv o'zini o'zi baholashi va ish faoliyatini sub'ektiv baholash uchun ishlab chiqilgan yuk miqdorini baholash shkalalaridan foydalanib, biz kurashchilarning mashg'ulotdagi texnik yo'nalishidagi yuklarning o'zini o'zi baholash etarlilikini nazorat qilamiz va ularning asosida tuzatishlar kiritamiz.

O'quv yuklarini individual ravishda me'yorlash uchun kurashchilarga parametrlarni aniqlash va yukni sozlashning ma'lum bir sxemasi taklif etiladi: o'z-o'zini baholash ish qobiliyati, yukni sub'ektiv baholash, ishning kerakli tabiati (tezlik, kuch, qarshiliksiz ishlash), sub'ektiv holatga qarab o'quv topshirig'idagi o'zgarishlar.

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THEORETICAL FOUNDATIONS FOR THE CREATION OF ELECTRONIC TEXTBOOKS FOR DISTANCE EDUCATION

Abstract. This article discussed the theoretical foundations and tasks, opportunities, features of creating electronic textbooks for distance education, among the main factors for accelerating the educational process, as well as the principles of creating electronic textbooks.

Key words: Electronic textbook, educational literature, information technology, independent education, multimedia, verbal, tactile, stereo, audio, video, HTML, educational.

Significant work is being carried out in the republic to develop information technology tools intended for the use of electronic educational literature, as well as the organization of distance learning. The scientific and methodological aspects of the creation of electronic literature are investigated by many scientists. Despite the beginning of the second experimental testing phase of the use of electronic educational literature since 2004, work on the creation of electronic textbooks for educational institutions is significantly deteriorating. And this is if the methodology for creating an electronic textbook, its structure, the components containing it are not placed in a specific system.

One of the urgent tasks of today is to accelerate the tasks in this direction to ensure the wide production and educational institutions of a new generation of educational literature with the transition to the third stage of widespread use in the educational process.

One of the tasks is to create an electronic science textbook.

We note that the textbook is a publication determined on the basis of the state educational standard, curriculum, methodology and didactic requirements, absorbed by the idea of a national perspective, fully covered by the topics of a certain educational discipline, aimed at the complete development of the relevant foundations of science and taking into account the possibilities of using various educational areas.

The electronic textbook is intended for the use of an educational method based on computer technologies, independent training and comprehensive effective development of scientific materials, scientific data:

- educational and scientific materials only in verbal (text) form;
- educational materials in verbal (text) and two-dimensional graphic form;
- multimedia (multimedia - multifunctional) applications, that is, information in three-dimensional graphic form, voice, video, animation and partially verbal (text);

- with a tactile (sensitive, sensitive) character reflecting the student (student, listener) in a form that creates an idea of entering the real world with the image of the stereotype "in the world of the screen" and moving in relation to objects in it.

The trend in the development of the education of the new century is the widespread use and spread of information technologies in the educational process. One of the main tasks of today can be considered the creation of a knowledge store that includes various subject areas. The introduction of new information technologies will ensure the transition from the traditional learning process in education to a new process that determines the course of the educational process by the student himself.

This process, taking place in great transparency, in the future could lead to a sharp revolution in the education system. Many talented students, according to their abilities and interests, get the opportunity to study on their own. In such a system of openness of education, school teachers with deep knowledge experience difficulties in achieving knowledge. Currently, in all educational institutions, computer education cannot yet be called free. While work is underway to create an electronic textbook, there are no open systems that allow textbooks to have books of ordinary libraries. Of course, with the development of the education system, these shortcomings gradually disappear.

Creating e-textbooks is a very difficult and complex job. development of the ability to independently teach students (students), in technological content - students (students) in the Center for Educational Technologies; cooperation based on training activities.

When developing an electronic textbook, three main components should be taken into account: description of the educational material, performance of practical exercises and feedback (the process of determining the degree of knowledge acquisition by students).

It is not advisable that the electronic textbook be completely in one file. It's going to be very big. This reduces the speed of downloading the textbook to a computer and makes it difficult to master the material. Preparing each chapter as one document eliminates the above drawbacks.

It is advisable to use Microsoft FrontPage to create an electronic textbook. For textbook text, a voluntary text editor can be used, which can write prepared documents in tht format or immediately in HTML.

Text is only an information part of the tutorial. The most necessary is the general method of preparing the textbook.

Frames allow you to create persistent information that, if necessary, should be displayed on the monitor. As such information, the name and name of the author of the textbook, the name of the educational institution, etc. can be obtained. But on the other side of the issue, it is convenient to place the contents of the textbook and move around the text. It should be noted that the frames themselves occupy most of the memory in which the information is placed, and little space remains in the texts.

Creating an electronic textbook is also possible without frames by analogy with a regular book. In this case, the loading time of the textbook will be increased, since the book itself will have a large volume. Movement, that is, display on the screen, will be lost. But at the same time, the information phase is always saved. To facilitate movement in the text, you need to create a special button permanently located on the screen.

When creating an electronic textbook, you need to use high-quality images as little as possible. They also slow down the download of the textbook to the computer.

A good electronic textbook is a demonstration tool, a repeater in independent classes organized in computer classes, a self-learning tool, a methodological assistant when performing laboratory work on a computer, a supervisor of knowledge acquisition by students, providing questions and exercises for practical classes.

However, to combine the above possibilities in an electronic textbook, the authors creating textbooks require the presence of complex methodological developments that take into account pedagogical skills, knowledge and the nature of the subject being studied.

First of all, the electronic textbook should have separate chapters and apply the principles of exhibition, positive emotional background, frugality and broad assistance in resolving the issue.

Working in an interactive manner, providing a choice of an electronic textbook and the most convenient learning scenario, activates student learning.

An electronic textbook is designed to work with an individual rather than abstract beings. The student must choose a way of learning based on their abilities, interest in science and their level of training.

An electronic textbook does not limit a student's time training. Therefore, the time for mastering the educational material can be reduced or extended at the request of the student.

An electronic textbook can recommend to students such forms of knowledge as reading information, listening to reports, performing tasks intended for practical and laboratory studies, testing their knowledge and, if necessary, filling it, self-monitoring.

It includes simulators, practical and laboratory tasks, software that monitors testing, simultaneous training and the process of mastering them. In other words, he is the organizer of the presentation describing the main information part of the course; exercises designed to strengthen the knowledge gained, tests that allow rational assessment of the knowledge of students.

Computer textbook:

- provide feedback in one part;
- facilitate rapid detection of the necessary information;
- time saving in case of repeated access to hypermatic explanations;

- not only display text on the screen, but also analyze and model it through multimedia technology;
- the ability to evaluate students' knowledge at speed in accordance with the levels of development in a specific section;
- the possibility of updating the necessary educational information differs from traditional textbooks.

In other words, a scientific and exhibition description of electronic educational materials; diagnostic-synthetic capability; informational and cognitive description of information in a complete, system and logical sequence, transmission and activation of educational material in one system; problematic; strength of learning material development; differential and individuality of education; psychologically pedagogical, such as flexibility and emotional effectiveness; full-fledged didactic education, interactivity of education, feedback, management ability, as well as the ability to work with a textbook in the process of independent work outside the audience and audience; ease of use; easy storage of large amounts of information and the availability of special technical devices (for example, computers) required to work with educational literature.

When comparing the above didactic capabilities of published educational materials with a traditional textbook, a programmed textbook, an electronic textbook and textbooks, the presence of the most visible signs in the textbooks of the last type (multimedia) is confirmed.

When creating electronic textbooks, it is necessary to provide for the possibility of publishing the necessary parts of it on a printer, as well as the possibility of reading it during the learning period of students. Since reading text from the screen can negatively affect the eyes of readers.

By the way, electronic textbooks intended for use in the educational process of educational institutions should have the following features:

- possession of a good structure of information in the subject;
- compliance of the fundamental topics of hypermatic, indicative, audio and video studies with the elements of the educational subject;
- along with text and demonstration, issuance of video or audio recordings of educational materials by teachers on the main sections of the textbook;
- have a system of high-speed interpretation of images, models and diagrams and at the same time use hypergraphic;
- use of multi-user interface;
- the presence of a hypermate system in the text parts designed to refer to the necessary sources;
- subject titles, which are difficult to explain by text, are provided by additional video bloggers and animation clips;
- conducting audio reels with music;
- tasks and exercises that students must perform outside the classroom and classroom, as well as their answers;

- availability of basic concept and serial dictionary of modules should differ from traditional textbooks. After each section of the e-textbook, it is advisable to ask questions to strengthen the educational material.

In educational institutions, the educational process will be accelerated using electronic textbooks. The main factors of acceleration of the educational process include:

- increased focus on one goal;
- increased motivation of students;
- expansion of the information scope of the educational content;
- activation of educational and cognitive movement of students;
- acceleration of the practical level of education of students.

Based on the above, the principles of creating electronic textbooks can be considered.

They are:

- objective and multilevel description of educational information;
- focus on the student, independent and individual education;
- integration of the characteristics of the development of the spiritual activity of the student: observation, thinking and practical activity.

Creating a full-fledged electronic textbook from any subject is a very big job. Currently, the amount of electronic educational literature created and created is small. Currently, the need to implement this work with progressive scientists and the introduction of educational institutions into the educational process has become a need. To implement the task, it is necessary to unite potential and experienced teachers, methodologists, scientists and system programmers in the republic, create special groups for the creation of electronic textbooks, as well as, based on the possibility, hat to centers. This will educate the younger generation, ensuring the future of the independent republic using new information technologies, create a basis for training competitive personnel with young people of educated, independently thinking and developed foreign countries.

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METHODS OF DEVELOPING ORAL SPEECH IN THE ENGLISH LANGUAGE CLASS BASED ON MODERN TECHNOLOGIES

Annotation. This article is about methods of developing oral speech in the English language class based on modern technologies and presents the technology used in teaching speaking and its effects to students as they learn to speak in English. Moreover, using modern technologies revealed that these technologies in teaching speaking build rapport, increase fluency and accuracy, ease anxiety and apprehension, and build confidence among students.

Key words: communicative method, Speech Recognition Software, Online Language Exchange Platforms, Language Learning Apps.

Introduction: One of the abilities that students must acquire when studying English is speaking. Speaking is a vital component of communication. Improving pupils' speaking skills has long been a priority in the classroom. Technology is the means of accessing this realm of modernization. Today, technology is employed extensively in educational areas, serving purposes beyond simple communication, trading, and transaction processes. It has been believed that using technological tools can help students become more fluent in language abilities like speaking ability. The greatest resources for training speaking skills are said to include the internet, podcasts, video conferences, movies, and voice recognition software. This essay will go over some of the contemporary tools that English teachers may use to help their students who are learning English as a second or foreign language improve their speaking abilities.

Many English teachers face the problem of "silence of students" in the lessons of the development of conversational skills. In order to prevent this, modern pedagogical technologies suggest changing the educational situation in such a way that the teacher from "indisputable authority" becomes an attentive and interested interlocutor and accomplice in the process of cognition. The communicative method, as one of the modern methods of teaching English, helps to ensure that the teacher is not only a carrier of information but also an observer and consultant [1, 42].

With the technology used in teaching language skills, McDougald (2009) also revealed that ICT is definitely a complement to conventional teaching, especially when developing reading, writing and listening skills in English [2, 959]

There are several methods for developing oral speech in English language classes using modern technologies. Here are some effective approaches:

Speech Recognition Software: Teacher can utilize speech recognition software such as Google's Voice Typing, Microsoft's Speech Recognition, or

Apple's Siri to practice speaking English. Students can speak into the software, which will transcribe their speech and provide feedback on pronunciation and grammar.

Online Language Exchange Platforms: Teacher can encourage students to participate in online language exchange platforms like Tandem or HelloTalk, where they can practice speaking English with native speakers through voice calls or video chats.

Language Learning Apps: Instructors can use language learning applications such as Duolingo, Babbel, or Rosetta Stone, which frequently include speaking activities for students to improve their conversational and pronunciation abilities.

Virtual Reality (VR) Simulations: Teacher use VR simulations to create immersive English-speaking environments where students can interact with virtual characters and practice real-life conversations. Platforms like EngageVR or AltspaceVR offer virtual classrooms and social spaces for language learning.

Interactive Online Platforms: Teacher may engage students in interactive online platforms designed specifically for language learning, such as FluentU or Busuu, which offer videos, dialogues, and interactive exercises to practice speaking skills.

Online Debate Platforms: Teacher must organize online debates or discussions using platforms like Flipgrid or Padlet, where students can record short video responses to prompts or engage in asynchronous discussions with their peers.

Speech Analysis Tools: Instructors can use speech analysis tools like SpeechAce or ELSA Speak to provide personalized feedback on pronunciation, intonation, and fluency. These tools often use AI algorithms to assess spoken English and offer targeted practice exercises. Breakout rooms can be used for small group interactions, allowing students to practice speaking in a less intimidating setting. Encourage students to summarize or discuss the content orally to practice speaking skills.

Conclusion: By integrating these modern technologies into English language classes, educators can create engaging and interactive opportunities for students to develop their oral communication skills effectively. These days, using technology to learn a second language is practically required. This article has provided a quick overview of the ways in which students' speaking abilities might be enhanced by technology.

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ZAMONAVIY O'QITUVCHINING XORIJIY TIL BILISH MAXORATI- TA'LIM SIFATINING MUHIM OMILI

Annotatsiya. Ushbu maqolada zamonaviy o'qituvchining Xorijiy til bilish mahorati, o'qituvchining madaniyatlararo aloqani rivojlantirish, keng ko'lamli o'qish va ma'lumotlarga kirish imkoniyatlarini kengaytirishni o'z ichiga oladigan omillar o'rganildi.

Kalit so'zlar: Global kommunikatsiya, madaniy muhit, kommunikatsiya, o'qituvchi dunyoqarashi.

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FOREIGN LANGUAGE SKILLS OF A MODERN TEACHER - AN IMPORTANT FACTOR OF THE QUALITY OF EDUCATION

Abstract. In this article, the factors that include the foreign language skills of the modern teacher, the development of the teacher's intercultural communication, the expansion of the opportunities for extensive reading and access to information were studied.

Key words: Global communication, cultural environment, communication, teacher's outlook.

Kirish.

Xorijiy tillarni samarali o'qitishning kaliti – zamonaviy bilimni egallagan, saviyali xorijiy til ko'nikmasiga ega bo'lgan o'qituvchilarni tayyorlash bilan bog'liq jarayondadir. Zamonaviy o'qituvchining xorijiy til bilish maxsadi ta'lim sohasida bir necha muhim omillar bilan bog'liq. Bugungi kunda “o'qituvchi”, “domla”, “ustoz”, “pedagog” va boshqa nomlar bilan ataluvchi kasbning paydo bo'lish va rivojlanish tarixi uzoq davrni o'z ichiga olgan bo'lib, fikrimizni asoslash maqsadida bir necha yuz yilliklar oldin yuzaga kelgan ustoz-shogird an'alarini misol qilib keltirishimiz mumkin [1, 1051-b]. Ular o'qituvchining insoniy merosini oshirish, o'quvchilarga global kommunikatsiya imkoniyatlarini taqdim etish, ko'p til va madaniyatlar orasida aloqani rivojlantirish, keng ko'lamli o'qish va ma'lumotlarga kirish imkoniyatlarini kengaytirishni o'z ichiga oladi. Bu omillar quyidagilarni o'z ichiga oladi:

1. Madaniy muhitni tushunarliroq qilish: Xorijiy til o'qituvchisi, o'qitish jarayonida o'quvchilarga turli madaniyatlar va tillar bilan tanishish imkoniyatini beradi. Bu, dunyoqarashni oshiradi va global mafkurani oshiradi.

2. Kommunikatsiya va aloqa qobiliyati: Xorijiy til o'qituvchi, ko'p tilni bilish orqali turli millatlardan insonlar bilan muloqotda bo'lish imkoniyatini yaratadi. Bu, global kommunikatsiya bo'yicha muvaffaqiyatli bo'lish uchun katta ahamiyatga ega.

3. O'quvchilarni o'zgartirish va mukofotlash: Xorijiy til o'qituvchilari, o'quvchilarga yangi tillar o'rganishni taqdim etish orqali ularni intellektual ravishda kengaytirishga yordam beradi. Bu, o'quvchilarning dunyoning eng muhim tillari va madaniyatlari bilan tanishishiga yordam beradi.

4. Iqtisodiy muhitda ma'lumotlarga kirish: Xorijiy til o'qituvchilari, o'quvchilarni xorijiy tillar orqali iqtisodiy, siyosiy, va madaniy ma'lumotlarga kirishga tayyorlashadi. Bu, ularga global ishbilarmonlikda muvaffaqiyatli ishlash uchun muhimdir.

5. Ko'p tilni o'rganish: Xorijiy til o'qituvchilari, o'quvchilarga ko'p tilli o'quvni tavsiya qiladi, shuningdek, ularni qiziqarliroq ko'rishga rag'batlantiradi. Bu, o'quvchilarning o'zlarini global darajadagi mavqelarini oshirishga yordam beradi.

Bu omillar, xorijiy til o'qituvchilar uchun ta'lim sifatini kuchaytiradi va o'quvchilarga dunyoni kengroq ko'rish imkoniyatini beradi. O'qituvchilarni ikki guruhga bo'lish mumkin. Ba'zilar ko'proq o'qitish metodi ustida ishlaydilar, boshqalari esa mazmun bilan shug'ullanadilar [2, 173-b].

Xorijiy til o'qituvchilari o'quvchilarga turli madaniyatlar va tillar bilan tanishish imkoniyatini beradi. Bu, ularning dunyoqarashni oshirish, global mafkurani oshirish va tarixiy, madaniy va tiliy bog'lanishlari o'rganishlari orqali ko'p tomondan o'zlarini rivojlantirishga yordam beradi. Misol uchun, bir xorijiy til o'qituvchisi o'quvchilarga turli mamlakatlarning madaniyatlarini, ularning tarixiy asoslarini, adabiyotlarini, musiqa va san'atlarini o'rganish imkoniyatini beradi. Bunday ta'lim jarayoni o'quvchilarni dunyoqarashni oshiradi va ularni o'zlarini boshqalar bilan muloqot qilishga, tushunchalarini o'zgartirishga, va global jamiyatda o'z joylarini topishga intiladi.

Chet tillarni o'rganishda o'qituvchi axborot manbayi vazifasini bajara olishi muhimdir. Zero o'quvchilarga faqat yangi so'zlarni, jumla tuzish qoidalarini, notanish matnlarni o'rgatish bilan cheklanib bo'lmaydi. Masalan o'qituvchi yozish ko'nikmalarini rivojlantirish uchun "Oxirgi o'qigan asarim" mavzusida matn tuzish vazifasini berdi, vazifani bajarish jarayonida har bir o'quvchida turlicha savollar yuzaga keldi. Bu o'rinda o'qituvchidan axborot manbayi vazifasini bajarish talab etiladi. Chet tillarni o'rgatuvchi o'qituvchilardan nafaqat til va uning qoidalarini yaxshi bilish, balki shu tilda so'zlovchi xalq madaniyati, adabiyot va san'atidan xabardor bo'lish va boshqa turdagi ma'lumotlarni qanday qo'lga kiritish yo'llarini bilish talab etiladi. Shuning uchun "o'qituvchi bu bir umrlik o'rganuvchi" degan fikrni asosli deyish mumkin [1,1055-b]. Ko'p tilni bilishga ega bo'lgan

o'qituvchilar, o'quvchilarga turli tillarni va madaniyatlarni tushunishga yordam beradi, shuningdek, ularning dunyoqarashini kengaytirishga ham o'xshaydi. Bu o'quvchilarni global jamiyatning a'zolari bilan muloqotda bo'lishga, ularga o'zlarini dunyo bo'ylab o'zgartirishga, tarixiy, siyosiy, iqtisodiy, va madaniy masalalarda ishtirok etishga yondashadi.

Global kommunikatsiya, bugungi dunyoda katta ahamiyatga ega bo'lgan tushunchalar har bir shaxsning, xususan talabalarning, turli tillarda va madaniyatlarda mustaqil ravishda ko'p tomondan o'zlashtirilganligi, ularni global jamiyatda o'zlashtirish va o'zining o'rinini topishda juda muhimdir. Xorijiy til o'qituvchilar bu jarayotga qo'llanish orqali o'quvchilarni dunyo bo'ylab o'zlarini qadrlash, o'zlarini ifodalash, va global muhitda muvaffaqiyatli bo'lishga tayyorlashadi.

Xorijiy til o'qituvchilar, o'quvchilarga yangi tillar o'rganishni taqdim etish orqali ularni intellektual ravishda kengaytirishga yordam beradi. Bu, o'quvchilarning dunyoning eng muhim tillari va madaniyatlari bilan tanishishiga yordam beradi. Quyidagi sabablarga ko'ra, bu jarayot juda muhimdir:

➤ Til va madaniyatlar orasidagi bog'lanishni kuchaytirish: Yangi tillarni o'rganish orqali, o'quvchilar turli madaniyatlar, tarixlar, va adabiyotlar bilan tanishishlari mumkin bo'ladi. Bu, ularning dunyoqarashini kengaytiradi va turli millatlar va jamiyatlar bilan bog'lanishlarni oshiradi.

➤ Ko'p tomondan o'zlashtirish: Yangi tillarni o'rganish, o'quvchilarni kognitiv va intellektual ravishda kengaytiradi. Ular yangi tillar orqali o'rganish jarayonida, ko'p tomondan o'z fikrini ifodalaydi va turli kontseptsiyalarga ega bo'lishadi.

➤ Global muhitda qadriyatli bo'lish: Yangi tillarni o'rganish, o'quvchilarga global muhitda qadriyatli bo'lish imkoniyatini beradi. Ularning dunyoni kengroq tushunishlari va global jamiyatning qatnashchilari bo'lishlari uchun juda muhimdir.

➤ Kompetentlikni oshirish: Yangi tillarni o'rganish, o'quvchilarga ko'p qat'iyat bilan talab qilinadigan kompetentliklarni rivojlantirish imkoniyatini beradi. Bu esa ularning kasbini oshirish va xavfsiz global muhitda muvaffaqiyatli ishlashlari uchun muhimdir.

Bular hammasi birgalikda, xorijiy til o'qituvchilarining o'quvchilarni intellektual ravishda kengaytirish va dunyoqarashlarini oshirishda ahamiyatini ko'rsatadi.

Xulosa.

Yuqorilardan shuni xulosa qilish mumkinki, Xorijiy til o'qituvchilar, o'quvchilarga yangi tillar o'rganishni taqdim etish orqali ularni intellektual ravishda kengaytirishga yordam beradi. O'quvchilarning dunyoning eng muhim tillari va madaniyatlari bilan tanishishiga yordam beradi. Quyidagi sabablarga ko'ra, bu jarayot juda muhimdir:

➤ Til va madaniyatlar orasidagi bog'lanishni kuchaytirish: Yangi tillarni o'rganish orqali, o'quvchilar turli madaniyatlar, tarixlar, va adabiyotlar bilan

tanishishlari mumkin bo'ladi. Bu, ularning dunyoqarashini kengaytiradi va turli millatlar va jamiyatlar bilan bog'lanishlarni oshiradi.

➤ Ko'p tomondan o'zlashtirish: Yangi tillarni o'rganish, o'quvchilarni kognitiv va intellektual ravishda kengaytiradi. Ular yangi tillar orqali o'rganish jarayonida, ko'p tomondan o'z fikrini ifodalaydi va turli kontseptsiyalarga ega bo'lishadi.

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Bular hammasi birgalikda, xorijiy til o'qituvchilarining o'quvchilarni intellektual ravishda kengaytirish va dunyoqarashlarini oshirishda ahamiyatini ko'rsatadi.

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MODERN INFORMATION SYSTEMS FOR MANAGEMENT, PRODUCTION AND DESIGN

Annotation. This article highlights the growing importance of information systems in modern organizations and their applicability across diverse sectors, including management, production, and design. It summarizes the key takeaways and underscores the strategic importance of modern information systems for organizational success.

Keywords: information systems, management, production, design, efficiency, decision-making, competitiveness.

Introduction. In today's dynamic and competitive business landscape, organizations across various sectors are increasingly relying on robust information systems to streamline operations, optimize productivity, and enhance decision-making. These systems encompass a wide range of tools and technologies designed to manage data, processes, and workflows within the critical domains of management, production, and design.

Key Points: Information systems play a pivotal role in enhancing decision-making, streamlining processes, and fostering innovation across various industries. Modern information systems leverage advances in artificial intelligence, cloud computing, big data analytics, and other emerging technologies. These systems empower organizations to gain deeper insights, optimize operations, and achieve a competitive edge.

Examples: Mention specific industries where information systems have made a significant impact, such as manufacturing, healthcare, finance, and logistics. Briefly cite notable real-world examples of successful implementations of modern information systems.

Modern Information Systems: Key Features and Functionalities – Modern information systems are characterized by their ability to:

✓ Integrate data seamlessly: They can consolidate data from diverse sources, including internal systems, external databases, and sensor networks, providing a holistic view of operations.

✓ Automate tasks: Repetitive and manual tasks can be automated, freeing up human resources for more strategic activities.

✓ Facilitate collaboration: Collaboration tools and communication channels enable teams to work together effectively, regardless of their physical location.

✓ Support real-time decision-making: Real-time data analytics and visualization tools provide insights to empower informed decisions.

✓ Adapt to evolving needs: Scalable and flexible systems can adapt to changing business requirements and technological advancements.

Management – Enterprise Resource Planning (ERP): ERP systems serve as the central hub for integrating and managing all core business processes, encompassing finance, accounting, human resources, supply chain, and customer relationship management. They provide real-time data insights, improve collaboration, and automate tasks, fostering efficient management across the organization.

Business Intelligence (BI): BI tools collect, analyze, and visualize data from various sources, enabling managers to gain deeper insights into performance, identify trends, and make informed strategic decisions. This empowers data-driven decision-making for improved financial planning, resource allocation, and risk management.

Project Management Software: These tools provide comprehensive functionality for planning, scheduling, tracking, and managing projects. They facilitate resource allocation; collaboration, communication, and risk mitigation, ensuring projects are completed within budget, on time, and to specifications.

Production – Manufacturing Execution Systems (MES): MES systems bridge the gap between planning and execution on the factory floor. They monitor real-time production data, track progress against plans, and optimize production processes, leading to increased throughput, reduced downtime, and improved quality.

Supply Chain Management (SCM) Systems: SCM systems manage the flow of materials, information, and finances throughout the supply chain, from procurement to delivery. They optimize inventory levels, transportation routes, and supplier relationships, enhancing logistics efficiency and reducing costs.

Industrial Internet of Things (IIoT): IIoT connects machines, sensors, and devices on the factory floor, enabling real-time data collection and analysis. This empowers predictive maintenance, process optimization, and remote monitoring, driving production efficiency and cost reductions.

Design – Computer-Aided Design (CAD) Software: CAD software allows for creating and manipulating 2D and 3D models of products, parts, and assemblies. It facilitates design visualization, collaboration, and prototyping, accelerating the design process and improving product quality.

Building Information Modeling (BIM): BIM software creates digital representations of buildings and infrastructure, encompassing physical and functional characteristics. It streamlines communication and collaboration among architects, engineers, and contractors, enhancing design accuracy and project efficiency.

Product Lifecycle Management (PLM) Systems: PLM systems manage all aspects of a product's lifecycle, from design and development to manufacturing and retirement. They provide a centralized platform for managing product data, specifications, and documentation, leading to improved product quality, reduced

development costs, and enhanced innovation. This section delves into the specific types of information systems used in each domain, outlining their key functionalities and benefits.

Conclusion: Modern information systems play a pivotal role in empowering organizations to manage, produce, and design more effectively. By integrating seamlessly across functional areas, these systems provide valuable insights, streamline workflows, and optimize processes, leading to enhanced efficiency, improved decision-making and increased competitiveness. As businesses continue to evolve in the digital age, adopting and leveraging these systems will be critical for achieving sustainable success. Remember to tailor your choice of information systems to your specific needs, ensure seamless integration, prioritize user-friendliness and training, and implement robust security measures. By following these guidelines, you can harness the power of modern information systems to unlock your organization's full potential.

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THE IMPORTANCE OF SPEECH UNITS AND MODERN APPROACHES IN THE DEVELOPMENT OF SPEECH COMPETENCE OF STUDENTS IN THE TEACHING OF THE NATIVE LANGUAGE

Abstract. This article analyzes the opinions of our republic and foreign scientists on the development of speech competencies of students in the course of the lesson, the absorption of educational content in the native language teaching, the fulfillment of the requirements established in the curriculum, the teaching of independent drawing up of documents for conducting business in the state language, as well as their.

Keywords: speech competence, goals, objectives of the teaching of the native language, conducting business in the State Language, linguistic competence, speech activity, improving oral and written Literacy, working on speech units, formal text, logical thinking, drawing conclusions.

Introduction. Today, the development of linguistic, speech, communicative competencies of the student youth on the basis of the requirements of the curriculum is one of the important tasks for professors and teachers working at a higher educational institution. In the implementation of this task, the role of the subject “methodology of teaching the mother tongue” is important.

Materials and Methods

A.Gulomov the main goal in the textbook for students of the philological Faculty of universities and pedagogical institutes, created by gulomov and a number of Methodist scientists and scientists, called “native language teaching methodology”, is to master speech activities based on the grammatical construction of the language, the work on the selection of training materials, the organization of classes should be Therefore, language is not learned through a lecture, but through the analysis of speech manifestations, the assimilation of vocabulary and sentence models, memorization”. When teaching Uzbek, it is relevant to focus on the development of competencies of students, subjects of the educational process, such as listening and understanding, reading, speaking, writing in accordance with the grammatical rules and literary language norms. Also. A.Gulomov, H.Ne in the methodological manual “content of native language education”, opinions are expressed on the content of education and its four structural components are

expressed: a) the system of knowledge that students need to acquire; b) the system of skills and skills corresponding to scientific and theoretical knowledge; d) methods of creative activity; e) the system of student-teacher relations[9].

Consequently, through the content of education, students, together with the formation of knowledge, skills and qualifications on the topic, speech and linguistic competencies are developed.

Notable Methodist nobleman D.In yuldasheva's textbook "native language teaching methodology", " speech can not only bring Language units to the surface, but sometimes it itself can also present units (usually words, phrases) corresponding to language unit templates to the language. Such words, phrases arise as a speech phenomenon in a way of unity inherent in the text or in the individual style of some Creator, and at this point are left without repetition, or it is also likely that people are quickly activated in their speech activity, absorbed into the composition of the language and become its normative unit. The units presented from speech to language are occasionalisms". At the same time, the degree of purposeful application of speech units of students is determined in the process of independent compilation of documents for conducting work in the state language and its writing. Taking into account the goals and objectives of his science, it is advisable to cite scientific explanations as follows. "One of the main issues in the rapid introduction of the state language is the transfer of the system of conducting business in our country to full Uzbek language. Of particular practical importance in this is the creation of manuals on various, even specific fields of work and the publication in multiple copies. At the moment, regular improvement of knowledge and skills of employees of different industries in the field of work is also one of the necessary needs.

In order for a person to express his opinion clearly and fluently, he must also be aware of the styles in the language, know, in addition to the Daily colloquial language, the language of official proceedings. Because whether it is an ordinary worker, farmer, entrepreneur or intellectual will still have to write, at least, an application, a receipt or a power of attorney. The activities of the head of an enterprise, institution or organization of one level or another cannot be imagined without stationery"[1].

The development of students ' writing competence is fruitful in the transformation of speech styles and their differential aspects from each other into practical skills, as well as the excellent study of lexical, syntactic units that are selected for scientific, artistic, formal textual content.

It is also important that in the development of speech competencies of students, the main place is occupied by the cultivation of modern approaches. M.In his article, Vahobov called "introduction into practice of the model of monitoring of state educational standards and quality of Education based on a competency approach – an important factor in the upbringing of an intellectually developed generation - "education based on a competency approach is education aimed at the formation of competencies for the practical application of knowledge, skills and

qualifications acquired in students in their personal professional and social activities” from this point of view, the development of speech and linguistic, communicative, cognitive competencies of students serves to develop competency approaches in them. This in turn pays off in their preparation for personal and professional activities. Therefore, in addition to the acquisition of knowledge, skills and qualifications in young people, it is necessary that the student is able to practically apply the set of knowledge in the process of studying subjects in his speech.

In the development of speech activity of students, it is necessary to analyze works of art in textbooks, poetic texts. Because every student who reads educational textbooks develops the potential for thinking and speaking, communication. Professor M.Mirkosimova argues that” the importance of the curriculum and textbooks in the content of the qualification of literary analysis in students is very justified.” In addition to the development of literary analysis, the study of the curriculum and topics given by the textbook in the course of the lesson positively affects the scientific, creative and logical thinking of students.

Results and Discussion

Researcher F.H.Aminova admits that”communication is not just speaking, communication consists in simultaneously listening, understanding, starting a conversation with decency, making a written statement of one's thoughts in compliance with the norms of the literary language, as well as having the skills to be able to maintain etiquette when talking”[2]. Presentation as a speech activity is subject to the law of the target basis of educational communication. At the same time, speech should be understood by all or most students.

V.P. Konetskaya believes that” communication cannot be achieved without mutual understanding”. Also, in the process of communication, the listener and the speaker are recognized as the main criteria for successful communication, understanding each other, in the process of communication. Speech competencies evolution its conceptual basis in conducting professional activities, the growth indicators of speech manifestations in the development of speech competencies of students in the process of strengthening communication and thinking include:

- linguistic concepts in the educational material, the interpretation of constructional devices in harmony with the lexicographic aspect;
- development of the ability to analyze and subjectively react to scientific data related to science;
- directing the expansion of his thinking to independently compose speech manifestations based on the norms of the Uzbek literary language;
- providing educational methodological literature for the independent compilation and writing of proceedings in the state language, which is written to realize a specific, understandable, meaningful, specific goal;
- interactive work with the teacher on mistakes and shortcomings made in the way students compose and write oral and written speech during the training process.

Conclusion. Therefore, to develop students oral and written speech literacy, focusing on their skills in working with educational literature and speech units will have a positive effect.

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SPECIAL FEATURES OF MODULAR TRAINING TECHNOLOGIES IN HIGHER EDUCATION

Annotation. The article analyzes modular training as one of the methods for developing knowledge, abilities and intelligence in the preparation of future specialists, based on the requirements for modern teaching technologies in higher education. Ways to improve students' skills based on modular learning technologies are also considered.

Key words: didactic task, modern teaching aids, module, block, modular program.

O‘zbekiston Respublikasida oliy ta’limni tizimli isloh qilishning ustuvor yo‘nalishlarini belgilash, zamonaviy bilim va yuksak ma’naviy-axloqiy fazilatlarga ega, mustaqil fikrlaydigan yuqori malakali kadrlar tayyorlash jarayonini sifat jihatidan yangi bosqichga ko‘tarish, oliy ta’limni modernizatsiya qilish, ilg‘or ta’lim texnologiyalariga asoslangan holda ijtimoiy soha va iqtisodiyot tarmoqlarini rivojlantirish muhim vazifa qilib belgilangan. Bu esa o‘z navbatida pedagog kasbining yanada murakkablashuvi, mas’uliyati va vazifalarining ortishiga olib keladi. Chunki ommaviy ta’limning bugungi sharoitida yangi raqamli avlod bilan ishlash, ularni rivojlantirish, jahon talablariga mos qilib kasbga tayyorlash zamonaviy o‘qituvchidan yuksak texnologik bilim, salohiyat va mehnatni talab qiladi.

Ta’lim taraqqiyotini harakatlantiruvchi kuch – bu o‘zida didaktik masalalar va ta’lim texnologiyalarini mujassamlashtirgan pedagogik tizim hisoblanadi. Ta’lim texnologiyasining muvaffaqiyatli loyihalanishi va yakuniy natijaning kafolatlanishi o‘qituvchining didaktik masalalar mohiyatini anglab yetish darajasiga, ularni to‘g‘ri belgilash, tanlash va samarali qo‘llay olishga bog‘liqdir.

Ta’limning zamonaviy o‘qitish vositalaridan biri modullio‘qitish texnologiyalari bugungi kunda muhim ahamiyat kasb etmoqda.

Modul (lot. “modulus” – kichik o‘lchov) – ta’lim texnologiyasini tashkil qiluvchi tarkibiy bo‘laklarni ifoda etuvchi tushuncha. Modullar katta modul, o‘rta modul va kichik modul ko‘rinishida ifodalanishi mumkin. Masalan, fanning alohida bobi yoki bir necha mazmunan bir-biriga yaqin boblari katta modulni, undagi alohida mavzular o‘rta modulni, mavzu rejalari esa kichik modullarni tashkil qilishi mumkin. Modul – mazmuniy va mantiqiy yakunga ega bo‘lgan, didaktik jihatdan ishlab chiqilgan, natijaga qaratilgan, fanning muayyan bo‘limi yoki katta mavzusi, o‘zaro bog‘liq tushunchalar guruhi hamda kirish va chiqish nazoratlaridan iborat bo‘lgan birlikdir.

Modul – bu fanning bir yoki bir necha tushunchalarni o‘zlashtirishga yo‘naltirilgan, ishlab chiqilgan tamoyillar asosida shakllangan mantiqan

tugallangan o‘quv materialidir. Mazmuniga ko‘ra modullar – nazariy, amaliy yoki texnologik modullarga bo‘linadi.

Modulli o‘qitish texnologiyasi an’anaviy o‘qitish texnologiyalariga alternativ holda, mavjud pedagogik texnologiyalardagi barcha nazariy va amaliy progressiv texnologiyalarni o‘zida mujassam etgan texnologiya hisoblanadi. Modulli o‘qitish asoslari P.Yu.Syavichene tomonidan ishlab chiqilgan va to‘liq bayon etilgan.

Modulli texnologiyalar – modul bloklaridan tashkil topgan axborotni strukturalashtirilgan, talabning mustaqil faoliyatiga asoslangan, diagnostikasida turli shakllardan foydalangan holda tashkil etiluvchi yaxlit jarayon.

Modul dasturi – bir fan doirasidagi modul bloklarining yig‘indisi bo‘lib, erishish lozim bo‘lgan didaktik maqsad, qo‘llaniladigan usullar va vositalar yig‘indisidir.

O‘quv moduli – nisbatan mustaqil, mantiqiy yakunga ega bo‘lgan o‘quv kursining bo‘lagidir. U o‘quv metodik ta’minotdan nazariy va amaliy qismlardan, topshiriq va joriy hamda yakuniy nazorat kabi qismlardan iborat.

Modulli o‘qitishning mohiyati – talaba modullar bilan ishlash jarayoni orqali o‘quv maqsadiga mustaqil holda (yoki ma’lum darajadagi yordam orqali) erishadi. Pedagog ma’lum ketma-ketlik asosida didaktik vazifalar murakkablashadigan va modullar majmuidan iborat dastur ishlab chiqadi. Dasturda talabaga kirish va oraliq nazoratlari orqali pedagog hamkorligida o‘qish faoliyati ustidan o‘z-o‘zini boshqarish imkoniyati yaratiladi.

“Modulli o‘qitish” termini xalqaro tushuncha – modul bilan bog‘liq bo‘lib, faoliyat ko‘rsata oladigan o‘zaro chambarchas bog‘liq elementlardan iborat bo‘lgan tugunni bildiradi. Bu ma’noda u modulli o‘qitishning asosiy vositasi, tugallangan axborot bloki sifatida tushuniladi va majmuaviy yondashuvni ifodalaydi.

Modulli o‘qitish – o‘qitishning istiqbolli tizimlaridan biri hisoblanib, kasbiy ta’limning quyidagi zamonaviy masalalarini har tomonlama yechish imkoniyatlarini yaratadi:

- modul – faoliyatlilik asosida o‘qitish mazmunini optimallashtirish va tizimlash, dasturlarining o‘zgaruvchanligi, moslashuvchanligini ta’minlash;
- o‘qitishni individuallashtirish;
- amaliy faoliyatga o‘rgatish va kuzatiladigan harakatlarni baholash darajasida o‘qitish samaradorligini nazorat qilish;
- kasbiy motivatsiya (qiziqtirish) asosida, o‘qitish jarayonini faollashtirish, mustaqillik va o‘qitish imkoniyatlarini to‘la ro‘yobga chiqarish.

Modulli o‘qitishning hozirgi zamon nazariyasi va amaliyotida ikki xil yondashuvni ajratib ko‘rsatish mumkin: fan bo‘yicha faoliyat yondashuvi va tizimli faoliyat yondashuvi.

Bu yondashuvlar doirasida modul asosida mutaxassislar tayyorlashning bir qator konsepsiyalari ishlab chiqilgan. Barcha konsepsiyalar zamirida faoliyat yondashuvi yotadi va bu nuqtayi nazardan, o‘qitish jarayoni to‘laligicha yoki muayyan fan doirasida, modulli ta’lim dasturi mazmuniga muvofiq kasbiy faoliyat

elementlarini ta'lim oluvchi tomonidan ketma-ket o'zlashtirishga yo'naltirilgan bo'ladi.

Modulli o'qitishda o'quv dasturlarini to'la, qisqartirilgan va chuqurlashtirilgan tabaqalash orqali o'qitishni tabaqalashtirish imkoniyati mavjud, ya'ni o'qitishni individuallashtirish mumkin bo'ladi.

Modulli o'qitishga o'tishda quyidagi maqsadlar ko'zlanadi:

- o'qitishning (fanlar orasida va fanning ichida) uzluksizligini ta'minlash;
- o'qitishni individuallashtirish;
- o'quv materialini mustaqil o'zlashtirish uchun yetarli sharoit yaratish;
- o'qitishni jadallashtirish;
- fanni samarali o'zlashtirishga erishish.

Shunday qilib, modulli o'qitishda ta'lim oluvchilarni o'z qobiliyatiga ko'ra bilim olishi uchun to'la zaruriy shart-sharoitlar yaratiladi.

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MANAGEMENT TACTICS FOR WOMEN USING INTRAUTERINE CONTRACEPTION

Resume. The intrauterine device (intrauterine device, IUD) is an intrauterine contraceptive of abortive action, which is a small device made of plastic and copper inserted into the uterine cavity for a long time to protect against pregnancy. In recent years, the type and effectiveness of these tools have been constantly increasing. For hormonal contraception, this figure was slightly more than 10%. This is due to the high efficiency of the method (98.3%), the absence of a systemic effect on the woman's body, and the rapid restoration of fertility after IUD extraction. The introduction of copper, silver or gold ions into the composition of the IUD can reduce inflammatory complications by 2-9 times.

Keywords: reproductive health, intrauterine contraception, woman.

Relevance. The need to discuss undifferentiated prevention and treatment of complications during intrauterine interventions is determined by a number of reasons. Firstly, more than 250 million new cases of sexually transmitted diseases are registered worldwide every year.

The majority of patients in this profile are under the age of 25, are women of reproductive age [2,4,8] and belong to the group of "childbirth reserve". This determines the second feature of the problem associated with this pathology: a large number of secondary complications leading to impaired reproductive function (infertility, miscarriage, etc.) And, finally, the third important factor is the growth among patients of reproductive age of women suffering from chronic infections of the reproductive system. Unfortunately, it has to be stated that the number of intrauterine interventions for various purposes (diagnostic, therapeutic and abortive manipulations) in total in this group of women has a steady upward trend.

In the last few decades, approaches to the rational prevention of postoperative complications have been developed in surgery and gynecology [3,5,9]. In many studies, in order to standardize approaches to antibacterial prevention, the risk of developing infectious complications after surgical interventions is highlighted. In addition, there are numerous risk factors that affect the occurrence of infectious and inflammatory diseases after surgical interventions in obstetrics and gynecology. The administration of antibiotics for the prevention of infectious complications implies ensuring effective concentrations of the drug in tissues until their contamination during and after surgery. At the same time, against the background of prolonged use of antimicrobial agents, the probability of

infectious and inflammatory diseases in the postoperative period not only does not decrease, but also increases somewhat [1,6,8].

It has been proven that the development of the infectious process is prevented by the introduction of antibiotics no later than 3 hours after the creation of the wound surface (entrance gate for bacterial pathogens). On the other hand, prescribing antibiotics more than a day before surgery increases the risk of developing resistance of microorganisms to the drug. Therefore, the optimal regimen of antibiotic prophylaxis is the first administration of an antibiotic perioperatively (or intraoperatively – by caesarean section) and subsequent ones within 12-24 hours [5,7].

The purpose of the study. Optimization of reproductive health of women using intrauterine contraception.

Materials and methods of research. To fulfill our task, we selected 85 patients who were diagnosed with IUD and had complications. In them, we conducted a clinical analysis and predicted complications. In the main group of women who had a medical abortion before 12 weeks by curettage, 2 patients (6.7%) had an exacerbation of chronic adnexitis. In the control group, problems after abortion occurred in 12 women (40%): exacerbation of chronic adnexitis was in 6, metroendometritis – in 3, acute adnexitis – in 2, menstrual irregularity in one patient.

The results of the study. The main factors that influenced the choice of the method of contraception (IUD) were the fear of repeated abortions, the psychological unacceptability of hormonal contraception, as well as the high effectiveness of IUD, ease of use, affordable cost, harmlessness to health, duration of action, comfort in the sexual sphere. The majority (65.9%) of the surveyed women have a negative attitude towards hormonal contraception, preferring to use IUD until menopause. j

The reproductive behavior of women before the use of IUD was characterized by often alternating pregnancies, a large proportion of which were abortions, including almost a third before the first birth. The ratio of the number of abortions to the number of births was 2.1:1 in the group of women with inflammatory diseases of the pelvic organs (IUD) on the background of IUD and 1.7:1 - without IUD.

Intrauterine contraception, subject to the technology of its use, does not adversely affect the fertility of women, allowing them to carry a pregnancy after using IUD. Among women who wished to become pregnant after timely extraction of IUD, 55.6% became pregnant within six months, the rest within a year. At the same time, the frequency of complications of pregnancy and childbirth did not exceed the average population indicators.

Violations of vaginal microbiocenosis are detected more often in women with IBS and are characterized by a small amount or complete absence of lactobacilli and the presence of opportunistic flora (*Staphylococcus aureus*, *Enterobacteria*, *Gardnerella*, fungi of the genus *Candida*). All patients underwent a

traditional examination before intrauterine manipulations and the degree of vaginal cleanliness was additionally determined. Risk factors for the development of inflammatory diseases of the organs, small, and pelvis against the background of IUD are sexually transmitted infections or infections, multiple sexual partners, insufficient examination or inadequate treatment before the introduction of a contraceptive, as well as the lack of follow-up during the use of this method.

Conclusion. Based on the results of the conducted research, it will be possible to improve the complex of therapeutic and preventive measures and put into practice scientifically based recommendations for the prediction and prevention of complications as a result of the use of IUD. The necessity of a thorough examination of patients before the appointment of intrauterine contraception and further dynamic monitoring is justified.

An assessment of the role of factors influencing the prevalence of this method of contraception will allow us to determine priority areas of work on the introduction of modern methods of preventing unwanted pregnancies.

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DIGITAL AND LARGE INTEGRATED CIRCUITS, ELECTRONIC HALF CONDUCTIVE DEVICES DESIGN COMMON CASES

Abstract. This in the article digital integrated circuits, large integrated circuits and electron half conductive devices work principles and when designing common cases seeing developed.

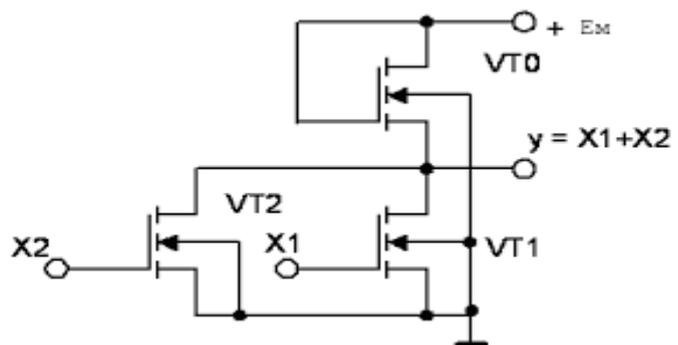
Key words. Integrated circuits, transistors, diodes, capacitors resistors, electric signals, discrete components, microelectronics, crystal field, electromagnetic, arithmetic makes sense devices.

Introduction. Digital Integrated Circuits. An integrated circuit (IMS) is mutually connected one how many transistors, diodes, capacitors. Resistors sum is considered and he is the only one technological in the cycle prepared (i.e one while), electricity signals in the change known functions performs _

In IMS entered components from him independent separate taken and independent item as use possible it's not. They are called integral elements. Of them different dying to them constructive customized detail and devices discrete called components. They are based on Created blocks while discrete are called schemes.

High cleanliness and quality, compactness, lightness, cheap integrated circuits the people household all in the fields wide to use reason is happening. Modern microelectronics basis Semiconductor integrated microcircuits organize is doing Modern semiconductor IMS crystals dimensions are 1.5x1.5 from to 6x6 mm.

Figure 1: Half conductive static digital integrated circuits circuit engineering



Crystal area how much big if to him that's all a lot element integrated circuit placing possible will be

integrated circuits transistors known connections based on resistor and condenser harvest to do can.

Semiconductor IMS feature from that consists of them elements between inductance reel no, because that's it until then hard in bodies electromagnetic induction equivalent was physicist event get opportunity did not happen.

A large integrated microcircuit is a lot numerous one different from the cells organize found a lot sized semiconductor to the device it is said. It is complicated functional to the scheme united will be.

Current in the day work issuing large integrated circuits (KIMS) 10 thousand and from him more than logic from the elements organize finds.

All KIMS three to class is divided.

1) counters, resistors, accumulators, arithmetic-logic devices type functional blocks:

2) memory devices (XQ):

3) microprocessors (MP).

The first KIMS are MDP (metal dielectric semiconductors) structure based on built Current in the day to the KIMS element database bipolar structures are also included.

Electronic and semiconductor devices design common cases.

That's right electron and semiconductor devices structural and principle electricity schemes them work principles analysis to do teaches. But this electricity schemes electricity and semiconductor devices construction mark maybe not them make up for basis be takes only Such devices design main principles about concepts them work only on release it's not. Maybe of them use also needed for will be **Electronic and semiconductor devices elements asset and passive is divided.**

Active to the elements the following includes: semiconductor and electrovacuum tools

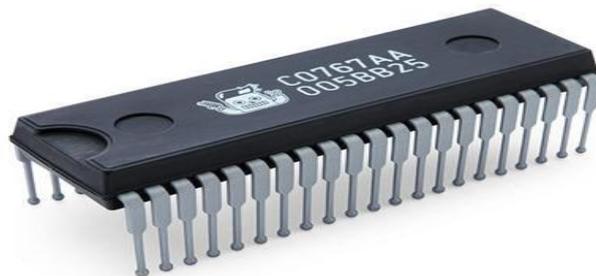


Figure 2: Microcontroller

Integral electronic. Integral scheme the first integrated circuit appear it has been.

Passive to the elements and: resistors, capacitors, transformers, inductance coils, relays, connectors, indicators, wire and cables.

Device elements are in optimal condition placement and fastening should, one briars with principle scheme based on connection need.

Modern electron and semiconductor devices many part print to the boards placed Such boards dielectric basis considered holes there is and drawings shown. 0.3-1.5 mm in diameter harvest done holes suspension elements (integrated circuits, transistors, resistors, capacitors). posting, printing sycamore fasten and reverse on the side placed elements connect for is used. A hole walls metalized.

Suspension elements ends in holes because it is tinned to them pressure wires came So by doing print uzel (knot) is produced will be done.

Print boards surface shorten for multi-layered boards (KQP) are used, they exchanger dielectric from layers Created will be KQP in layers print wires distribution print boards dimensions sharp to shorten take it comes _ thing a lot to exits have was _ from microcircuits is used.

Electronic and semiconductor devices (NO). design and in use **aggregation** use big benefit will give. Aggregation-reciprocal interchangeable node and from the blocks Created devices **konpanovka** is a method.

Aggregated complexes in making to him entered all node and blocks full electricity and constructive exchange in the eye is caught. Main typical blocks and subblocks unified, this condition new equipment work exit and work to issue application reach the time sharp shortens.

Aggregate to complexes standard to the dimensions have was constructive elements collection enters.

Aggregate complexes nomenclature so is constructed so that, relatively little blocks the total known in number different to complexity to the task have was device and systems to see possible let it be Aggregate to the complex example by doing indestructible control device complex get can. Him to the composition car, specified frequency generator, analog- discrete switch and one channeled himself writes resistors subblocks and some one another blocks enters.

Electronic and semiconductor devices constructive execution very hilma character and them duties use field with is determined.

For example stationary in the circumstances work for intended electron hardware plane on board or space on the ship used from the hardware difference big.

Conclusion by doing that's it to say possible: present in the day electronic, semiconductor and electromagnets based on different devices, automated industry robots and manipulators is being built. They are using technological processes management, control and information systems is improving.

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THE ROLE OF VALUES IN FORMING THE MIND OF YOUTH

Abstract. Studying the topic of values as a scientific object of philosophical research and mastering the knowledge gathered in this direction helps to form a modern worldview and scientific thinking. A comprehensive and deep analysis of current issues in this field, issues of improving the existing value system have become one of the current topics in this regard.

Key words: society, reforms, values, universal values, national values, ideas and an innovative.

The system of values and topics related to it are a component of distant historical processes, like a person himself, a unique phenomenon of social reality that began to form with the emergence of society. It is a general law of development that each historical stage, any period of human life has its own values and value systems, and that this factor is of great importance in the history and destiny of states and nations. This law attracts the attention of scholars and thinkers, scientists and specialists both in the past and in the present. In this regard, many doctrines and theories have been created, various views and approaches have been formed.

Summarizing various theories and approaches in this field, in turn, in the process of social development, along with the transition of society from one stage of development to another, as well as in all areas of life, the existing value system also undergoes unique changes and updates. indicates that it is a general process related to the front.

Even today, when the world is becoming globalized and the scope of various problems related to it is expanding, this general axiological law is being implemented and it is manifested as an important component of the development of the whole humanity on the one hand, and on the other hand, the life of Uzbekistan, which is becoming more and more modern.. At the same time, the instabilities in some regions of the world are intensifying and the problems related to the spiritual crisis are becoming more and more acute, causing a rapid change in the universal value system in which the age-old traditions of the peoples of the world prevail. is dying. On the other hand, attention is being paid to scientific research related to the general laws and its national characteristics, which ensure the intensive impact of such complex socio-axiological processes on the global value system and the existing set of values in our country.

As the President's speech at the 72nd session of the UN General Assembly emphasized, "Uzbekistan is rapidly developing today. Following the wise traditions

of our ancestors, we are carrying out strict reforms, and we are on the way to form a new image of our country. Political activity is increasing in our society, deep reforms are being implemented in all spheres. Their goal is to establish a democratic state and a just society, where the implementation of the simple and clear principle that "human interests are above all else" is of primary importance.

of the President of the Republic of Uzbekistan dated July 28, 2017 " On increasing the effectiveness of spiritual and educational work and raising the development of the sector to a new level" No. PQ-3160 dated May 31, 2017 "Culture and PQ-3022, dated August 14, 2018, "On measures for the further development and improvement of the field of art" " Education of young people with spiritual, moral and physical perfection, and the system of providing them with education and training" "Resolutions and decrees of PQ-3907 on measures to raise the quality to a new level " and Addresses of the Head of State to the Oliy Majlis in 2017 and 2018 are also a methodological basis for understanding the nature of issues in this direction and setting urgent tasks no doubt. [**1.B. 1 0**]

Researching the objective regularities and specific features of the process of changing and renewing the general value system specific to the life of our country today in all spheres of life as a socio-philosophical special topic is the realization of these methodological sources and historical documents. serves. In this regard, the need to deeply study the impact of the global axiological processes that are taking place in an extremely complex manner on the system of spiritual and educational values typical of today's Uzbek society, and to find effective solutions to the problems arising in this field is increasing., the tasks of systematic research of issues in this direction are becoming extremely urgent.

In order to further increase the effectiveness of the reforms in this direction in order to create a new image of our country, there is a need for holistic conceptual scientific developments to further improve the existing value system and optimize its renewal mechanism. The need to develop innovative approaches and practical proposals and recommendations for their implementation is also increasing.

our Honorable President Sh. Mirziyoev specifically stated in his Address to the Oliy Majlis of 2017: "Today, we are focused on radical renewal of all spheres of state and community life we are moving to the path of innovative development. It's not for nothing, of course. Because in today's fast-paced world, who wins? The state that relies on a new idea, a new idea, and innovation will win. Innovation is the future. If we start building our great future today, we should start it on the basis of innovative ideas and an innovative approach. [**2.B. 3 8**]

Separately to emphasize independence, of course during our society spiritual and educational values in the system happened gave updates of the process directions and main principles analysis to do directed systematic studies of our country this direction leaders scientific centers and higher education institutions has been Uzbekistan national University, Samarkand State University, Republic Spirituality center, " Social Fikr Center (Uzbekistan), Uzbekistan philosophers national society such as university and scientific centers by done is increasing.

Current period in our country values of the subject different issues to learn dedicated studies betweenXS h aikhova, O'. Abilov, T. Komilova, Q. Nazarov, M. Jakbarov, A. Erkaev, B. Ochilova, R. Rozieva, Sh. Oripov, A. Haydarov such as scientists and of experts research too important important have is happening This on the front especially T.Abdullaev 's " Marriage in the field universal and national values dialectic ", A.Yunusov's " Democratic society and spiritual values in development nationality and of humanity mutually connection ", Q.Nazarov's " Values system: stability and changes dialectic ", R. Rozieva's " Society spiritual in the update national and universal values harmony formation issues " topic doctorateand A. Khaidarov's " Uzbekistan society political in culture national spiritual of values place ", A. Abdirazzokov's " Milliy spiritual values and them of the people identity in the sense of place and importance " andA.Muratboeva's " People's moral valuesand them of Uzbekistanspiritual in recovery on the topic of "importance ".candidacy dissertations separately our emphasis it is necessary Of these all of them spiritual and educational The fact that the value system and the issues and problems related to them are among the topics that scientists and specialists of the world and our country are focused on indicates that a lot of research is being conducted in this direction. At the same time, aspects related to the further improvement and effective implementation of the new value system that is being formed in Uzbekistan at the present time, issues related to innovative renewal processes in this area are a special topic. asresearch not done. [3.B. 68]

This of the subject independence the changes of the value system formed in the years of independence due to the reforms carried out during the independence period and today's fundamental changes, the search for effective ways and unique means of this process have not yet been a special object of research in this regard. increases the relevance of research.

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**YORUG'LIKNING ELEKTROMAGNIT TO'LQIN TABIATI
QONUNLARIDA YUZAGA KELADIGAN JARAYONLARNI MA'RUZA
MASHG'ULOTLARIDA O'RGANISH**

Annotatsiya. Ushbu maqola yorug'lik hodisalari va qonunlari, yorug'likning tabiati hamda uning modda bilan o'zaro ta'sirini o'rganishga bag'ishlangan.

Kalit so'zlar. Optika, yorug'lik oqimi, yorug'lik kuchi, geometrik optika, yoritilganlik, fotometriya, lyuks.

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**STUDY OF THE PROCESSES THAT OCCUR IN THE LAWS OF THE
ELECTROMAGNETIC WAVE NATURE OF LIGHT IN LECTURES**

Abstract. This article is devoted to the study of light phenomena and laws, the nature of light and its interaction with matter.

Keywords. Optics, luminous flux, luminous intensity, geometrical optics, illuminance, photometry, lux.

Yorug'lik hodisalari va qonunlari yorug'likning tabiati hamda uning modda bilan o'zaro ta'siri o'rganiladigan fizikaning bir bo'limi – optika deb ataladi.

Yorug'lik ma'lum diapazondagi elektromagnit to'lqinlardan iborat. Inson ko'zi butun nurlanish tarkibidan faqat to'lqin uzunligi $3,8 \cdot 10^{-7}$ dan $7,7 \cdot 10^{-7}$ gacha bo'lgan nurlarnigina ko'ra oladi. To'lqin uzunligi $3,8 \cdot 10^{-7}$ dan qisqa bo'lgan nurlar ultrabinafsha $7,7 \cdot 10^{-7}$ dan katta bo'lgan nurlar infraqizil nurlar deb atalib, ular ko'zga ko'rinmaydi [1-2].

Jismlardan yorug'lik qaytib ko'zimiz tushgandagina biz ularni ko'ramiz. O'zidan yorug'lik chiqaruvchi jismlar – yorug'lik manbalari deb ataladi va ular ikki guruxga bo'linadi:

Tabiiy manbalarga – Quyosh, yulduzlar, nur chiqaruvchi organizmlar misol bo'ladi.

Sun'iy manbalarga – cho'g'langan jismlar, tok o'tganda nur sochuvchi jismlar misol bo'ladi.

Odatda yorug'lik manbalari ma'lum o'lchamli jismlar bo'ladi, lekin ko'pgina aniq hisoblashlarda nuqtaviy yorug'lik manbai tushunchasidan foydalanib, bunda manba o'lchami hisobga olinmaydi[3-4].

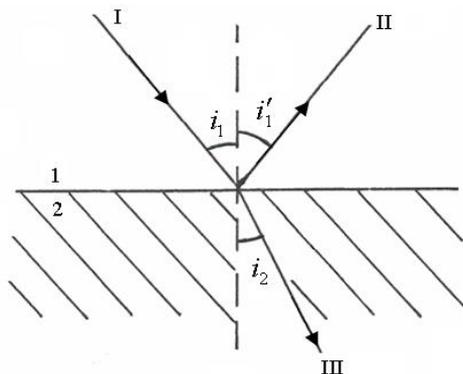
Yorug'lik turli to'lqin uzunlikdagi to'lqinlardan iborat bo'lib, bunday yorug'likni murakkab yorug'lik deyiladi. Har qanday yorug'lik manбайдan keladigan yorug'lik murakkab yorug'lik bo'lib, u turli rangdagi manoxromatik yorug'likdan tashkil topgandir. Muayyan to'lqin uzunlikdagi alohida rangdagi yorug'lik – monoxromatik yorug'lik deyiladi.

Yorug'likning tarqalishi yorug'lik to'lqinlari energiyasining ko'chishidan iboratdir. Yorug'lik havoda yorug'lik dastasini hosil qilib, ya'ni yorug'lik shu'lasini ko'rinishida tarqaladi. Yo'nalishlari fazoning istalgan nuqtasida yorug'lik energiyasining ko'chish yo'nalishi bilan usta-ust tushgan geometrik chiziq – yorug'lik nuri deyiladi. Yorug'lik nuri – geometrik tushuncha bo'lgani uchun, yorug'lik nuri va uning tarqalish hodisalarini o'rganuvchi optikaning bir bo'limi – geometrik optika deb yuritiladi[5-6].

Yorug'likning to'g'ri chiziq bo'ylab tarqalish qonuniga asosan, yorug'lik bir jinsli muhitda to'g'ri chiziq bo'ylab tarqaladi. Yorug'lik yo'liga qo'yilgan buyumlarning soya va yarim soyaning hosil bo'lishi yorug'likning to'g'ri chiziq bo'ylab tarqalishini tasdiqlaydi. Quyosh va Oy tutilishi ham yorug'likning to'g'ri chiziq bo'ylab tarqalishidan hosil bo'ladi.

Yorug'lik nuri bir jinsli muhitdan ikkinchi muhitga o'tganda ikkinchi muhit shaffof bo'lmasa yorug'lik ikkinchi muhitdan birinchi muhitga qaytadi, bunda yorug'likning qaytish hodisasi sodir bo'ladi.

OO¹-normal, tushish nuqtasiga o'tkazilgan perpendikulyar. Yorug'likning qaytish qonuniga asosan tushuvchi nur, qaytuvchi nur va normal bir tekislikda yotadi.



1-rasm. Ikki muhit chegarasida yorug'likninishi va qaytishi

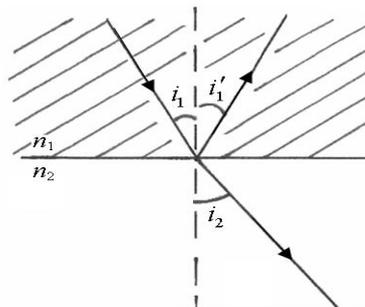
Yorug'likning tushish burchagi qaytish burchagiga har doim teng bo'ladi:

$$\angle i_1 = \angle i_1'$$

Yorug'lik bir jinsli muhitdan ikkinchi muhitga tushganda, ikkinchi muhit shaffof bo'lsa, bunda yorug'lik ikkinchi muhitga sinib o'tib, ikkinchi muhitda tarqalish yo'nalishini davom ettiradi. Bunda yorug'likning sinish hodisasi ro'y beradi.

i_1 - tushish burchagi.

i_2 - sinish burchagi.



2 - rasm. Har xil sindirish
ko'rsatkichli muhitlar chegarasida
sinish xodisasi

Yorug'likning sinishi quyidagi qonunga bo'ysunadi:

1. Tushuvchi nur, normal qaysi tekislikda yotsa singan nur ham shu tekislikda yotadi.
2. Tushish burchagi sinusining sinish burchagi sinusiga nisbati berilgan ikki muhit uchun o'zgarmas kattalik bo'lib, ikkinchi muhitning birinchi muhitga nisbatan nisbiy sindirish ko'rsatkichi deyiladi.

$$\frac{\sin \alpha}{\sin \beta} = n_{2,1}$$

$n_{2,1}$ – nisbiy sindirish ko'rsatkichidir.

Biror muhitning vakuumga nisbatan sindirish ko'rsatkichi shu muhitning absolyut sindirish ko'rsatkichi deyiladi.

$$\frac{n_2}{n_1} = n_{2,1}$$

n_1 – birinchi muhitning absolyut sindirish ko'rsatkichi

n_2 – ikkinchi muhitning absolyut sindirish ko'rsatkichi.

Absolyut sindirish ko'rsatkichi yorug'likning vakuumdagi tezligi – s , muhitda tarqalish tezligi – ϑ dan necha marta katta ekanligini ko'rsatadi.

$$n = \frac{c}{\nu}$$

ifodadan:

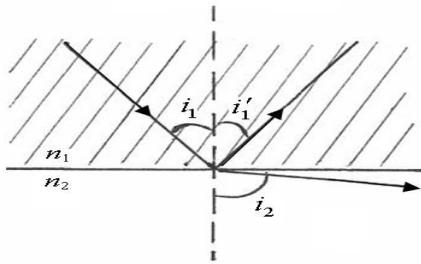
$$n_{2,1} = \frac{\sin \alpha}{\sin \beta} = \frac{n_2}{n_1} = \frac{\frac{c}{\nu_2}}{\frac{c}{\nu_1}} = \frac{\nu_1}{\nu_2}$$

hosil bo'ladi.

Sindirish ko'rsatkichi kichik bo'lgan muhitni optik zichligi kichikroq, sindirish ko'rsatkichi katta bo'lganini optik zichligi kattaroq muhit deyiladi.

($i_1 - i_{\text{cheg}}$ chegaraviy burchakda) sinish burchagi $\frac{\pi}{2}$ ga tenglashadi.

$i_1 = i_{\text{cheg}}$ holatdatushayotgan nur to'liq qaytadi (3 - rasm).



3 – rasm.

Demak, tushish burchagining $i_{\text{cheg.}}$ dan $\frac{\pi}{2}$ ga qiymatlarida to'la qaytish hodisasi kuzatiladi. Chegaraviy tushish burchagi $i_2 = \frac{\pi}{2}$ shartdan topiladi.

$$n_1 \sin i_{\text{cheg.}} = n_2 \sin \frac{\pi}{2}, \sin i_{\text{cheg.}} = \frac{n_2}{n_1} = n_{21}$$

Har xil muhitda yorug'lik tezligi har xil bo'lib, u vakuumdagi yorug'lik tezligidan har doim kichikdir.

Muhitning yorug'lik tezligini vakuumdagi yorug'lik tezligiga nisbatan kamaytirishini xarakterlaydigan kattalik shu muhitning optik zichligi deyiladi.

Optikaning yorug'lik energiyasini o'lchash usullarini o'rgatuvchi bo'limi fotometriya" deb ataladi.

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USING INTERACTIVE LEARNING TECHNOLOGY TO INCREASE STUDENTS' MOTIVATION AND SELF-DEVELOPMENT TO LEARN A FOREIGN LANGUAGE

Abstract. Managing motivation for learning a foreign language is one of the central problems of teaching methods at high school. A foreign language as a subject has a number of specific features, one of which is mastering a foreign language by learning the ability to communicate in a foreign language. The teacher is faced with the task of creating an environment for foreign language speech communication in the process of language learning that is as close as possible to natural conditions. The most important factor stimulating the process of foreign language speech communication should be considered the motivation for mastering a foreign language.

Keywords: situational communicative motivation, self-development, educational process, training, psychological issues, general education, professional.

In recent years, this problem has been studied within the framework of the activity approach to learning developed by S.L. Rubinstein, A.N. Leontyev and others. For the optimal organization of the educational process, it is important, first of all, to have a deep knowledge of the student's learning motives, and secondly, the ability to correctly identify them and intelligently manage them. In this regard, it is necessary to turn to theoretical research on the problems of motivation, as well as determine its connection with the content of teaching foreign languages; because "educational RD is aimed at achieving by the communicants a certain positive or negative result in a specific situation of communication in the target language." [9, a] Analysis of the available domestic and Western literature showed the following. At the moment, there is no consensus or unambiguous solution to this problem, namely, what is motivation in general and motivation for educational activities in particular. Finding ways to solve the issue of learning motivation is possible in terms of psychological research in this area, which examines the psychological foundations of motivation.

Numerous experiments have shown that over the course of one academic year, students' attitudes towards various types of speech activity (SA) in a foreign language can change dramatically in a negative or positive direction. This, in turn, depends on the teacher's style of work, on teaching materials, on learning outcomes, etc.

In addition, for the optimal organization of speech and thinking activity, it is necessary to know the types of motivation. Motivation for learning can be determined by external (narrow-personal) motives and internal motives.

External motives are not related to the content of educational material: the motive of duty, responsibilities (broad social motives), the motive of evaluation, personal well-being (narrow social motives), lack of desire to learn (negative motives). Internal motives, on the contrary, are associated with the content of educational material: motives of cognitive activity, interest in the content of learning (cognitive motives), motives of mastering general methods of action, identifying cause-and-effect relationships in the educational material being studied (educational-cognitive motives).

In this case, the key and decisive parameters are considered to be those that are inherent to a given individual: personal experience, context of activity, interests and inclinations, emotions and feelings, worldview, status in the team. This allows students to become truly motivated.

In this case, "it is not stimulation that works, but internal motivation; motivation turns out to be not brought into learning from the outside, not imposed on it, but is a direct product of the teaching method itself." The teacher faces a number of tasks, the main of which are to use interpersonal relationships and create emotional well-being, which in turn will increase the effectiveness of teaching foreign language communication. [1]

In the system of teaching a foreign language as a foreign language culture, what is primarily important is the means of maintaining motivation for cognitive, developmental and educational activities, which ultimately causes communicative motivation in the student of a foreign language. In the general structure of motivation, the dominant motive is the main one, which determines educational activity and the formation of attitudes towards it. This is a cognitive motive, since it is based on a constant desire for knowledge; and there is also a connection with the content and organizational side of the educational activity itself. In the process of educational activity, emerging private motives begin to operate, guiding the formulation, acceptance and solution of individual tasks to achieve specific goals of teaching foreign language speech communication. Cognitive motives in mastering a foreign language are differentiated as follows: interest in foreign languages as such contributes to the formation of motives for the analysis of linguistic phenomena, classes with a foreign language of all kinds in form and content, and the development of linguistic thinking; the possibility of using a foreign language as a means of exchanging information, obtaining knowledge with its help, studying the culture, history, development and reality of the country of the language being studied, broadening one's horizons forms the motive for treating a foreign language as a necessary means of cognitive activity.

The motivational aspect is also crucial for the activation of all psychological processes - thinking, perception, understanding and assimilation of foreign language material. To do this, it is necessary to increase motivation levels,

promoting the development of cognition and intellectual activity in students, ultimately striving to increase the effectiveness of the learning process.

Motives, interests, situations, attitudes are interdependent, constitute a harmonious unity of the personality, and are an internal energizer. Since learning to communicate in a foreign language occurs through communication, which is a purely personal process in which ideas, interests, and character traits are exchanged, then in communicative learning, taking into account the personal characteristics of students is of paramount importance. Without taking into account the above factors, students' speech actions are divorced from their real feelings, thoughts, interests, that is, the source that feeds speech activity is lost. It is taking into account personal properties that leads to the emergence of situational communicative motivation, that is, it ensures the student's proactive participation in educational or real communication. [2]

Of the variety of properties, personal individualization, which provides a challenge to communicative motivation, traditionally suggests taking into account the six methodologically most significant properties of the student as an individual: context of activity; personal experience; spheres of desires, interests, inclinations; emotional-sensual sphere; worldview; student status in the group. All this encourages students to learn.

The success of mastering a foreign language in its cognitive function contributes to the formation of a linguistic sense; satisfaction of the actual cognitive motives when studying a foreign language forms a stable motivation for constant work with it; the use of a foreign language to obtain certain information makes this language indispensable in the cognitive activity of the learner, at the same time, the foreign language itself enhances the general cognitive activity of the students, and consequently, the motivation for learning the language increases. A number of studies suggest various forms of teaching foreign languages, which are interconnected and interdependent with SB. Scientists who study the motivation for mastering a foreign language identify a number of types of motivation, taking into account the individual development of the needs of students. The following species are of interest to the author of this study:

- communicative and motivational, determined on the basis of communication needs;
- linguistic-cognitive motivation, based on the student's desire to understand linguistic phenomena;
- regional studies motivation, depending on the topic and emotional interest of the student;

The practice of teaching a foreign language shows that students are always interested in history, culture, art, morals, customs, traditions, the way of everyday life of the people, the hobbies of their peers, etc.

At the same time, it is necessary to carefully select the material, since the education system is faced with the task of preparing schoolchildren for cultural, professional and personal communication with representatives of countries with

different social traditions, social systems and linguistic cultures.

Thus, the consistency of SA and the methods of its presentation with the cognitive needs and interests of students counteracts the formation of a negative attitude. Optimally selected material strengthens all components of motivation: needs, interests, emotions, the motives themselves. The formation of a stable level of learning motivation obliges the teacher to select appropriate educational materials that would represent cognitive, communicative, professional values, which are creative in nature, and would stimulate the mental activity of students.

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YERDAN FOYDALANISH SAMARALIGINI HISOBLANISH UCHUN MATEMATIK MODELLARNI ISHLAB CHIQISH XUSUSIYATLARI HAQIDA

Annotatsiya. Hozirgi kunda qishloq xo'jaligi yerlarini o'zlashtirish va yaroqli yerlarning qisqartirishi natijasida yerdan foydalanish samaradorligini oshirish uchun matematik modellar ishlab chiqilmoqda. Bu ishda ham yerlardan foydalanish samaradorligini hisoblash uchun matematik modellar ishlab chiqishga bag'ishlanadi.

Kalit so'zlar: Matematik modellar, agrosanoat, hosildorlik, samaradorlik, miqdoriy omillar, regressiya koeffitsenti.

O'zbekistonda bugungi kunda qishloq xo'jaligi yerlaridan noratsional foydalanish ustuvor muammo bo'lib qolmoqda. Qishloq xo'jaligi yerlaridan noratsional foydalanish amaliyoti natijasida yaroqsiz yerlar miqdori tobora ortib bormoqda. Qishloq xo'jaligi yerlaridan noratsional foydalanish natijasida texnogen va antropogen jarayonlar ta'sirida foydalanishga yaroqli maydonlarning qisqarishi va yaroqsizligi kuzatilmoqda.

Qishloq xo'jaligi yerlaridan foydalanish samaradorligini tavsiflovchi muhim ko'rsatkichlardan biri bu meliorativ yerlarning holatidir. Ular ekinlar hosildorligini bir necha barobar oshirishni ta'minlaydi, noqulay meteorologik sharoitlarda ishlab chiqarish barqarorligini oshiradi, qimmatli don, sabzavot, ozuqa, texnik va boshqa ekinlar yetishtirish uchun asos bo'ladi.

Yerdan foydalanish mexanizmini o'rganishda mavjud rejalashtirish va prognozlash usullarini amaliyotga joriy etish darajasi pastligini qayd etish kerak.

Qishloq xo'jaligi yerlaridan foydalanishning matematik modellarini ishlab chiqish, qo'llash va takomillashtirish sohasidagi tadqiqotlar yerdan foydalanish nazariyasi va amaliyoti uchun ham dolzarbdir.

Yerdan foydalanishning yo'nalishlari va tendentsiyalarini tahlil qilish va yerdan foydalanish sohasidagi muayyan qarorlarga ta'sir qiluvchi omillarni aniqlashda foydalanish samaradorligini aniqlaydigan va yerdan foydalanish intensivligini bashorat qiladigan matematik modellardan foydalanish kerak.

Yerni boshqarish samaradorligini hisoblash uchun matematik va ko'p faktorli modellardan foydalanish kerak. Bunday modellar yer resurslaridan foydalanish jarayonini tavsiflash va kelajak uchun prognozni taqdim etish imkonini beradi.

Modelni yaratish uchun sizga quyidagilar kerak bo'ladi:

1. Modelga kiritiladigan omillarni tanlash;
2. Ob'ektni tahlil qilishda mumkin bo'lgan xususiyatlarni aniqlash;
3. Ma'lumotlar jadvalini tuzish;
4. Ma'lumotlar tahlilini o'tkazish;

5. Modelning sifatlarini baholash.

E'tibor beradigan bo'lsak barcha omillar miqdor va sifatga bo'linadi.

Yerdan foydalanish samaradorligiga sifat omillari ta'sir qiladi, bularga quyidagilar kiradi: bozor kon'yunkturasi, ekologik va huquqiy me'yorlar, davlatning siyosiy qarashlari, rejalashtirilgan ko'rsatkichlarning bajarilishi, yer sifati va maqsadli dasturlar orqali davlat tomonidan qo'llab-quvvatlash. [3].

Matematik modelga kiritiladigan omillar miqdoriy jihatdan o'lchanishi kerak, ya'ni ularning bahosi bo'lishi kerak. Bunday omillarga quyidagilar kiradi: iqtisodiy, ekologik, ijtimoiy-demografik, texnologik va tabiiy-geografik. Qishloq xo'jaligi yerlaridan foydalanish samaradorligi modellarini yaratishda miqdoriy omillardan foydalanish mumkin [2].

Samaradorlik ko'rsatkichi - qishloq xo'jaligi yerlari birligiga to'g'ri keladigan yalpi qishloq xo'jaligi mahsuloti hajmi. Qo'shimcha samaradorlik ko'rsatkichlariga quyidagilar kiradi: integral samaradorlik ko'rsatkichi, ekin maydonlarining hajmi, yerni olish va sotish uchun o'rtacha yillik xarajatlar va boshqalar.

Qishloq xo'jaligi yerlarining samaradorligi va kadastr qiymatiga ta'sir qiluvchi yuqoridagi barcha omillar optimallashtirish muammolariga to'g'ri keladi, buning uchun matematik modellashtirishdan foydalanish maqsadga muvofiqdir.

I. A. Xabarovanning fikricha, yerlarning kadastr qiymatini aniqlash uchun qishloq xo'jaligi yerlaridan foydalanishning metamatematik modelini qurish jarayoni ikki usuldan foydalanishga to'g'ri keladi. Birinchisi omillarni tanlashni ta'minlaydi, ikkinchisi modelning tuzilishini, parametrlarini va chiqish ma'lumotlarini belgilaydi [2].

Yerdan foydalanish samaradorligini hisoblash uchun biz ko'p omilli modelni qo'llaymiz, u ko'p chiziqli regressiya modeli sifatida qurilgan.

Chiziqli bog'liqlik tenglamasi quyidagi ko'rinishga ega [4, 5, 6]:

$$y = a_0 + a_1x_1 + a_2x_2 + \dots + a_nx_n(1)$$

Bu yerda

x_1 - yalpi hududiy mahsulot (million rubl),

x_2 - don va dukkakli ekinlar ekilgan maydonlar (ming gektar),

x_3 - yalpi g'alla hosili (ming tonna),

x_4 - sabzavotning yalpi hosili (ming tonna),

x_5 - meva va rezavorlarning yalpi hosili (ming tonna),

x_6 - qand lavlagining yalpi hosili (ming tonna),

y - qishloq xo'jaligi erlarining kadastr qiymati (gektariga rubl),

a_1, a_2, \dots, a_n - regressiya koeffitsientlari.

Jadval – Jizzax viloyati dastlabki ma'lumotlar

Yillar	Omillar						
	y	x_1	x_2	x_3	x_4	x_5	x_6
2006	82700	147052,4	3669,5	89,7	72	239,2	40
2007	83080	190403,7	3765	90,9	73	260,3	45
2008	83700	230288	3749,8	91,7	69	286,9	49
2009	84400	266863,1	3694,5	88,3	64	304,8	53
2010	85100	325811,2	3639,2	87,2	76	300,9	53

2011	86500	372929,8	3531,7	57,2	87	297	54
2012	87100	483950,7	3581,5	54,1	94	320	54
2013	87990	648211,3	3657,4	52,1	83	367,9	66
2014	88700	803834,1	3689,1	52,9	104	378,4	69
2015	89200	857527,3	3657,5	56,9	108	375,5	69
2016	90800	1028308,4	3634,4	59	101	394	73
2017	91690	1244652,8	3621	59,9	190	428,6	76
2018	92500	1459490,8	3600,2	59,1	161	411,8	79
2019	93540	1662969,1	3657,1	56,2	198	336,3	81
2020	96546	1792048,2	3657,7	56,2	171	339,7	81
2021	97700	1845532,2	3679	56,9	174	361,8	81
2022	99980	1964535,3	3698,1	57,3	179	393,2	81

Regressiya tahlilini hisoblash natijasida $a_0, a_1, a_2, a_3, a_4, a_5, a_6$ regressiya koeffitsientlari, korrelyatsiya koeffitsienti $r = 0,993$ (kuchli aloqa) va omillarning ta'sir ulushlari oldik.

Regressiya koeffitsientlarini (1) tenglamaga almashtirib, biz quyidagilarni olamiz:

$$y = 99080,13 + 0,013x_1 - 2,07x_2 - 35,37x_3 - 31,81x_4 + 15,34x_5 - 198,01x_6 \quad (2)$$

Faktorlarning ta'sir ulushlari: $x_1 - 57,89\%, x_2 - 0,82\%, x_3 - 3,85\%, x_4 - 10,7\%, x_5 - 5,77\%, x_6 - 19,57\%$.

Shuning uchun matematik modellar va usullardan foydalangan holda modelga kiritilgan omillarning olingan natijaga ta'sirining bahosini olish mumkin. Yerdan foydalanish modellarini yangilab turish uchun manba ma'lumotlarini muntazam ravishda yangilab turish kerak, ya'ni yer monitoringini o'tkazish.

Monitoring o'tkazishda tuproqning ifloslanish darajasi koeffitsientidan foydalangan holda yerning holatidagi o'zgarishlarni aniqlash va barcha manfaatdor shaxslar va tashkilotlarga tuproq holati va uning ifloslanish darajasi to'g'risidagi ma'lumotlarning mavjudligini ta'minlash kerak. Olingan ma'lumotlardan yerning holati va undan keyingi foydalanishdagi o'zgarishlarni bashorat qilish uchun foydalanish mumkin.

Shunday qilib, yerdan foydalanishning matematik modeli quyidagilarga imkon beradi:

- qishloq xo'jaligi yerlaridan samarali foydalanish va kadastr qiymatiga ta'sir qiluvchi omillarni tahlil qilish;
- yerdan foydalanish samaradorligini baholash;
- taxminiy hisob-kitoblarni amalga oshirishda regressiya tenglamalarida hisobga olinadigan omillarni tanlash va o'zgartirish;
- yer resurslaridan foydalanishning qisqa, o'rta va uzoq muddatli prognozlarini shakllantirish.

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THE MAIN FEATURES OF CORRUPTION AND THE NEED TO FIGHT AGAINST IT

Abstract. This article focuses on the main features of corruption and the need to fight against it. In the article, the author distinguished the types of corruption from each other and revealed the factors that lead to its occurrence.

Key words: corruption, anti-corruption campaign, legal norms, international documents, state disclosure, economic factors.

Depending on the field of activity, the following types of corruption should be distinguished: Corruption in public administration. Parliamentary corruption. Corruption in enterprises. Corruption in the sphere of public administration occurs because it is possible for a civil servant (official) to manage public resources and make decisions not in the interests of the state and society, but based on his own selfish motives. Depending on the hierarchical position of civil servants, corruption can be divided into top and bottom. The first covers politicians, higher and middle bureaucrats and is associated with making decisions that have a high price (formulas of laws, government orders, changes in forms of ownership, etc.). The second is common at the middle and lower levels and is associated with constant, routine interaction between officials and citizens (fines, registrations, etc.). Often both parties interested in a corrupt transaction belong to the same government organization. For example, when an official gives a bribe to his boss because the latter covers up the corrupt actions of the bribe-giver, this is also corruption, which is usually called "vertical". It usually acts as a bridge between top and bottom corruption. This is especially dangerous because it indicates the transition of corruption from the stage of isolated acts to the stage of taking root organized forms. Most experts who study corruption include the purchase of votes during elections.

The most simplified classification is proposed by N.A. Kataev and L.V. Serdyuk, who distinguishes purely criminal (mainly economic) and political corruption, which, in turn, they divide into deviant and criminal behavior. A more complex classification was proposed by M. Johnston. He identified several types of corruption: bribes of officials in the field of trade (for the sale of illegally produced products, inflating the quality of goods, etc.); relations in patronage systems, including the patronage of "bosses" on the basis of fellow countrymen, family, and party principles; friendship and nepotism; as well as the so-called crisis corruption, due to the fact that entrepreneurs are forced to work in conditions of extreme risk, when decisions of government bodies can lead to significant changes for business and therefore these decisions become the subject of trade. A number

of authors, when considering corruption, usually highlight its political and economic functions. Corruption in this case is determined by the degree of economic and political development, and not by political culture. It reflects the discord between old and new norms and facilitates adaptation to changes in all areas of society. Certain types of corruption contribute to the formation of important connections in the process of building political coalitions that guarantee social change, and play a role in the consolidation or restructuring of class differences. A. Heidenheimer divided corruption into white, gray and black.

The first denotes practices regarding which there is agreement in public opinion: these actions are not considered reprehensible. ¹³ They are essentially integrated into the culture and are not perceived as a problem. Black corruption is the object of a different consensus: actions are condemned by all sectors of society. A. Heidenheimer called gray corruption those manifestations regarding which there is no agreement. It is around gray corruption that scandals arise. Domestic researcher E. Ozhiganov defines the following types of corruption: bureaucratic and political, coercive and coordinated, centralized and decentralized. Y. Kuzminov distinguishes between corruption in a broad and narrow sense. The first is associated with an official's violation of his duties for the sake of material reward, the second with bribery and bureaucratic entrepreneurship. The most common types of corruption in accordance with this classification are: bribery and corruption, corruption of the "lower" and "higher", corruption in the state (municipal) and non-state sectors. Thus, both foreign and domestic science has accumulated some experience in classifying corruption. However, none of the classifications of corruption presented today, including legislation and the practice of its application, can be considered to meet the needs of highly effective counteraction to this phenomenon. All of the above approaches to the classification of corruption are characterized by extreme diversity, as well as the lack of a clear definition of criteria, which does not fully contribute to the analysis of corruption and its manifestations in modern political practice. It seems to us that a more substantive classification of corruption is based on strictly defined criteria (grounds). These, in particular, in relation to the subject of the study are: areas of manifestation of corruption, the status of its subjects, its level, as well as the degree of public danger of this phenomenon. ¹⁴ Since corruption as a social phenomenon is most manifested in such basic spheres of people's lives as politics and economics, it is obviously legitimate to define such basic types of corruption as political and economic. A special type is political corruption. Most experts who study corruption include the purchase of votes during elections. There really are all the characteristic signs of corruption, with the exception of the presence of an official. Define political corruption as the acts of politicians, candidates or persons associated with them during preparation and holding elections, appointing or approving a certain public position, as well as carrying out other political activities aimed at obtaining or maintaining a certain position or status, both for oneself and for other persons, carried out through the use of official powers - both one's own

and other persons, the use of one's own or others' material resources contrary to the interests of the state, society and other persons in order to obtain political gain, personal enrichment, as well as in favor of narrow group interests and political parties. At the same time, it is obvious that manifestations of political corruption go beyond the electoral struggle. Politics, as the practice of government, and corruption have always been closely linked. Moreover, corruption often becomes either a "trigger" for deep political changes.. Any government structure is objectively (to a greater or lesser extent) fraught with corruption. Therefore, it is advisable to consider political corruption as a broader phenomenon.

Another specific feature of economic corruption is that a significant amount of abuse is associated with the use of powers in the field of control and distribution of financial flows. This type of corruption is also called "corrupt services" in a broad sense. In this way, there is a "sale" of the power resource, as well as the use of the power resource for the purpose of appropriating other state resources, which determines the close relationship between economic and political corruption. Analysis of the results of numerous studies on this issue allows us to classify the following phenomena as the most significant factors of economic corruption: a critically high level of polarization of the population by income level; high share of the shadow economy; widespread inclusion in economic circulation of the practice of "laundering" illegally obtained income; excessively high taxes for commercial organizations. One of the important incentives for economic corruption in the non-state sector is the "complex of state parasitism". This phenomenon is characteristic of both domestic and foreign political practice. At the same time, in Russia, the "complex of state parasitism" is due to the fact that a significant number of commercial organizations that emerged during privatization strive at all costs to use budget resources in their own interests. Because otherwise, such enterprises will be forced to exist only at their own economic risk. Economically unjustified privileges become a kind of drug, without which they will no longer be able to function normally. And such privileges can only be obtained by paying a bribe. Thus, the most common types of corruption are: economic and political. At the same time, corruption as a complex systemic social phenomenon is not limited to these two types, which requires the introduction of additional criteria for classification. These, as noted above, are the status of subjects, level of functioning, degree of public danger and some others. According to the status of the subjects, the following types of corruption are distinguished: a) corruption in government bodies; b) corruption in the private sector. Corruption in government bodies is extremely developed due to the fact that it covers all government bodies (executive, representative and judicial). It is based on the unlawful and selfish use of government resources, including in the non-state sector at the local government level.

Another specific feature of economic corruption is that a significant amount of abuse is associated with the use of powers in the field of control and distribution of financial flows. This type of corruption is also called "corrupt services" in a

broad sense. In this way, there is a “sale” of the power resource, as well as the use of the power resource for the purpose of appropriating other state resources, which determines the close relationship between economic and political corruption.

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SCIENTIFIC ANALYSIS OF THE NEGATIVE IMPACT OF CORRUPTION ON THE SOCIO-ECONOMIC DEVELOPMENT OF SOCIETY

Abstract. This article presents a scientific analysis of the negative impact of corruption on the socio-economic development of society. In the article, the author commented on the emergence of corruption and the factors of its formation. He analyzed the factors leading to corruption in social life.

Key words: corruption, social development, moral responsibility, justice, legal factor.

Corruption crime today can confidently be called a traditional and fairly widespread type of crime, existing not only in our state, but also in many other civilized countries of the world.

The social appearance of the word corruption is “disruption of power, it means “buying with rotting orca”. Corruption is illegal use of a person's position or service position for personal interests or the interests of other persons for the purpose of obtaining simple or immaterial benefits, as well as unlawful presentation of such a position (Law of the Republic of Uzbekistan “On Combating Corruption”, Article 3)).

Like any complex social phenomenon, corruption does not have a single canonical definition. There are many definitions of corruption. Corruption (from the Latin word *corrumpere* - to spoil) is the use by an official of his powers and the rights entrusted to him for personal gain, contrary to established by law and rules. Perhaps the most succinct (and accurate) of these is: “the abuse of public power for private gain” (Joseph Senturia). Corruption has accompanied humanity since ancient times. Punishment for bribery (bribery) was provided for by the laws of Hammurabi (four thousand years ago), established by the Egyptian pharaohs.

of the UN on October 31, 2003 The Convention “Against Corruption” was adopted by Uzbekistan on July 7, 2008. Anti-corruption adopted on September 10, 2003 within the framework of the Organization for Economic Cooperation and Development The Istanbul plan of wrestling was joined by Uzbekistan in March 2010.

Historical reference. The historical roots of corruption are probably go back to the custom of giving gifts to leaders or priests in order to gain their favor.

An expensive gift distinguished a person from other petitioners and helped ensure that his request was fulfilled. Therefore, in primitive societies, payment to the priest or leader was the norm. It should be noted that initially corruption was more of a moral problem. In particular, in the book “Corruption. Ethics and Power

in Florence in 1600-1770.” its author, Jean-Claude Vaquet, wrote that during the period under review, the discourse on corruption was not a discourse about the state, but about human nature.”

Of particular concern in ancient times was the birth rate judges, since it led to the illegal redistribution of property and the desire to resolve the dispute outside the legal framework.

It is no coincidence that leading religions condemn bribery of judges first of all among all types of corruption. In particular, the Bible says: “Do not accept gifts, for gifts make those who see blind and pervert the work of the righteous.” The Qur'an says: “Do not misappropriate one another's property and do not bribe judges to deliberately take part of other people's property.”

As Thomas Hobbes wrote, corruption “is the root from which flows at all times and under all temptations contempt for all laws.” As the state became more complex and the administrative apparatus appeared, professional officials appeared who, according to the rulers’ plans, had to be content only with a fixed salary. In practice, officials sought to take advantage of their position to secretly increase their income.

The study of historical monuments confirms the fact that science has studied and is studying corruption for several centuries. It is clear that sociologists, management specialists, economists, lawyers and ordinary citizens interpret this concept differently. Sociologists, for example, can argue that corruption is “the refusal of expected standards of behavior on the part of government officials for the sake of illegal personal gain.” But in terms of the vagueness of the definition, specialists in public administration quite compete with sociologists, according to whom corruption is: “unauthorized, as a rule, condemned act for the purpose of obtaining some significant personal gain.” Most of the crimes listed in the Criminal Code of the Russian Federation fit this definition. Lawyers can, with their characteristic meticulousness, formulate more precisely: “In the broad sense of the word, corruption is a social phenomenon that has affected the public apparatus of government, expressed in the disintegration of power, the deliberate use by state and municipal employees, other persons authorized to perform government functions, of their official position, status and authority of the position held for selfish purposes for personal enrichment or for group interests.” A wide variety of theoretical concepts of corruption have been proposed in science: corruption is a socio-legal phenomenon, which usually refers to the bribery and corruption of government officials, officials, as well as public and political figures in general; this is nothing more than the abuse of power to obtain benefits for personal gain

Corruption is interpreted more broadly in the Code of Conduct for Law Enforcement Officials adopted by the UN General Assembly on December 17, 1979: “Although the concept of corruption must be defined in accordance with national law, it should be understood that it covers the commission or omission of any or acts in the performance of duties or by reason of those duties as a result of gifts, promises or inducements sought or accepted, or the unlawful receipt thereof

whenever such act or omission occurs. An act of corruption also covers an attempt to corrupt” “The performance by an official of any actions or inaction in the sphere of his official powers for remuneration in any form in the interests of the giver of such remuneration, both in violation of job descriptions and without violating them.” It should be noted that in this international legal act the concept of corruption includes not only the receipt of remuneration and gifts, but also the official conduct of an official carried out in connection with the receipt of such gifts. Based on this definition of corruption, the list of corruption crimes expands; in addition to bribes, it should include abuse of office and abuse of power. What is very important, this definition allows us to include in corruption the lawful, lawful official behavior of an official, if it was due to gifts received or promised.

In modern economic science, it is customary to note the multiplicity of causes of corruption, highlighting economic, institutional and socio-cultural factors. The economic causes of corruption are, first of all, low salaries of civil servants, as well as their high powers to influence the activities of firms and citizens. Corruption flourishes wherever officials have broad powers to dispose of any scarce goods. This is especially noticeable in developing and transition countries, but is also evident in developed countries. For example, in the United States, many manifestations of corruption have been observed during the implementation of a program of preferential housing for needy families. 7 Institutional causes of corruption are considered to be a high level of secrecy in the work of government departments, a cumbersome reporting system, a lack of transparency in the lawmaking system, and weak state personnel policies that allow the spread of sinecures and opportunities for promotion regardless of the actual performance of employees. The socio-cultural causes of corruption are demoralization of society, lack of awareness and organization of citizens, public passivity in relation to the willfulness of “those in power.” In those countries where all three groups of factors operate (these are, first of all, developing and post-socialist countries), corruption is the highest. On the contrary, in the countries of Western European civilization these factors are much less pronounced, and therefore corruption there is more moderate.

Most experts agree that the main reason for high corruption is the imperfection of political institutions that provide internal and external deterrence mechanisms (see the next section). In addition, there is reason to believe that some objective circumstances make a significant contribution: Ambiguous laws. Ignorance or misunderstanding of laws by the population, which allows officials to arbitrarily interfere with the implementation of bureaucratic procedures or inflate proper payments. Unstable political situation in the country. Lack of established mechanisms for interaction between government institutions. The dependence of the standards and principles underlying the work of the bureaucratic apparatus on the policies of the ruling elite. Professional incompetence of the bureaucracy.

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COMMUNITY OF HONESTY IMPORTANCE IN DEVELOPMENT

Abstract. In this article, opinions are expressed about the essence of honesty, which is the greatest feeling of humanity, and its role in the life of society.

Key words: Honesty, humanity, work, professional honesty, scientific honesty, economic honesty, hereafter, conscience, spiritual lightness, etc.

Nowadays, as a result of the improvement of the division of specialized labor, the advancement of science, we can talk about professional honesty, scientific honesty, economic honesty, etc. The existence of honesty is connected with selflessness and truthfulness. In order to always be honest or to live honestly, a person must go through something, go against someone, speak only the truth, and achieve unity of action with words. Therefore, an honest person is respected and respected by the public. Happiness and well-being prevail in any society where there are more honest citizens. During the time of the ruling regime, vices such as lies, deception, impurity, immorality, and hypocrisy were instilled in our people so masterfully that its complications are still felt. Therefore, from the first days of independence, the fight against these evils started. Currently, our state is working considering the restoration of national and spiritual values and calling people to be honest, fair and just as an important part of its internal policy.

Currently, building a civil society consisting of honest and truthful people is not only a moral problem, but also a socio-political renewal that represents the essence of our future great country. Honesty is one of the spiritual and moral qualities that express the unity of the inner and outer world of a person, the correspondence of words and actions, open-hearted and sincere attitude to the surrounding people. Honesty is a phenomenon that encourages conscious and voluntary adherence to the moral standards of society.

Based on the essence of human character, honesty is manifested in the conscientious and conscientious performance of one's duties. Honesty in the true sense means keeping one's promise and keeping one's word. A person who does not keep his word is considered a fool. Molu state is halal if it is earned by hard work. Honesty consists of a set of human qualities such as truthfulness, correctness, moral purity, and sincerity. It is the sacred task of every intelligent person and our society, it can be said that it is the meaning of his life to raise capable children, to bring them up to perfection both physically and spiritually, to see them mature, people who are loyal to their parents and their country. is to reach adulthood.

Therefore, we consider those who deserve it to be selfless people who fulfill these duties seriously and devote themselves to the development of the young

generation. They are respected in every way as people who are performing the task of a great state. The members of our society, who are entrusted with the education of honest, hard-working, knowledgeable, loyal to our motherland, well-rounded young generations worthy of our great nation, should first of all possess these qualities.

Our main task is to accelerate the implementation of democratic reforms to raise the standard of living of the people and to open a wide path for entrepreneurs to fill the domestic market with products. At this point, it is necessary to once again dwell on the responsibility of leadership. Because the degree to which the reform will be implemented today depends on the worldview of the leaders, whether they are honest and pure, enterprising and enterprising.

The people always evaluate the work of the leaders based on their table and lifestyle. Our people are patient and resilient people. Leaving him alone is extremely irresponsible and dishonest. We should not have leaders who tarnish the honor of the government with their actions. The first President Islam Karimov said, "... a person who lives honestly with his own forehead is happy and satisfied with his life, his heart and soul are peaceful, his conscience is pure, his spiritual world is stable, and he lives with the respect of the people. On the other hand, a person who lives lightly in this world, indulging in all kinds of impure ways, forgetting his human duty, and striving for wealth, the saddest thing is that at the end of his life, he ends his life drowning in dreams and regrets"¹. They were right when they said that. Another important issue is to open a wide path to private and private property owners, regardless of their income. It is necessary to achieve that the inviolability and guarantees stipulated in our laws are not on paper, but in practice! Unfortunately, this is not happening in life at the moment.

In fact, the entire world community recognizes that corruption has become a global phenomenon, a force that causes economic destruction by the 21st century. Corruption and self-interest are also seen as a force that creates vices such as contempt for others and ultimately hinders economic growth and public welfare. That is why our general public, our intellectuals, scientists and writers, people of art and culture, all people who devote themselves to the field of spirituality, should be reminded of the idea of reforms, which is a universal and dangerous phenomenon in one or another country, which humiliates the human heart. In order to fight against corruption, a discreditable vice, and to achieve its minimum level, first of all, to educate the general public that corruption is an obstacle to the development of reforms and economic growth in the economic, political, social and spiritual spheres, the noble intentions of all people, vital. It is necessary to realize that it is necessary to inculcate that it is a threat that has a negative impact on the realization of high concepts such as the peace of the country, the prosperity of the country, the welfare of the people, the perfect person, social solidarity, religious tolerance, and international harmony. At the same time, another important task of the society we are building is to create equal opportunities for everyone who works honestly to feed his family, get education, use medical services, protect his dignity

and that of his relatives.. In this regard, the role of the employees of internal affairs agencies in protecting the economic space of the society is incomparable. Also, the head of our state draws attention to the fact that honest and clean people should stand at the top of the neighborhood, because people follow such honest people and do not second guess their words.

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METHODS OF USING EXCHANGE NOTEBOOKS IN THE COURSE OF THE LESSON IN PRIMARY SCHOOL

Annotation. In this article is about how to use notebooks and their quantity during the class, how to conduct notebooks for different subjects and helps of using different notebooks to teachers.

Key words. Calligraphy, vocabulary, program, thematic, notebook, pedagogically, method, grammar.

We need to teach students about "Husnihat" in primary grades that is based on the below requirements. They have a clear method of teaching students to write politely in primary grades. It should make it possible to write beautifully and quickly. Tasks like this to implement the content of the program and its requirements, training methods, hygienic conditions of teaching writing, student's analysis of individual shortcomings in writing, shortcomings identify the causes of occurrence and develop methods of correction necessary.

A notebook on calligraphy, and then a notebook replacing it for performing written educational work, is the only document about the written work carried out by the teacher, therefore, maintaining any special notebooks, for example notebooks on grammar, notebooks on newspaper vocabulary, thematic notebooks, notebooks for control (or independent) work, etc., are not allowed.

Notebooks of the first and second types are single replaceable notebooks, therefore, in order to create convenience for checking them, it is recommended to have 2 replaceable calligraphy notebooks and 2 replaceable notebooks for performing written educational work. Keeping one notebook would create for the teacher a whole series of inconveniences associated with the need to collect and distribute notebooks with tested work on the same day. Notebooks for completing written educational work for students in grades V-VIII are checked by the teacher after 2-3 lessons. Notebooks of students in grades IX-X can be checked randomly, but in such a way that each notebook is checked at least once per academic quarter. However, grades in notebooks (with entries in a journal and diary) are given only for the most significant work.

At checking notebooks: the teacher emphasizes the first and second types. Mistakes made by students, but does not correct them. The student, working on correcting calligraphic or spelling errors, is required to write down (line by line, respectively) the letters or words in which errors were made. The teacher can start a line himself, citing the correct spelling of letters or words, only in exceptional, pedagogically justified cases. If a student has made a grammatical or stylistic error,

then he must independently (and, if necessary, having previously consulted with the accountant) make corrections by rewriting (once) the sentence in which the error was made. The teacher emphasizes punctuation errors, provides the necessary explanations, but does not take them into account. Students do not carry out special work on correcting punctuation errors. Errors are not counted or classified. Students correct errors at home, as a rule, in the same notebooks where they were made, before starting work on the next home written assignment. This work is preceded only by the appropriate title: Correction of Mistakes (English).

For ease of use, notebooks can be numbered. For purely pedagogical reasons, students should retain their notebooks until the end of the school year.

The third type of notebook, the dictionary notebook, is kept by students from grades VI to X. It is recommended to use a general checkered notebook with a thick cover as a dictionary notebook: such a notebook will last longer and students will be able to make notes in it for several years of study. The dictionary notebook has the corresponding heading.

The student's first and last name and class must be written in a foreign language according to a standard format. The notebook-dictionary is signed on the back of the cover, in the upper left corner.

Schoolchildren begin keeping a dictionary notebook in the second year of studying a foreign language, from the moment they begin reading texts (textbooks and books for home and individual reading) containing unfamiliar vocabulary. It is this vocabulary, as well as vocabulary studied earlier, but for some reason forgotten by students, that should be written down in a dictionary notebook.

Therefore, different students may have different numbers of written words. The same notebook-dictionary is also used when working with newspaper vocabulary. It is recommended that students make all entries in the dictionary notebook at home.

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SUG'ORISH KANALINI NIVELIRLASH

Annotatsiya. Ushu maqolada nivelir asbobi yordamida o'lchangan balandlik bo'yicha chiziqli inshoot trassasi jurnalni bilan tanishish ularni an'anaviy va dasturiy mahsulotdan foydalanib hisoblab chiqish o'rganiladi.

Kalit so'zlar: nivelir asbobi, reyka, nivelirlash jurnali va qalam.

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LEVELING THE IRRIGATION CHANNEL

Abstract. In this article, familiarization with the log of the linear structure route by the height measured with the help of a leveling tool, their calculation using traditional and software products is studied.

Key words: leveling tool, ruler, leveling log and pencil.

Kirish: Nivelirlashda bajariladigan dala ishlari quyidagi tartibda olib boriladi.

Asboblarni olish va ko'zdan kechirish. Geometrik nivelirlashni bajarish uchungeodezik asbob nivelir shtativ, ikkita nivelir reykasi, lenta, qoziqlar, bolg'a, geometrik nivelirlash jurnali, qalam va lezviya olinadi.

Nivelirlash ishlarini boshlashdan avval nivelir va nivelir reyklarini tekshirib ko'rish kerak. Xar qaysi nivelir o'z xususiyatiga qarab tekshiriladi. Quyma nivelirlar quyidagi shartlarga javob berishi kerak.

1. Ko'rish trubasi vizir o'qi silindrik adalak o'qiga parallel bo'lishi kerak.

2. Silindrik adalakning o'qi nivelirning aylanish o'qiga perpendikulyar bo'lishi kerak.

3. To'rtning gorizontal ipi nivelirning aylanish o'qiga perpendikulyar bo'lishi kerak.

4. Taglikdagi doiraviy adalakning o'qi nivelirning aylanish o'qiga parallel bo'lishi kerak.

Quyma va boshqa tipdagi nivelirlarni yuqoridagi shartlar bo'yicha tekshirish tartibi ko'rsatkichlar va oxirida berilgan adabiyotlarda batafsil yoritilgan. Agar biror shart bajarilmayotganligi ayniqlansa asbob tuzatiladi.

Asosiyqism: Nivelirlash lozim bo'lgan joyni rekognosirovka qilish. Bunda trassa yo'nalishi boshlang'ich va oxirgi nuqtalar o'zni joyda belgilanadi, trassa

burilish burchaklari va tomonlari o'lchanadi trassani piketlarga bo'lib chiqiladi va ularni o'rnini joyda belgilanadi.

Trassani nivelirlash. Bu ish o'rtadan nivelirlash usul bilan quyidagi tartibda bajariladi:

A va V nuqtalariga vertikal qilib reyka o'rnatiladi va ularni orasiga ulardan bir xil masofada nivelir o'rnatiladi. Reyka o'rnatilgan nuqtalarni piket, asbob o'rnatilgan nuqtalarni stansiya deb ataladi. Orqadagi nuqtaga o'rnatilgan reykadan olingan sanoqni a bilan oldindagi nuqtaga o'rnatilgan reykadan olingan sanoqni esa v bilan belgilanadi. Nisbiy balandlikni h bilan belgilanadi.

Shunda A nuqtaga nisbatan B nuqtaning nisbiy balandligi quyidagi formula bilan topiladi.

$$h = a - b$$

Agara-bbo'lsa nisbiy balandlik musbat a-b bo'lsa manfiy ishorali bo'ladi.

Har bir stansiyada ish quyidagi tartibda olib boriladi:

10. nivelir ko'rish trubasining vizir o'qini orqadagi reykaga qaratib va elevatsion vint bilan nivelir silindrik adilagining ikkala yarim uchini aniq bir biriga to'g'rilab iplar setkasining o'rta gorizont al ipi bo'yicha reykani qora tomonidan sanoq olinadi.

11. Nivelir ko'rish trubasining mahkamlovchi vintini bo'shatib ko'rish trubasini vizir o'qini oldindagi reykaga qaratiladi va uning qora tomonidan yuqoridagi tartibda sanoq olinadi.

12. Oldindagi reykani qizil tomonidan sanoq olinadi.

13. Orqadagi reykani qizil tomondan sanoq olinadi.

Yuqorida olingan sanoqlar geometrik nivelirlash jurnaliga yozib boriladi. Har bir stansiyada o'lchash ishlari tugashi bilan asbobni joyidan ko'zg'atmasdan olingan sanoqlar kontrol qilinadi. Buning uchun orqadagi va oldindagi reykalarni qora va qizil tomondan olingan sanoqlarni farqi topiladi ya'ni

$$h_1 = a_1 - b_1 \text{ qora}$$

$$h_2 = a_2 - b_2 \text{ qizil}$$

Ikki marta xisoblab chiqarilgan qiymatlar orasidagi farq 4mm dan oshmasligi kerak aks holda stansiya kuzatish qaytadan bajariladi.

Hisoblarni to'g'riligiga ishonch hosil qilgach nivelir bilan keyingi stansiyaga o'tiladi. Bunda orqadagi reykada turgan kishi reykani keyingi nuqtaga olib o'tadi va u endi oldingi bo'ladi.

Oldindagi reykada turgan kishi esa o'z o'rnida qoladi va u reykani qora tomonini nivelirga birinchi bo'lib qaratadi. Ikkinchi stansiyada ham ish xuddistansiyada bo'lgani kabi olib boriladi.

Nivelirlashda ikki qo'shni stansiya uchun umumiy bo'lgan nuqtalarga bog'lovchi nuqtalar deyiladi.

Agarda ikkita piket orasini bitta stansiyadan nivelirlash mumkin bo'lmasa, u holda piketlar orasi bir stansiya o'rniga ikki yoki bir necha stansiyada turib nivelirlanadi. Bunda bog'lovchi nuqta sifatida x nuqtalar tanlanadi va qoziq bilan maxkamlanadi. Ular orasidagi masofalar o'lchanmaydi. Ikki piket orasidagi nisbiy

balandlik esa shu piketlar orasidagi stansiyalarda topilgan nisbiy balandliklar yig'indisiga teng bo'ladi.

Oraliq va ko'ndalang chiziqda belgilangan nuqtalarni nivelirlash. Oraliq nuqtalar piketlar orasidagi past baland joylardan olinadi. Ularni o'rni xam joyda qoziq qoqib belgilab qo'yiladi. Ko'ndalang chiziqlarni nivelirlash chizig'iga perpendikulyar qilib undan xar ikki tomonda 5-30m gacha olinadi, ularning umumiy uzunlig 10-60m bo'lishi mumkin. Oraliq va ko'ndalang nuqtalarni nivelirlash bog'lovchi nuqtadan olingan sanoqlarni ishlab chiqib bo'lingandan keyin bajariladi. Bunda orqadagi reyka piketdan olinadi va ketma-ket oraliq nuqtalarga qo'yib chiqiladi. So'ngra trubani vizir nurini reyka to'g'rilab reykaning faqat qora tomondan sanoq olinadi. Olingan sanoq jurnali oraliqdagi grafasiga yoziladi.

Tafsilotni planga olish. Piketlash jurnali.

Nivelirlash yo'lini piketlarga bo'lish bilan bir vaqtda nivelirlash chizig'idan xar ikki tomonga 50m gacha bo'lgan joy tafsiloti asbob bilan yoki chamalab trassaga nisbatan syomka qilinadi. Plan olishda to'g'ri burchakli koordinatalar burchakli yoki kesishtirish usullari qo'llanilishi mumkin. Plan olish natijalari piketlash jurnalida qayd etib boriladi. Odatda piketlash jurnali milimetrli qog'ozga chiziladi. Unda trassa o'qi to'g'ri chiziq shaklida burilish burchaklari strelka bilan ko'rsatilgan bo'ladi. Bundan tashqari trassadagi piket va oraliq nuqtalari ko'ndalang chiziq va undagi nuqtalar, tafsilotlarni konturlari, shartli belgilari ko'rsatiladi. Piketlash jurnali 1:1000 yoki 1:2000 masshtabdachiziladi.

Kameral ishlar

Nivelirlash jurnalini tekshirish va dala ishlarini nazorat qilish.

Nivelirlash jurnalini tekshirish unda dalada bajarilgan hamma kuzatishlarni va hisoblashlarni sinchiklab ko'rib chiqishdan boshlanadi. Bu esa ishdagi mumkin bo'lgan xatolarni aniqlash va yo'qotish maqsadida bajarildi.

Nisbiy va o'rtacha nisbiy balandliklar to'g'ri xisoblab chiqilganligini tekshirish uchun nivelir jurnalining xar bir beti tagiga 3, 4, 6, 7, 8 vagrafalar yig'indisi aloxida – aloxida yoziladi. Mana shunda 3 va 4 yig'indilarining ayirmasi tegishli ishora bilan 6 va 7 grafa qiymatlarini algebraik yig'indisining ikkilanganligiga teng bo'lishi teng bo'lishi kerak. Ya'ni,

$$(\Sigma_3 - \Sigma_4) / 2 \text{ q} \Sigma_6 / 2 \text{ q} \Sigma_7$$

Bog'lanmaslik xatosini aniqlash va nivelir yo'llarini bog'lash.

Nivelirlash yopiq poligon bo'yicha bajarilsa u vaqtda xamma nisbiy balandliklarni algebraik yig'indisi nolga teng bo'lishi kerak ya'ni.

$$f_h = \Sigma h = 0$$

Qo'yarli bog'lanmaslik xato cheki esa quyidagi formula bilan aniqlanadi.

$$f_h = \pm 30\sqrt{L} \text{ mm} \quad f_h = \pm 30\sqrt{0.5} \text{ mm} = 21 \text{ mm}$$

Bu yerda L – km ifodalangan nivelirlangan yo'l uzunligi.

Nivelirlash o'tmetkasi ma'lum ikki nuqta orasida bajarilgan nisbiy balandliklarni nazariy yig'indisi oxirgi va boshlang'ich nuqtalar o'tmetkalarini ayirmasiga teng ya'ni

$$\Sigma_{h_{maz}} = H_o - H_b$$

Yoki nivelirlash xatosi

$$f_h = \Sigma_{h_{hamaly}} - H_o - H_b$$

Bog'lanmaslik xatosi yo'l qo'yarli bo'lsa uni teskari ishora bilan o'lgan nisbiy balandliklarga barobar yoki xisoblangan o'tmetkalarga tarqatib nisbiy balandliklar yoki o'tmetkalar tuzatiladi.

Bog'lovchi va oraliq nuqtalarning o'tmetkalarini xisoblash.

Bog'langan nisbiy balandliklardan foydalanib o'tmetkasi ma'lum boshlang'ich nuqtadan boshlab quyidagi formula asosida hamma bog'lovchi nuqtalari hisoblab chiqariladi.

$$N_{b+1} = N_b + h$$

bu erda N_{b+1} – o'tmetkasi aniqlanayotgan nuqta

N_b – boshlang'ich o'tmetkasi ma'lum nuqta

H – shu ikki nuqta orasidagi nisbiy balandlik.

O'tmetkalarni to'g'ri yoki noto'g'ri hisoblanganligi quyidagi formula bilan aniqlanadi.

$$N_o - N_b = \Sigma h_o'rta$$

Oraliq nuqtalarni o'tmetkalari quyidagi formula bo'yicha hisoblanadi.

$$N_s = AG - as$$

Bu erda N_s – o'tmetkasi aniqlanayotgan oraliq nuqta

AG- asbob gorizonti

as – oraliq nuqtaga o'rnatilgan reykani qora tomonidan olingan sanoq

Asbob gorizonti quyidagi formula bilan aniqlanadi.

$$AG = N_{or} - O_{or}$$

N_{or} – orqadagi piketni o'tmetkasi

O_{or} – orqadagi piketga o'rnatilgan reykani qora tomonidan olingan sanoq.

Trassani nivelirlash jurnali

Bek atlar №	Piketlar №	Reykadan sanoqlar			Nisbiy balandliklar h, mm			Asbobgorizonti Ag, m	Balandligi H, m
		Orqadagi a	oldindagi b	oraliqdagi s	Hisoblangan, h _h	O'rtacha h _{o'r}	Tuzatilgan, h _t		
1	2	3	4	5	6	7	8	9	10
1	Rp5	5949				-3.5			552.776
		1163			-0838	-0889.5	-0893		
	PK 0		6787		-0941				551.883
				2104					
	PK 0	5731				-2			551.833

2		1044			-1278	-1229	-1231		
	PK 1		7009		-1180				550.652
			2224						
3	PK 1	5169				-2.5			550.652
		0384			-2400	-2449.5	-2452		
	X		7569		-2499				548.200
			2883						
4	X	5034				-1			548.200
		0349			-2570	-2520	-2521	548.54 9	
	+68.12			1212	-2470				547.337
	PK 2		7604						545.679
			2819						
5	PK 2	5343							545.679
		0557						546.23 6	
	+76.38			6895		-2.5			539.341
	O ^o 10.0			1661	-2104	-2155.5	-2158		544.575
	O ^o 20.0			1740	-2207				544.496
	Ch 8.45			1825					544.411
	Ch 20.0			1445					544.791
	PK 3		7447						543.521
			2764						
	Σa	$\Sigma a =$ 30723	$\Sigma b =$ 38723		$\Sigma h_h =$ -18487	$\Sigma h_{o^{\gamma}} =$ -4000			
6	PK 3	6571				-3.5			543.521
		1885			+0765	+0815.5	+081 2		
					+0866				

	PK 4		5806						544.333
			1019						
----	-----	-----	-----	-----					
	-	-	-	-					
7	PK 4	7694							544.333
		2911				-2.5			
					+2091	+2042.5	+2040	547.244	
	+68.76			2265	+1994				544.979
	PK 5		5603						546.373
			0917						
----	-----	-----	-----	-----	-----	-----
	-	-	-	-	-		.		
8	PK 5	6578				-2			546.373
		1893			+0487	+0538	+0536		
					+0589				
	Rp 6		6091						546.909
			1304						
----	-----	-----	-----	-----	-----	-----
	-	-	-	-	-		..		
	Σa	$\Sigma a = 58255$	$\Sigma v = 30355$		$\Sigma h_h = -17109$	$\Sigma h_{o'r} = -8554.5$			

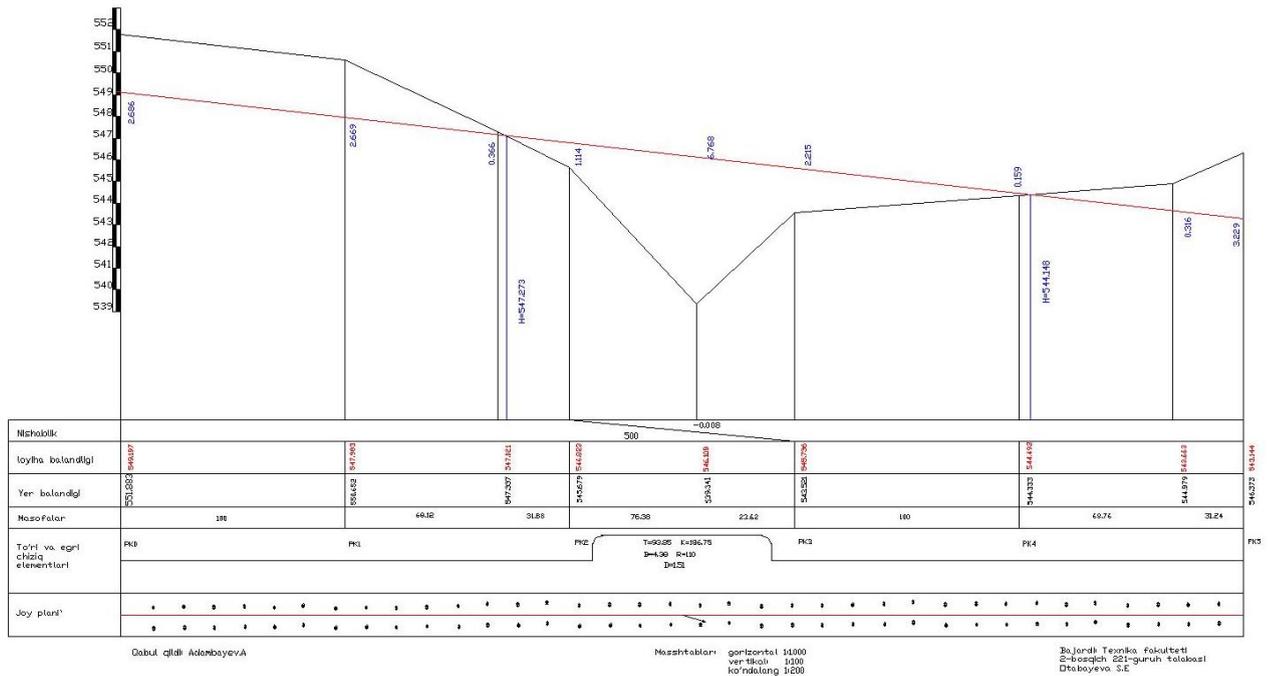
$$\Sigma a = 58255 \quad \Sigma b = 69950 \quad \Sigma h_h = -11695 \quad \Sigma h_{o'r} = -5847.5$$

$$\frac{\Sigma a - \Sigma b}{2} = \frac{-11695}{2} = -5847.5$$

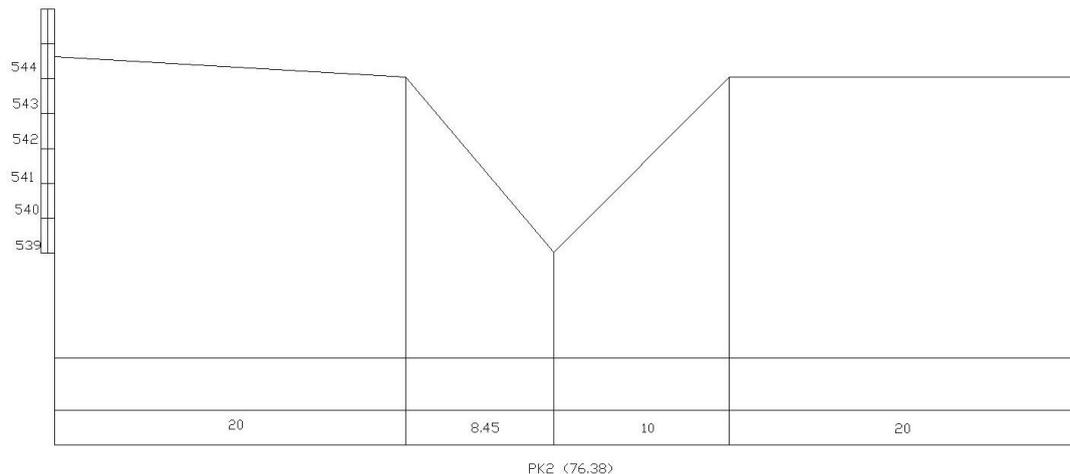
$$fh_{\text{зам}} = \Sigma h_{\text{yp}} - (H_{\text{RP17}} - H_{\text{RP11}}) = -5847.5_{\text{мм}} - (546.909 - 552.776) = -5847.5 + 5867.0 = +19.5$$

$$fh_{\text{чеклан}} = 30_{\text{мм}} \sqrt{0,5} = \pm 21$$

Trassasing bo'ylama profili



Trassasiy ko'ndalang profili



Xulosa: Trassani nivelirlash haqida, ayniqsa trassani nivelirlash xatosini tenglash, nuqtalar balandligini hisoblashni bajarish.

Trassa nivelirlash yo‘l qurilishida ham muhim ahamiyatga ega. Yangi shahar va qishloqlarni yo‘llarini bunyod etish, aholi yashaydigan hududlarini planlashtirish kabi ishlarni nivelirlashsiz taasavvur qilib bo‘lmaydi shuningdek sug‘rish kanallarini ham. Plan, profillar, ularning uzunliklarini hisoblash bilan bog‘liq yo‘l inshootlarini loyihalash, qurishda zarur bo‘lgan nuqtalar balandligini va ular farqini aniqlash uchun bajariladi.

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ZAMONAVIY TEXNOLOGIYALARDAN FOYDALANIB KARTOGRAFIK BELGILARNI QURISH USULLARI

*Annotatsiya. Ushbu maqolada kartashunoslikka oid kartografik belgilarni zamonaviy usullardan foydalangan holda ularning qurish usullari o'rganiladi
Kalit so'zlar: kartografik belgilar, geografik axborot tizimlari(GAT).*

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METHODS OF BUILDING CARTOGRAPHIC SIGNS USING MODERN TECHNOLOGIES

*Abstract. In this article, the methods of constructing cartographic symbols related to cartography using modern methods are studied
Key words: cartographic symbols, geographic information systems (GIS).*

Kartalarni kompyuterda bezashda maxsus dastur ishlab chiqilishi lozim bo'lib, bunda vektor grafikasidan foydalaniladi.

Buni shartli ravishda 3 guruhga ajratish mumkin:

1. Barcha maqsadda foydalanish mumkin bo'lgan grafik vektor dasturi (Corel

Draw, Adobe Illustrator va boshqalar), bular tayyor belgilardan yig'ilmaydi.

2. Geoaxborot tizimlarining (GAT) kartografik bloklari (Arc Info, MapInfo, Geo Graf, Win GI va boshqa), bunda standartlashtirilgan kartlarni bezashda tayyor kartografik belgilardan) foydalaniladi.

3. Maxsus kartografik dasturlar, bu dasturning asosiy maqsadi - bir xil ma'nodagi ko'p sonli kartalar (avtoyo'l atlaslari, ma'muriy va boshqa karta)ni yaratishdan iborat.

Maxsus dasturlardan foydalanish imkoniyatlari chegaralanganligi sababli, grafika dasturlaridan umumiy maqsadlarga mo'ljallangan va geoaxborot tizimlarning kartografik bloklari foydalanishi mumkin.

Yangi belgilarni yaratish turli dasturlarda, hattoki bir guruh doirasida juda farq qilishi mumkin. Murakkab, nostandart, badiiy kartografik belgilarni yaratishda umummaqsadlardagi grafika (chizma) dasturlaridan foydalanish imkoni ko'proq.

Kartografik belgilarni yaratish jarayoni tez va qulay, yanada sifatli bo'lishi uchun dasturlarning ba'zi imkon va ishlatish usullarini ajratish mumkin.

Ma'lum bir joyda to'plangan punktning nuqtali kartagrafik belgilarni (1-rasm) yaratish uchun barcha dasturlarda quyidagi asosiy usullardan foydalaniladi:

a) obyektни tasvirlashda oddiy elementli belgilar (doira, ko'pburchak va h.k.)dan foydalanish (2-rasm).

b) belgi elementlarida maxsus shrift simvollaridan (Marlett, Wingding va b.) foydalanish;

a) obyektning shakli va holatini ma'lum nuqtalar bo'yicha o'zgartirish;

b) belgi elementining aniq joylashuvini aniqlashda gorizonta va vertikal to'ring chizilayotgan obyekt bilan bog'liqligi;

c) chizma obyektларni guruhlash;

d) chizma obyektларni tekislash, taqsimlash va tartibga solish (3-rasm);

e) qisqartirish, umumlashtirish va chegirish operatsiyalarini ishlatish (4-rasm);

i) foydalanuvchi dasturi yordamida murakkab belgilar yoki strukturaviy chizma kutubxonalari yoki kiritilgan dastur tillaridan foydalanish.

Ko'pgina chizma obyektлар dasturi negizi bo'lib:

1. Aylana va aylana yoyi (2a);

2. Doira yoki uning bo'lagi (2b);

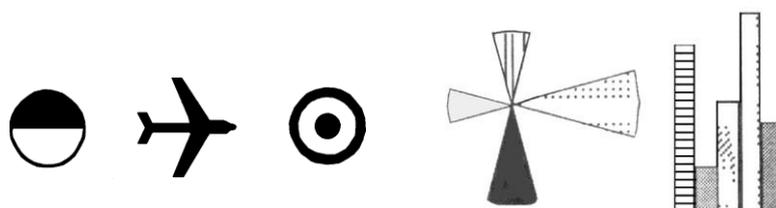
3. Qabariqli ko'p bo'rchak (2v);

4. Yulduzchali ko'p burchak (2g);

5. Bo'g'inli to'g'ri chiziqlardan iborat siniq chiziq (2d);

6. Egri chiziq (kompyuterda chizilganda «Bezye egrisi» deyiladi) 2e)

hisoblanadi.



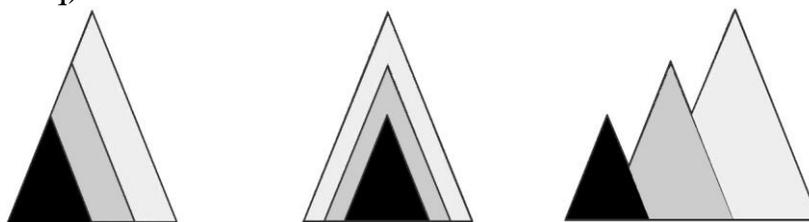
1-rasm. Ma'lum bir joyda to'plangan belgilarning ko'rinishi.



2-rasm. Oddiy chizma obyektларning ko'rinishi:

a — aylana va aylana yoyi; b — doira va bo'lagi; d — qabariqli va burchakli to'g'ri burchaklar; e — turli uzunlikdagi nurlari bo'lgan besh burchakli yulduzchalar; f — uchta to'g'ri bo'g'indan

iborat chiziq (siniq chiziq); g — «Bezye egrisi» ko‘rinishidagi ikki bo‘g‘inli chiziq (egri chiziq).



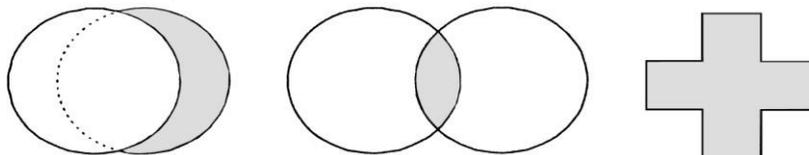
a)

b)

d)

3-rasm. Tekislangan, taqsimlash va tartibga solish operatsiyalarining qo‘llanilishi:

a — chap va quyi chegaralariga ko‘ra tekislangan; b — quyi chegarasining vertikal bo‘ylab va markazdan gorizontol bo‘ylab tekislangan; d — quyi chegaraga ko‘ra tekislangan va o‘ng chegaralari oralig‘ida bir xil masofada gorizontol bo‘ylab taqsimlangan. Obyektlar o‘lchamlarining o‘shiga qarab joylashtirilgan (avval eng yirik uchburchak chiziladi).



a

b

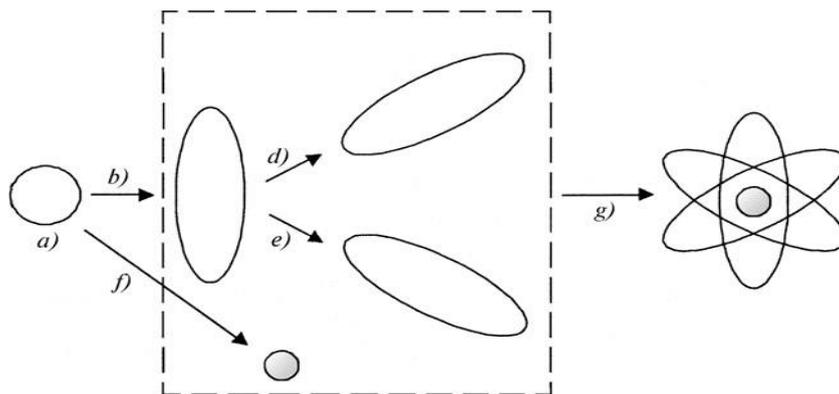
c

4-rasm. Qisqartirish, umumlashtirish va chegirish operatsiyalarini ishlatish.

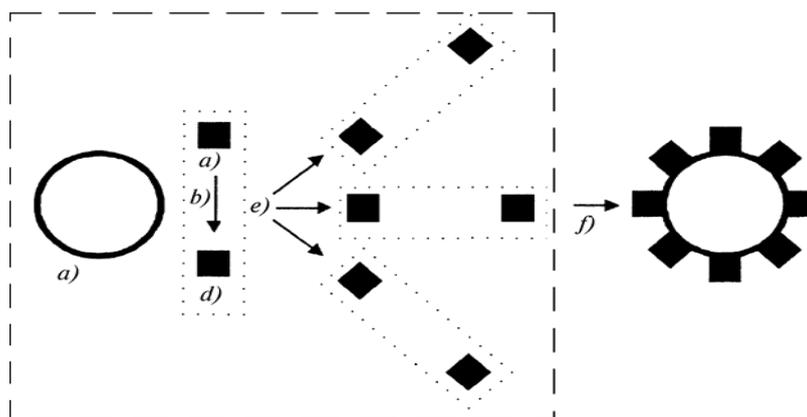
Konstruktiv element negizi yoki tayyor belgilar sifatida ba'zi shrift simvollari, ya'ni Wingdings, Marlott yoki Ttue Type, Post cript formatlarida chizilgan maxsus shriftlarni ishlatishi mumkin. Ko‘pgina dasturlar shrift simvollarini chizma obyektlar to‘plamiga aylantirish imkoniga ega.

Dasturlash ayniqsa strukturali belgilarni yaratishda natija beradi, chunki kartaga tushirilayotgan obyektning sifat va miqdor xarakteristikasi orqali ko‘rsatilayotgan belgining o‘lchami, rangi va shaklini aniq tasvirlashni talab etadi.

GAT kartografik bloklari o‘ziga xos xususiyatlariga ko‘ra, ko‘p ishlatiladigan bir necha strukturaviy belgilar turini yaratishda odatda tayyor vositalar (ustunlar, doira diagrammalari va h. k.) ishlatiladi, bunda elementning o‘lchami va rangi kartaga tushirilayotgan obyektning asosiy ma'lumot parametrlariga to‘g‘ri keladi. 5 va 6-rasmlarda «atom» va diagramma belgilarini yaratishdagi harakat ketma-ketligi tasvirlangan.



5-rasm. «AtomC belgisini yaratishdagi harakat ketma-ketligi.



6-rasm. Diagramma belgisini yaratishdagi harakat ketma-ketligi.

Chiziqli belgilarni turli dasturlarda tuzish imkoniyatlari tubdan farq qiladi.

Rang tanlash, shtrixlarning yoʻgʻonligi va qolipi (shtrix- punktir chiziqlar tuzish uchun asos (baza)ning umumiy usullaridir. Chiziqning rangini istalgan rangli modellar dasturidan foydalanib berish mumkin (RGB, CMYK, N B va boshqa dasturlar).

Yoʻgʻonlashgan chiziqlarni tuzayotganda uning yoʻgʻonligi, oʻlchov birliklari (mm, duym va h. k.) va qurilish usullari beriladi.

shtrix-punktir chiziqlarni qurganda albatta shtrixlar va ularning oraliqlari namuna-andazasini berish zarur. Bunday chiziqlarni tasvirlashda shtrix tanlangan yoʻgʻonlik va rangda chiziladi.

Koʻpgina chiziqli belgilar chiziqlarni bir-biriga bogʻlash yoki ustma-ust tushishidan yuzaga kelishi mumkin.

Chiziqli belgilarni tasvirlashda ishlatilishiga 3 xil «moʻyqalam» - asbobni ajratish mumkin: namuna-andazali moʻyqalam (scatter brush); tarqaluvchan moʻyqalam (scatter brush) va badiiy moʻyqalam (ary brush).

Namuna-andazali moʻyqalamda kartaning tashqi ramkasini naqsh va rasm bilan bezash juda qulaydir.

Tarqaluvchan moʻyqalamdan kartografik chiziqli belgilarning yaratilishda foydalanib, namuna andazalar orasidagi oraliqlarni va namuna-andazaning

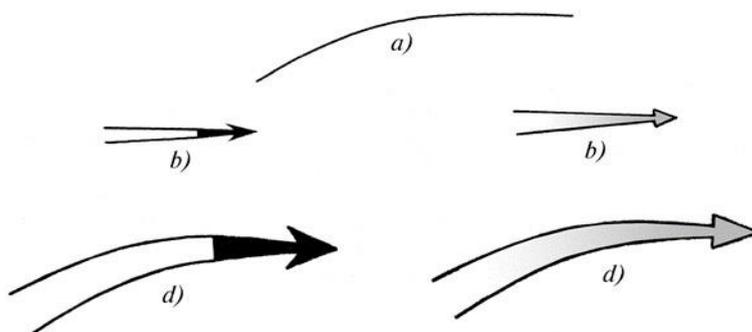
avtomatik burilishida tegib turuvchi chiziqning egilish burchagi bilan mosligini ko'rsatishda yordam beradi.

Badiiy mo'yqalamdan foydalanish boshlang'ich chiziqdan to kerakli yergacha bo'lgan masofaning o'zgarishini chiziqli belgilar bilan ko'rsatishda qulaydir.

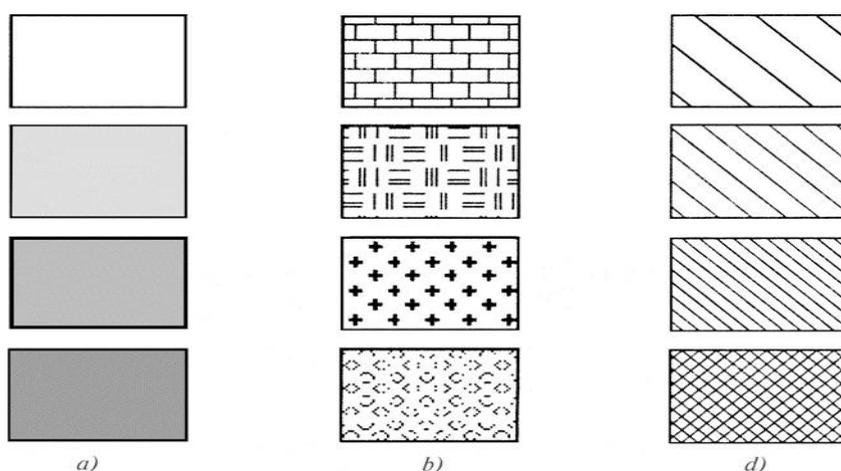
Bunday chiziqlar yordamida mayda masshtabli kartalarda suv obyektlarini, daryoning boshlanish va quyilish joylarini sekin-asta yo'g'onlashuvini ko'rsatishda ishlatiladi.

«Badiiy mo'yqalam» yordamida turli xildagi strelkalar bilan chiziqli belgilarni chizish qulaydir (7-rasm).

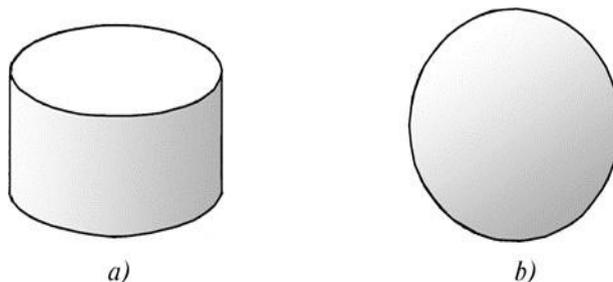
Kompyuterda kartografik maydon belgilarini yaratishda eng ko'p tarqalgan usullar (9-rasm): rang bilan qo'yish (color fill, uniform fill); namuna-andaza bilan to'ldirish (pattern fill, texture fill) va qiyaligini sezdirib bo'yash (gradient fill, fountain fill) (8-rasm).



7-rasm. «Badiiy mo'yqalam» yordamida strelka ko'rinishidagi chiziqli belgilarni yaratish: a — boshlang'ich chiziq; b — namuna-andazalar; d — badiiy mo'yqalamdan foydalanish natijasi.



8-rasm. Qiyaligini ifodalash orqali elementlar hajmiga tus berish: a — yorqinligi bo'yicha oq-qora fonni tatbiq etib (rangda qo'yish); b — ichki tuzilishiga ko'ra (namuna-andaza bilan to'ldirish); d — yorqinligi bo'yicha shtrixlash usulini qo'llash.



9-rasm. Quyidagi xususiyatlariga ko‘ra farqlanuvchi maydon belgilarini ko‘rish:

a — chizgi yo‘nalishi bo‘yicha; b — radial chizgi yo‘nalishi bo‘yicha.

Kartografik maydon belgilarini ko‘proq mavzuni anglatuvchi rasmlar bilan tasvirlash mumkin, bunda keltirilgan to‘rtburchak namuna — andazadagi mavzuli rasm bo‘yalib, to‘rtburchakning qolgan qismi bo‘yalmaydi. hunday qilinganda, belgi tagidagi obyektlarning ham o‘qilishi qulay bo‘ladi.

Turli murakkablikdagi chiziq va maydon belgilarini yaratishda chizma manbalariga yoki dastur tillariga ega bo‘lgan xususiy dastur modulini ishlab chiqish universal usul bo‘lib hisoblanadi.

XULOSA. *Zamonaviy texnologiyalardan foydalanib kartografik belgilarni qurish usullarini o‘rganish.* Bunda biz zamonaviy texnologiyalardan foydalanib deganda,

AutoCad dasturi nazarda tutiladi. AutoCad dasturi yordamida kartografik shartli belgilarni yaratish mumkin. Kartografik shartli belgilarni qo‘lda chizish ham mumkin, bunda ko‘proq vaqt va mehnat sarflanadi. Zamonaviy texnologiyalardan foydalanib kartografik belgilarni yaratganda esa vaqt tejaladi hamda ish unumdorligi oshadi.

Xulosa qilib aytganda, kartografik belgilar va kartografik tasvirlash usullarini bilmay turib kartografiya sohasida ishlab bo‘lmaydi. Chunki, kartografik belgilar kartaning tili hisoblanadi. Kartani tilini bilmagan inson unda nimalar tasvirlanganligini bilmaydi. Kartografik belgilar va kartografik tasvirlash usullarini mukammal darajada o‘rganish kelgusi hayotimizda foydadan holi emas.

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THE ROLE OF SELENIUM IN CARDIOLOGY

Abstract. Selenium is an important trace element that is fundamental for the functioning of the human body. Being part of the active site of a number of antioxidant enzymes, selenium prevents damage to body cells by free radicals. A decrease in the synthesis of selenium-containing enzymes leads to the progression of oxidative stress and chronic inflammation, which are considered possible causes of many cardiovascular diseases. This review examines the mechanisms by which an adequate supply of selenium to the body can prevent myocardial and vascular damage, and also emphasizes the importance of monitoring and correcting the selenium status of specialized patients.

Keywords: Selenium, oxidative stress, microelements, glutathione peroxidase, antioxidants, cardiovascular diseases, selenoproteins.

INTRODUCTION

Selenium is one of the essential (essential) microelements, an adequate supply of which is necessary to ensure health. This was first shown in experiments on animals that developed muscular dystrophy, cardiomyopathy, and liver cirrhosis on a selenium-deficient diet [1, 2]. In the body, selenium is presented in the composition of selenoproteins, which include a number of important enzymes such as glutathione peroxidase, thioredoxin reductase, iodothyronine deiodinase, etc. Basically, the functions of selenium-containing proteins are reduced to preventing the development of oxidative stress and reducing the inflammatory process that provoke development of cardiovascular pathologies [3].

MATERIALS AND METHODS

The main source of selenium for humans is food of plant and animal origin. Food products of all types demonstrate a geographic pattern of changes in selenium content, since it depends on the amount of dissolved selenium in the soil and the ability of plants to absorb it [2]. Based on the concentration of the microelement in blood serum, three groups of regions are distinguished: with low (60–80 µg/l), medium (81–115 µg/l) and high (more than 120 µg/l) selenium content [3].

RESULTS AND DISCUSSION

Selenium enters the body with water (10%) and food of plant and animal origin (90%) [4]. The largest amount of selenium is found in yeast, Brazil nuts, seafood, meat, cereals and other products. However, even with sufficient intake

from food, the supply of selenium to the human body depends on bioavailability, which is determined by the nature of its chemical form [3].

The main form in cereals and other plants is selenomethionine. Selenocysteine is considered the most likely compound in animal meat [2]. Inorganic selenites are absorbed by simple diffusion, and selenates are absorbed with the Na⁺ ion or antiport with the OH⁻ ion. Organic forms have the best bioavailability; they are imported into the enterocyte with the Na⁺ ion, just like neutral amino acids. The process of absorption of selenium-containing compounds occurs mainly in the duodenum and is completed in the distal small intestine. It is believed that the absorption of a number of selenium compounds is potentiated by vitamins A, E and C and inhibited by sulfur, calcium and Fe³⁺ ions [3].

After entering the body, inorganic selenite ions are quickly and selectively absorbed by erythrocytes, where they are reduced by glutathione and glutathione reductase and transported in plasma in the form of hydroselenide, which selectively binds to albumin [3]. Selenate ions are also quickly reduced enzymatically to hydrogen selenium, which is present at physiological pH values mainly in the form of hydroselenide anion [2]. A certain amount of the resulting hydrogen selenide quickly binds to transport proteins, forming a labile ("exchangeable with selenite") pool of selenium [3].

A significant amount of selenium compound metabolites (50–60%) is released in the urine. In women, selenium excretion through the urinary tract is significantly higher than in men, which indicates gender dimorphism in the biosynthesis of selenoproteins [4].

Selenium can be deposited in various organs and tissues. The highest concentrations are observed in the kidneys, since this is the main organ of selenium excretion; slightly less is found in the liver and pancreas, followed by cardiac and skeletal muscles.

As already mentioned, most of the selenium in the body of animals and humans is contained in the form of a selenium compound with proteins. It is estimated that up to 100 selenoproteins may exist in mammalian systems. To date, about 25 of them have been functionally described [3]. Most of the identified selenoproteins are enzymes in which the selenocysteine moiety is responsible for the catalytic properties. Each inclusion of selenocysteine in the protein structure is specific and aimed at enhancing its antioxidant capabilities. In contrast to the mercapto group in cysteine-containing enzymes, the selenol radical is completely ionized at physiological pH, due to which selenium-containing enzymes have a much higher reactivity.

Glutathione peroxidases

Glutathione peroxidases are one of the most effective families of anti-peroxide enzymes expressed by vascular endothelial cells. The main function of this subgroup of enzymes is to maintain a stable concentration of reduced glutathione.

The state of the cardiovascular system is mainly affected by three types of glutathione peroxidases: classical or cytosolic glutathione peroxidase (cGPx, GPx-1) (which is most dependent on the selenium content in the body), extracellular plasma glutathione peroxidase (pGPx, GPx-3), phospholipid glutathione peroxidase (PHGPx, GPx-4).

Thioredoxin reductase

Thioredoxin reductases are FAD-containing homodimeric enzymes belonging to the family of pyridine oxidoreductases. A feature of this group of enzymes is the presence of a C-terminal selenocysteine fragment connected to the adjacent cysteine, which constitutes the active selenosulfide site. Thioredoxin reductase reduces low molecular weight compounds and is a key enzyme in selenium metabolism. The effects mediated by the work of thioredoxin reductases are aimed at the repair of other enzymes, reducing the consequences of oxidative stress, including in the myocardium.

Selenoproteins P, S, K, W, T

Other selenoproteins are also isolated, for example, selenoprotein P (SeP), which is considered the most numerous selenium-containing protein and the main transporter of selenium to peripheral tissues. It is the only protein containing more than one selenium atom (according to some data, their number reaches 10), however, this number is not constant, since SeP acts as a donor of selenium atoms for other selenium-dependent enzymes and circulates in the blood in the form of isoforms. SeP is synthesized predominantly in the liver, but also exists in cells that are capable of reproducing it in other organs. In addition to transport duties, it itself has antioxidant properties, preventing cell damage, which is confirmed by the experiment of Rock et al, where in vitro fluorescent analysis demonstrated the ability of SeP to prevent the appearance of membrane lipid hydroperoxides generated by lipoxygenase.

CONCLUSION

Over the past decades, significant progress has been made in understanding the role of selenium and selenium-containing enzymes for human health. Based on the results of various basic and clinical studies, it can be said that maintaining adequate levels of selenium and the functioning of selenium-containing enzymes can reduce the incidence and severity of heart and vascular diseases such as atherosclerosis, heart failure, myocardial infarction, as well as reduce ischemic and free radical damage to the heart, in connection with which it seems important to take into account the selenium content in the body in specialized patients.

Control and optimization of selenium status, especially in the population of selenium-deficient areas, by adding food products enriched with selenium and/or biological selenium supplements to the diet, is one of the directions in reducing the risks of the occurrence and development of cardiovascular diseases.

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INGLIZ TILI MILLIY TIL BO'LMAGAN OLIY TA'LIM MUASSALARIDA DARS MASHG'ULOTLARINI RIVOJLANTIRISH

Annotatsiya. Ushbu maqolada respublika miqyosida ikkinchi horijiy til sifatida oliy ta'lim muassalarida ingliz tilini o'qitishni rivojlantirish, mutahassislarning bilim darajasi va kommunikativ qobiliyatlarini birgalikda qo'llash hamda zamonaviy pedagogik texnologiyalardan foydalanish yoritilgan.

Kalit so'zlar: pedagogik texnologiyalar, reformalar, konsepsiya, projekt, kommunikativ kompetensiya.

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DEVELOPMENT OF LESSONS IN HIGHER EDUCATION INSTITUTIONS WHERE ENGLISH IS NOT THE NATIONAL LANGUAGE

Annotation. This article is about the development of teaching English as a second foreign language in higher education institutions, the joint application of the knowledge level and communicative abilities of specialists, and the use of modern pedagogical technologies.

Key words: pedagogical technologies, reforms, concept, project, communicative competence.

O'zbekistonning XXI asr boshlariga xos bo'lgan ta'lim va madaniyat sohalaridagi o'zgarishlariga davlatimizning jahon ta'lim makoniga kirib borishi, siyosat, iqtisodiyot, barcha sohalarda xalqaro aloqalarning mustahkamlanishi sabab bo'lmoqda.

Zamonaviy dunyo fuqaro va professional shaxsning shakllanishi uning mustaqilligi, raqobatbardoshligi, harakatchanligi, ijodkorligini rivojlantirishga qaratilgan bo'lib, bu uning bir yoki bir nechta tillarni bilishini nazarda tutadi.

Ayniqsa, butun mamlakat bo'ylab jahon standartlari darajasida sifatli ta'lim xizmatlarini taqdim etish alohida muhim yo'nalish bo'lib, bu eng keng tarqalgan til sifatida ingliz yoki rus tilini bilmasdan turib mumkin emas.

Vazirlar Mahkamasining 2017-yil 11-avgustdagi "Ta'lim muassasalarida chet tillarni o'qitish sifatini yanada oshirish chora-tadbirlari to'g'risida"gi 610-

sonli qarorida so‘nggi yillarda mamlakatimizda xorijiy tillarni o‘qitish sifatini oshirish bo‘yicha keng ko‘lamli chora-tadbirlar amalga oshirilayotgani ta’kidlangan. Bu ijtimoiy-iqtisodiy rivojlanishning ustuvor yo‘nalishlari va xalqaro standartlar talablariga javob beradigan oliy ta’lim tizimidir. Bugungi kunda zamonaviy mehnat bozori talablariga javob beradigan ingliz tilini yuqori sifatli o‘qitishga erishish milliy ustuvor vazifalardan biridir.

Ingliz tilini o‘qitish va o‘rganishni (talabalar tomonidan) takomillashtirish zamonaviy dunyoda turli xil pedagogik texnologiyalar yordamida amalga oshirilmoqda, ammo ulardan eng to‘g‘ri va samaralisini tanlash (aniqlash) masalasi hanuz hal etilmagan.

Chet tillarini o‘qitishning zamonaviy kompetensiyaga asoslangan yondashuv talabalarda uchta asosiy kompetensiyani shakllantirishni o‘z ichiga oladi: lingvistik, kommunikativ va madaniyatlararo.

Kelajakdagi mutaxassislar chet tilini professional yo‘naltirilgan o‘qitish bo‘yicha quyidagi ko‘nikmalarni o‘rgangan holatda o‘rganishlari kerak:

– turli funksional uslub va janrlarga hos, kasbiy faoliyatning turli jihatlariga oid adabiyotlarni o‘qish;

- ilmiy ma'lumotnomalardan, internetdan kerakli ma'lumotlarni qidirish va topish, tezislar, monografiyalar, shuningdek, ilmiy va ilmiy-ommabop maqolalar materiallarini o‘qib tanqidiy tushunish;

- turli xil ishbilarmonlik muloqotlarida og‘zaki ma'lumot almashish, bitimlarni imzolash, shartnomalar tuzish;

- ham kasbiy, ham ilmiy xarakterdagi bayonotlarni tushunish, shuningdek, kommunikativ o‘zaro ta’sir shartlariga mos keladigan nutq ko‘nikmalariga ega bo‘lish;

Hozirgi vaqtda ta’lim jarayonida ishtirokchilarining bevosita muloqotiga asoslangan kommunikativ ta’lim texnologiyasi yetakchi va istiqbolli texnologiya hisoblanadi.

Kommunikativ kompetensiyani shakllantirish shunday ta’lim va tarbiya tizimini yaratishni nazarda tutadi, uning doirasida axborotdan faoliyatga asoslangan, ijodiy faoliyat shakllariga to‘liq o‘tish amalga oshiriladi. Ko‘p tarmoqli oliy o‘quv yurtida chet tillarini o‘qitishni jadallashtirish va optimallashtirishga ko‘maklashish maqsadida muammoli ta’lim yoki amaliy misollar, muhokama usullari, sinf va darsdan tashqari mashg‘ulotlarda turli texnik vositalardan foydalanish kabi zamonaviy texnologiyalardan keng foydalanilmoqda. Shuningdek, zamonaviy pedagogikada chet tilini o‘qitishning talabalarga yo‘naltirilgan texnologiyalari juda samarali deb tan olingan. Kommunikativ va shaxsga yo‘naltirilgan ta’lim o‘rtasida yaqin bog‘liqlik mavjud, chunki u asosan shaxsga qaratilgan va o‘quvchilarning shaxsiy xususiyatlarini - fiziologik, intellektual, psixologik xususiyatlarini hisobga olgan holda qurilgan. Chet tilidagi nutqni o‘zlashtirishning motivatsiya, izlanuvchanlik, tahlil qilish, diqqatni jamlash kabi tarkibiy qismlari mavjud, individual ravishda, shaxsiy darajada shakllanadi va takomillashtiriladi. Muloqot jarayoni o‘quvchilar faoliyati konteksti, ularning

tajribasi, dunyoqarashi, rejaları va maqsadları, his-tuygʻulari, taʼlim va darsdan tashqari qiziqish va mayllarni oʻz ichiga oladi. Oʻquv jarayonini individuallashtirishning shaxsga yoʻnaltirilgan, insonparvarlik paradigmasi oʻquvchilarni faollashtirishga qaratilgan boʻlib, ular uchun sharoit oʻqituvchi tomonidan yaratilgan.

Binobarin, nolingvistik oliy oʻquv yurtlari talabalariga ingliz tilini oʻqitishni takomillashtirish uchun taʼlim texnologiyalarini tanlashda talabalar faolligini oshirish, chet tilini oʻqitishni individuallashtirish va kasbiylashtirish mezonlariga asoslanishi kerak.

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**INGLIZ TILINI O'QITISHDA KOMMUNIKATIV MASHQLAR ORQALI
PRAGMATIK KOMPETENSIYANI RIVOJLANTIRISH (TEXNIKA
YO'NALISHI TALABALARI MISOLIDA)**

Annotatsiya. Ushbu maqolada texnika yo'nalishi talabalariga ingliz tilini o'qitishda kommunikativ mashqlar orqali pragmatik kompetensiyani algoritmik rivojlantirishga, keyingi har bir daraja esa oldingi ko'rsatkichlarning sifat o'zgarishlari bilan tavsiflanishiga e'tibor berilgan. Shuningdek, maqolada Ingliz tili o'quv fani modullarini kompetentli yondashuv asosida o'rganilganidan keyin talabalarda bilim va kompetentligi shakllanganlik darajasida ijobiy o'zgarishlar yuz berganini ko'rsatadi.

Kalit so'zlar: Motivatsion-maqсадli, kommunikativ mashqlar, lingvo-madaniy, kommunikativ-faoliyatli, ijtimoiy-shaxsiy, 4 pog'onali metodi.

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**DEVELOPMENT OF PRAGMATIC COMPETENCE THROUGH
COMMUNICATIVE EXERCISES IN TEACHING ENGLISH (IN THE
EXAMPLE OF ENGINEERING STUDENTS)**

Abstract. This article focuses on the algorithmic development of pragmatic competence through communicative exercises in teaching English to technical students, and each subsequent level is characterized by qualitative changes of previous performances. Also, the article shows that after studying the modules of the English language subject based on the com-retentive approach, positive changes occurred in the level of knowledge and com-retentiveness of the students.

Key words: Motivational-targeted, communicative exercises, linguistic-cultural, communicative-active, social-personal, 4-point method.

Kirish. Ta'lim jarayonida talabalarning Xorijiy tillarni bilish kompetentligi komponentlarining rivojlanganlik darajasini tashxislash Oliy ta'lim muassasalaridagi texnika yo'nalishida tayyorlanayotgan bo'lajak muxandislarning ingliz tilini bilish kompetentligini rivojlantirish jarayonining bir butunligini tasavvur qilishda va pragmatik kompetensiyasini rivojlantirishda kommunikativ mashqlarga murojaat qilish maqsadga muvofiq hisoblanadi.

Pragmatik kompetentsiyani shakllantirish jarayoni bo'lajak muhandislarda etika va deontologiyaning asosi bo'lgan maxsus "antropotsentrik" fikrlash, bag'rikenglik, tinglash qobiliyati kabi muhim kasbiy fazilatlarni rivojlantirish uchun keng imkoniyatlar yaratadi.

Xorijiy tildan ta'lim berish jarayonida talabalarni xorijiy tillarni bilish kompetentligining komponentlari o'zgarishida ijobiy dinamika mavjud bo'lsa, samarali hisoblanadi. Pragmatik komponentlardagi o'zgarishlar dinamikasining miqdoriy ko'rsatkichlarini aniqlash uchun xorijiy tillarni bilish kompetentlikni rivojlanganlik ko'rsatkichlarini baholashni tavsiflash lozim. Pragmatik kompetentsiyani rivojlantirish asosida talabalarning xorijiy tillarni bilish kompetentligini rivojlantirish metodikasini mashqlar to'plami taqdim etilgan bo'lib, kompetentlikni rivojlantirish samaradorligini tekshirish bo'yicha tajriba-sinov ishlari olib boriladi[3, 258].

Pedagogik jarayonni diagnostika qilishning o'ziga xos xususiyatlaridan biri talabalarda xorijiy tillarni bilish kompetentlikni rivojlanganlik ko'rsatkichlar asosida aniqlanadigan miqdoriy xususiyatlarni aniqlashdir. Pedagogika fanida o'rganilayotgan obyektни kuzatish va o'lchash uchun mavjud bo'lgan xususiyatlarini, uning bevosita tadqiqot uchun mavjud bo'lmagan boshqa xususiyatlarini baholashga imkon beradi. Xorijiy tillarni bilish kompetentlikning baholash mezonlari sifatida tanlangan: motivatsion-maqсадli, lingvo-madaniy, kommunikativ-faoliyatli, kommunikativ, pragmatik komponentlar. Boshlang'ich, oraliq va yakuniy nazorat davomida tajriba ishlarini o'tkazishda mavjud ko'rsatkichlar orqali aniqlanadi.

Ta'lim jarayonida xorijiy tillarni bilish kompetentligini rivojlantirish darajasi fan sohasidagi rivojlanish darajasi, kasbiy madaniyat bo'yicha o'qitish va o'zlashtirish darajasi tushuniladi. Chet tilini o'qitish asosida xorijiy tillarni bilish kompetentligini rivojlantirish dolzarb bo'lib, bizning ishimizda har bir talabaning xorijiy tillarni bilish kompetentligini rivojlantirish darajasini ta'lim jarayonida kasbiy kompetentligini rivojlanganlik darajasi sifatida tushunish taklif etiladi[2, 114].

Talabaning xorijiy tillarni bilish kompetentligi komponentlarini rivojlantirishning tanlangan darajalari o'zaro bog'liq ravishda va algoritmik rivojlanadi, keyingi har bir daraja esa oldingi ko'rsatkichlarning sifat o'zgarishlari bilan tavsiflanadi. Ta'lim jarayonida talabalarning Xorijiy tillarni bilish kompetentligi komponentlarining rivojlanganlik darajasini tashxislash uchun 1-jadvalda keltirilgan metodikadan foydalanish taklif etiladi.

**Xorijiy tillarni bilish kompetentligini rivojlantiruvchi komponentlarni
aniqlashning diagnostik vositalari va metodlari**

Lingvistik kompetensiyaning komponentalari	Diagnostika vositalari va metodlari
Motivatsion	Kirish test (kirish nazorat) Avtomatlashtirilgan test (oraliq va yakuniy nazorat),(Ishlab chiqilgan mobil ilovaning tarkibida).
Lingvo-madaniy	Kuzatish, topshiriqlar to'plami. Kurs loyihalari(yakuniy nazorat)
Kommunikativ, pragmatik	Esse, keys topshiriqlari

Lingvistik kompetensiyaning komponentalarining motivatsion bo'limida Kuzatishlar mobaynida o'rganilayotgan o'quv jarayoni uchun ayrim jihatlar ajratib olindi. Masalan, talabalarining auditoriyada ishlashi, ularning o'rganilayotgan mavzularga bo'lgan qiziqishi, muayyan vazifani bajarishda dasturiy vositalardan foydalanish ko'nikmasining oshganligi, javoblarning sifati (haqiqiyliigi, to'liqligi, mazmunliligi, amaliyotga tadbiiq eta olishi va boshqalar).

Ushbu natijalar ingliz tili o'quv fani modullarini kompetentli yondashuv asosida o'rganilganidan keyin talabalarda bilim va kompetentligi shakllanganlik darajasida ijobiy o'zgarishlar yuz berganini ko'rsatadi.

Talabalarini chet tilidan o'qitish jarayonida hamda ularning bo'lajak kasbiy faoliyatlarida umumkashiy va ixtisoslik fanlar muhim ahamiyat kasb etadi. Shunday bo'lsada, umumkashiy va ixtisoslik fanlarni to'liq o'zlashtirishlari uchun ta'lim yo'nalishi nuqtai-nazaridan chet tilini bilish qanchalik muhim ahamiyat kasb etishiga e'tibor qilishmaydi. Professor-o'qituvchilar bilan o'tkazilgan suhbatlardan shu narsa ma'lum bo'ldiki, chet tilidan olingan bilimlar bo'lajak mutaxassislarningkasbiy faoliyatida muhim o'rin egallaydi. Lekin, birinchi kurs talabalarining ko'pchiligida chet tili bo'yicha bilim darajasi yetarli emasligi va ulardan mustaqil foydalanish ko'nikmasi shakllanmaganligi muammolar keltirib chiqaradi. Buning uchun talabalar bilan individual ishlash, ta'lim farayonida har bir mavzuga chet tilini qo'llash, chet liga doir dasturiy vositalar bilan ishlash ko'nikmalarini shakllantirish orqali bo'lajak professional ta'lim o'qituvchilarini kasbiy faoliyatga yo'naltirish lozim.

Tajriba-sinovning dastlabki bosqichining tahlili natijalari shuni ko'rsatdiki:

➤ talabalarining professional ta'lim sohasiga chet tilining tadbiiqi to'g'risida tasavvurga ega emas;

➤ xorijiy tildan talabalarning bilimi yetarli darajada emas, ya'ni mutaxassisligi nuqtai nazaridan kasbiy yo'naltirilmagan;

➤ ta'lim jarayonida aksariyat talabalarda tabiiy hodisa va jarayonlarga chet tilini qo'llash unchalik muhim bo'lmay, balki ular nazorat ishlarini yaxshi topshirishlari muhimdir.

Talabalarning xorijiy tillarni bilish kompetentligining rivojlanganligi uchta darajasi bo'yicha aniqlandi (2 jadval):

1. Boshlang'ich-kasbiy (xorijiy tildan bilim va ko'nikmalarga egaligi, uslubiy-didaktik vositalar va elektron lug'atlardan foydalanib, loyihalashni amalga oshirishi);

2. Tayanch-kasbiy (muammoli vaziyatlarni hal qila olishi)– talabalarning loyihalash faoliyatiga tayyorgarlik darajasi;

3. Yetakchi-kasbiy (yuqori darajadagi kasbiy faoliyat)– talabalarning ilmiy-tadqiqot kasbiy faoliyatiga tayyorgarlik darajasi.

2- jadval

Talabalarning xorijiy tillarni bilish kompetentligining rivojlanganligi darajalari

Mezon va darajalar	Yuqori	O'rta	Past
Motivatsion-maqсадli	-talaba muammoni aniqlaydi va shakllantiradi, o'z faoliyatini o'zi tashkil qila oladi; -ilmiy-tadqiqot faoliyatini olib borish uchun vosita va metodlarni tanlay oladi. -ilmiy-tadqiqot farazi, maqsadi, obykti va predmetini mustaqil aniqlay oladi; olingan natijalarni takomillashtirish maqsadida o'z faoliyatini tahlil qila oladi;	-talaba mavjud namuna va to'plangan tajribaga asoslanib topshiriqbo'yicha o'z loyihaviy-konstruktorlik faoliyatini qurish ko'nikmasini namoyish etadi;- mavjud sharoitga ko'ra o'z faoliyatini tashkil eta oladi, farazni shakllantiradi, maqsadni aniqlaydi va metodni tanlay oladi;	-talaba mavjud namuna va konstruksiyaga ko'ra topshiriqlar bo'yicha loyihalash va tadqiqotchilik faoliyatini qurishni namoyish etadi. Ammo u qo'yilgan loyihalash va tadqiqotchilik masalalarini yechish holatida emas; -talaba o'z faoliyatini mustaqil tahlil qila olmaydi;
Lingvo-madaniy	-kasbiy sohada xorijiy tillarni bilish bo'yicha mutaxassis; -axborot-kommunikatsiya texnologiyalaridan foydalanib xorijiy tillarni bilish kompetentligini rivojlantirish yo'llarini biladi;	-kasbiy sohada xorijiy tillarni bilish bo'yicha mutaxassis; ko'pgina standart hayotiy vaziyatlarda muloqot qila oladi;	-kasbiy muammoli masalalar yechish chet el adabiyotlaridan foydalanish imkoniyatlariga ega;
Kommunikati v-faoliyatli	-kasbiy-amaliy sohadagi muammoli kasbiy masalalarni xorijiy adabiyotlardan	- professional talim sohasida modellashtirish va loyihalash jarayonida	-professional talim yo'nalishi uchun ishlatiladigan chet

	foydalanib yechimini topa oladi; -murakkab mavzulardagi matnlarni yaratish usullarini biladi;	axborot-kommunikatsiya texnologiyalaridan foydalanishga harakat qiladi;	tilidan texnik so'zlarni biladi;
Ijtimoiy-shaxsiy	-kasbiy faoliyatda tanqidiy tahlil qilishni amalga oshiradi; -professional talim loyihaviy ishlarda o'z o'zlashtirish darajasini baholaydi;	-loyiha natijalarini chet tilida tahlil qila oladi;	-professional talim yo'nalishida qo'llaniladigan atamalarni biladi;

Tajriba-sinov davomida tajriba guruhlarida quyidagi ta'lim metodlaridan foydalanildi:

Amaliy mashg'ulotlarda talabalarni xorijiy tillarni bilish kompetentligini rivojlantirishda loyihalash, muammoli ta'lim metodi, ko'rgazmali ta'lim metodi, reproduktiv, o'qitishning 4 pog'onali metodi, bahs-munozara metodlaridan foydalanildi.

Xulosa. Ta'lim muassasalarida o'tkazilgan tajriba-sinov jarayonida ingliz tili fanidan har bir dars mashg'uloti mavzusining malaka talablariga mosligi, o'quv materialining talabalar tomonidan o'zlashtirilishidagi sifat ko'rsatkichlar, mavzularining tadrijiyligi, o'zlashtirilishi qiyin bo'lgan mavzular tadqiqotchilar, respondent o'qituvchilar tomonidan aniqlab borildi.

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TEACHING VOCABULARY TO THE STUDENTS OF AGRICULTURE STUDY PROGRAM ON ENGLISH MATERIALS

Abstract. Findings revealed that English language was necessary for technicians to carry out specific tasks. All teachers agreed that their students should be taught not only general English, but also English that is relevant to the students' interests and needs. However, the non-existence of vocational language programs makes it difficult for English teachers to teach the contents pertinent to their students' specialization.

Key words: Agriculture, vocabulary and knowledge, translation transformation, translation strategies, lexical transformation, English, vocabulary, teaching, agricultural terms.

The modern agricultural sphere requires specialists not only to have deep knowledge in their field, but also the ability to communicate effectively and work with international partners. English for agricultural specialists is becoming an integral part of a successful career in agribusiness, where globalization and international relations are crucial.

In the modern global agro-industrial sector, where international trade agreements, cooperation with foreign partners and access to international markets are implemented, the level of English language proficiency is of great importance.

Agrosphere specialists should have a sufficient level of English to successfully perform their professional duties and communicate effectively with international partners.

So, at what level should a specialist have English for an agrarian? The most common requirements for the level of knowledge of the English language for specialists of the agro-industry are:

- Communicative competence: the ability to express their opinions, agree on terms of cooperation and negotiate agreements with international partners.
- Technical vocabulary: understanding of specific terminology related to agro-industrial processes, technologies and legislation.
- Written communication: ability to conduct correspondence, conclude contracts and documentation using English.

Teaching English at a high level opens up new opportunities for professional growth and expanding horizons in the field of agro-industry. Understanding the requirements and constantly improving the English language will be a real breakthrough in your career.

English for agricultural specialists is a key component of success in the modern agro-industry. Here are a few reasons why farmers should invest efforts in their level of knowledge of the English language:

- International opportunities: knowledge of English opens doors to international markets, promotes partnership and cooperation with foreign companies and investors.

- Promotes effective communication: English allows farmers to confidently express their ideas, discuss agreements and negotiate with partners from all over the world.

Access to new information: Learning English opens access to international scientific research, information resources and modern technologies, which contributes to continuous professional development.

Competitiveness: Knowledge of the English language makes farmers more competitive in the labor market, allowing them to occupy positions with higher responsibility and receive more favorable working conditions.

Let English become your powerful tool in the world of agro-industry, opening up new opportunities and expanding your professional horizons.

This paper is aimed to highlight the need of extending a general academic vocabulary to the students of agriculture study program on English materials. It is focused on presenting vocabulary used mostly for specific purposes, namely agriculture. Academic vocabulary should be suitable for all the needs of the students from all cycles, although here we are referring to the bachelor one, whether it is used in classes, for reading the agriculture materials or just practicing the theories on the field, or even when the students are prepared for facing the real world of work. A good knowledge of the English academic vocabulary in the field of Agriculture will improve all the skills of the students: speaking skills (speaking with fluency, good pronunciation, good conversation with specific agriculture terms), as well as reading ones and comprehension (understanding the main ideas of the text, presenting reports in/from the field, skimming and scanning activities). Furthermore, we have noticed that a lot of words of general use started to have academic meaning in our corpus, and that is why we consider to be considered as academic vocabulary. Consequently, we have identified the need to create field-specific academic word lists, to be used when teaching English to agriculture students, giving them the possibility to assimilate these words and to incorporate them in their day-by-day English vocabulary use. Delivering to the students an academic English vocabulary from a specific field, namely here, agriculture will contribute to complete their profile, helping them to become professionals, in an international labor market, where specialists are required. English teachers from Agriculture field could implement the use of academic vocabulary based on the variety or diversity of agriculture terms, being aware that vocabulary learning strategies must be purposefully taught, to improve the existing situation, and contribute to their professional profiles.

When teaching Academic English vocabulary with specific purposes, such as in our case, Agriculture, once we have identified the target areas, according to the study program we refer to, and of course, the study cycle, namely, bachelor, master of PhD, the structure of the teaching class and the methods themselves are different and more or less complex. The academic vocabulary is not the same, as the degree of complexity of the study cycles is. Using academic vocabulary in teaching English for bachelor could not be the same as for master, respectively PhD.

The importance of academic English:

1. The course might be not a long academic course that requires students to achieve specific tasks to obtain a passing score. Courses usually take several months of work per week to complete. • What does it mean, an academic English course? The focus of the academic English course is to provide students with more knowledge and understanding of English so that they can write academic papers and academic papers proficiently and competently. Through the topics covered in this study plan, students will learn how to fully express their ideas, how to increase their educational vocabulary, how to organize certain types of writing, how to avoid grammar and punctuation errors, and how to analyze certain types of text.[5]

2. Achieving academic English courses can help students improve the way they organize themselves, their management of time, but also the language skills, and the capability to read and write in a professional English, college level, with appropriate vocabulary.

3. Course fees may vary depending on the type of the institution but also on the time necessary for each student to achieve the duties. In order to have a clearer overview, they should try to define their priorities, either to try to learn by following additional classes online or to attend the classes. Having the possibility in a university to provide at the English classes academic English for Agriculture will attract the students more, spare money for their families and create professionals for the very start.

4. Students who have completed academic English courses can use their improved language, literacy and communication skills to find careers in various professional fields, such as business, administration, education, public service and entertainment. Graduates can choose to serve as office administrators, project managers, human resources directors, school office managers, customer service representatives, and even writers and editors for local publications.

The terms have the characteristics of mono semantics, consistency, structure, persistence, which is characterized by its lack of dyeing, methodological neutrality. The peculiarity of the term is that it is activated in professional, scientific-style texts, characterized by fundamental proportionality, accuracy, conciseness, nominative-functional, specific function, methodological neutrality. This paper is aimed to highlight the need of extending a general academic vocabulary to the students of agriculture study program on English materials. It is focused on presenting vocabulary used mostly for specific purposes, namely agriculture.

A specific focus on academic vocabulary involving a reduced – though with high coverage – list of words, allows for the possibility that the learners contribute their vast knowledge of their specific fields. In this way, both motivation and self-esteem may be increased, since the learners would be exposed to lexical items that they are somewhat familiar with, that they can recognize as part of the texts that they manipulate. In our view, a list of academic words should be a set of options to build the rhetoric of a text, providing all the necessary word data basis, including different criteria of classification, according to the specificity of the audience and the profile of the class of students, their interest and profile.

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YASMIQ O'SIMLIGINING TIBBIYOTDA ISHLATILISHI VA KELIB CHIQISHI

*Annotatsiya. Qishloq xo'jaligi hozirgi kunda rivojlanib kelayotgan sohalar qatorida o'z o'rnini egallab kelmoqda. Xozirgi kunda dunyo aholisining turmush faravonligini yuksaltirishda, daromatlarini oshirishda hamda chorvachilikni yuqori oqsilli to'yimli ozuqalar bilanta'minlashda dukkakli don ekinlari alohida o'rin egallaydi. Dehqonchilikda bu ekinlar tuproq unumdorligini saqlash va oshirishda, o'zida biologik sofazot to'plovchi vazifasini bajarib qolmasdan sifatli siderat o'g'itlar sifatida ham qo'llanilmoqda. Dukkakli ekinlarda biri bo'lgan yasmiq doni ham o'z oziq ovqat qiymatligi bo'yicha yuqori o'rinlarda turadi. Yasmiq o'simligining ozuqaviy miqdori yuqori. Ushbu maqolada yasmiq o'simligining fiziologiyasi, morfologiyasi va yasmiq donining farmasevtikada ishlatilishi haqida ma'lumotlar keltirilgan. Yasmiq o'simligi erta bahorda va kuzda ekilib 20-25 sentner hosil beradi. Yasmiq (*Lens culinaris*) buo'simlik qishloq xo'jaligida eng qadimiy hisoblanadi, bu arxeologik topilmalar bilan tasdiqlangan.*

Kalit so'zlar: dukkaklilar, fitosterollar, polifenollar, potensial, antosianitlar, diabet, kardioprotektiv, saraton, yaponlar, flavon, yasmiq, tadqiqot, kasalliklar.

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MEDICAL USE AND ORIGIN OF LENTIL PLANT

*Annotation. Agriculture is currently taking its place among the developing industries. Today, leguminous grain crops occupy a special place in improving the well-being of the world's population, increasing their incomes and proving livestock with nutritious high-protein feeds. In agriculture, these crops are used as high-quality siderate fertilizers to maintain and increases oil fertility, without fulfilling the function of biologically pure nitrogen accumulators. Lentil, which is one of the leguminous crops, ranks high in terms of its nutritional value. The nutritional content of lentils is high. This article presents information about the physiology, morphology of the lentil plant and the use of lentil grain in pharmaceuticals. The lentil plant is planted in early spring and autumn and yields 20-25 centers. Lentil (*Lens culinary is*) is the oldest plant in agriculture, which is confirmed by archaeological findings.*

Keywords: legumes, phyto sterols, polyphenols, potency, anthocyanins, diabetes, cardio protective, cancer, Japanese, flavone, lentils, research, disease.

Yasmiq (*Lens culinaris* L) ga talab ham ortib bormoqda markaziy yevropa katta ehtimol bilan migrantlar oqimi tufayli. Bugungi kunga kelib bu don yetishtirishda yetakchi o‘rinni AQSh, Xitoy, Turkiya, Hindiston, Nepal, Avstraliya, Suriya, Efiopiya va Marokash egallab turibdi. Yasmiq yetishtirishda boshqa mamlakatlarning hissasi ahamiyatsiz. Qoida tariqasida, yasmiq sotib olish boshqa donlarni sotib oladigan mamlakatlar uchun, masalan, mamlakatlar uchun dolzarbdir janubiy sharqiy osiyo va ba'zi afrikaliklar uchun. Oziqlanish qiymati. Bu don o'simlik oqsillarga boy, 100 gramm yasmiqda 25-35 gramm oqsil mavjud. Pishirish uchun, qoida tariqasida, heller yasmiqlari deb ataladigan yirik urug'li donlar ishlatiladi. Bu nom Germaniya va Avstriyada qadimgi kunlarda ishlatilgan tangadan olingan. Yasmiq donalari dukkaklilar oilasining boshqa vakillari bilan solishtirganda yaxshi hazm qilinadi va ularning oqsillari go'shtdan olingan oqsilga qaraganda ancha yaxshi so'riladi. Shuningdek, vitaminlar, mikroelementlar, xususan, temir, yasmiq tarkibi jihatidan teng emas. Un ko'pincha dondan tayyorlanadi, u pishirish uchun ishlatiladi. Bundan tashqari ozuqaviy qiymati shartlangan yuqori tarkib yasmiq oqsillari donida bu o'simlik uzoq vaqtdan beri xalq tabobatida ishlatilgan. Yasmiq doni tarkibida bir qator vitamin, oqsil aminokislotalar, uglevodlar mavjud. bu don polifenollar, saponinlar va fitosterollar kabi ko'plab bioaktiv birikmalarga boy funksional dukkakli ekin hisoblanadi. Bir qator tadqiqotlarda shuni ko'rib o'tgan olimlar, yasmiq iste'moli biologic faol moddalar tufayli bir qator surunkali kasalliklarning tarqalishini kamaytirishda potensial ahamiyatga ega. Yasmiq tarkibidagi eng keng tarqalgan polifenollarga fenolik kislotalar, flavan-3, flavonollar, antosiyanidlar, antioksidantlar, proantosiyanidlar faolligi tufayli bir nechta degenerativ kasalliklarning oldini olishda muhim rol o'ynaydigan antosiyanidlar kiradi. Bundan tashqari yasmiq polifenollari diabetga qarshi kardioprotektiv va saratonga qarshi faollikga ega. Yasmiq tarkibidagi saponinlar odamlarda plazmadagi xolesterenni kamaytiradigan ta'sirga ega va ko'plab surunkali kasalliklar xavfini kamaytirishda muhim ahamiyatga ega. Bundan tashqari yasmiqda ayniqsa urug' qobig'ida yuqori darajada fitosterollar, kampesterol va stigmasterollar eng ko'p hisoblanadi. Gipokolesterolemik tasiridan tashqari, yasmiq tarkibida fitosterollar yallig'lanishga qarshi faolligi bilan judayam mashhur. Bundan tashqari yasmiqning ko'pgina hususiyatlari mavjud. yasmiqning inson ratsionidagi ozuqaviy ahamiyati tufayli mashhurlik kasb etmoqda. Ular ayniqsa lizin va arginin kabi muhim aminokislotalarda yuqori. Yasmiq tarkibida xun tolasi, shuningdek, temir, folat, magniy, va rux kabi minerllar mavjud. Ushbu mulohazalardan kelib chiqqan holda, yasmiq uzoq vaqt davomida hayvon oqsillarga arzon va sifatli alternativ sifatida tan olingan va " kambag'alning go'shti" atamasini olgan va ular mikroelementlardan aziyat chekadigan odamlar uchun to'liq oziq ovqat manbai sifatida qabul qilinadi. Yasmiq yetishtirish va eksporti bo'yicha Kanada dunyodagi eng yirik eksportchisi bo'lib, har yili 100dan ortiq mamlakatlarga eksport qiladi. Katta yashil "Laird" va qizil yasmiq eng ko'p yetishtiriladigan ikkita yasmiq navidir. Yasmiq navi va urug'

po'stlog'i va kotiledon tarkibiga qarab jigarrang qora, qizil, sariq, va yashil kabi turli xil ranglarda bo'ladi. Butun urug'ning rangi jigarrang, yashil yoki qora bo'lishi mumkin bo'lgan urug' qobig'ibilan belgilanadi. Flavan-3 proantotsianidinlar va ba'ziflavanollar yasmiq urug'i qobig'ida ko'proq bo'ladi. Bu yasmiq urug'i po'stlog'i sog'lom ovqatlanish uchun ko'proq foydali bo'lishi mumkinligini ko'rsatadi. Yasmiq yumshoq urug' bilan qoplangan dukkakililar sifatida tasniflanadi, ular pishirish vaqtini kamroq talab qiladi, buning natijasida qattiq urug'lar bilan qoplangan dukkakililarga qaraganda kamroq ozuqa moddalari yo'qoladi.

Yasmiq donining ozuqaviy qiymati va biologic faol ikkilamchi metabolitlarni mavjudligi sababli olimlar yasmiqni funksional oziq ovqat sifatida o'rganishga tobora ko'proq qiziqishmoqda. Yasmiq tarkibidagi bioaktiv metabolitlar odamlarda degenerativ kasalliklarning oldini olishda, shuningdek, salomatlikni mustahkamlashda muhim ahamiyatga ega. Tekshiruv va tadqiqotlarga asoslangan eng keng qamrovli sharq yasmiqining polifenollar saponinlar va fitosterollar kabi bioaktiv komponentlari, shuningdek ularning sog'lig'ini mustahkamlovchi hususiyatlari haqida yangilangan ma'lumotlarni taqdim etishga qaratilgan.

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TA'LIMDA INNOVATSION USULLAR

Annotatsiya. Ushbu maqolada ta'lim jarayoninig samarali tashkil qilish maqsadida ta'lim muassasalari turli pedagogik usullardan foydalanish bayon qilingan.

Kalit so'zlar. Jamiyat, ta'lim, mutahassislik, innovatsiya, pedagogik texnologiya, model.

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INNOVATIVE METHODS IN EDUCATION

Abstract. This article describes the use of various pedagogical methods in order to effectively organize the educational process at the educational institutions.

Key words. Society, education, expertise, innovation, pedagogical technology, model.

Jamiyat taraqqiyotining asosi, uni muqarrar xalokatdan qutqarib qoladigan yagona kuch - ma'rifatdir. "Ta'lim tug'risida" qonundagi Davlat ta'lim standartlari va Kadrlar tayyorlash milliy dasturiga muvofiq, mamlakatimizda 9+3 sxemasi bo'yicha 12 yillik umumiy majburiy bepul ta'lim tizimi joriy etildi. Yurtimizda amalga oshirilayotgan modelning prinsipial xususiyati shundaki, umumta'lim maktabidagi 9 yillik o'qishdan so'ng o'quvchilar keyingi 3 yil davomida ixtisoslashtirilgan kasb-xunar kollejlari va akademik litseylarda taxsil olib, ularning xar biri umumta'lim fanlari bilan birga mexnat bozorida talab qilinadigan 2-3 ta mutaxassislik bo'yicha kasb-xunarlarini xam egallaydi. Keng ko'lamli isloxlarning muxim bug'ini — innovatsiyalar xam bugun xar bir soxada bo'lgani kabi ta'lim tizimida xam o'zining afzalliklarini namoyish qilmoqda. Mazkur mutaxassisliklarni puxta o'rgatishda innovatsion pedagogik texnologiyalar moxiyatini anglay olish va ularni samarali qo'llash muxim rol uynaydi. Dars jarayonida yuqori samaradorlikka erishish uchun quyidagi metod va usullardan xam foydalanish mumkin:

Baxs- munozara usuli. O'quv guruxini ikki guruxga bo'lgan xolda, biror mavzu bo'yicha o'zaro baxs, fikr almashinuv tarzida o'tkaziladi.

Ta'kidlash usuli. Uzashtirish darajasining eng yuqori "cho'qqisi; o'quvchilarningolgan bilimlari asosida xali o'rganilmagan kichik bir muammo ustida yakka yoki birgalashib izlanish olib borish; keltirilgan taxminni izlab topilgan dalillar asosida tug'ri yoki notug'riligini tekshirish;

Bosqichlari: darcda xammaga qiziqish uyg'otadigan muammoni yoki masalani qo'yish, uni o'rganish, tadbiiq qilish uchun ma'lumotlar to'plash, muammoning yechimiga oid taxminlar, bashoratlar qilish va ularning qanchalik muhumligini to'plangan ma'lumotlar asosida taxlil qilish va xulosa chiqarish.

Ta'lim oluvchilar ayrim tadqiqot ishlarini ilmiy asoslangan xolda mustaqil bajarishadi, ularni yozadilar va qo'yilgan maqsad va natijalarii taxlil qiladilar.

Rolli o'yinlar. Ishbilarmonlik yoki rolli(vaziyatli) o'yinlar - muammoli vazifaning bir turidir. Faqat bu o'rinda, matnli material o'rniga o'quvchilar tomonidan rollar uynaladigan xayotiy vaziyat saxnalashtiriladi.

Bosqichlari- vaziyatni tushuntirish, mos rollarni bo'lib berish, maqsad va vazifalari tushuntirish;

- o'yin davomida o'quvchilarning xatti-xarakatlarini kuzatib borish; o'quvchilarning xatti-xarakatlari orqali ulargabilim olishlariga,

ma'lum malaka va ko'nikmalarni egallashlariga imkoniyat yaratish;

14. o'yin natijalarining taxlili;

15. o'yin natijalarini real xayotiy xodisalar bilan taqqoslash;

Loyixa usuli. Bu usul bilim va malakalarni, taxlil qilish va baxolashni nazarda tutuvchi ta'limning majmuaviy usulini amalga oshiradi. Loyixa usulida o'quvchilar rejalashtirishda, tashkil qilishda, tekshirishda, taxlil qilishda va bajarilgan ishning natijalarini baxolashda ko'prok ishtirok etadilar. Ta'lim oluvchilar ayrim kichik loyixa ishlarini, diplom va kurs loyixalari, bitiruv ishlarini ilmiy asoslangan xolda loyixalashtiradilar, mustaqil bajaradilar, ularni yozadilar, taqdimot qiladilar, qo'yilgan maqsad va natijalarni taxlil qiladilar.

Mustaqil o'rganish usuli. Ushbu usul ta'lim oluvchilarning o'quv materialini mustaqil o'zlashtirishini, o'z – o'zini tekshiruv malakalarini, berilgan matnning mazmunini to'liq va ongli ravishda bayon eta bilishiga qaratilgan usuldir. Bu usul vaqti- vaqti bilan o'tkazib turiladi, o'quvchilarning mustaqil o'rganish, darslik bilan ishlash va mustaqil amalaliy faoliyat bilan shug'ullanish ko'nikmalarini shakllantiradi. Xar bir o'quvchi aloxida yoki umumiy tarzda tashkil qilinadigan topshiriqni bajaradi. O'qituvchi o'quvchilarning amaliy faoliyatiga aralashmay, tashqaridan teskari aloqa- muloqot yordamida yunaltirib boshqaradi va nazorat qiladi.

Aqliy xujum. Dars mavzusiga oid qo'yilgan muammoni yechish yoki savolga javob topish maqsadida g'oyalarni jamlash va saralash usulidir. Katnashchilar birlashgan xolda yechimi noma'lum muammoni yechishga yoki savolga javob topishga xarakat kiladilar. Eng maqbul yechimni topish bo'yicha shaxsiy g'oyalarini ilgari suradilar.

Bosqichlari:

16. muammoli vaziyatni keltirib chiqarish;

17. uning yechimini topish uchun o'quvchilarni jalb qilish;

18. turli yechimlar taqdimotini eshitish;

19. yechimlarni solishtirish va tanlash;

20. xulosalash;

Pinbord usuli. Bu usul aqliy xujum metodining bir ko'rinishi bo'lib, unda qo'yilgan muammoni xal qilish bo'yicha goyalar aloxida qog'ozchalarda yozilib, doskaga yopishtirib boriladi. Ikkiichi bosqichda esa, ular turli mezonlar bo'yicha sinflarga bo'linadi, saralanadi va muayyan tartibda doskada joylashtiriladi.

Boshqalarni o'qitish orqali o'rganish usuli. Bu usulda ta'lim oluvchilar belgilangan mavzu yoki qo'yilgan muammo bo'yicha bir - birlariga axborotlarni almashadilar va o'z bilganlarini boshqalarga o'rgatadilar.

Lug'at bilan ishlash (diktant). Bilimlarni baxolashning joriy nazorat shakli; odatda qisqa vaqt davomida o'tkaziladi; o'quvchilarning o'tilgan atama va tushunchalarni bilish darajasini tekshirish uchun o'tkaziladi.

Konferensiya. Oralik nazoratning bir turi bo'lib, asosan chorak yoki yil davomida ma'lum mavzular bo'yicha mustaqil yozilgan ishlarning og'zaki ma'ruza ko'rinishidagi taqdimoti.

Juft-juft muloqot. Biror mavzu bo'yicha yonma-yon o'tirgan o'quvchilarni o'zaro muloqotga chorlash; o'zaro fikr almashish va ularni ba'zilarini tinglash.

Ovozga qo'yish metodi. Dars davomida baxsli vaziyatni keltirib chikarish. yuzaga kelgan baxs munozarani boshqarish maqsadida, baxs yuritayotgan tomonlarning fikrlarini sinf bo'yicha ovozga qo'yish; xar bir fikr bo'yicha qarshi, rozi va betaraflarni aniqlash; tomonlarning dalillarini va fikrlarini tinglash; so'ng yana ovozga qo'yish; xulosalash.

Yuqorida keltirilgan metodlar ta'limning turli bosqichlarida ta'limning turi va shakliga ko'ra tanlanishi mumkin. Xar qanday innovatsion ta'lim metodi o'qituvchining ishini osonlashtirish uchun xizmat qiladi. Ular oz mexnat sarflash xisobiga ko'proq samara va ijobiy natijaga erishish imkonini yaratadi, maqsadga erisha olish esa bu metodlardan oqilona foydalana olishga bog'liqdir.

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PEDAGOGIK TADQIQOTLARNING AMALGA OSHIRILISHIDAGI AYRIM MUAMMOLAR

Annotatsiya. Mazkur maqolada pedagogika yo'nalishi bo'yicha olib borilayotgan ilmiy tadqiqotlarning yo'l qo'yilgan kamchiliklari, ularda kuzatilayotgan bir xilliklarga ko'rsatilgan, ularni bartaraf qilish yo'llari haqida fikr-mulohazalar berilgan. Ilmiy unvonga ega bo'lish uchun tanlangan yo'l o'z mutaxassisliklaridan kelib chiqishi kerakligi ko'rsatilgan.

Kalit so'zlar: ma'naviy-axloqiy fazilatlar, pedagogik shakl genezisi, reflektiv va prognostik komponentlar.

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CHALLENGES IN THE IMPLEMENTATION OF PEDAGOGICAL RESEARCH

Annotation. This article shows the shortcomings of scientific research in the field of pedagogy, the similarities observed in them, and comments on ways to overcome them. It has been shown that the path chosen to obtain a scientific degree must come from one's own specialties.

Key words: spiritual and moral qualities, genesis of the pedagogical form, reflective and prognostic components.

O'zbekiston Respublikasida oliy ta'limni tizimli isloh qilishning ustuvor yo'nalishlarini belgilash, zamonaviy bilim va yuksak ma'naviy-axloqiy fazilatlarga ega, mustaqil fikrlaydigan yuqori malakali kadrlar tayyorlash jarayonini sifat jihatidan yangi bosqichga ko'tarish, oliy ta'limni modernizatsiya qilish, ilg'or ta'lim texnologiyalariga asoslangan holda ijtimoiy soha va iqtisodiyot tarmoqlarini rivojlantirish maqsadida O'zbekiston Respublikasi oliy ta'lim tizimini 2030-yilgacha rivojlantirish konsepsiyasi o'rganilib, ilmiy daraja olish uchun olib borilayotgan tadqiqotlarga yangicha yondashuv boshlandi.

Ilmiy –pedagogik fikrlashning zamonaviy uslubi falsafaga asoslanib, mavjud ta'lim amaliyotini o'zgartirish hamda tushunish uchun uning dunyoqarashini, ijtimoiy-aksiologik va mantiqiy-gnosologik potensialni aniqlashtiradi. Pedagogik voqelik va kasbiy dunyoqarashning ilmiy ko'rinishini shakllantirishga sabab bo'lib, fikrlash uslubi bir tomondan uslubni shakllantiruvchi omillar sifatida, ikkinchi tomondan esa uning o'zi ham ularga vositachilik qiladi.

Buning oldini olish uchun pedagogik fanlarni o'qitish jarayonining o'zini metodologik o'zgartirish zarur. Birinchidan, bu o'qitish, konseptual bo'lishi kerak, ya'ni boshlang'ich ta'limda beriladigan nazariya o'rganilayotgan obyekt misolida har qaysi alohida sinf o'quv materialini tuzilishiga mo'ljallangan "baza chizmasi" (P.Ya, Galperin bo'yicha) singari doimiy qo'llanishi kerak. Ikkinchidan, o'qitish operativ ta'lim standartlari talablariga javob berishi kerak, unda pedagogik tamoyil mazmuni talabalar oldida kasbiy faoliyat strategiyalari yig'indisi sifatida paydo bo'lishi kerak. Uchinchidan, o'qitish muammoli bo'lishi kerak, bu muammoli vaziyatlarni yaratish, ularni tahlil qilish shartlarini o'z ichiga oladi (eng avvalo, kundalik va ilmiy tafakkurlarning qarama qarshiligi hisobiga). Vanihiyat, refleksivlik talab pedagogikani o'qitish talabidan kognitiv va amaliy, idrok qilish ta'sirinimantiqiy vositalarini to'g'ri tushunishni talab qiladi.

Fikrning metodologik sohasi- pedagogik tadqiqotlar samaradorligining aniq mezonidir.

Yangilikni aniqlash ko'pincha atrofni tuman qoplaganday ko'rinadi. Yangi ilmiy holatni ochish bilan birga izlanuvchi qandaydir va'da va ishoralar bilan ish olib boradigan nazariy xulosalar ishlab chiqaradi. Tadqiqot natijalarining yangiligini yoritishda ko'pincha fan va amaliyot uchun mavzuning muhimligi gapiriladi, u esa hanuzgacha o'rganilmaganligicha qolmoqda. Ammo bu holatlar tadqiqot natijalarini tavsiflamaydi, aksincha mavzuni sharhlashga taalluqli bo'ladi.

Pedagogika bo'yicha ko'plab dissertatsiyalarda nazariy ahamiyat yoritilmaydi, balki yangilik bilan identifikatsiya qilinadi, tantanali ravishda e'lon qilinadi. Bu ahamiyatni odatiyta'riflash –muallif tomonidan hal qilingan vazifalarni sanab o'tish hisoblanadi. Olingan natijalar asosida qanday o'zgarishlar bo'lishi mumkin, fanni rivojlantirish uchun nazariy xulosalar nimalardan iborat ekanligini faqat o'ylash kerak bo'ladi.

Ilmiy natijalarning amaliy ahamiyati odatda turli darajada umumlashtirish va to'ldirish bilan yoritiladi, ba'zan umumiy tomondan, annotatsiya turida chizmalı va noaniq bo'ladi.

Pedagogika bo'yicha dissertatsiyalarning ko'plari an'anaviy namoyish oqimida, odatiy shtamplar va stereotiplar ko'rinishida bo'ladi. Ularning mualliflari ko'pinchator doiradagi mutaxassislar uchun qiziqarli bo'lgan ikkinchi darajali muammolarni hal qiladi. Ular orasida rivojlanish bosqichlari bo'yicha regional xarakterga ega muammolarni yoritgan tadqiqotlar ustunlik qiladi. Sezilarli miqdordagi ishlarning mavzulari birlamchi ishlab chiqilgan sanaladi.

Ma'lumki, har qaysi fan rivojlanishi uning nazariya va metodologiya holatini aniqlaydi. Mana nima uchun fanning nazariy metodologik asosini ishlab chiqish amaliyotdan ajratilgan holda qaralmasligi kerak. Aksincha, "Katta nazariya muammolari, to'g'ri va aniq tushuncha, shu bilan birga amaliy muammolar katta ahamiyatga ega. Haqiqatda, yirik nazariy muammolar –bu aniq hayotiy muammolar bilan munosabatda ularni ko'rish hisoblanadi" [2,3-b]. Bunday yondashuv mavjud aniq materialni baholash va to'g'ri izohlash, fenomenologik tavsiflash darajasidan

haqiqiy ilmiy nazariyaqurishga o'tish dialektikasini namoyish etish imkonini beradi.

Ikkinchi bosqichning asosiy nazariy mahsuloti bo'lgan gipoteza taxminva farazlar singarinamoyon bo'ladi, bunda haqiqat isbotlanmagan nazariya singaritekshirish va tasdiqlashga ehtiyoj sezadi. Gipotetik bosqich empirik tadqiqot darajasidan nazariyaga yo'l ochadi. Bu bosqichdao'rganilayotgan ob'ektning haqiqiy tushunchalari va uning mohiyatini tushunish zarurati o'rtasidagi qarama qarshilikka ruxsat beriladi.

Uchinchi, nazariy bosqichni belgilashda tadqiqot ob'ekti va umumiy ehtiyoj, tizimli tuzilish va u haqdagi algoritmik tasavvur to'g'risidagi funktsional hamda gipotetiktasavvur o'rtasidagi qarama qarshilik bartaraf etiladi.

Nazariya-bilimning mantiqiy tashkilotidirki, aniq dalillarga bo'ysunmaydi, ammo unga ega bo'lgan butun yaxlitlikka tegishli hamma dalillarni tekshirish mumkin bo'lganda bittayaxlit tamoyildan yoki asosiy tamoyildan kelib chiqadi. Fan qonunlarni asosiy dalillar orqaliochadi. Umumiy alohidaorqali ochilishi boshqacha, alohida orqali esa bundan mustasno. Dalil borliq shakli va qonunning bevosita namoyon bo'lishihisoblanadi.

Pedagogik dalillarning umumiylik darajasi bo'yicha individual va ommaviy, yagona va umumiy (dalil-rezyume) dalillarga bo'linadi. Qayd qilinganlarning takrorlanishiga bog'liqlikda umumiy dalillar dinamikasi statik bo'ladi. Yakunida umumiy xulosa, o'rtacha natija ommaviy yig'indiga kiruvchi, har qaysi alohida holatga mos kelmaydigan moyillik izohlanadi.

Qonunga nisbatan pedagogik faktlar odatiy mavjud holatlar (ularda qonun to'liq ifodalanadi, aniqlik va to'liqlikda –odatiy faktlar kuzatiladi), boshqalari alohida, qisman qonuniy ifodalanadi (noqonuniy faktlar),ayrimlari esa umuman undan og'gan (salbiy faktlar) hisoblanadi. Salbiy faktlarmazkur qonun doirasida aniqlanadi,ular pedagogik hodisalarni chuqur ilmiy tushunishga yangicha yondashuv, yangi nazariya ishlab chiqishga zarba bo'ladi.

Ma'lum ma'noda pedagogik tadqiqot aqliy tajribaga asoslanadi. Bunda intilish har qanday hodisaningqiyinchiligida kuzatiladi,urinish inson tizimi ichiga kirib boradi, tashqi mexanizm inson ongida qanday aks etishini tushunish va bilish kerak bo'ladi, uning ichki subyektiv holati, keyin qanday tashqi tartibdagi ta'sirlar ichki o'zgarishlarga olib kelishini o'ylab topishi kerak.

Tadqiqotning ilmiy yangiligi quyidagilar bilan tavsiflanadi:

- yangi, avval o'rganilmagan tushunchalar mazmunini yoritish;
- ma'lum ilmiy tushunchalarning mavjud yangi sabablarini aniqlash;
- ma'lum ilmiy kontsepsiya doirasida yangi ilmiy g'oyalar bilan boyitish.

Tadqiqotning nazariy ahamiyati quyidagilarni aniqlaydi:

- nazariya, tahlil, sintez, umumlashtirish va boshqalarni shakllantirishda tadqiqotning hamma ilmiy usullarining qo'llanilishi;

- g'oya, argumentlar, dalillar, tasdiqlovchi yoki inkor etuvchi moyilliklar, ilmiy dalillar, xulasa, bosqich, daraja, omillar va sharoit bayon qilinishi;

- muhim amaliy vazifalarni hal qilish uchun nazariy fikrga ega kontseptsiya yangilanishi;

-ta'lim sohasida murakkab jarayonlar rivojlanishini oldindan aniqlash va mohiyatini tushuntirishga imkon beruvchi nazariya yaratilishi.

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CHISHTIYA AND NAQSHBANDIYA – THEORETICAL BASIS OF THE STUDY OF THE MUJADDIDIYA SECTS

Abstract. This article discusses the role, status, scientific and theoretical ideas of the Chishti and Naqshbandi sects in the development of the history of Sufism, the vitality of the sects, the life and activities of the representatives of the sect, and its important sects.

Key words: Sufism, spiritual and moral purification, Yassaviya, Kubraviya, Chishti and Naqshbandiyya, Mujaddidiya, Mu'iniddin Chishti, Sheikh Nizamiddin Avliya, Ghazali, "Siddiqiya", "Tayfuriya", "Khojagonia", "Naqshbandiyya", "Naqshbandiyya-Ahroriyya", "Naqshbandiya-Mujaddidiya", "Naqshbandiya-Mazhariya", "Naqshbandiya-Khalidiya".

Sufism has served to enrich the spirituality of our people for centuries. The main ideas of this teaching are the spiritual and moral purification of a person, ascension with divine love. That's why Sufism, filled with deep humanistic ideas, found its way into the hearts of people who were in search of truth, expressing people's dreams of purity, eternal life, and freedom of the soul. [1. P. 102]

By the beginning of the 9th century, the theoretical foundations of Sufism were developed, practical spiritual and psychological exercises of Sufis, methods of self-education and training were formed, the concepts of order, enlightenment, and truth were created, views on these three parts of Sufism a complex was formed - Sufism was established as a separate science.

Hazrat Alisher Navoi, our grandfather, made the world a field of perfection, an opportunity for purification [2. P. _ 4] did not point out for nothing.

Every murid who has entered the path of tariqat must renounce the worldly life, the troubles of the soul, physical pleasures, arrogance, dry fame, heedlessness and ignorance, and purify his spiritual world, concentrating all his will and thoughts in one place., should be directed towards a good goal. [3. P. _ 29]

Therefore, although the establishment of Sufism schools was initially associated with areas where Islam was widespread, such as Kufa, Baghdad, Basra, Egypt, later, by the 11th-12th centuries, it became common throughout the Islamic world in Central Asia. 'recognized Yassaviya, Kubraviya, Chishtiyya and Naqshbandiyya influential independent sects emerged. Any sect widespread in Central Asia was not left out of the influence of the religious images and rituals that existed in this region from time immemorial, but was also able to show its influence in the process of assimilation of local traditions.

So, let's start with the introduction of the Chishti sect. Muiniddin Chishti was originally from Khurasan, and after the death of his father, he entered Sufism at the age of fifteen and traveled in cities such as Samarkand, Nishapur, and Baghdad. In Nishapur, Shaykh Osman Haruni was assigned. During his travels, he met many famous mystics. Later, he moved to India, where he served as a guide. In India, he established a sect that had a great reputation and had a unique appearance. As a representative of this sect, "Solar Property Indian" [6. P. _ 122] (the sun of the Indian land) also received the nickname. In addition, this sect spread mainly in India and Pakistan. He did a great service in the spread of Islam in the mentioned countries.

cite the opinion of the representative of this sect about hurting the heart of a single person, hurting his tongue, according to him, it is not the work of a person who knows God to be offended. Because, - "A person, - in the words of Sheikh Nizamiddin Auliya, - through love for God, feels the feeling of love and tolerance towards his own kind" [10.P. 14]. A person should always strive for goodness throughout his life. Then his life paths will be bright and shining. In addition, the more goodness a person shares with humanity, the more his love for himself and for all beings will burn. In this chapter, the following opinion of Ghazali is important: "Love and honor of oneself is also a sign of love for God, because loving oneself means fighting for one's perfection" [11.P. 51]. So it can be seen that a good deed done by a person to another person is also a sign of his love for Allah.

In addition, the Khojagan sect was further improved by Bahauddin Naqshband in the XV century. This became the basis for the formation of a new direction of religious and spiritual life in Central Asia after the rule of the Mongols. From the XIV-XV centuries, representatives of this sect began to actively participate in the social and political life of society.

From this point of view, the existence of Sufism was the leading force for the spread of Islam throughout South Asia. The penetration of Islam into India Sufi mystical traditions spread in the X-XI centuries of the Delhi Sultanate, and then spread to all parts of India.

According to the sources, the Naqshbandi sect was called by different names - "Siddiqiya", "Tayfuriya", "Khojagoniya", "Naqshbandiya", "Naqshbandiya-Ahroriya", "Naqshbandiya-Mujaddidiya", "Naqshbandiya-Mazhariya", "Naqshbandiya-Khalidiya"., and then the name "Naqshbandiya" itself became fixed, - it is emphasized.

Some of these are associated with the names of sheikhs such as Abu Bakr, Abu Yazid Bistami, Ubaidullah Ahror, Shamsuddin Mazhar, Khalid Ziyavuddin Baghdadi, who left a certain mark on the development of Sufism, while others, for example, Khojagonia - Yusuf Hamadani and It is related to the activities of one of his students Abdukholiq Gijduvani, Mujaddidiya - Imam Rabbani Ahmed Faruq Sirhindi.

Mujaddid (ar. - reformer, renewer, reviver) - means the renewer of Sharia. In a word, a mujaddid is a mujtahid, fiqh, that is, someone who has the ability to provide legal solutions to contemporary issues.

There are also cases where the term "Mujaddidiya" has been taken literally by some Western researchers. For example, Swiss researcher Anke von Kügelgen in her research: "According to Islamic traditions, a new mujaddid comes at the beginning of every hundred years. Many of the leaders or patrons of the sect were recognized as innovators of the XIII century Muslim calendar. Sheikh Khalid (1776-1827) received this title in Damascus. In Bukhara, we can see Shah Murod (reigning years 1785-1800), a ruler from the Mangit dynasty, as a "renovator of the XIII century".

Because after Sheikh Ahmed Sirhindi (1564-1624), the Naqshbandi sect began to be called Naqshbandi-Mujaddidiya, i.e. "renewed". First of all, this comes from the hadith of the Prophet Muhammad: "Allah sends one reformer of his religion every hundred years", and secondly, as one of the most prominent scholars of Imam Rabbani's time, "Mujaddidi Alfi Sani" ", that is, it was a reference to the fact that he was recognized as the "innovator of the second millennium of Hijri".

We can see certain similarities in these sects. _ For example, a person's dignity, position and rank are not measured by his wealth, but by his spiritual perfection. In Naqshbandi, it is required to acquire a trade and profession, to live by one's own work, and to earn a living by begging and darbadar is considered an *isnad* for a Sufi. So, the above slogan of the Naqshbandi sect is directed against secularism and selfishness. "Being with the people on the outside, with the Truth on the inside", taking every breath with the remembrance of God, taking a step towards meritorious deeds, good deeds, traveling the country, visiting the graves of saints, awakening the heedless, achieving awareness of the heart in any situation - We can see their views on the fact that they are the main method of spiritual education in the practical activities of the Chishti sect and its representatives.

The Naqshbandi-Mujaddidiya sect, which emerged as a branch of the Naqshbandiyya sect, reformed the laws of the Naqshbandiyya sect and brought it closer to the way of life of the society. This ensured that Naqshbandiyyah-Mujaddidiy One of the characteristics of the Naqshbandi-Mujaddidiya sect is that it is not limited to a specific region, but is widely spread throughout the Muslim world.

In conclusion, it should be said that the place, status, scientific and theoretical ideas of the Chishti and Naqshbandi sects in the development of the history of Sufism, the vitality of the sects, the life and activities of the representatives of the sects indicate that they are important sects. i think In addition, it is necessary for a person to control himself, to consolidate the acquired knowledge in his heart, to devote every moment of his life to meritorious work, and to spend every soul for spiritual perfection. And this is clear that if the research on these sects continues, the sources of its potential, scope and future development will become even richer.

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THE IMPACT OF LANGUAGE ON THE COURSE OF COGNITIVE MENTAL PROCESSES

Abstract. The influence of language learning on the course of cognitive activity of the human brain during the formation and development of the personality of a professional, a future teacher, a foreign language teacher, who constantly has a mechanism for switching thoughts and speech from one language to another or others, should be specific.

Key words: memorization, communication, innovative processes, external expression and communication of internal thoughts, effective learning of foreign languages, long-term memory.

The intensification and qualitative change in the nature of international contacts give specialists' knowledge of a foreign language (FL) a professionally significant status. The globalization of science and technology, innovative processes in the field of intensively developing knowledge-intensive areas of modern engineering and technology, as well as the activities of numerous joint ventures of research, scientific, production and implementation nature require professional intercultural communication of specialists of any profile, especially technical ones. Without such communication, it becomes difficult to quickly exchange information, coordinate actions, achieve mutual understanding, and develop optimal and mutually acceptable organizational, technical and social solutions.

It is no secret that in the modern world a foreign language and its study are one of the highest priorities in the education sector. This is largely due to the important role that a foreign language plays in the functioning of modern society. Nowadays, it is used not only as a tool of communication, but also as a mechanism for building international relations, resolving foreign policy conflicts and the functioning of the international community as a whole. In this regard, the pressing issue of both effective learning of foreign languages and their teaching arises.

The need of modern society is to search for optimal ways to organize the educational process, rational options for the content of education and its structure. The more alternative methodological solutions there are, the more fruitful the search for new ways of teaching the subject as a whole will be. At the same time, the central problems of restructuring the teaching of a foreign language at a technical university are the issues of determining goals, as well as the content of training adequate to them.

On the one hand, the goal is determined by the objective needs of the majority, expressing its social order, on the other, it itself determines the entire education system, determining both the content of this system and its organization.

In addition, the problem of lexical competence, which is directly related to the grammatical component, is also important. Mastering vocabulary in a professionally oriented foreign language teaching course is of system-forming importance. The assimilation of program lexical material can be carried out in accordance with the principle of lexical advance in teaching foreign languages.

The most important place in the process of learning a foreign language is memory. It should be noted that the methodology for learning foreign languages involves various types of memory, which will be discussed below.

Memory is the ability to reproduce past experiences, one of the main properties of the nervous system, expressed in the ability to long-term store information about events in the external world and the body's reactions. Memory is the basis of any mental processes. Memory is the second most important basis of human development after perception. There are several classifications of memory. According to the duration of storing information, memory is divided into short-term, operational, and long-term. Based on the nature of mental activity, memory is divided into emotional, figurative, verbal-logical and motor. Depending on the nature of the goals and methods of memorization, memory can be either voluntary or involuntary. Voluntary memory - characterized by the obligatory presence of a special goal when memorizing. And not voluntary memory is memorization and reproduction, in which there is no special goal for memorization.

A feature of long-term memory is that it can be practically unlimited in volume and duration of information storage in it.

Emotional memory is a memory for various emotions and feelings; its content is the emotional states that a person experienced in the past. Figurative memory is the memorization, preservation and reproduction of ideas, sounds, tastes, etc.

The act of memory includes three phases:

- memorization,
- preservation,
- playback.

The initial form of memorization is unintentional or involuntary memorization, i.e. memorization without a predetermined goal, without using any techniques. This is a simple imprint of what was affected, the preservation of some trace of excitation in the cerebral cortex. Many things that a person encounters in life are involuntarily remembered: surrounding objects, phenomena, events of everyday life, although not all of them are remembered equally well. What is remembered best is what is of vital importance to a person. Even involuntary memorization is selective in nature, determined by the attitude towards the environment. Voluntary memorization is a special complex mental activity subordinate to the task of remembering. Saving can be dynamic or static.

Reproduction - can take place in the form of sequential recall; this is an active volitional process. Recall is an arbitrary, deliberate reproduction: a person has a goal to remember in advance and for this he applies efforts of thought and will. Involuntary reproduction occurs as if by itself. It is based on associations based on contiguity in time or space, and in some cases also associations based on similarity and contrast. A distinction is made between direct and indirect reproduction. The immediate occurs without intermediate associations. With indirectness, a person relies on intermediate associations - words, images, feelings, actions with which the object of reproduction is associated.

It is generally accepted in psychology and physiology to distinguish types of memory based on the duration of information storage.

In visual memory, which is more important for the reading process, three types are distinguished according to the duration of information storage:

- iconic;
- short-term;
- long-term.

Typically, the duration of data storage in iconic memory is only a few hundred milliseconds. If after this time we have not been able to use the information received, i.e. did not pass it on, then it is lost irretrievably.

Short-term memory retains information in the form of an incomplete reflection of events. This happens, for example, when looking at a cluster of objects, faces, digital signs, etc. The retention of signals received in short-term memory is carried out in a longer time interval compared to iconic memory - about 15 - 30 seconds. The time here is determined by the type of input information. The contents of this memory outside the storage time interval also disappear irreversibly.

If it is necessary to recognize perceived information and remember it for a long time, long-term memory is already functioning, the data in which can be stored virtually without loss. Anything retained for more than a few minutes is in the long-term memory system. All acquired life experience forms part of it. It is believed that experimental psychology deals mainly with the problems of introducing material into long-term memory, its storage and reproduction. The most important process here is memorization.

A person who has visual memory remembers especially well what his gaze captures, what he himself reads and underlines, especially with a colored pencil. If it is easier to remember what is listened to (lecture, report, explanations) when read aloud, it means that auditory memory is developed. If memory better assimilates material when certain movements are performed: writing, drawing, reading, then a motor type of memory occurs. This type of memory is the most common. Most people have developed mixed memory, i.e. they have elements of all three types of memory to varying degrees. In this case, it is useful to use all the techniques more or less evenly: reading to oneself, writing down, listening, and retelling one's own.

Different people have different types of memory. That is why it is very important to determine the right approach to ensure that learning a foreign language is as effective as possible.

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DETERMINATION OF THE STABILITY AND STRENGTH OF A SEWING NEEDLE FOR LEATHER PRODUCTS

Abstract. The theoretical calculations for application in engineering calculations of determining the stability of leather sewing needles, based on the theory of hardness, strength, durability of materials and stability of sewing equipment designed for sewing leather products are given in the article.

Introduction

The needle is the most important and, at the same time, the weakest element of the sewing machine. It must be very thin to avoid damage or tightening on the surface of the fabric. On the other hand, it must be very firmly fixed in order to hit the fabric in the same position. Deviation, which may be caused by the thread tension force or other causes, must be kept to a minimum in order to avoid disruption of the process.

Main part

The central crank-slider mechanism is the main mechanism that ensures the movement of the needle; duration of the working and idle strokes of the needle are the same. In a displaced mechanism, the duration of the working stroke of the needle is greater than the duration of the idle stroke. In order to reduce the heating of the needle during sewing, the crank mechanism is made with the top location of the connecting rod, since the average speed of the needle is lower than that of the mechanism with the bottom location of the connecting rod [2].

If the needle is chosen incorrectly, it may break. Needle breakage can also occur if the presser foot is in the wrong position, with a deformed needle. Thick seams and thick materials cannot be sewn with a fine needle. Putting a low-quality needle (blunt or deformed) in the sewing machine, as well as use low-quality threads is not allowed. A blunt, bent, or too fine needle for the material may cause skipped stitches in the seam.

During the sewing process the driving force F_d acts on the needle, which causes, upon contact with the fabric, resistance forces equal to the strength of the thread and the friction forces of the thread fibers on the surface of the needle. An analysis of the sewing process indicates that when using a ground needle without a bevel, with the same value of the driving force, the friction is almost two times less. Considering that the needle touches the threads of the fabric at high speed, that is,

practically with a blow, the driving force will increase by the amount of the impact force, which will be equal to:

$$N = \frac{C_1 C_2 v_0}{C_1 + C_2}, (1)$$

If the puncture force P does not exceed a certain limit value P_{cr} , then the needle will experience where C_1, C_2 are the rigidity of the needle and the tissue material, respectively; v_0 is the initial speed of the needle.

The transferred energy is:

$$A = Nvt = C_1 C_2 v_0^2 t, (2)$$

where t is the impact time

In sewing machines, in order to ensure the vertical reciprocating movement of the needle, a drive is designed, which consists of an electric motor, a V-belt drive and a crank mechanism.

If the puncture force P reaches the limit value of the force $P = P_{max} = P_{cr}$, then the needle may be deformed. The needle rigidity coefficient can be determined by the following formula [4]:

$$C_1 = \frac{ES}{l} = \frac{E}{\frac{l_1}{S_1} + \frac{l_2}{S_2} + \dots + \frac{l_n}{S_n}} \geq (3 \dots 16), (3)$$

where E is the modulus of longitudinal elasticity of the needle material, MPa; l is the calculated length of the working part of the needle shaft, mm; $l_1 \dots l_n$ are lengths of individual sections of the working part of the needle, mm; $S_1 \dots S_n$ are sectional areas of individual sections of the needle, mm^2

The calculation for the needle blade is made. Since the flask is fixed in the needle bar, this part of the needle does not participate in the sewing process and does not experience longitudinal loads.

In order to determine the rigidity, stability and strength of the needle, it is necessary to know the cross-sectional areas in dangerous areas (Fig. 1).

The cross-sectional area in the first section, that is, in the region of the eyelet, can be defined as the area of two segments (Fig. 2):

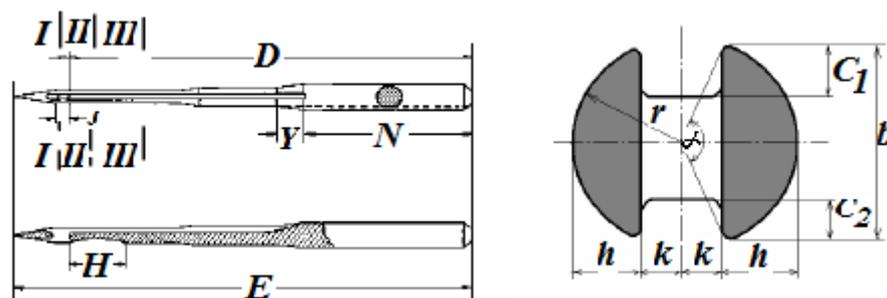


Fig. 1. Cross-sections of the sewing needle for the calculation of rigidity, stability and strength

$$S = 2S_{seg}, (4)$$

where S_{seg} is the area of the segment, which is determined by the formula:

$$S_{seg} = \frac{1}{2} r^2 \left(\frac{\alpha^0 \pi}{180^0} - \sin \alpha \right); (5)$$

α° is central angle corresponding to the segment, degree

From Fig. 2 it can be seen:

$$k = r - h = 0.45 - 0.3 = 0.15 \text{ mm};$$

$$\frac{b}{2} = \sqrt{r^2 - k^2} = \sqrt{0.45^2 - 0.15^2} = 0.4243 \text{ mm}; \frac{\alpha^\circ}{2} = \arcsin \frac{b/2}{r} = \arcsin \frac{0.4243}{0.45} = 78.3806^\circ \alpha^\circ = 156.7611^\circ; \sin \alpha = 156.7611^\circ = 0.3946;$$

$$S_{seg1} = 0.45^2 \left(\frac{156.7611 * 3.14}{180} - 0.3946 \right) = 0.2369 \text{ mm}^2.$$

The cross-sectional area in the first and section is equal to:

$$S_1 = \pi r^2 - S_{seg1} = 3.14 * 0.45^2 - 0.0994 = 0.5365 \text{ mm}^2.$$

The cross-sectional area in the second section is calculated according to Fig. 3, as a result it will be equal to:

$$S_2 = \pi r^2 - S_{seg2} = 3.14 * 0.45^2 - 0.0994 = 0.5365 \text{ mm}^2.$$

The cross-sectional area of the needle in the third section is equal to the cross-sectional area of the circle without the areas of the two grooves. In order to simplify the calculations, we will consider the cross-sectional areas of the grooves in the form of rectangles with side sizes shown in Figs. 4.

$$C_1 = 0.4738 \text{ mm}^2, C_2 = 0.5365 \text{ mm}.$$

It can be seen that the weakest section in the needle is the area in the eye area (thread hole). Let us calculate the moments of inertia for these sections of the needle. For an area in the form of a circle with a radius r , the moment of inertia of the section is equal to:

$$J = \frac{\pi r^2}{4}.$$

$$J_1 = 0.0164 \text{ mm}^4, J_2 = 0.0543 \text{ mm}^4, \text{ and } J_3 = 0.0502 \text{ mm}^4$$

The calculation shows that the rigidity of the needle is quite high. For practical engineering calculations, when calculating the rigidity of the needle, it is possible not to break the needle into separate sections and determine the cross section and acting forces for each section, respectively. We take the weakest section (in the area with an eye for the thread) as the main one along the entire length of the working part of the needle, i.e., needle blade.

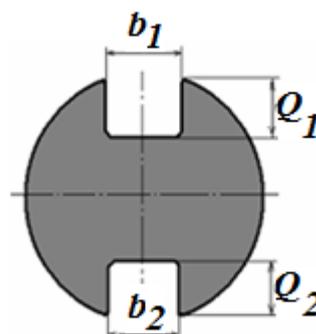
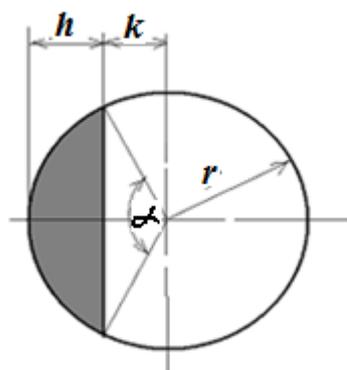


Fig. 1. Cross-sections of the sewing needle for the calculation of strength, rigidity and stability

Fig. 2. Sections of the sewing needle in the first section

In this case, the calculation formula will be significantly simplified, and the error will be quite insignificant (only about 1... 5%). With the value of the modulus of elasticity $E = 2.1 * 10^5 \text{MPa}$, and angle $\alpha = 150 \dots 160^\circ$, the area of the weak section of the needle will be 0.4873mm^2 . In this case, the formula for determining the rigidity of the needle will take the following form:

$$C_1 = \frac{0.28E*d^2}{l} > (3 \dots 16) \quad (6)$$

The needle can be in stable and unstable equilibrium. If the needle is compressed along the geometric axis, gradually increasing the force, then at first it will be straight under the action of compressive stresses:

$$\sigma_{comp} = \frac{F}{S}, \quad (7)$$

where F is the needle compression force, N.

Then, at a certain load F_{cr} , called critical, the needle will suddenly begin to bend sharply, the stresses in it will increase rapidly, and there will be a danger of destruction. This phenomenon is called stability loss [3]. In this case, the forms of the bend of the needle can be varied (Fig. 5).

The critical force in this task will be equal to such an axial force that the needle can be in a slightly bent state.

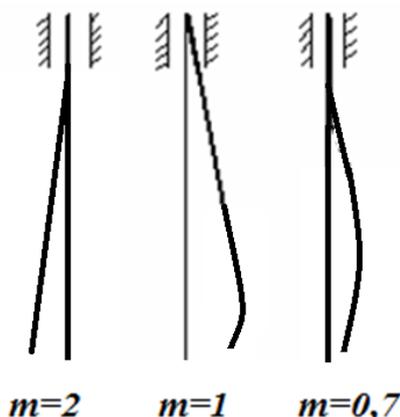


Fig. 5. Shapes of needle bends under longitudinal load

For small deflections of the needle, the differential equation of the bent axis in the following form can be used:

$$EJy'' = -M = -Fy, \quad (8)$$

where E is the modulus of elasticity of the needle material, MPa; J is the moment of inertia of the cross-sectional area; y is the coordinate of the center of gravity of the sectional area element, mm; M is the moment of inertia force. The minus sign on the right side of the equality shows that the moment of force tends to increase the negative curvature of the elastic line.

Equation (8) can be rewritten as:

$$\frac{d^2y}{dx^2} + ky = 0, \quad (9)$$

$$k = \sqrt{\frac{F}{EJ}}, \quad (10)$$

General solution of equation (9):

$$y = K_1 \sin kx + K_2 \cos kx, (11)$$

where K_1, K_2 are arbitrary constants determined from the boundary conditions:

$$\text{at } x = 0, y(0) = 0, (12)$$

$$\text{at } x = l, y(l) = 0, (13)$$

From condition (12) it follows that $K_2=0$; condition (13) can be satisfied only if:

$$K_1 \sin kl = 0, (14)$$

Equation (12) has two solutions: $K_1 = 0$ and $\sin kl = 0$. When $K_1 = K_2 = 0$, the displacements y are identically equal to zero and the needle retains a straight shape. This case does not satisfy the conditions of the problem, since a curved needle is considered.

Therefore, the needle can only bend if $\sin kl = 0$ where n is an arbitrary integer.

$$\sin kl = 0 (15)$$

$$kl = \pi n (16)$$

From equality (8) it follows that with a small force F , while the value of the needle will retain a straight shape. When: $k = \sqrt{\frac{F}{EJ}} < \frac{\pi}{l}$,

$$F = F_{kp} = \frac{\pi^2 EJ}{l^2} (17)$$

This force, corresponding to $n = 1$ is called the Euler force or the first critical force [3]. In this case, the needle will bend along the half-wave of the sinusoid:

$$y = K_1 \sin \frac{\pi x}{l}, (18)$$

In (18) value K_1 corresponds to the maximum bend of the needle. The value of K_1 can be determined more precisely from the differential equation for the bent axis of the beam:

$$y = \frac{1}{EJ} \int (\int M_x dx + K) dx + D, (19)$$

where K, D are arbitrary constants determined from the boundary conditions.

When $n > 1$, the elastic line of the needle is transformed into a curve that includes n half-waves. However, these unstable forms of equilibrium are of no practical importance, since already at $n = 1$ the needle loses its efficiency.

The value of F_{cr} depends on the conditions of fixing the needle, the nature of the loading and the shape of the sections (moments of inertia) of the needle. In the general case, the Euler formula (17) can be represented as:

$$F_{kp} = \frac{\pi^2 EJ}{(\mu l)^2}, (20)$$

Where μ is the length reduction factor, depending on the shape of the bend of the end of the needle.

Let us determine the critical force F_{cr} , N, according to the Euler formula (20) for the weakest section of the needle (in the area with the eye):

Conclusion

According to the obtained formulas, a calculation of sewing needle was made according to the criteria of rigidity, strength and stability based on the theory of strength, resistance of materials, and stability of the rods.

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YER OSTI SUV MANBALARI SIFATI VA ULARNI EKIN MAYDONLARIDA QO'LLASHLARINI O'RGANISH

Annotatsiya. Ushbu maqolada yer va suv resurslaridan samarali foydalanish va ularni muhofaza qilish, Farg'ona vodiylarida sug'orishning asosiy suv manbalari, suvining ma'danlashganlik darajasi, qo'shimcha manba sifatida uncha ma'danlashmagan zovur va yer osti suvlaridan foydalanish imkoniyati yoritilgan.

Kalit so'zlar: Yer va suv resurslari, irrigatsiya, melioratsiya, ochiq kollektorlari, yopiqyotiq drenaj, sug'oriladigan yerlari, suvlarining ma'danlashganlik darajasi, suv sarfi, oqim xajmi, yer osti suvlari.

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STUDYING THE QUALITY OF GROUNDWATER USED IN FIELDS

Annotation. This article presents proposals for the protection and efficient use of land and water resources, studies the sources of water for irrigation in valley areas, the degree of mineralization of their water, as well as the use of less mineralized ditches and groundwater as an additional source.

Key words: Land and water resources, irrigation, land reclamation, open collectors, drainage, irrigated lands, water salinity level, water consumption, runoff volume, groundwater.

Kirish. Milliy iqtisodiyotni diversifikatsiya va modernizatsiya qilish, investitsion faollikni kuchaytirish asosida jadal sur'atlar bilan rivojlantirish, uning iqtisodiy qudrati va eksport salohiyatini oshirish hamda barqaror o'sishini ta'minlashning zaruriy shartlaridan biri – bu iqtisodiyot tarmoqlarida xorijiy mamlakatlarning ilg'or tajribalarini o'rganish va kerak bo'lsa joriy qilish demakdir.

Yer hamda suv tirikchilik manbaimiz, ishlab chiqarish vositamiz va yashash makonimizdir. Ulardan samarali va maqsadli foydalanish davlat siyosatida eng muhim asosiy masalalardan biri bo'lib kelgan, kelmoqda va dolzarb muammolardan biriga aylandi.

Bugungi bozor iqtisodiyoti sharoitida mamlakat iqtisodiyotini asosiy yirik tarmoqlariga moddiy negiz hisoblangan yer va suv resurslari kiradi. Ulardan samarali foydalanish, qishloq xo'jaligini tubdan isloh qilish, qishloq xo'jaligi

tarkibiy o'zgartirishlarni chuqurlashtirish va qishloq xo'jaligi ishlab chiqarishni izchil rivojlantirishdir. Qishloq xo'jaligi ishlab chiqarish sohasiga intensiv usullarni, suv resurslari tejaydigan zamonaviy agrotexnologiyalarni joriy etish, yerlardan foydalanishni optimallashtirish, ekologik toza mahsulot ishlab chiqarishni kengaytirish orqali mamlakatimiz aholisini turmush tarzini yaxshilashga erishish mumkin.

Metodologiya. So'ngi yillarda qishloq xo'jaligida yangi tizim, klaster tizimi joriy etila boshlandi. Klaster - bitta sohaga birlashgan va bir-biri bilan uzviy aloqada bo'lgan korxonalar guruhi bo'lib, ma'lum bir turdagi qishloq xo'jaligi ekinini ekishdan boshlab, qayta ishlash, butlash, saqlash, eksport qilish, bozorga chiqarishgacha irrigatsiya, suv ho'jaligi va melioratsiya hamda boshqa muhim yo'nalishlar ilmiy ishlanmalarni yo'lga qo'yish mujassamlashgan bo'ladi.

Bundan eng asosiy maqsad - hududlarni rivojlantirish, qo'shimcha ish o'rinlarini yaratish, mahalliy byudjet daromadlarini oshirish, tadbirkorlik tuzilmalari bilan o'zaro ta'sirlashish, kichik biznes va xususiy tadbirkorlik sub'yektlarining innovatsion faolligini hamda hududlar innovatsion jozibadorligini yuksaltirish, hududiy iqtisodiyotni diversifikatsiya qilishning yangi imkoniyatlarini yaratish.

Jumladan, yillar davomida irrigatsiya va melioratsiya holati yomonlashuvi natijasida foydalanishdan chiqib ketgan yerlarni bosqichma-bosqich qayta foydalanishga kiritish, yer osti suv zahiralardan samarali foydalanish, suv tejoychi texnologiyalarni joriy etish hamda ichki irrigatsiya tarmoqlarini rekonstruktsiya qilish orqali suv yo'qotilishini kamaytirish, shuningdek, bu ishlarda salohiyatli investorlar ishtirokini ta'minlash maqsadida O'zbekiston Respublikasi Prezidentining 2019 yil 17 iyundagi — Qishloq xo'jaligida yer va suv resurslaridan samarali foydalanish chora-tadbirlari to'g'risida 5742-sonli Farmoni qabul qilindi.

Mazkur Farmon bilan qishloq xo'jaligida yer va suv resurslaridan samarali foydalanish kontsepsiyasi hamda 2020-2030 yillarda qishloq xo'jaligida yer va suv resurslaridan foydalanish samaradorligini oshirish bo'yicha amalga oshiriladigan chora-tadbirlar dasturi qabul qilindi. 2030 yilga qadar jami 1 mln. 111 ming gektar qishloq xo'jaligi yerlaridan foydalanish samaradorligini oshirish, bunda yillar davomida foydalanishdan chiqib ketgan 298 ming gektar sug'oriladigan yerlarni qayta o'zlashtirish, 813 ming gektar lalmi va yaylov yerlarda foydalanish samaradorligini oshirish belgilab berildi[1].

Ushbu asnosida, irrigatsiya-melioratsiya tarmoqlarini tiklash, rekonstruktsiya qilish, suv tejaydigan texnologiyalarni joriy etish hamda suvsizlikka chidamli ekinlarni ekish orqali foydalanishga kiritish uchun investitsiyaviy shartnoma yoki davlat-xususiy sherikchilik asosida ijaraga foydalanish huquqi bilan berilishi belgilab berilgan. [6]

Sug'oriladigan hududlarda suv tabiatning bebaho inomidir. Butun xayot suv bilan bog'liq. Zotan, suv tamom bo'lgan joyda xayot ham tugaydi. Shunday bo'lsada, Markaziy Osiyoda suv zaxiralari juda cheklangan. Yiliga 78 kilometr

kub suv keltiradigan Amudaryo va 36 kilometr kub suv keltiradigan Sirdaryo asosiy suv manbalaridir.

Ushbu sabab “Respublikada yer osti suvlaridan foydalanish va quduq burg‘ilash tizimini yanada takomillashtirish, yer osti suv resurslarini muhofaza qilish bo‘yicha” O‘zbekiston Respublikasi Prezidentining “Yer osti suv resurslarini muhofaza qilish va ulardan oqilona foydalanishni tartibga solish bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida” 19 dekabr 2019 yildagi 981 sonli qarori qabul qilindi.

Suv resurslaridan samarali foydalanish uchun ularning qaysi yo‘llar bilan sarflanishini bilish zarur. Davlat Hidrologiya instituti ma‘lumotlariga ko‘ra o‘tgan asrning 70 yillarida daryo oqimining tabiiy sarflanishi Sirdaryo va Amudaryo havzalarida mos ravishda yiliga o‘rtacha 1,7 va 3,3 km³ ni tashkil etgan.

Y.N.Minaevaning aniqlashicha, hisobga olinmagan xar hil omillar tasiridagi yo‘qotish DGI ma‘lumotiga ko‘ra 70-yillarda Sirdaryo va Amudaryo havzasida, mos ravishda, yiliga 4,3 km³ va 15,5 km³ ga teng bo‘lgan. Ko‘rinib turibdiki, suv resurslarining samarasiz sarflanishi juda kattadir.

Asosiy qism. Ekin turidan biri hisoblangan paxta maydonini har gektarini sug‘orish uchun bir mavsumda o‘rtacha 8-10 ming m³ suv me‘yor sifatida qabul qilinishini hisobga olsak, yuqoridagi raqamlar undan ikki marta katta ekanligini ko‘ramiz.

Qoradaryo, Norin, Oqbo‘yra, Aravon, Maylisoy, bundan tashqari sug‘orish uchun kovlangan tik quduqlar va buloqlar Farg‘ona vodiy Andijon viloyatining suv manbalari hisoblanadi.

Sug‘orish manbalariga ekin ekiladigan maydonlaridan Qoradaryoga - 62.0 foiz maydon; Norin daryoga - 29.0 foiz maydon; Oqbo‘yra daryoga – 3,0-foiz maydon; Aravonsoyga – 2,8 foiz maydon; Maylisoyga – 3,2 foiz bog‘langan.

Andijon suv ombori qurilishi natijasida sug‘oriladigan yerlarning suv ta‘minoti salmoqli darajada yaxshilandi biroq, sug‘orma suvga bo‘lgan ehtiyojni to‘liq qoplash masalasi kun tartibidan olinmadi. Katta daryolar suvlari ma‘danlashganlik darajasi, shimirilish sabablari, yer osti suvlarining tarkibi hamda sug‘orishga yaroqligi o‘rganildi.

Qoradaryoning sersuv davri (mart-avgust)da suvining ma‘danlashganligi 0,3...0,4 g/l teng bo‘lib, tarkibi bo‘yicha u gidrokarbonatkalsiylikdir. Suvi oz davrida ma‘danlashganligi birmunchaga (0,5...0,6 gacha) ortadi, suvining tarkibi sulfat – gidrokarbonat – natriy - kalsiyga almashadi.

Norin daryosida Katta Farg‘ona kanali suv oladigan Uchqo‘rg‘on gidrobo‘g‘inida suvning ma‘danlashganlik darajasi 0,2...0,32 g/l ga teng, tarkibi bo‘yicha gidrokarbonat kalsiylikdir[1].

Yer osti suvlaridan unumli foydalanish masalasida daryolar atrof hududlar yer osti tuproq suvlarining shakllanishi va tartibi bo‘yicha kuzatilgan, o‘rganilgan va bir-birlaridan farq qilishligi aniqlangan.

Asosiy tajriba Farg‘ona vodiy Andijon viloyati Jalaquduq tumani hududidagi yer osti suvlarining sifati hamda sug‘orishga yaroqligi ko‘rib chiqildi.

Ushbu hududning yer osti suvlarining chuqurligi bo'yicha gidrogeologik meliorativ holati qoniqarsizdir. 2009-2018 yillarda yer osti suvlarining sathi 0,65 dan 2,7 metrgachani tashkil etadi. Quduqlardan olingan suvlarining o'rtacha ma'danlashganligi $0,03 \div 0,71$ g/l dan $0,65 \div 1,5$ g/l gacha o'zgarib turishligi (deyarli 1 g/l past qiymatga ega), ushbu hududdagi yer osti suvlari sug'orish uchun cheklovsiz yaroqligi aniqlandi[1].

Xulosa o'rnida shuni ta'kidlash lozimki, mustaqillikning ilk davridan boshlab shu kungacha qishloq xo'jaligida amalga oshirilib kelinayotgan barcha islohotlar zamirida yer va suv resurslaridan yanada samarali va maqsadli foydalanish, yer munosabatlarini tartibga solish, sug'oriladigan yerlarning unumdorligini oshirish, ekin yerlarni asrab-avaylash, aholi daromadini yanada oshirish, xalqimiz hayotini yaxshilash maqsadi mujassam.

Tabiiy va irrigatsiya-xo'jalik sharoitlari, suv manbalari sifatini va ularni ekin maydonlarida qo'llashlarini o'rganish natijalarida quyidagi xulosalarni qilishga imkon beradi:

1. Farg'ona vodiysining iqlim, tuproq sharoitlari va qishloq xo'jaligini keng rivojlantirishga yetarli mehnat resurslariga ega bo'lib, aholini oziq – ovqat maxsulotlari, sanoatni esa yetarli darajada xom-ashyo bilan ta'minlash uchun keng imkoniyatlar mavjuddir.

2. Respublikamiz Prezidentining boshchiligida qishloq xo'jaligida amalga oshirilayotgan iqtisodiy islohotlar, fermerlik harakatining keng quloq yozganligi, yerlarni meliorativ holatini tubdan yaxshilash, suvdan samarali foydalanish, sug'orishning zamonaviy texnika va texnologiyalardan foydalanish bo'yicha amalga oshirilayotgan keng ko'lamli tadbirlar muhim omillardan hisoblanadi.

3. Farg'ona vodiysining suv manbalarini resurslari chegaralangan va har doim ham yetarli miqdorda va kerakli vaqtlarda sug'orish suvini olish imkoniyatlarini bermaydi. Sug'orma dehqonchilikni sug'orish suviga bo'lgan ehtiyojini to'la qondirish, birtekisda yuqori hosildorlikka erishish maqsadida qo'shimcha suv manbalari talab qilinadi.

4. Andijon viloyati bo'yicha kollektor-zovur suvlarining har yillik oqimi $1878 \div 2940$ mln.m³/yil, tik drenaj quduqlaridan chiqarilgan suv 2011 yil - 106,04 mln.m³, 2012 yil- 122,18 mln.m³, 2018yil - 132,16 mln.m³ ga teng bo'ldi. Kollektor-zovur suvlarining ma'danlashganlik darajasi $0,65 \div 1,5$ g/l atrofida o'zgarib turadi. Tik zovurlardan chiqarilgan suvning ma'danlashganlik darajasi $0,03 \div 0,71$ g/l ni tashkil etadi. Qo'shimcha manba sifatida uncha ma'danlashmagan zovur va yer osti suvlaridan foydalanishga imkon beradi

5. Suv tanqis bo'lgan yillarda vodiyning aksariyat fermer xo'jaliklarida kollektor – zovur va tik quduqlardan olinadigan suvlar sug'orishga foydalaniladi. Ushbu suvlardan, ularning umumiy ma'danlashganlik darajasi, kimyoviy tarkibini hisobga olmagan holda, foydalaniladi va tuproq unumdorligini o'zgartiradi.

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PILLA CHUVISH DASTGOXLARIDA YUQORI SIFATLI XOM IPAK OLISHGA ERISHISH

Annotatsiya. Mazkur maqolada zamonaviy pilla chuvish dastgoxlarida xom ipak ishlab chiqarishda maxsulot sifatini 4A-3A navlariga olib chiqish va jaxon bozorida uni yuqori narxlarga sotish xisobiga iqtisodiy samaradorlikni oshirish masalalari keltirilgan.

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ACHIEVING HIGH-QUALITY RAW SILK PROCESSING IN COOP-WINNING MACHINERY

Annotation. The article presents the issues of improving the quality of products with finishing level 4A -3A in the production of raw silk reeling on modern equipment and increase economic efficiency as a result of its implementation for high prices in the international market.

O‘zbekistonda iqtisodiyotning yetakchi tarmoqlari xisoblangan ipakchilik sanoatida qo‘lga kiritilgan yutuqlar tobora muhim ahamiyat kasb etayotir. Pilla yetishtirishdan tortib, uni chuqur qayta ishlash, sifatli xom ipak ishlab chiqish va ipakli matolar ishlab chiqarishni kengaytirish mutaxassislar oldiga qo‘yilgan dolzarb masalalardan biridir. Sohaga qaratilayotgan e‘tibor, yaratib berilayotgan qulay shart-sharoitlar tufayli ipakchilarni imkoniyatlari tobora kengayib borayotir.

Qishloq va suv xo‘jaligi Vazirligi ma‘lumotiga ko‘ra 2023 yilda 26 ming tonna tirik pilla yetishtirilgan. Tayyorlangan pilla navlar aralashmasini pillakashlik korxonalarida qayta ishlash natijasida 1,9 ming tonna xom ipak ishlab chiqarildi va ipak mahsulotlarining eksport qismi 23,8 mln. AQSh doll.ni tashkil etdi. “O‘zbekengilsanoat” AJ tarkibida 30dan oshiq pillachilik korxonasi bo‘lib, umumiy 8 ming tonna quruq pillani qayta ishlab, 2250 tonna xom ipak ishlab chiqarish quvvatiga ega. Hozirgi kunda mamlakatimizda qator pillachilik korxonalari yuqori unumdor zamonaviy pilla chuvish avtomat dastgoxlari va zamonaviy laboratoriya dastgoxlari bilan jihozlanganligi yuqori sifatli xom ipakni olish imkoniyatini yaratadi. Pilla yetishtirish va xom ipak ishlab chiqarish sohasi - ko‘p mehnat talab qiladigan va ishchi kuchiga bo‘lgan talab yuqori bo‘lgan tarmoqlardan biridir.

Dunyo bozorida xom ipak ishlab chiqarishni 97,4 % i Xitoy (130 000 tn yoki 80,9 %) va Hindiston (26 500 tn, 16,5 %) mamlakatlariga to'g'ri kelsa, O'zbekiston xom ipak ishlab chiqaruvchi uchinchi yirik davlat bo'lib, mamlakatimizga jahonda pilla yetishtirishning 1,2 % (1900 tn) to'g'ri keladi.

Jahon bozorida xom ipakka bo'lgan talab yuqori bo'lib, 2023 yilga kelib 1 kg xom ipakning narxi 50,6 AQSh dollari tashkil etdi. Bu narx 3-A sinfli xom ipakka ta'luqli bo'lib, sifati O'zbekiston tabiiy tolalar ilmiy tadqiqot instituti mutaxassislari tomonidan ishlab chiqilgan O'z DSt 993:2011 "Xom ipak. Texnikaviy shartlar" standarti bo'yicha aniqlanadi. Hamma toifalardagi xom ipak uchun yettita nav quyidagi tartibda qabul qilingan 4-A, 3-A, 2-A, A, V, S, D. Eng yuqori sifatli ipak navi – 4A. Eng past sifatli ipak navi – D.

Xom ipakni ishlab chiqarishda asosiy sifat ko'rsatkichlari quyidagilardir: chizikli zichligi bo'yicha og'ish, notekislik 1, notekislik 2, yirik nuqsonlardan tozaligi, mayda nuqsonlarning tozaligi asosiy ko'rsatkichlarga kiradi. Hozirda ishlab chiqarilayotgan xom ipakni sifati ko'proq 2A, A ko'rsatkichlariga to'g'ri kelmoqda.

Xom ipakni 4A, 3A navlariga olib chiqish uchun pillani imkoni boricha yaxshi chuvilishiga erishish, ishlab chiqarish texnologik rejimlariga qattiq rioya qilish kerak bo'ladi. Ammo hozirgi kunda texnologik jarayonlarni mexanizatsiya va avtomatlashtirish yuqori darajada bo'lishiga qaramay, ularni ishlatish ko'rsatkichlari kutilgandek bo'lmayapti. Masalan, pillani qayta ishlashda 1 kg xom ipak ishlab chiqarish uchun solishtirma sarfning yuqoriligi, texnologik parametrlarning bir-biriga yaqin bo'lgan o'lchamlari pilla qobig'ining qattiqligiga qarab tanlab olingan bo'lsa ham samaradorlikka erishilmayapti. Pilla xom ashyosi o'zining shakli, o'lchami, qobiq yo'g'onligi, seritsin miqdori va boshqa hususiyatlari bilan alohida ahamiyat kasb etadi.

Ko'p yillik ilmiy kuzatishlardan ma'lum bo'ldiki, pilladan xom ipak olishda quyidagilar ustida izlanish olib borish maqsadga muvofiq.

Pillani bug'lash jarayonini o'rganish oxirgi paytda juda zarur masalalardan biriga aylandi, sababi - ipakchilik tarmog'ida qo'shma korxonalar tashkil bo'lmoqda, bu korxonalar yangi, yuqori unumdor avtomatlar bilan ta'minlanib o'rnatilmoqda, ular pillalarni markazlashtirilgan bug'lash jarayoniga yo'naltirilgan. Shuning uchun pillani bug'lashni chuqur tadqiq etish, pillani bug'lanish darajasining mezonini tanlash ipakchilik tarmog'idagi dolzarb masalalardan biridir.

Pilla imkoni boricha yaxshi chuvilishiga erishish uchun seritsin qobig'iga qaynoq suv yoki bug' bilan berilgan ta'sir natijasi pillani shishishi va seritsin yumshashiga hamda pillani har xil o'lchamda qolish alomatlarini yo'qotish va oxirigacha chuvishga imkon yaratadi. Bu tadqiqotning mohiyati shundan iboratki, pillani oxirigacha chuvish natijasida xom ipak chiqishi ortadi, uzluksiz uzunligi ko'rsatkichi yaxshilanib, iqtisodiy samaradorlikka erishiladi. Mazkur ishdan kutilayotgan natijalar quyidagicha:

- pilla qobig'iga turli temperatura parametrlaridagi suv va bug'ning ta'sir qilish mexanikasi o'rganiladi. Bunda pilla qobig'ining qalinligi va sirtqi qismi bo'yicha bir me'yorda bug'lanishiga alohida e'tibor beriladi;

- pilla qobig'ining bir me'yorda bug'lanishiga ta'sir etuvchi omil (faktor)lar o'rganiladi, bu jarayonga har bir omilning ta'siri aniqlanadi;

- pillaning bug'lanish darajasi mezonlari tanlanadi;

- pilla bug'lanishining optimal mezonlari tanlanadi;

- pillaning bug'lanishini nazorat qilishning instrumental usuli ishlab chiqiladi;

- yangi texnologiya bo'yicha pillani bug'lash jarayonini modellashtirish uchun tajribaviy qurilma ishlab chiqiladi, pillani bug'lash rejimlari tanlanadi.

- pillani bug'lash dastgoxini tajribaviy-sanoat modeli tayyorlanadi, uning sinovi o'tkaziladi, xom ipakning tajribaviy namunasi ishlab chiqiladi.

Tadqiqot yakunida uning natijalari pillachilik korxonalarida joriy etish rejalashtirilgan.

Shunday qilib, xulosa qilish mumkinki, mazkur ishda O'zbekistonda iqtisodiyotning yetakchi tarmoqlaridan hisoblangan ipakchilik sanoatini rivojlantirish maqsadida zamonaviy pilla chuvish dastgoxlarida pilladan xom ipak ishlab chiqarishda mahsulot sifatini 4A – 3A navlariga olib chiqib, yuqori sifatli xom-ipak olish va jahon bozorida uni yuqori narxlarga sotish hisobiga iqtisodiy samaradorlikni ta'minlash yo'llari aniqlandi.

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CHET TILI O'QITISH METODIKASIDAZAMONAVIY METOD VA TEKNOLOGIYALARDAN FOYDALANISH

Annotatsiya. Ushbu maqolada chet til o'qitish metodikasi haqida, chet til o'qitish metodikasida qo'llanilayotgan zamonaviy metod va texnologiyalar turlari va ulardan foydalanish xususida so'z boradi. Chet tilini o'qitishda zamonaviy metod va texnologiyalardan o'rinli foydalanish orqali o'qituvchining darslarga yangilik kiritishi darsning jonli va qiziqarli bo'lishini ta'minlaydi.

Kalit so'zlar: innovatsiya, texnologiya, chet tili o'qitish metodikasi, samaradorlik, ko'nikma, malaka

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USE OF MODERN METHODS AND TECHNOLOGIES IN FOREIGN LANGUAGE TEACHING METHODOLOGY

Abstract. This article discusses about modern methods and technologies used in foreign language teaching methodology and their use. The teacher's innovation by implementing the appropriate use of modern methods and technologies in teaching foreign languages ensures that the lesson will be lively and interesting.

Key words: innovation, technology, foreign language teaching methodology, efficiency, skill, competence.

Bugungi kunda jamiyatimizda o'qituvchi kadrlarning aqliy salohiyatiga, pedagogik ko'nikma va malakalariga hamda kasbiy mahoratiga nisbatan yuksak talablar qo'yilgan. Hozirgi kundagi global o'zgarishlar, fan-texnika va axborot-kommunikatsiya texnologiyalarining kun sayin rivojlanib borishi XXI asr o'qituvchisidan pedagogik mahoratni, o'tkir irodani, pedagogik-psixologik bilimlarni, o'z fanini chuqur bilishni va yuksak tafakkurni, siyosiy savodxonlikni, fikrlash doirasi keng va mulohazali bo'lishini talab qiladi.

Pedagogik texnologiya – barcha tashkiliy qismlar va ularning bog'liqligini tahlil qilish, tanlash, loyihalash hamda nazorat qilish yo'li bilan pedagogik samaradorlikni yuqori darajaga ko'tarish hamda bu borada tizimli yondashuvni

joriy etishni ifodalaydi. Nima uchun bugungi kunda ta'lim texnologiyalarining nazariy asosini yaratish va amaliyotga tatbiq etish zarurati tug'ildi?

Birinchidan, an'anaviy o'qitish tizimi, aytish mumkinki, yozma va og'zaki usullarga tayangani tufayli "axborotli o'qitish" sifatida tavsiflanadi, chunki o'qituvchi faoliyati faqat o'quv jarayonining tashkilotchisi sifatida emas, balki nufuzli bilimlar manbaiga aylanib borayotganligini ta'kidlagan holda baholanmoqda.

Ikkinchidan, ilmiy- texnik taraqqiyotning rivojlanayotgan bosqichida axborotlarning keskin ko'payib borayotganligi va ulardan o'qitish jarayonida foydalanish uchun vaqtning chegaralanganligi, shuningdek yoshlarni hayotga mukammal tayyorlash, malakali mutaxassislarni yetishtirish kabi talablar tizimi texnologik yondashuvni joriy etishni taqozo etmoqda. Ishonch bilan aytish mumkinki, ta'limni texnologik asosga qurish sifat darajasini oshirishga, natijalarni kafolatlash tizimiga o'tishga, o'z-o'zini takomillashtiruvchi mexanizmlarni yaratishga xizmat qiladi.

Ta'lim texnologiyasi - shunday bilimlar sohasiki, ular yordamida XXI asrda ta'lim sohasida katta burilishlar yuz beradi, o'qituvchi faoliyati yangilanadi, talaba- yoshlarda mustaqil va ijodiy fikrlash, bilimga intilish, o'z ustida ishlash, izlanish, o'z-o'zini rivojlantirish tizimli ravishda shakllanadi. Texnologik jarayon har doim zaruriy vositalar va sharoitlardan foydalangan holda amallarni muayyan ketma-ketlikda bajarishni ko'zda tutadi. Yanada aniqroq aytadigan bo'lsak, texnologik jarayon bu mehnat qurollari bilan mehnat ob'ektlariga bosqichma bosqich ta'sir etish natijasida sifatli mahsulot yaratish borasidagi ishchining faoliyatidir. Ya'ni: ta'lim texnologiyasi - bu o'qituvchi(tarbiyachi)ning o'qitish(tarbiya)ning turli xil vositalari yordamida o'quvchi (talaba) larga muayyan sharoitda samarali ta'sir ko'rsatish va bu faoliyat mahsuli sifatida ularda oldindan belgilangan shaxs sifatlarini intensiv shakllantirish jarayonidir.

Talaba faoliyatini faollashtirish va jadallashtirishga asoslangan pedagogik texnologiyalar (muammoli o'qitish texnologiyalari, loyihaviy texnologiyalar, tanqidiy fikrlashni rivojlantiruvchi texnologiyalar, tayanch konspektlar, o'yinli texnologiyalar); *Shaxsga yo'naltirilgan texnologiyalar* (hamkorlikda o'qitish texnologiyalari, insonparvarlikka asoslangan pedagogik texnologiyalar va b.); *Rivojlantiruvchi ta'lim texnologiyalari* (talaba shaxsining ijobiy sifatlarini, ayrim sohalardagi bilimlarini, o'quv motivatsiyasini, bilish ehtiyojlarini va ijodiy qobiliyatlarini rivojlantirish texnologiyalari). *O'quv jarayonini samarali boshqarish va tashkil qilishga asoslangan pedagogik texnologiyalar* (tabaqalashtirilgan, individuallashtirilgan, dasturlashtirilgan ta'lim texnologiyalari, modulli o'qitish, ta'limning jamoa usuli, guruhli o'qitish, kompyuterli ta'lim texnologiyalari). *Interfaol metodlar va texnologiyalar* (innovatsion texnologiyalar, interaktiv usullar, grafik organayzerlar, rolli-didaktik o'yinlar, treninglar). *Ta'limda axborot texnologiyalari* (multimediya, prezentatsiya, audio-video materiallar, internet, masofaviy ta'lim, ommaviy ochiq onlayn kurslar, videokonferensiya, o'rgatuvchi mobil ilovalar). *Tarbiyaviy*

texnologiyalar (estetik-axloqiy munosabatlar sohasini shakllantirishga yo'naltirilgan emotsional-badiiy va emotsional-axloqiy texnologiyalar, shaxsning o'z-o'zini rivojlantirish mexanizmlarini shakllantirishga yo'naltirilgan texnologiyalar, notiqlik, seminar-treninglar, to'garaklar, ma'naviy tadbirlar). Bulardan tashqari, xususiy (o'quv fanlari), alternativ hamda mualliflik pedagogik texnologiyalari yo'nalishlari ham mavjud.

O'qituvchi interfaol ta'lim metodi va texnologiyalari yordamida o'quvchilarning qobiliyatlarini rivojlantirish, mustaqillik, o'z-o'zini nazorat, o'z-o'zini boshqarish, samarali suhbat olib borish, tengdoshlari bilan ishlash, ularning fikrlarini tinglash va tushunish, mustaqil, ijodiy, tanqidiy fikrlash, muqobil takliflarni ilgari surish, fikr-mulohazalarini erkin bayon qilish, o'z nuqtai nazarlarini himoya qilish, muammoning yechimini topishga intilish, murakkab vaziyatlardan chiqa olish kabi sifatlarni shakllantirishga muvaffaq bo'ladi.

Innovatsion metod va texnologiyalarini qo'llash jarayonida o'quvchilar quyidagi imkoniyatlarga ega bo'ladi: guruh yoki jamoa bilan hamkorlikda ishlash; tengdoshlari orasida o'z g'oyalarini erkin bayon qilish, bilimlarini hech qanday ruhiy to'siqlarsiz namoyish etish; muammoni hal qilishga ijodiy yondashish; guruh yoki jamoadoshlari bilan ruhiy yaqinlikka erishish; o'z ichki imkoniyat va qobiliyatlarini to'liq namoyon qila olish; fikrlash, fikrlarni umumlashtirish, eng muhimlarini saralash; o'z faoliyatini nazorat qilish va mustaqil baholash; - o'z imkoniyatlari va kuchiga ishonch hosil qilish; turli vaziyatlarda harakatlanish va murakkab vaziyatlardan chiqa olish ko'nikmalarini o'zlashtirish; o'quvchilarda bilimlarni o'zlashtirishga bo'lgan qiziqishni uyg'otadi; ta'lim jarayonining har bir ishtirokchisini rag'batlantiradi.

Bugungi kunda respublika ta'lim muassasalarida interfaol ta'limni tashkil etishda quyidagi eng ommaviy texnologiyalar qo'llanilmoqda:

1. Interfaol metodlar: "Keys-stadi" (yoki "O'quv keyslari"), "Blis-so'rov", "Modellashtirish", "Ijodiy ish", "Munosabat", "Reja", "Suhbat" va b.

2. Strategiyalar: "Aqliy hujum", "Bumerang", "Galereya", "Zigzag", "Zinama-zina", "Muzyorar", "Rotatsiya", "T-jadval", "Yumaloqlangan qor" va h.k.

3. Grafik organayzerlar: "Baliq skeleti", "BBB", "Konseptual jadval", "Venn diagrammasi", "Insert", "Klaster", "Nima uchun?", "Qanday?" va b.

Bu texnologiyalar fan doirasida tushunilishi qiyin bo'lgan so'z, atamalar va boshqa bir qancha muammoli vaziyatlarni yechishda yordam beradi. Darslarni esa faol va qiziqarli tarzda olib borilishini ta'minlaydi.

Xulosa qilib aytganda, zamonaviy metod va pedagogik texnologiyalar - bu ilmiy asoslangan didaktik jarayon amalga oshiriladigan, samaradorligi va ishonchliligi yuqori bo'lgan hamda ta'lim natijasiga erishishni kafolatlaydigan pedagogik faoliyat. Pedagogik metod va texnologiyani o'qitish, tarbiya, rivojlantirish texnologiyalari sifatida ham tavsiflash mumkin. Zamonaviy metod va texnologiyalar dars jarayon-ning ilmiy loyihasi (modeli) bo'lib, pedagogik amallarni muvaffaqiyatli amalga oshirishni ta'minlaydi.

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EXPERIENCE OF USING THE BRIEF AIDS-ASSOCIATED STIGMA SCALE

Abstract. The article summarizes the data on the use of the methodology for measuring stigma towards HIV+ and AIDS patients in various professional and population groups. In general, a negative attitude towards people with HIV was revealed both among the entire population and in groups of nurses and medical students. Despite the significantly better attitude of HIV+ towards other patients, many (77.6%) of them had an internal stigma that prevented them from confronting the views of others and fighting discrimination (only 35.5% were ready to disclose their status to others).

Keywords: HIV, stigma, scale, nurses, medical students, HIV+, self-stigma, educational environment, population.

INTRODUCTION

Stigma is a social stereotype that reflects the prejudiced attitude of others towards HIV carriers [1]. It leads to feelings of shame, guilt and isolation in people living with HIV infection (HIV+), and negative attitudes from others (discrimination) push these people to inaction or actions that could harm others [2]. Stigma can negatively impact HIV+ health, quality of life, social support and well-being. It definitely affects physical, emotional and mental health. AIDS service organizations around the world are calling for the development of programs to provide effective socio-psychological and medical care for HIV+, and the creation of valid and reliable scales for assessing HIV-related stigma [3].

Over the past few years, we have accumulated some experience in studying stigma using the S.C. short scale of the same name. Kalichman et al. It contains nine dichotomous statements ("true, false"). The scale was tested on 2306 respondents from five communities in the Republic of South Africa. Its internal consistency ($\alpha=0.75$) and test-retest stability ($r=0.53-0.67$) were revealed. The scale has been translated into three languages (English, Xhosa, Afrikaans). Its validity and reliability have been confirmed in population studies of South African and North American cultures.

This publication aims to acquaint readers with the generalized results of studies conducted in Andijan (about 70% are indigenous) and show the capabilities of the methodology used.

MATERIALS AND METHODS

3335 people were surveyed. (men – 569, women – 2766) aged from 14 to 62 years (average – 26.0 ± 12.6 years). 80 lived in the city, 20% lived in the countryside. There were 637 nurses in medical institutions in Andijan, 1019 I-VI year students of the medical faculties, 200 of the Medical College. 917 people were interviewed at the social assistance center, 133 at the Republican AIDS Center, HIV+ - 107; in secondary schools there are 137 schoolchildren in grades 9-11, 88 teachers, 97 students of the ASMI.

In addition to the already mentioned brief scale for measuring AIDS-related stigma, four questions were used to determine awareness of HIV infection S.C. Kalichman et al. (appendix). Mathematical and statistical processing was carried out using Student's t-test for relative values and correlation analysis.

RESULTS AND DISCUSSION

Only 210 respondents (6.29%) were completely tolerant of HIV+. Among them there were significantly more men ($p < 0.001$), city residents ($p < 0.002$), with higher or incomplete higher education ($p < 0.01$), and directly related to medicine ($p < 0.002$). They had the highest rates of awareness of the modes of transmission of HIV/AIDS ($p < 0.001$). The vast majority (more than 93%) demonstrated varying degrees of negative attitudes (from 1 to 9 stigma responses) towards HIV+. An extremely negative position was taken by respondents who do not have higher/incomplete higher education ($p < 0.001$) and people who are far from medicine ($p < 0.001$). A pronounced negative attitude was noted among a number of males ($p < 0.02$) with relatively low education ($p < 0.001$), people of older age groups ($p < 0.001$), and residents of rural areas ($p < 0.02$).

The majority of respondents (79.1%) objected to HIV+ people working with children. Significantly more often these were women ($p < 0.001$), residents of rural areas ($p < 0.001$) and young people ($p < 0.02$).

More than half of the respondents agreed to limit the rights of these people (63.4%) and did not want to have friends from among them (53.5%). Among the authors of such answers, there were significantly more women ($p < 0.001$), rural residents ($p < 0.05$), and non-medics ($p < 0.001$). Those surveyed with low education, older age groups, and not related to medicine experienced extremely negative emotions towards HIV+. They are much more likely than other respondents to be willing to discriminate and punish such patients. Compared to women, men, as well as representatives of the listed groups, believed they had the right to impose moral principles on them, and were capable of demonstrating certain manifestations of disdain and humiliating treatment of HIV+.

43.5% of respondents consider the household route of transmission of infection to be very possible. Among them there were significantly more villagers ($p < 0.01$), people with a low level of education ($p < 0.001$), and those not related to medicine ($p < 0.001$). Awareness of HIV infection was strongly correlated with the level of education, attitude towards medicine, place of residence and age, and on

some issues, with gender (men compared to women showed better knowledge about medications for HIV/AIDS; $p < 0.01$).

It can be stated that the level of absolutely correct answers is generally low (only 32%), including among medical workers (36.7%).

The responses of visitors to the social center to the survey questions generally corresponded to the patterns identified in the study. A distinctive feature of this group is the highest number of questionnaires without correct answers about the modes of transmission of HIV/AIDS (16.1 versus 9%; $p < 0.05$). This circumstance can be explained by the age composition of the respondents, which was in a wide range, from 18 to 61 years (average age – 33.3 ± 11.2 years) [3].

Although the majority of HIV+ people in the world are young, there is a growing need for prevention among older people. In particular, in the United States, the number of cases of HIV infection among people over 60 years of age is growing. People over 50 already make up 10% of HIV+ Americans, about 27% are at the AIDS stage. It is stated that older people are partially covered by treatment and preventive care for HIV, despite their continued sexual activity, drug use, and therefore the risk of infection, like young people [4].

Our study revealed low awareness of the ways of HIV infection, manifestations of personal stigma (prejudice and ideas about HIV+), which make preventive measures difficult to implement among people in the older age group.

Students of medical faculties (medical, pediatric and dental) of the university turned out to be the largest group among those surveyed. There were 75 girls and 60.4% were junior students (first-third). Their average age was 21.0 ± 4.0 years.

Tolerance of future doctors to HIV+ was slightly higher than among all those examined (7.85 versus 5.06%; $p < 0.01$). There were 2-3 times fewer sharply intolerant answers, awareness of HIV infection was significantly higher (41 versus 32% in the population; $p < 0.001$), including those who answered completely incorrectly about the ways of transmission of this infection (3 versus 9% on average; $p < 0.001$).

Men, junior students and city residents showed a more tolerant attitude towards people with positive HIV status than women, villagers and senior students ($p < 0.01$). In general, the patterns described above were confirmed, with the only difference that lower awareness of HIV infection among junior students ($p < 0.001$) was combined with a more tolerant attitude towards this category of patients ($p < 0.001$) [3].

CONCLUSION

The Brief AIDS-Associated Stigma Scale is a fairly informative tool for assessing tolerant attitudes towards HIV+ in various population and professional groups. It seems important that it reliably correlates with many other psychological techniques widely used in the educational environment and the healthcare system.

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ZAMONAVIY TA'LIM MAZMUNIDA EKOLOGIKSAVODXONLIK MUAMMOLARI

Annotatsiya: mazkur maqolada ilmiy-pedagogik manbalarning tahlili asosidagloballashuv sharoitida talaba-yoshlarning ekologik savodxonligi hamda bilimdonlikmuammosi mazmuni yoritilgan.

Kalit so'zlar: fan, ta'lim, ekologiya, dunyoqarash, tafakkur, mazmun, prinsip, muammo, maqsad, yechim.

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PROBLEMS OF ECOLOGICAL LITERACY IN THE CONTENT OF MODERN EDUCATION

Abstract: this article, based on an analysis of scientific and pedagogical sources, highlights the content of the problem of environmental literacy and knowledge of students in the context of globalization.

Key words: science, education, ecology, worldview, thinking, content, principle, problem, goal, solution.

Insoniyatning butun faoliyati davomida ekologik muammolar tobora kuchayib kelgan va ularni hal qilish uchun doimo shoshilinch choralar ko'rishni talab qilgan. Oxir-oqibat, insoniyat bu muammolarning mohiyatini bilib oldi va farovon yashasho'ziga eng qulay sharoitlarni yaratish uchun ularni yengib o'tishni o'rgandi. Bugungi kunda ekologik muammolar mavjud, tabiiy muhitning ekologik muammolari va umuman atrof-muhitni boshqarish ehtiyotkorlik bilan va shoshilinch hal qilishni talab qiladi, chunki inson faoliyati o'zining tabiiyligini yo'qotib, tobora ijtimoiy xususiyat kasb etmoqda.

Yigirma birinchiasrda fanva texnika taraqqiyoti yangi bosqichga qadam qo'ydi. Ayniqsa ilm-fan sohasidagi innovatsiyalar asosidagi kashfiyotlar orqali fan va texnika qudratli ishlab chiqaruvchi kuchga aylandi.

Fan va texnikaning qudratli taraqqiyoti iqtisodiyot negizida yangi tamaddunning shakllanishi tendensiyasini vujudga keltirdiki, uni globallashuv jarayoni deb atash odat bo'ldi.

Aholi turmush tarzining yaxshilanishi, ilm- fan, tibbiyot sohasidagi taraqqiyot tabiiy ravishdaaholi sonining o'sishiga olib keldi. Bu esa o'z navbatida

tabiiy resurslardan foydalanish ko‘lami oshishigasabab bo‘ldi. Tabiiy resurslardan nooqilona, rejasiz foydalanish ekologik vaziyatning yomonlashuviga ta’sir ko‘rsatgani ham uning global ahamiyat kasb etishi bilan izohlanadi.

Bizni o‘rab turgan va sog‘ligimizga xavf tug‘dirayotgan atrof-muhitning holati haqidagi ma’lumotlar barchamizni ozmi-ko‘pmi ekologlarga aylantirib qo‘ydi. Insonning negativ faoliyati atrof-muhitga halokatli ta’sir qilsa, planetamizning hozirgi holati inosn sog‘ligiga o‘ziga xos ta’sir ko‘rsatadi degan fikrlar yashab turgan davrimizing asosiy ekologik muammosiga aylandi.

Ekologik savodxonlik muammosibo‘yicha manbalarning tahlilihozirgi kunda butunjaxon ilmiy-pedagogik jamoasi tomonidan bir- qancha umumiy prinsip va qoidalarishlab chiqilganligini ko‘rsatmoqda:

- bizni o‘rab turgan atrof-muhit butun bir yaxlit tizimni tashkil etgan holda o‘z tarkibiga «inson faoliyati bilan bog‘liq bo‘lgantabiiy aspektlarni oladi». (Ekologik ta’lim masalalari bo‘yicha YuNESKO komissiyasi dokladi)²

-jaxonda miqyosidaatrof-muhit inqiroz holatida.

-atrof-muhitning inqirozi tizimli xarakterga ega bo‘lib, global darajaga ko‘tarilmoqda.

-global inqirozning asosiy sababi insoniyatning tabiiy resurslarni holsizlantirish yoki degredatsiyasi hisobidan iqtisodiy o‘shish orqali o‘zining moddiy ehtiyojlarini qoniqtirishga intilishi bilan izohlanadi.

-inqirozdan chiqishning yo‘llari nafaqat ekologik xavfsiz texnologiyalarni rivojlantirish va maxsulotlar ishlab chiqarish, shuningdek insoniyatning ehtiyojlari va turmush tarzi bilan bog‘liq bo‘lmagan yangi axloqiy normalar va g‘oyalarni shakllantirishga bog‘liq bo‘ladi.

Ekologik ta’lim-tarbiyani mustahkam asosda yo‘lga qo‘yish global ekologik inqirozning oldini olishning muhim omillaridan biri ekanligini jaxon hamjamiyati tushunib yetdi. Bu soxadagi strategik yunalish sifatida aholining ma’lum qismi va guruhlari, shuningdek alohida shaxslarning e’tiqodi va xatti-harakatlariga ta’sir ko‘rsatish nazarda tutiladi.

Bizning fikrimizcha ekologiya, o‘qitiladigan fan sifatida barcha ekologik muammolar bo‘yicha aniq va to‘liq ma’lumotlarni o‘zida mujjasamlashtirib, mavjud muammolarni yechish,ularning oldini olish yullari, chora-tadbirlarini belgilovchi mayoq vazifasini bajarishi lozim.

Insonlarni ekologik ongli qarorlarni qabul qilishga o‘rgatish, ekologik ta’lim va savodxonlikning asosiy mazmunini tashkil qilib,har qaysi insonning ekologik muammolarni yuzaga kelishida va atrof-muhitning zararlanishiga uz hissasi borligini anglash, tushunib yetishga o‘rgatadi.

Ekologik bilimlarnio‘qitishda pozitiv xolda yondoshish zarur. Shu sababliekologik ta’limning samaradorligini ta’minlash uchun uni planetamizaholisining barcha qatlamlariga yo‘naltirish lozim. Bizning aholimiz

² Learn for our planet: a global review of how environmental issues are integrated in education. Published in 2021 by the United Nations Educational, Scientific and Cultural Organization, 7, place de Fontenoy, 75352 Paris 07 SP, France

ekologiya haqida nimani biladi?, «Ekologik xavf nima?,kabi mavzularga doir bir qator, pedagoglar ishtirokidagi muloqot-disskusiyalarning yakunitabiatni muxofaza qilish zarur va inson atrof-muhitga negativ ta'sir ko'rsatmoqda degan xulosalarga olib keladi

Aholining ko'pchilik qismi atrof-muhitning o'zi nima? Uning asosiy komponentlari nimalar, bu komponentlar bir-biri bilanqanday bog'langan, ularning har birigava alohida butun yaxlit tizimiga insonning ta'siri qanday, shuningdek, inqiroz holatining haqiqiy sabablari nimada va ekologik vaziyatni qanday qilib ijobiy tomonga o'zgartirish haqidagi tushunchalar, bilimlarga ega emasligini ta'kidlashimiz zarur.

Bizning fikrimizcha ekologik bilimlar barcha ixtisosliklar bo'yicha mutaxassislarni tayyorlashning ajralmas qismi bulishi zarur. Shuningdek ta'lim tizimi xodimlari o'z pedagogik faoliyatlarining «ekologik mazmuni» ni tushungan holda ta'lim jarayonidagibarcha fanlarni o'qitishda ekologik bilimlarni integratsiyalash, uyg'unlashtirishga erishmog'lari muhim ahamiyat kasb etadi.

Ekologik bilimlarning integrativ xarakteri ta'lim jarayonini yangidan tashkil etish imkoniyatini beradi.

- Birinchidan biror bir o'quv predmeti yo'qki ular chegarasida ekologik bilimlarga joy bo'lmasa.

- Ikkinchidan ekologik ta'lim berishni ta'lim muassalaridan tashqarida ya'ni ommaviy ekskursiyalar, sayrlar, oromgohlar, tematik haftalar, ekspeditsiyalar shaklida tashkil qilish mumkin.

Ekologik bilimlarning integrativ xarakteriinsonparvarlik g'oyalarga asoslangan, har tomonlama shakllangan butun bir yaxlit dunyoqarashni paydo bo'lishiga betakror imkoniyat yaratadi.

Ekologiyani o'qitish va uning mazmunida: hududiy va etno-madaniy xususiyatlar, shuningdek alohida ijtimoiy, professional va ma'lum yosh davridagi jamoalar, guruhlarning o'ziga xos qiziqishlari va istaklari hisobga olinsa, bu vazifa juda qiziqarli va har tomonlama qamrab oluvchi holat kasb etadi.

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TO USE MODERN INFORMATION AND COMMUNICATION TECHNOLOGIES FOR THE DEVELOPMENT OF THE LIBRARY PROFESSION

Annotation. The current stage in the evolution of the library's information function is associated with the development of the information society, computer technology and telecommunications, the emergence of electronic documents, electronic products and services, and remote user access to library resources.

Key words: information products and services, information-communication technologies, information function.

The development of information technology, the process of informing all sectors of modern society, has fundamentally influenced the usual library technologies: they have changed the methods of collecting information, its exhibition presentation, and its access; has changed the traditional forms and methods of library and bibliographic services; has changed the processes of receiving, processing and storing funds.

The interaction of the traditional library with Internet technology took the library's activities to a high level and opened up new opportunities for quality. To make the most of the opportunities for the rapid introduction of information technology, librarians need professional literacy that best responds to the needs of modern users, has the skills and skills to use them.

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The complexity of introducing information technology into the practical work of libraries determines the interdisciplinary nature of scientific discourse around them, and therefore the terms and concepts of several relevant subjects actively influence the development of this topic: library, science, bibliography, cultural science, psychology, management, marketing, and so on.

As a cultural phenomenon, the library was published by J.L. Borges, E.Y. Reviewed in the works of Genieva, P. Clodel, O.O. Kovalenko, U.S. Eco. The works of V.A. Belavin, V.S. Egorov, L.A. Vasilenko, E.N. Knyazeva, S.P. Kurdyumov, Y.I. Shemakin, and others are devoted to the methodological foundations of innovative approaches to building sociological foundations of information technology.

Despite extensive scientific experience and the dedication of many works to the study of library work, the problem of revisiting the use of information technology in the library and preparing it for modern society is not over. That's why the industry is particularly interesting for further research. The issue of developing effective and coordinated policies for the development of library and information and library institutions, libraries and information and library activities is at the height of library problems in general.

Based on the above, the topic of modern information technologies used in libraries was chosen for work because it is promising, and its study is necessary for the further functioning of the library as a social information institution. The object of the research is modern information technologies. The subject of the research is the process of their implementation in the practical activities of libraries.

The purpose of the work: to increase the efficiency of the organization of modern information technologies for more effective use of information resources of libraries of activities.

Tasks:

1. To identify the essence of the basic concepts associated with information technologies in the aspect of innovative library and information activities.
2. To study the areas of application of information technologies in library practice.

The library, as a social information and cultural institution, is called upon to fulfill the tasks assigned to it by the state and society. Providing free and free access to various sources of information to all citizens is one of the main functions of a developing library. The process of such development is impossible without the introduction of modern information technologies into the library's activities.

In a broad sense, the concept of "information technology" is the process of using a set of means and methods for collecting, processing and transmitting data to obtain new information about the state of an object, process or phenomenon. The goal is to obtain information for its analysis, and to make a decision based on the results of this analysis to perform an action.

Information technology is based on the following principles:

- Dialog (interactive) mode of working with a computer;
- Compatibility with other software products;
- Flexibility in the process of changing data and assigned tasks.

Information technologies have become firmly established in all areas and spheres of library activity, and exhibition activities are no exception.

A modern library successfully conquers the virtual space, providing information about its funds and its activities to virtual users, which is almost impossible without the use of information technology, since the creation of virtual expositions presupposes the availability of the necessary equipment, software, Internet access and specialists with certain information and technical skills in the library.

The visual range of the electronic exhibition is represented by illustrative material (book covers, spreads, illustrations, maps, photographs, etc.). The text that accompanies and reveals the visual series consists of quotations, annotations, biographical references, etc.

The text that accompanies and reveals the visuals consists of quotations, annotations, biographical references, etc. After creating a presentation in Microsoft PowerPoint, it is possible to upload presentations to authorSTREAM.

Presentations are converted to Flash format. Users can get a unique Flash presentation code to embed in blogs and websites. Also, users have the opportunity to share the presentation by e-mail, upload it to YouTube.

The rapid development of new information technologies has necessitated a revision of traditional forms of work; prompted us to turn to innovative forms - the most effective and optimal for training users who prefer electronic products and services. Libraries are being actively transformed into information centers that combine scientific and information and library spheres of activity.

In this regard, the task of teaching users new ways and means of work, mastering modern information and communication technologies is becoming more and more acute, for which our own multimedia tools are widely created and used: commercials, presentations of an informational nature, training programs.

In the process of creating various multimedia media (videos, presentations, films), the intellectual level of library staff increases, their professional skills and competence grow. The library sector has recognized the inevitability of the information age and has entered the information society with dignity, contributing to its transformation into one. Therefore, a modern library should not oppose itself and its traditions to the new era, but integrate its own achievements and experience with modern information technologies for the successful performance of essential social functions.

The use of information technologies in the advertising activities of libraries opens up new opportunities in the field of advertising libraries in the virtual information space, significantly expanding spatial and temporal boundaries, increasing the audience, increasing the level of advertising effectiveness.

Library media advertising includes the following media and channels: Radio advertising, video advertising, video films, video commercials, television commercials, computer advertising on websites, social networks, e-mail, etc.

Advertising on the Internet can be carried out with the help of book trailers. A booktrailer is a short video that tells about a book in a free artistic form. The purpose of such videos is to advertise new books and promote reading, to draw

attention to books with the help of visual means typical for movie trailers. Most of the booktrailers are uploaded to popular video hosting sites, which contributes to their active distribution on the Internet.

A library website is an image of a real organization in a virtual world with a high level of comfort in use. This is the only structural department that works 24 hours a day and has remote access for users. Having the skills to work with a website and the ability to create it is an essential component in the professional activity of a modern information specialist.

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MATEMATIKANI O'QITISHDA AMALIY YO'NALTIRILGANLIGI MASALASI

Annotatsiya. Texnikumlarda matematikadan amaliy mazmundagi masalalarning tiplari va turlari bilan bog'lash imkoniyati mavjud va uni amalga oshirish shart va zarur. Matematika o'qitishni kasbga yo'naltirishning eng samarali shakllari matematika darolarida amaliy-tatbiqiy mazmundagi kasbga yo'naltirilgan masalalar va topshiriqlardan muntazam foydalanish, matematik tushunchalar va qonuniyatlarning kelib chiqishi va mohiyatini amaliy misollarda tushuntirishdan iboratdir.

Kalit so'zlar: matematika, amaliy masala, kasbga yo'naltirilgan masalalar, masalalarni yechish usullari.

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THE PROBLEM OF PRACTICAL ORIENTATION IN MATHEMATICS TEACHING

Abstract. In technical schools there is an opportunity to connect mathematics with types and types of problems of practical content, and this should and should be implemented. The most effective forms of career guidance in mathematics education are the regular use of career guidance tasks and assignments in mathematics classes, clarification of the origin and essence of mathematical concepts and laws using practical examples.

Keywords: mathematics, practical problem, career guidance problems, methods for solving problems.

Matematika o'qitishda amaliy yo'naltirilganligi muhim masalalardan biridir. Amaliy yo'naltirilganligi yordamida talabalarning matematikadagi nazariy bilimlarini amaliyotga o'tkazish, tushunchalarni mustahkamlash va o'rganishni oshirish mumkin. Amaliy yo'naltirilganligining muhim jarayonlari quyidagilardir: Amaliy misollar va mashqlar: Talabalarga teorik bilimlarni amaliyotga o'tkazish uchun misollar va mashqlar berish juda muhimdir. Misollar va mashqlar, talabalarning matematikali konseptlarni o'rganish, o'z ishlarini amaliyotda amalga oshirish va muammoli masalalarni yechish imkoniyatlarini beradi. Murakkab mashqlar va boshqa o'quv vositalari: Amaliy yo'naltirilganligi uchun murakkab mashqlar va boshqa o'quv vositalari ishlatish juda muhimdir. Bu

misollar, talabalarni muammoli masalalarni tahlillash va o'rganish imkoniyatlarini rivojlantirishga yordam beradi. Kooperativ o'rganish usullari: Kooperativ o'rganish usullari, talabalarning bir-birlari bilan hamkorlik qilish, fikrlarni almashish va o'zlashtirishni oshirishga yordam beradi. Guruh ishlarida, jamoat ishlarida va o'zlashtirish jarayonlarida amaliyotga qo'shimcha qulayliklar yaratadi. Amaliy yo'naltirilganligi bilan birga, tarbiyalovchi matematikni qiziqishlarni oshirish uchun qiziqarli, maqbul va amaliyotga oid savollar va mashqlar tayyorlashi kerak. O'quvchilarga matematikani hayotning qanday sohalari bilan bog'lashining amaliy misollari bilan ta'minlash juda muhimdir.

Matematikani amaliy yo'naltirishda birinchi qadam, talabalar uchun amaliy misollar va mashqlar tayyorlashdir. Bu, ularning nazariy bilimlarni amaliyotga o'tkazish imkoniyatlarini oshiradi va ularga matematikali konseptlarni o'rganishda yordam beradi. Misollar va mashqlar talabalarni o'z o'qish jarayonlarida matematikaning asosiy qoidalari bilan tanishtiradi.

Ikkinchi qadam, murakkab mashqlar va boshqa o'quv vositalaridan foydalanishdir. Bu mashqlar va vositalar talabalarni muammoli masalarni yechishda qiyinchiliklarga duch kelganda ularni tahlil qilishda va yechishda yordam beradi. Matematikaning tibbiyotda qo'llanilishi haqida to'xtalib o'tamiz. Matematika tibbiyot sohasida bir necha muhim vazifalarni bajaradi. Quyidagi masalalarda matematikani tibbiyotda qo'llanishidan ma'lumotlar beriladi:

Tibbiyot statistikasi: Matematik statistikasi tibbiyot sohasida ma'lumotlarni to'plash, tahlil qilish va natijalarni tafsilotli hisoblash uchun qo'llaniladi. Epidemiyologiya, klinik tadqiqotlar va tibbiyot ishlab chiqarish sohasida matematik statistikasi, ma'lumotlar analizi, nisbi risk hisoblash va muammo yechishda katta ahamiyatga ega bo'ladi.

Rentgen, tomografiya va skanerlar: Tibbiyotda rentgen, tomografiya va skanerlar kabi imkoniyatlardan foydalanish orqali tasvirlar va ma'lumotlar olish mumkin. Bu rasmlar ma'lumotlar matematik modellashtirish, filtratsiya, kompressiya va tafsilotli tahlil qilish jarayonlarini talab qiladi.

Tibbiyot modeli va simulatsiyalar: Matematik modeli va simulatsiyalar tibbiyotda klinik va epidemiologik tahlillarni amalga oshirishda foydalaniladi. Ular orqali qiziqarli tadqiqotlar, davolash rejimlari va klinik prognostikalar o'rganiladi. Shuningdek, robotik davolanish va biologik sistemlarning modellashtirilishi ham matematik asosida amalga oshiriladi.

Tafsilotli diagnostika va davolash protsesslari: Matematik modellar va algoritmlar tibbiyotda diagnostikadan davolashga qadar bir necha protsesslarda foydalaniladi. Tomografik tasvirlarni tafsilotli tahlil qilish, elektronlar orqali tibbiyot tanlash, xavfsiz dozlarda röntgen tasvirlash, moliyaviy o'qitish va tibbiyotni nazorat qilishning boshqa yo'llari matematik asosida amalga oshiriladi.

Genetika va molekulyar biologiya: Tibbiyotda genetika va molekulyar biologiya sohasida matematikni tasvirlash va tahlil qilishda qo'llash mumkin. Genomik ma'lumotlar, biologik jadvallar, molekulyar tahlil usullari, genom

sekvenslash va o'zgaruvchanliklar tahlilini matematik metodlar bilan o'rganish muhimdir.

Inson organizmi bilan bog'liq bo'lgan normal va patologik jarayonlarni o'rganadigan, insonlar salomatligini mustahkamlash, turli kasalliklarning oldini olish bilan shug'ullanadigan ilmiy va amaliy faoliyat sohasidir.

Tibbiyot bilan bog'liq kasblar bilan shug'ullanuvchilar uchun matematikaning fan sifatidagi natijalari juda muhimdir, chunki matematik hisob-kitoblarsiz to'g'ri tashhis qo'yish, kuzatishlar o'tkazish, davolash ishlarini olib borish mumkin emas.

1-masala. Vrachning ko'rsatmasiga ko'ra, bemor kuniga 10 mg li tabletkadan 3 ta qabul qilishi kerak. Lekin undagi dorilar 20 mg li tabletkalardan iborat. Vrachning ko'rsatmasini buzmasdan bemor kuniga necha tabletkaga qabul qilishi kerak? Yechish. Kuniga 10 mg li tabletkadan 3 ta qabul qilinsa, kuniga $10 \cdot 3 = 30$ mg bo'ladi. Tabletkalar dozirovkasi 2 marta orttirilgan ($20 : 10 = 2$). $30 - 20 = 10$ mg yetmaydi. $10 : 20 = 0.5$ mg bo'lib, $0.5 + 1 \text{ tab.} = 1.5$ tabletkaga hosil bo'ladi.

Javob. 20 mg li tabletkadan 1,5 ta tabletkaga qabul qilish kerak.

2 – masala. Davolovchi vannani birinchi kuni 15 daqiqadan boshlab, keyingi kunlari har kuni 10 daqiqadan uzaytirib boriladi. Agar vanna qabul qilish ko'rsatilgan tartibda olib borilsa, vanna qabul qilish vaqti 1 soat 45 daqiqaga bo'lishi uchun necha kun kerak bo'ladi?

Yechish. $x_1 = 15$, $d = 10$, $x_n = 105$ daqiqa

$$x_n = x_1 + d(n - 1).$$

$$x_n = 15 + d(n - 1) \quad x_n = 15 + 10n - 10.$$

$$10n = 100. \quad n = 10$$

Javob. 10 kun.

3-masala. Bolaning tug'ilgandagi bo'yi 53 sm edi. 5 oylik bo'lganda, 3 yosh bo'lganda uning bo'yi qanday bo'lishi kerak?

Yechish. Bolaning har oyda o'sishi quyidagicha bo'ladi: Birinchi chorakda (1-3 oylik) oyiga 3 sm dan; Ikkinchi chorakda (4-6 oylik) oyiga 2,5 sm dan; Uchinchi chorakda (7-9 oylik) oyiga 1,5 sm dan; To'rtinchi chorakda (10-12 oylik) oyiga 1,0 sm dan; Bir yoshdan keyin bo'yining o'sish kattaligini $75 + 6n$ formula bilan hisoblash mumkin (bu yerda 75 – bolaning bir yildagi o'rtacha bo'yi, 6 – o'rtacha yillik o'sishi, n – bolaning yoshi).

Javob. 5 oylik bo'lganda $X = 53 + 3 \cdot 3 + 2 \cdot 2,5 = 67$ sm.

3 yoshga to'lganda $X = 75 + 6 \cdot 3 = 93$ sm.

4-masala. Kasalxonaga oshqozon buzilishi tashxisi bilan 16 yoshli qizni olib kelishdi. Agar inson tanasining 1 kg i uchun 0,25 mg aktivlashtirilgan ko'mir tabletkasi talab qilinishi va bemor qizning vazni 50 kg ekani ma'lum bo'lsa, unga qancha aktivlashtirilgan ko'mir tabletkasi berish kerakligini hisoblang.

Yechish. Bemorni davolash uchun $50 \cdot 0,25 = 12,5$ mg tabletkaga kerak bo'ladi. Aktivlashtirilgan ko'mir tabletkasi 0,5 mg bo'lgani uchun hammasi bo'lib 12,5:

$0,5 = 25$ tabletka kerak bo'ladi.

Javob. 25 ta tabletka.

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MAPLE DASTURIDA FUNKSIYA GRAFIKLARINI YASASH

Annotatsiya. Ushbu ishda Maple dasturida funksiyalarning ikki o'lovli grafiklari, oshkormas funksiyalarning grafiklari hamda berilgan tengsizliklar uchun qurilgan ikki o'lovli soha grafiklarini yasash haqida fikr yuritilgan.

Kalit so'zlar: Funksiya, Maple dasturi, misol, hisoblash, chiziq, tasvir, grafik.

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CREATING FUNCTION GRAPHS IN MAPLE SOFTWARE

Abstract. In this work, the creation of two-dimensional graphs of functions, graphs of non-expressive functions, and two-dimensional field graphs constructed for given inequalities in the Maple program is considered.

Key words: Function, Maple program, example, calculation, line, image, graph.

Amaliy dasturlar paketiga kiruvchi Maple dasturida grafiklarni chizish juda oson va qulay, chunki birgina grafikni chizish uchun shu grafikka oid parametrlarni bilish kifoya. Ma'lumki darsni o'tishda grafiklar va yangi pedagogik texnologiyalar bilan mavzu tushuntirilsa o'quvchi va talabalar bilim saviyasi ancha oshadi va shu fanga nisbatan qiziqishlari ortadi. Matematika fanini o'qitishda ushbu texnologiyalardan foydalanib dars o'tilsa, o'quvchilarning funksiyalarning grafiklarini ko'z oldiga keltirib uning yechimlarini grafikli ko'rinishlari namoyonqilish imkoniyati paydo bo'ladi. Maple amaliy dasturida **f(x)** funksiyaning grafigini chizish uchun bir o'zgaruvchili **plot(f(x), x=a..b, y=c..d, parameters)** ($a \leq x \leq b$ interval Ox koordinatada va $c \leq y \leq d$ interval Oy koordinatada) komandasidan foydalaniladi, bunda **parameters** - parametrlarni boshqarishni tasvirlaydi. Agar bular ko'rsatilmasa, joriy holatdagi ko'rsatmalardan foydalaniladi. Tasvirni qurish shuningdek panel asboblari bilan ham amalga oshiriladi. **Plot** komandasining asosiy parametrlari:

1) **title="text"**, bunda **text**-rasm nomi (nom qushtirnoqsiz ham bo'lishi mumkin, agar u faqat lotin harfidan va bo'sh joyisiz bo'lsa).

2) **coords=polar** - qutb koordinatasini o'rnatish (joriy holatda dekart koordinata).

3) **axes** - koordinata o'qini o'rnatish: **axes=NORMAL** - oddiy o'q; **axes=BOXED** - grafik shkalaliramkada berilgan bo'ladi; **axes=FRAME** -

markazda rasm va uning chap pastki burchagida sariq o'q beriladi; axes=NONE – o'qlarsiz.

4) **scaling** - rasm masshtabini o'rnatish: **scaling=CONSTRAINED** – o'qlar bo'yicha bir xil masshtab; **scaling=UNCONSTRAINED** - grafik masshtab o'lchami oyna bilan teng o'lchamda.

5) **style=LINE(POINT)** - chiziqlar yoki nuqtalar natijasi.

6) **numpoints=n** - grafikdagi nuqtalar sonini hisobi (joriy holatda **n=49**).

7) **color** - chiziqlar rangini o'rnatish: ranglar inglizcha nomlanadi, masalan, **yellow** - sariq va boshqalar.

8) **xtickmarks=nx** va **ytickmarks=ny** - Ox o'q va Oy o'qlardagi belgilar soni, muvofiq ravishda.

9) **thickness=n**, bunda **n=1,2,3...** - chiziq yo'g'onligi(joriy holatda **n=1**).

10) **linestyle=n** - chiziq turi: uzluksiz, nuqtalardan iborat chiziq va boshqalar (**n=1** - uzluksiz, joriy holatda o'rnatilgan bo'ladi).

11) **symbol=s** – nuqtani pomechat qiluvchi belgi turi: **BOX, CROSS, CIRCLE, POINT, DIAMOND**.

12) **font=[f,style,size]** - matnli yozish uchun shrift to'rini o'rnatish: **f** topshiriqdagi shrift nomi: **TIMES, COURIER, HELVETICA, SYMBOL**; **style** topshiriqdagishrift uslubi: **BOLD, ITALIC, UNDERLINE**; **size** - shrift o'lchami pt da.

13) **labels=[tx,ty]** - koordinata o'qlariga yozish: **tx** - Ox o'qiga va **ty** - Oy o'qiga.

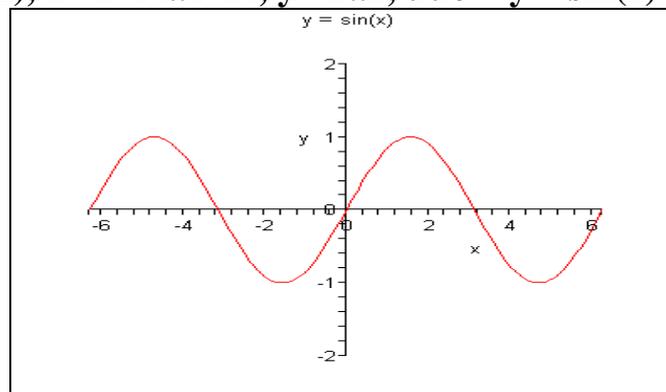
14) **discont=true** – qurish uchun cheksiz uzilishni ko'rsatish.

y=f(x) funksiyani grafigini **plot** komandasi yordamida chizishdan tashqari, oshkor topshiriq, shuningdek funksiya grafigi **y=y(t)**, **x=x(t)** parametrik topshiriqlar, **plot([y=y(t), x=x(t), t=a..b], parameters)** komandasi yordamida yoziladi.

Endi biz yuqorida keltirgan ma'lumotlarimizni asoslash maqsadida ularni misollar bilan izohlaymiz.

1-Misol: $y = \sin(x)$ funksiyani -2π dan 2π - gacha oraliqdagi grafigining tasviri (1-rasm)

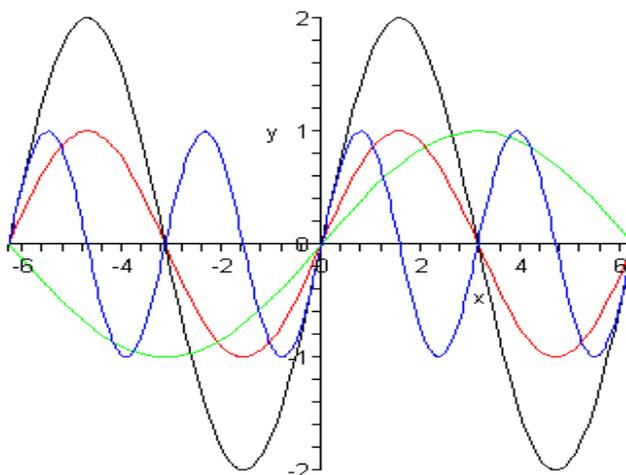
> **plot(sin(x), x=-2*Pi..2*Pi, y=-2..2, title="y = sin(x)");**



1-rasm

2-Misol: $y = \sin(x)$, $y = 2\sin(x)$, $y = \sin(x/2)$, $y = \sin(2x)$ funksiya grafiklarining -2π dan 2π - gacha oraliqdagi tasviri va bu grafiklarning bir-biridan ajralib, turushi uchun ranglar tasviri (2-rasm).

> `plot([sin(x), 2*sin(x), sin(x/2), sin(2*x)], x=-2*Pi..2*Pi, y=-2..2, color=[red, black, green, blue]);`

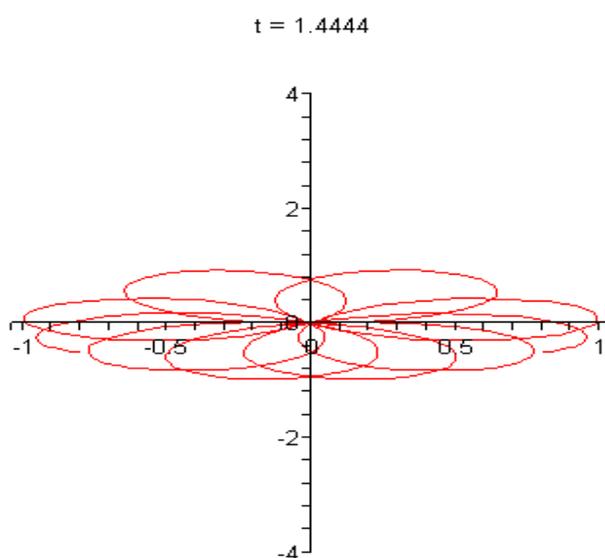


2-rasm

3-Misol: $y = \sin(x * t)$ funksiyaning qutb koordinatalar sistemasida animatsiyali tasvirini hosil qilish.

> `with(plots): animate(plot, [sin(x*t), x, x=-4..4, coords=polar], t=1..2, numpoints=100, frames=100);`

$y = \sin(x)$ funksiyani $[-\pi; \pi]$ oraliqdagi animatsiyali grafigining tasviri. (3-rasm)



3-rasm

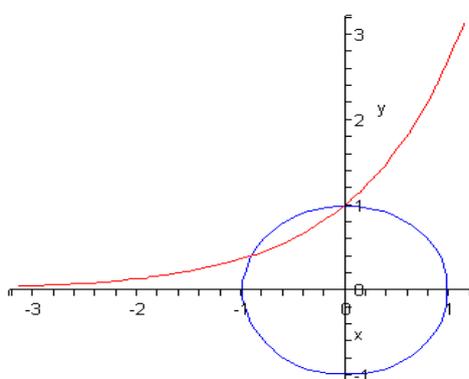
Oshkormasfunksiyaning grafigi. Maktab, litsey va kas-hunar kollejlarida Oshkormas funksiya $F(x,y)=0$ tenglama ko‘rinishida berilgan. Oshkormas funksiyaning grafigini chizish uchun **plots** grafiklar paketining **implicitplot** komandasidan foydalaniladi:

implicitplot(F(x,y)=0, x=x1..x2, y=y1..y2).

Implicitplot komandasida foydalanib funksiya grafik tasvirlarni hosil qilish.

1-misol: $y = e^x$ va radiusi 1 ga teng aylanani tasvirini hosil qilingan (4-rasm).

>implicitplot([x^2+y^2=1, y=exp(x)], x=-Pi..Pi, y=-Pi..Pi, scaling=CONSTRAINED, color=[blue, red]);



4-rasm.

Rasmlari matnlarga izoh yozish uchun **plots** paketining **textplot** komandasi imkoniyatga ega bo‘ladi: **textplot([xo,yo,’text’], options)**, bunda **xo, yo** - koordinatalardagi nuqtalar, tekst yozuvi qandaydir **’text’** bilan boshlanadi.

Ba‘zan tez-tez bir rasimga bir qancha grafikli obyektlarni birga qo‘yishga to‘g‘ri keladi, bu bir necha komanda yordamida hosil qilinadi, masalan, grafikni qo‘shimcha qilish uchun **plot** komandasi tasvirleydi, tekstni yozishni **textplot** komandasi amalga oshiradi (7-rasm).

> p:=plot(...): t:=textplot(...):

Bunday holatda ekranga natija chiqmaydi. Grafik tasvirini ekranga chiqarishni bajarilishi uchun **plots** komanda paketi bajarilishi zarur:

> with(plots): display([p,t], options).

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INTERACTION OF LANGUAGE AND SPEECH, THE ROLE OF GRAMMAR AND VOCABULARY IN THEIR IMPLEMENTATION

Abstract. The relevance of this article lies in studying the relationship when teaching the lexical and grammatical aspects of a foreign language at the initial stage in connection with the communicative nature of learning. Interdependent learning is interconnected learning. What should be taught is not individual aspects of language, but a comprehensive consideration of individual aspects of language. This contributes to a better assimilation of vocabulary and grammatical phenomena, which has a positive effect on the development of linguistic competence in a foreign language student.

Key words: language and speech, grammar, communication, methodology of teaching a foreign language.

A foreign language as an academic subject occupies an important place in school education. For the methodology of teaching a foreign language, the distinction made in science between language and speech is important.

Language is a system of linguistic means necessary for communication, with rules for their use.

Speech is the implementation of the language system in specific acts of communication. The concept of speech includes both the process itself and the product of this process - speech works.

Language and speech, although they constitute two sides of one phenomenon, represent a single whole and are characterized by properties that are not contrasting, but complementary, and operate with units specific to each side. There are units of language and speech. The units of language include: phonemes, morphemes, words, phraseological combinations, sentences and texts. Units of speech include situationally determined utterances of varying length. Parts of speech are correlated with a specific communication situation.

In teaching methods, the question arises - what to teach: language or speech? Should we start with teaching language as a system or with speech, i.e. with students mastering the understanding and reproduction of statements determined by communication situations.

The study of language as a linguistic phenomenon may provide knowledge of the language system, but it does not lead to the use of this system for communication purposes. This is confirmed by the lesson practice of teaching foreign languages, when attention was paid to teaching the language system: its

phonetics, grammar, and vocabulary separately. The students, although they knew the rules and performed lexical and grammatical exercises, could not use words and grammatical rules when solving the simplest speech problem, because language proficiency is possible when the assimilation of speech material leads to the formation of a language system in students, when the student can construct statements in the act of communication in accordance with the rules inherent in a given language, both in relation to grammatical design and the use of words.

In teaching a foreign language at school, it seems rational to build learning from speech to language in the process of organized, purposeful communication. Due to the communicative nature of teaching a foreign language, the relationship in the study of lexical and grammatical language material is one of the most important problems.

Despite the apparent clarity of the opposition between grammar and vocabulary, their areas are so closely intertwined with each other that the terms “grammatical” and “lexical” may in certain cases even resemble one another. To build the correct methodology for teaching languages, it is necessary to recognize these various oppositions and draw appropriate methodological conclusions from them.

The basis of vocabulary as a certain system is the concept of a separate word, which, after all, plays an equally important role in grammar, and therefore requires some clarification, because, along with the sentence, it is one of the most controversial concepts in linguistics. It goes without saying that the concept of a separate word is connected, first of all, with the concept of a separate object, which appears as a result of an analysis of reality under the influence of our active attitude towards it.

Grammar is a repertoire of means through which, firstly, relations between independent objects of thought are expressed according to certain rules and through which, secondly, new words are formed according to no less certain rules. Such special grammatical means are, firstly, phonetic changes in words, i.e. sound alternations, secondly, their lengthening through prefixes, suffixes, endings, etc., i.e. forms of words, thirdly, word order, fourthly, rhythm and intonation in the broadest sense of these words. Individual words are also used in the same role.

Let's now look at the contrast between vocabulary and grammar from the other side. By contrasting the grammatical elements of language that express relationships between independent objects of thought or form new words and their shades, with those lexical elements that express independent objects of thought, we obtain concepts that do not coincide with the concepts of lexical elements of language (individual words) and grammatical elements (sound alternation, morphological parts of words, rhythm with intonation and word order) elements of language. Let's call them the building and significant elements of language.

In the grammar of any language there are always chapters devoted to prepositions and conjunctions; It may seem that in traditional grammar this opposition is quite successful. However, we still have to admit that the concept of

combat elements is usually interpreted too limitedly. First of all, word order is not given its due place; it is usually placed in syntax (which is justified from a constructive point of view), where it is not clearly placed in a row with morphological categories, although it expresses the same ideas as these latter, but in a more general form.

The structural elements of vocabulary have not yet been fully identified for any language.

Taking into account the singularity of lexical elements, i.e. words, and the applicability of grammar rules about word formation and inflection to many words, one can contrast the lexical with the grammatical as a single - typical. In this sense, Shcherba L.V. proposes to talk about vocabulary and typical phenomena.

The essence of grammar consists only in general rules; nevertheless, exceptions relate to vocabulary, except in those cases when the exceptions themselves are formed in the form of a certain rule that limits the action of another, more general one.

The root forms of strong verbs should be studied according to L.V. Shcherby in dictionary order - in grammar they need to be mentioned in the sense that verbs with such alternations of root vowels are conjugated in a special way in the imperfect and have a special form of the second participle.

In vocabulary, we have long distinguished between dictionaries based on the sound form of words and dictionaries based on the meanings of words - the so-called "ideological" dictionaries. The former cater for passive language learning, while the latter cater for active learning. In accordance with this, one can and should distinguish between passive and active grammar.

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INNOVATIVE METHODS OF PREPARING ELEMENTARY STUDENTS FOR THE INTERNATIONAL ASSESSMENT PROGRAM

Abstract. The article presents innovative methods of preparing primary school students for the PIRLS International Assessment Program, such as the "grammatical syntactic" method, the "working with lexical units" method, the "working with poetic text" method, as well as methodological instructions for applying these methods. Also, the readers are covered by the analysis and results of experimental test work on the formation of information-communicative, speech competencies, working on the content of the text, understanding the idea of the text and making logical conclusions.

Key words: International Assessment Program, PIRLS, TIMSS, PISA, TALIS, reading literacy, grammatical syntactic" method, "working with lexical units" method, "working with poetic text" method, information-communicative, speech competence, understanding of the idea of the text, making logical conclusions.

Introduction. In World educational and scientific research institutions, scientific research is being carried out to promote the study of International Reading Literacy integration of thought and information to increase reading literacy, to form literacy of reading artistic text. Attention is paid to scientific research on understanding the laws of fiction, drawing logical conclusions on the basis of an artistic idea, the formation of the abilities of language to perceive figurative and expressive means in accordance with the tasks in the work of art.

In the decree of the president of the Republic of Uzbekistan "on additional measures to improve the management system of Public Education" dated September 5, 2018, PF-5538, the introduction of effective mechanisms for managing the system of public education is considered the most important condition for raising the spiritual and moral and intellectual development of the growing younger generation to a qualitatively new level, as well, the task of organizing the participation of students of general education institutions in international programs and research on the assessment of the level of knowledge of students (PISA, TIMSS, PIRLS, etc.) has been identified with the fact that it promotes the use of innovative forms and methods of education in the educational process[1].

Materials and Methods

PIRLS (Progress in International Reading Literacy Study – rise in the study of International Reading Literacy) is an international assessment system that

assesses the quality of reading and understanding levels of primary – grade student youth in different countries. This type of test is designed to be carried out every 5 years. In order for the PIRLS program to successfully complete its research, the student is required to respond to assignments with independent, creative thinking[4].

It is important to use many innovative techniques and modern technologies to understand the reading of the text by students, umi. A.Lenhart, K.Purcell, A.Smith, K.A study by the zickuhrs shows that " today, students are using technology to study both at home and at school and for leisure purposes"[5].

Method of working with poetic text. Elementary students are interested in reading a poem, saying it. During this process, the text of the poem “in the lesson of the mother tongue” was selected for otiris to expand their knowledge of them poetically, the scope of artistic analysis. Each reader is given the text of the poem and given time to read it. After that, they will be asked to answer the following assignments.

Mother tongue lesson

(From the series "textbooks to my son")
"Son, you got to know white-he's black,
Now fairy tales do not deceive you either.
You will find questions from nowhere to me,
Why is" mother tongue", "father's tongue"?
Think never see about it,
A divine feeling that awakened my heart
Our own is mother's heart,
It is not for nothing that the" native language " is called.
If you know, the soil in which your umbilical cord bleeds,
My heart is your heart.
If we say Motherland,
Our "mother tongue" is the mother tongue.
It is spoken by the Uzbek conscience,
And again in it the air of the world.
If you listen comes from the line of every word,
Navoi Bobong's fiery breath.
O'rila, from a tiling called Mom,
Hence," mother tongue " is the language of Joe.
In your veins of love flowing
"Mother tongue" is the language of your great blood" [7].

Task 1. Speak the content of the poem in your own language.

Task 2. Why do we say “mother tongue”, not "Mother Tongue"?

Task 3. Who taught you to speak?

Task 4. Verbally state what you understand when it comes to honoring your “native language”by looking at the picture.

Assignments provide the basis for the development of such qualities as skills for elementary students to conduct activities independently and a sense of responsibility, agility, initiative, broad worldview.

Grammatical syntactic method. Taking information on the grammar of the Uzbek language and the syntactic branch of linguistics with regard to age, the skills of correct sentence construction are taken into account.

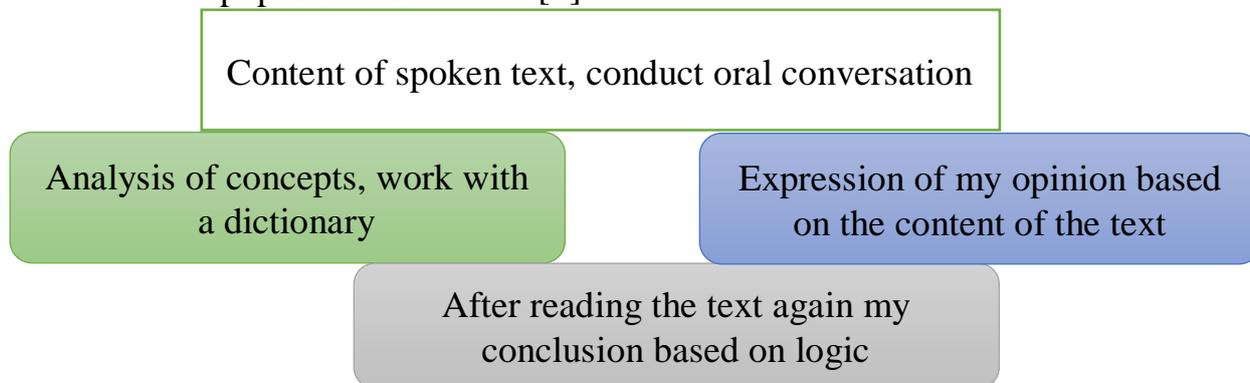
Stage 1.	Lexical meaning of the words on the topic selection of sets of lexical units
Stage 2.	Attaching 3-4-5 words to one sentence.
Stage 3.	Drawing up 5 sentences that contain content related to the title
Stage 4.	Starting the text from the paragraph. Making the most of the entries
Stage 5.	Creating text based on sentences with meaning and meaning

“In modern education, it is advisable to use educational technologies that develop “critical thinking”to develop the processes of perception and memory. Technology is an opportunity to solve a wide range of problems in education”[6].

Method of working with lexical units. Not a single text from the textbook” reading literacy " is read and heard by the teacher, and their hands are assigned to fill out the following table.

Azim Suyin

Azim Suyin is the people's poet of Uzbekistan in the outstanding show that contributed to the development of Uzbek modern literature. His epics such as "I love you", "seven books", the tragedy "the martyrs", "Uzbekistan", "the fate of the Earth", "the night when a drop of water turned into the sea and or the castle" were popular with readers [7]



Task 1. What words in the text did you not understand the literal meaning?

In the show, determine the correct information given to the words tragedy, sarbadars, ground, Castle.

In the manifestation-a person belonging to a social group or sphere; representative.

Tragedy (from ancient Greek: τραγωδία, τράγος, tragos — "goat" and ᾠδή, ᾠδὴ — "song" literally-"goat song"), tragedy is one of the dramatic genre of literature.

The sarbadars were participants in the Iranian and Movarounnakh'r popular uprising against the oppression of the Mongols and the rich in the 14th century.

Floor, background — 1) the base of the carving and painting pattern decoration, the place between the pattern shapes; 2) the ground, the soil; the ceiling of the room

Castle-House, building, built specifically for living or head-to-head purposes

Task 2. What do you think can be learned from the work of the poet?

Results and Discussion

During the research work, experimental work was carried out on the formation of information-communicative, speech competencies in students in three types of competencies using the above innovative methods, working on the content of the text, understanding the idea of the text and drawing logical conclusions.

During the test work, the criteria for working on the content of the text, the criterion for understanding the idea of the text, the criterion for making a logical conclusion and the indicators of these criteria were established when carrying out experimental test work to determine the level of improvement of the methodology for preparing elementary students for the International Assessment Program.

During the research pilot work, students were analyzed to work on text analysis, analyze the content and essence of the text in one whole and proportionally, to understand information and information from texts, to become the basis for the development of communicative-speech competencies in them, to achieve the effectiveness of this process, to ensure the appropriate structure of topics in educational textbooks,

According to the results of the study, the development of reading literacy according to the criterion for working on the content of the text of the formation of information-communicative, speech competencies in students has been proven through statistical methods that the level of formation of competencies is 1.15(14%), the level of competencies on the criterion for understanding the idea of.

Conclusion. In order to improve the methodology for preparing primary school students for the International Assessment Program, mainly work on the artistic text and its analysis, the development of artistic thinking, the cultivation of figurative thinking were analyzed, and developing methods were developed on these. Artistic text will help the reader master the culture of reading books.

To determine the conscious (intuitive) level of perception in an artistic text, it is important to develop in them the activity of imagination, the ability to think in images. The ability to understand the peculiarities of the language of artistic text, the laws of fiction, and the elements of the poetics of artistic text (genre characteristics, means of expression, composition, artistic detail) and their interaction are understood to see and understand.

On the basis of the meanings of the main ideas and words embodied in the artistic text and the content of the text, the main place is occupied by the

cultivation of moral values in them and the production of logical conclusions on the basis of the artistic idea.

It is based on focusing on the ability of readers to read and create their own interpretation of an artistic text, taking into account the age and psychological characteristics of readers, their individual capabilities, and on the cultivation of the breadth of thought, creative thinking.

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OF RAISING YOUTH POLITICAL CONSCIOUSNESS AND POLITICAL CULTURE IN THE SOCIETY

Abstract. This article contains opinions about political culture, the role of political culture in the life of society, the aspects that we should pay attention to in order to increase the political culture of our youth, the components of political culture, the factors that hinder the development of political culture in the life of our society, and suggestions for their elimination.

Key words: politics, state, social management, political system of society, political culture, political culture of youth, political consciousness, political activity, legal culture, social life, political education, political teachings.

Today, there is an increasing need to modernize the political system of the state and society, to raise political consciousness and political culture in society at all levels, thereby developing optimal mechanisms for strengthening the political activity of citizens.

The term "political culture" itself is a combination of the words politics and culture, and expresses the harmony of these areas. Politics as an activity conditions a certain culture (norms of interaction, patterns of behavior). Political relations in any society are formed under the influence of the culture of the nation that constitutes the indigenous population of this society. Hence, diversity in cultures creates diversity in political culture. Therefore, the study of political culture as an integral part of a broad national culture and the recognition of the existence of national models of political culture enables proper understanding.

Along with political psychology and ethics, political culture is one of the important aspects of measuring the humanity of politics. It can be described as a non-institutional system. Political culture encompasses political traditions, political values, and practical political behavior guidelines. We learned that books on politics summarize the rates of political culture. We will consider the aspects that are particularly important in the development of political culture of young people.

Political culture is one of the important components of the political system of society. Its level of development reflects the quality of this system. Political

culture, which reflects the political and legal knowledge of citizens, the public and political figures, their political character, has a strong influence on the formation and operation of political institutions, determines the nature of the interaction between the state and civil society. Political culture can be properly analyzed only by studying it as a changing phenomenon that responds to changes in the world.

The term "political culture" was first used by the German Enlightenment philosopher I. Herder in the 15th century. Later, namely, at the end of the 11th century - the beginning of the 20th century, this category began to be widely used in political studies of various scientific schools. In this case, political culture was interpreted as a set of official norms and an attitude towards power. Currently, two main approaches to the interpretation of political culture have been formed in political science. The original objective approach explains within the framework of structural functionalism. Here, values are seen as higher principles that serve to ensure agreement in society and in small groups. Values are objective and are studied to the extent necessary for the effective functioning of the system. According to D. Easton, who is a supporter of this approach, political culture is only a set of beliefs and imaginations that determine political actions.

Therefore, political culture is manifested as political knowledge, values, political experience, value principles, norms of political behavior, skills, examples, traditions of political life. The main aspects of political culture are as follows: it is a product of the historical development of society; expresses the characteristics of politics and culture; reflects their political consciousness and political behavior at a certain stage of the development of social subjects; may develop at different speeds in different periods of history.

systematic implementation of the reforms being carried out in our country. As in every country and society, in our country, youth are our future, our tomorrow, our strength.

Political culture is one of the concepts that has a special place in the field of politics. Depending on the level of development of political culture in society, we can learn information about the state of state and society management, the rule of law, the development of the state system of separation of powers, and the state of values such as justice and equality in social life. People, nations, societies, and states with a highly developed political culture have a democratic system of governance. In a country where the political culture of citizens is not well developed, the leadership system is managed in an authoritarian manner. That is why it is important to what extent the political culture is developed.

We know that political culture is not a process that suddenly appears in a person. For the formation of political culture, first of all, we need to know what political culture is. In the Uzbek language encyclopedia of philosophy, political culture is defined as follows. "Political culture represents the unity of political consciousness and political activity and reflects the attitude of an individual, a social group or the whole society to the social system, power, internal and external policies implemented by the state. It is an integrated system that combines many

components and elements. Political culture manifests itself in different forms and levels. After all, political culture can be considered at the level of society (studying the conditions that create the basis for increasing the political culture of people), at the level of a social group by analyzing the participation of this group in the political life of society, at the level of an individual by studying the process of its political development and the formation of political qualities.. Why is it necessary to increase the political culture of young people? It is necessary to solve the social and political problems accumulated in the society by increasing the political culture of the youth, and to implement reforms by democratizing the life of the state, state and society.

In order to develop political culture among our youth, it is necessary to carry out dialectical education together with education. In the development of political culture, we cannot pass without recognizing the place of right and wrong culture. Legal factors such as law, law, legal culture, civil society can be studied through legal education. We know that there are several types of political culture. We need to teach our young people an active political culture.

In conclusion, I can say this again. Political culture and political education are inextricably linked and have an impact on changes in the political, social and economic life of society. A political culture that is not based on national and spiritual values is a situation that contradicts its essence. It also does not meet the requirements of the construction of the Fu county society. In a real democratic society, political culture is formed and develops on the basis of its own basis. We aim to develop the political culture of our youth. We need to develop our educational system from a new qualitative aspect, to realize national identity, national, social and spiritual values.

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FEATURES OF CARDIAC REHABILITATION IN OLDER AGES

Abstract. The article discusses current issues of physical training for elderly patients, including using our own data on electrical stimulation of skeletal muscles, and proposes further development of research on this issue.

Keywords: cardiac rehabilitation, method, treatment, older age groups.

INTRODUCTION

What are the features of physical rehabilitation in old age? First of all, in older age groups, stress tests are required to assess functional capabilities, select training regimens, diagnose myocardial ischemia and risk stratification. However, such tests are performed less frequently in older patients than in younger patients, and in equal proportions for cardiac and non-cardiac reasons [3]. The latter include chronic lung disease, peripheral arterial disease, degenerative arthritis, patient inability to handle exercise testing equipment, and clinician reluctance to exercise patients. It should be remembered that failure to perform stress tests is an empirical indicator associated with an unfavorable prognosis in elderly cardiac patients. The negative prognostic value in such cases is revealed regardless of the cause of functional disorders. For patients who are unable to perform tests with increasing load, it is advisable to use alternative methods of ergometric assessment. Thus, with a 6-minute walk test, it is possible to achieve a load level of 79–90% of maximum oxygen consumption (MOC), depending on the functional class of patients. This test in patients of older age groups has high reproducibility, prognostic value, does not require special skills from the subject, and is suitable for use in weakened patients [4].

MATERIALS AND METHODS

Perhaps this is not only due to organizational and financial restrictions, but also the inability of patients to perform the usual training loads designed for younger people, for example, due to the presence of signs of sarcopenia. Specific training regimens can improve tolerance and adherence to training programs. For people in older age groups, dosed walking and interval aerobic training [2] are more suitable than training on exercise machines with constant intensity [3]. To correct muscle maladjustment in old age, the use of resistive loads is proposed [4], which is not always possible in cardiac patients, so the search for new methods of rehabilitation continues. A key factor for older people is the strength of the lower limb muscles, which determines, for example, the risk of falls and the

level of daily activity. Therefore, it is advisable to carry out interventions aimed at increasing the functional state of the muscles of the lower extremities [2].

RESULTS AND DISCUSSION

One of these methods has recently become electrical stimulation of skeletal muscles (EMS), which is used in European countries mainly in patients with chronic heart failure (CHF). At the same time, the effect of EMS on muscle strength and endurance is emphasized, which is especially useful for patients with sarcopenia. It was noted that the EMS course was most effective in severe patients: 6-minute walking distances and endothelium-dependent vasodilation increased to a greater extent in patients with functional class III–IV CHF (FC) compared to patients with FC II. This was accompanied by a large decrease in the level of brain natriuretic peptide and perceived psycho-emotional stress. In addition, the majority of patients with FC III–IV remained committed to training for an additional 3 months compared with patients with FC II (76.9 vs. 55.6%, $p < 0.001$). The latter is especially important for older patients, who are usually less compliant with physical rehabilitation programs.

The studies of our scientific group noted successful experience in using EMS in inpatient rehabilitation of patients with MI over 70 years of age with a low initial muscle status. The possibility of increasing the strength and endurance of the muscles of the lower extremities, increasing the distance of a 6-minute walk and the threshold load power during bicycle ergometry has been proven. At the same time, an improvement in the psychological status and the absence of an adverse effect of this type of training on the processes of post-infarction cardiac remodeling, autonomic balance and arrhythmogenic status were noted [3]. When using EMS training in patients with coronary artery disease, after 10 weeks there was an increase in oxygen consumption at the level of the anaerobic threshold from 19.39 ± 5.3 ml/kg/min to 24.25 ± 6.34 ml/kg/min or by 25.4%, with the maximum individual increase in this indicator being 96% [3].

The potential of EMS as a new way to increase BMD not only in cardiac patients has been noted [1]. An example is the data on the use of EMS during long-term hospitalization of women in older age groups (age 82 ± 7 years). After the EMS course, it was possible to increase the strength of the knee extensors (by 16–26%) and the 6-minute walking distance (by 9–14%), which was not observed in the control group [2]. Research has also been conducted on combining EMS with other types of training. In both healthy individuals and patients with CHF, the combined use of resistive loads and EMS does not cause additional hemodynamic load and pain in the muscles (both during training and within 24 hours after it) [3]. Adding an EMS course to aerobic training allows you to get an additional training effect [3]. Patients tolerate EMS well; there were no refusals to undergo it. This allows us to consider EMS as a promising way to involve patients in physical rehabilitation programs and increase daily activity in older age groups, allowing one to overcome psychological barriers of patients and medical limitations [2]. It is clear that rehabilitation interventions in patients of

older age groups may include other combinations of various types of training influences. Thus, in the literature there are combinations of aerobic training with oriental tai chi gymnastics or hydrotherapy [3]. The authors of these methods were able to show an additional increase in tolerance to physical activity and the quality of life of patients with combined effects.

Apparently, the greatest effect from training programs in elderly and senile people can be achieved with the additional use of a comprehensive geriatric assessment. This will allow recovery efforts to be individualized and focus on more important issues. Thus, in patients over 70 years of age in early rehabilitation after cardiac surgery, the functional state was studied using a battery of geriatric tests (need for assistance, chair rise test, walking speed, balance and stability assessment, 6-minute walk test). Based on the results of this assessment, an individual rehabilitation program was developed. In the group of such intervention, it was possible to increase the muscle strength, mobility, and stability of patients to a greater extent than in the control group ($p < 0.05$). Also, in the intervention group, the hospital stay of patients was shorter (17.5 ± 8 vs. 21 ± 4 days, $p = 0.0002$), and 91% of them were discharged in a condition not requiring outside care [38].

Psychological aspects of cardiovascular rehabilitation programs in the elderly are no less important. It should be noted that the lack of social connections and support increases overall mortality in men of older age groups. Age over 75 years is itself associated with an increased incidence of depressive symptoms, and living alone increases the prevalence of depression among such patients. At the same time, high social activity can affect these symptoms. According to the ENRICHED study, special behavioral interventions were able to reduce the incidence of depression and social isolation in patients after MI, but not the number of cardiovascular complications. At the same time, cardiac rehabilitation can reduce not only the prevalence of depressive symptoms, but also mortality. In addition, physical training after MI improves the prognosis of patients with depression and/or low social support. In patients aged 70–78 years, participation in cardiac rehabilitation programs at 4-year follow-up reduces the risk of death and MI. The association of reduced mortality with participation in exercise programs after myocardial infarction was also shown in people over 70 years of age in the OMEGA study. However, persistence of depression reduces patients' adherence to secondary prevention and physical training after acute coronary syndromes. Recently published work by Canadian researchers showed that a positive attitude in patients was able to reduce the risk of developing coronary artery disease at 10-year follow-up (RR 0.78; 95% CI 0.63–0.96; $p = 0.02$).

CONCLUSION

Our review of the literature indicates that the problem of prevention and physical rehabilitation in older age groups is very relevant for healthcare and society as a whole. Conducting rehabilitation programs for this category of patients is a complex medical and organizational task. This is due to a low

functional reserve, the presence of comorbid diseases, conditions inherent in elderly people (sarcopenia, intellectual and mental disorders), as well as often social maladjustment of patients.

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IMPROVING THE QUALITY OF EDUCATION THROUGH THE USE OF DIGITAL TECHNOLOGIES IN THE HIGHER EDUCATION SYSTEM

Annotation. The article assumes that in order to digitize higher education, an educational institution should be provided with modern information and communication technologies and digital educational resources, digital libraries have been created and teachers with scientific potential and computer literacy have been involved. It is assumed that this will contribute to improving the quality of education and the rating of the educational institution, as well as the role of digital technologies in the integration of higher education, which will avoid problems associated with digitalization.

Keywords: Digitization, digitization of higher education, digital educational resources, electronic library, electronic visual aids, library, electronic encyclopedia, multimedia textbooks, virtual laboratories, online classes, intellectual classes, analytics, artificial intelligence.

Introduction. The intensive introduction of digital technologies into the higher education system, the formation of an information space and the development of digital education systems lead to the formation of scientific and pedagogical ideas about the organization of the educational process of students of higher educational institutions, a qualitative rethinking of approaches to education, as well as to accelerate the development of the education system. The widespread introduction of digital and information technologies into the education system and the educational process is a global trend, which is one of the most important processes taking place in the education system in recent years. Digitalization of education is characterized by the possibility of creating and using an electronic information educational sphere, the use of special virtual technologies, and the introduction of various educational platforms into the educational process. In general, digitalization of higher education means building all spheres of activity on the basis of information and communication technologies.

Modern digital technologies provide new tools for the development of all educational institutions around the world. Digitization allows people to gain more information and make better decisions in their daily lives, providing opportunities to share lessons learned and knowledge. [8]

Research methodology. In the course of the study, methods of logical analysis based on theoretical material presented in the scientific literature were used. In analyzing the available data, such methods and approaches as analysis and synthesis, comparative analysis were used.

Analysis of the literature on the topic. Studying the problem of digitalization of the higher education system, foreign researchers pay attention to identifying important tasks that need to be solved in this regard.

B.E. Starichenko suggests that digitalization of education should be understood as the transition from traditional education to digital education and emphasizes that a feature of digitalization in comparison with informatization is the integrated use of digital formats for presenting information in the educational process. [1]

E.V.Frolova, O.V.Rogach hypothesized that the digitization of education is an integral part of the training of modern specialists. The Ryabovs believe that social networks, virtual reality technologies and the Internet encourage teachers to use information and communication technologies for educational purposes.[2]

V.N.Minina, however, believes that digitalization of higher education “is associated with a change in the information management process, everyday social practices in the higher education system, with the introduction of technologies for creating, processing, exchanging and transmitting large amounts of information in non-essential information systems, and digitalization involves the integration of education with information resources”.[2]

Analysis and results. It is advisable to use digital technologies in the digital education system in order to improve the quality of higher education. Improving the quality of higher education depends on the uniform improvement of the three most basic sectors, namely:

- development of the material and technical base of higher educational institutions;
- provision of electronic educational and methodological literature;
- the introduction of modern pedagogical and information technologies into the educational process;
- the education system consists of a monitoring department, an educational and scientific department and digitization to rehabilitation centers. [3]

Digitalization of higher education means changing the educational and administrative process, daily social practice in the higher education system through the introduction of technologies for creating, processing, exchanging and transmitting large amounts of information on paperless media. Digitalization involves the integration of education with information resources.[4]

Overall, the digital transformation of higher education is currently sweeping the world. According to the results of the theoretical analysis of the research content, when improving the quality of education based on digital technologies in the higher education system, it is advisable to pay attention to:

- Improving the Internet infrastructure;

- Improving the quality of mobile operator services;
- Creating conditions and incentives for young people, in particular students, to master the achievements of modern ICT;
- Expanding the scope of opportunities for the use of digital technologies in the organization of the educational process;
- Development of information resources, learning tools, distance learning technologies; involvement of creative students in university digitalization projects;
- Making proposals to the authorized bodies on amendments to the normative legal acts regulating the activities of the university;
- Creation of centers, including structures equipped with highly efficient digital devices, classrooms, laboratories, media studios, etc., as well as the application of the experience gained in all higher educational institutions of Uzbekistan;
- Ensuring reliable integration of modern ICT and educational technologies; creating additional conditions for the continuous development of professional skills of teaching staff in this direction;
- Organizing and conducting teacher training courses on topics such as the systematic use of interactive presentations, the development of interactive and multimedia presentations with an Internet connection for lectures and seminars;
- Implementation of the distance learning process at any time using interactive real-time presentations, video conferencing systems, virtual halls, electronic resources;
- The use of cloud technologies, virtual reality, augmented reality, as well as the use of a 3D printer to develop didactic materials and design experiments, the use of digital didactics and digital educational models, the development of scientific websites for teachers and students to discuss projects, theses, research, augmented reality and much more;
- Development of a mechanism for continuous improvement of media competence of educational subjects (support at the state level for increasing the number of video tutorials in Uzbek available on Youtube and other social networks);
- Control and practical support of the process of providing educational institutions with the necessary modern technical equipment;
- Establishing a systematic operation of the Internet connection, technical equipment even in remote areas; regular posting of all scientific journals and developments on websites;
- Widespread introduction of electronic management systems into practical activities and a sharp reduction in work with unnecessary documents; development of a distance learning platform, as well as mechanisms to increase the responsibility of subjects in all social networks;

– As a means of managing the educational process, i.e. creating a system of informatization, analysis and forecasting to increase the effectiveness of all activities of an educational institution, including educational, spiritual, educational and research;

– Creation and implementation of modern information systems in an educational institution as a means of implementing scientific and pedagogical research of students and teachers. [5]

One of the effective ways to improve the quality of education in the higher education system is the use of digital educational resources (DER).

Digital educational resources are an operational visualization tool in teaching, an operational tool in developing practical skills of students, organizing and conducting surveys and monitoring of schoolchildren, as well as an assistant in completing homework on observation and settlement, working with diagrams, tables, graphs, signs, editing texts and correcting errors in students' creative work.



According to the purposes of using DER in the learning process and their capabilities, the following types of DER are distinguished:

An electronic library is a distributed information system that allows reliable storage and efficient use of various collections of electronic documents.

The library of electronic visual aids is a manual, the content of which is transmitted using a set of multimedia components reflecting objects, processes, phenomena of a certain subject area.

– an electronic encyclopedia is a reference book containing a huge amount of information in various fields covering certain areas of knowledge.

– Multimedia textbooks, a software and methodological complex that allows you to master the training course independently or with the participation of a teacher or most of it using a computer.

– Virtual laboratories are an educational complex that allows you to conduct object experiments, including those that are difficult to conduct in a school environment, require additional equipment or are very expensive. [6]

Consequently, there are many digital technologies used in the digitization of higher education, some of which are listed below:

Online classes. Currently, distance learning has become a huge opportunity for students to get an education. Many tools that allow you to work on the Internet, such as Zoom, Google Meet, have allowed students to study remotely.

Smart classes. As a result of the digitization of education, the number of classrooms equipped with smart boards, projectors, the Internet and computers is increasing so that students can receive the information they need in real time and systematically work on themselves, improving their knowledge in order to increase the effectiveness of traditional learning.



Analytics. Collecting grades, exam results and other information in a single online information system allows teachers to quickly assess their achievements, track attendance and progress in the curriculum, evaluate work faster and see which subjects need to be improved.

Artificial intelligence. Artificial intelligence helps to create personalized curricula, assess students' estimated grade point average, improve student academic performance and provide more opportunities. In addition, artificial intelligence can improve employee productivity and help them gain a better educational experience. [7]

The introduction of the above-mentioned digitalization technologies of higher education into the educational process will create conditions for improving the quality of education, which will be important for improving the effectiveness of education. In improving the quality of education, it is advisable to involve teaching staff with not only a material and technical base, but also scientific potential, computer literacy.

Conclusions and suggestions. In conclusion, it is worth saying that the introduction of digital technologies into the education system plays a huge role in the modernization of the country's education system. It is advisable to use a strategy of in-depth study of the impact of digital technologies on their perception and practice of interaction between key participants in the higher education system. It serves to organize modern education and improve the effectiveness of training. It is the creation of a modern digital education system, in turn, that will ensure that future generations find their place in the modern digital world. Improving the quality of education as a result of the use of digital technologies in

higher education institutions will allow students to quickly learn about changes in society, become ready-made personnel and find their place in the labor market.

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FAVQULODDA VAZIYATLARDA INSONLAR SALOMATLIGIGA E'TIBOR

Annotatsiya. Tabiiy ofatlar, baxtsiz hodisalar, terroristik hujumlar yoki yuqumli kasalliklarning tarqalishi kabi favqulodda vaziyatlar ko'pincha inson hayoti va sog'lig'iga katta xavf tug'diradi. Inqiroz davrida hokimiyat va birinchi yordamchilar odamlarning farovonligi va tibbiy ehtiyojlarini birinchi o'ringa qo'yishlari shart. Faqatgina sog'liq muammolariga samarali javob berish orqali holatni tiklash va zararni oldini olish mumkin.

Kalit so'zlar: favqulodda vaziyatlar, hukumat organlari, ehtiyot choralar, xavfsizlik, birinchi yordam, xabardorlik.

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ATTENTION TO PEOPLE'S HEALTH IN EMERGENCY SITUATIONS

Abstract. Emergency situations such as natural disasters, accidents, terrorist attacks or the spread of infectious diseases often pose a great threat to human life and health. During a crisis, authorities and first responders must prioritize people's well-being and medical needs. Only by responding effectively to health problems can recovery and damage be prevented.

Key words: emergencies, government agencies, precautions, safety, first aid, awareness.

Kirish: Favqulodda vaziyatlar shaxs, oila, jamiyat va jamiyat darajasida yuzaga keladigan keng ko'lamli muammolarni keltirib chiqaradi. Har bir darajada favqulodda vaziyatlar odatda himoya vositalarini yo'q qiladi, turli muammolar xavfini oshiradi va ijtimoiy adolatsizlik va tengsizlikning oldindan mavjud muammolarini kuchaytiradi. Masalan, suv toshqini kabi tabiiy ofatlar odatda nisbatan xavfli joylarda yashashi mumkin bo'lgan kambag'al odamlarga nomutanosib ta'sir ko'rsatadi. Favqulodda vaziyatlarda ruhiy salomatlik va psixososyal muammolar bir-biri bilan juda bog'liq, ammo asosan ijtimoiy yoki psixologik xarakterga ega bo'lishi mumkin. Asosan ijtimoiy xarakterdagi muhim muammolarga quyidagilar kiradi:

• Oldindan mavjud bo'lgan (favqulodda vaziyatgacha) ijtimoiy muammolar (masalan, o'ta qashshoqlik; kamsitilgan yoki marjinallashtirilgan guruhga mansublik; siyosiy zulm);

* Favqulodda vaziyatlarda yuzaga keladigan ijtimoiy muammolar (masalan, oilani ajratish; ijtimoiy tarmoqlarning buzilishi; jamoat tuzilmalari, resurslar va ishonchni yo'q qilish; jinsga asoslangan zo'ravonlik);

* Gumanitar yordam bilan bog'liq ijtimoiy muammolar (masalan, jamoat tuzilmalarini yoki an'anaviy qo'llab-quvvatlash mexanizmlarini buzish).

Xuddi shunday, asosan psixologik xarakterdagi muammolarga quyidagilar kiradi:

* Oldindan mavjud muammolar (masalan, og'ir ruhiy buzulish; spirtli ichimliklarni suiiste'mol qilish);

* Favqulodda muammolar (masalan, qayg'u, patologik bo'lmagan qayg'u; depressiya va tashvish buzilishi, shu jumladan travmadan keyingi stress buzilishi(TSSB));

Inqiroz xususiyatiga qarab, aholining barcha kichik guruhlari xavf ostida bo'lishi mumkin. Quyida tez-tez turli xil favqulodda vaziyatlarda turli xil muammolar xavfi yuqori ekanligi ko'rsatilgan odamlar guruhlari keltirilgan:

* Ayollar (masalan, homilador ayollar, onalar, yolg'iz onalar, beva ayollar va ba'zi madaniyatlarda turmushga chiqmagan kattalar ayollar va o'spirin qizlar);

* Erkaklar (masalan, sobiq jangchilar, oilalariga g'amxo'rlik qilish uchun vositalarni yo'qotgan bo'sh erkaklar, hibsga olish, o'g'irlash yoki zo'ravonlik maqsadi bo'lgan yigitlar);

* Bolalar (yangi tug'ilgan chaqaloqlardan 18 yoshgacha bo'lgan yoshlarga), masalan, ajratilgan yoki kuzatuvsiz bolalar (shu jumladan yetimlar), qurolli kuchlar yoki guruhlar tomonidan yollangan yoki foydalanilgan bolalar, odam savdosi bilan shug'ullanadigan bolalar, qonunga zid bo'lgan bolalar, xavfli mehnat bilan shug'ullanadigan bolalar, ko'chada yashaydigan yoki ishlaydigan bolalar va to'yib ovqatlanmagan / rag'batlantirilmagan bolalar;

* Keksa odamlar (ayniqsa, ular parvarish qiluvchi oila a'zolarini yo'qotganlarida);

* Juda kambag'al odamlar;

* Qochqinlar, ichki ko'chirilganlar (ID) va muhojirlar tartibsiz vaziyatlarda

Tabiiy ofatlar, kasalliklarning tarqalishi, mojarolar va baxtsiz hodisalar kabi favqulodda vaziyatlar inson salomatligi va farovonligiga jiddiy tahdid solishi mumkin. Favqulodda vaziyatlar yuzaga kelganda, ular ko'pincha sog'liqni saqlash, sanitariya, toza suv, boshpana va ovqatlanish uchun tayanadigan muhim xizmatlar, infratuzilma va ta'minot zanjirlarini buzadi. Sog'likka bevosita ta'sir jismoniy shikastlanishlar va kasalliklardan psixologik tanglikgacha bo'lishi mumkin. Favqulodda davrda ta'sirlangan aholining sog'lig'ini ta'minlash juda muhimdir. O'tkir tibbiy ehtiyojlarni va keyinchalik yuzaga kelishi mumkin bo'lgan uzoq muddatli sog'liqni saqlash muammolarini hal qilish uchun yaxshi muvofiqlashtirilgan javob zarur.

Favqulodda vaziyatlarda yuzaga keladigan eng keng tarqalgan va dolzarb sog'liq muammolariga jismoniy shikastlanishlar, yuqumli kasalliklar, ruhiy salomatlik muammolari, to'yib ovqatlanmaslik va asosiy ehtiyojlardan foydalanishning yetishmasligi kiradi. Zilzilalar, toshqinlar, bo'ronlar va ekstremal ob-havo hodisalari kabi tabiiy ofatlar ko'pincha qulab tushgan tuzilmalar, uchuvchi qoldiqlar va cho'kish natijasida jarohatlarga olib keladi. Mojarolar va zo'ravonlik to'g'ridan-to'g'ri jarohatlar, nogironlar va hatto portlashlar, o'q otish va boshqa tajovuz harakatlaridan hayot yo'qotishiga olib keladi. Kasallik epidemiyasi aholi sanitariya va gigiena buzilgan vaqtinchalik boshpanalarda to'plangan joylarda tez tarqaladi. Inqiroz bilan bog'liq Stress, qayg'u va hayotni yo'qotish ham ruhiy farovonlikka salbiy ta'sir ko'rsatishi mumkin. Oziq-ovqat mahsulotlarini ishlab chiqarish va tarqatish tarmoqlaridagi uzilishlar, agar muqobil manbalar va yordam zudlik bilan ta'minlanmasa, to'yib ovqatlanmaslikka olib kelishi mumkin.

Shoshilinch tibbiy yordam uchun samarali choralar ehtiyojlarni tezkor baholashni va yetarli tibbiy resurslar va xodimlarni joylashtirishni talab qiladi. Birinchi javob beruvchilar jabrlanganlarni va bemorlarni og'ir sharoitlarga qarab qutqarish uchun ishlashlari kerak. Shoshilinch tibbiy yordam ko'rsatish, operatsiyalarni bajarish, emlash va tibbiy buyumlarni tarqatish uchun zararlangan hududlar yaqinida dala kasalxonalar va ko'chma klinikalar tashkil etilishi kerak. Toza suv, sanitariya inshootlari va xavfsiz oziq-ovqat mahsulotlarini ta'minlash kabi sog'liqni saqlash tadbirlari ham epidemiyalarni oldini olish va keyingi azoblarni yumshatish uchun juda muhimdir. Ruhiy salomatlik va psixososyal yordam xizmatlari odamlarga travma bilan kurashishda va uzoq muddatli ta'sirlarni kamaytirishda bir xil darajada muhim rol o'ynaydi. Oziqlanish skriningi va qo'shimcha oziqlantirish dasturlari inqiroz paytida va undan keyin yuzaga keladigan ozuqaviy kamchiliklarni bartaraf etadi.

Surunkali kasalliklar, nogironlar, ruhiy salomatlik kasalliklari, shuningdek, sog'liqni saqlashning ijtimoiy va iqtisodiy determinantlari kabi muammolar yillar davomida shaxslar va jamoalarga ta'sir ko'rsatishi mumkin. Shuning uchun mahalliy sog'liqni saqlash infratuzilmasi va tabiiy ofatlardan zarar ko'rgan xizmatlarni kuchaytirish uchun rivojlanish bo'yicha sheriklar bilan muvofiqlashtirish zarur. Rehabilitatsiya, maslahat va daromad olish faoliyati, shuningdek, ko'chirilgan aholini qayta tiklashga va ularning uzoq muddatli farovonligini qo'llab-quvvatlashga yordam beradi. Kasalliklarni kuchli nazorat qilish va epidemiyaga tayyorgarlik rejaları kelajakda sog'liqni saqlash xavfsizligiga tahdidlarga qarshi jamoatchilik barqarorligini oshirishga qaratilgan.

Favqulodda vaziyatlarga samarali javob berishning yana bir muhim strategiyasi-favqulodda vaziyatlarni bartaraf etish va boshqarishda jamoalarni mazmunli jalb qilishdir. Kasallikning tarqalishiga samarali javob berish nafaqat kasallik va uning oldini olish usullari haqida ma'lumot tarqatishni talab qiladi. Sog'liqni saqlashni targ'ib qilishning diqqat markazida va sog'liqni saqlashning ijtimoiy determinantlarini tushunishda qarorlar qabul qilingan va himoya

choralari ko'rilgan ijtimoiy kontekstni ochish kerak. Odamlarning individual yoki birgalikda himoya xatti-harakatlarini qabul qilish qobiliyati va tayyorligi shaxs, oila, jamiyat, siyosat va ijtimoiy darajadagi determinantlarning o'zaro ta'siri bilan shakllanganligi sababli, ushbu turli omillarning o'zaro bog'liqligi va o'zaro bog'liqligini hisobga olish kerak. Axborotni 'keng jamoatchilikka' yo'naltirish o'rniga, jamiyat a'zolarini inqirozni bartaraf etish harakatlariga jalb qilish ularning pandemiyaning buzuvchi oqibatlarini tashkiliy va jamoatchilik darajasida hal qilish imkoniyatlarini kuchaytirishi va shu sababli sog'liqni saqlashda sezilarli farq qilishi mumkin.

Xulosa

Xulosa qilib aytganda, jamoat salomatligini muhofaza qilish inqiroz va favqulodda vaziyatlar bilan shug'ullanadigan hokimiyat uchun asosiy tashvish bo'lishi kerak. Faqat odamlarning asosiy tibbiy ehtiyojlarini samarali qondirish orqali bu qiyin vaziyatni tiklash va bir qancha insonlarning hayotini yo'qotilishini minimallashtirish mumkin. Guruhlar o'rtasida yetarli rejalashtirish, resurslar va muvofiqlashtirish bilan favqulodda vaziyatlarning ko'plab sog'liqni saqlash muammolarini jamoalarni himoya qilish uchun hal qilish mumkin. Doimiy tayyorgarlik va o'tmishdagi muvaffaqiyatlardan kelib chiqib, hokimiyatga eng qiyin paytlarda ham fuqarolarning farovonligini himoya qilish burchini bajarishga yordam beradi.

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ИСПОЛЬЗОВАНИЕ КРУГОВОЙ ТРЕНИРОВКИ ДЛЯ ПОВЫШЕНИЯ УРОВНЯ ФИЗИЧЕСКОЙ ПОДГОТОВЛЕННОСТИ БОРЦОВ ГРЕКО-РИМСКОГО СТИЛЯ

Аннотация. В статье даны рекомендации по повышению результатов в соревновании находится в тесной взаимосвязи с оптимизацией средств и методов тренировочного процесса у борцов греко-римского стиля. Особое значение в подготовке борцов имеют пропорция и состав средств физической подготовки, поскольку в технико-тактической подготовке изучаются динамичность и увлекательность греко-римской борьбы. Изучено, что подготовка юных борцов до уровня развития их физических качеств во многом зависит от дальнейшего роста спортивных и технических результатов. Показано, что методики круговых тренировок, специально разработанные для новичков, помогают быстро приобрести необходимые навыки и развить все физические качества.

Ключевые слова: сила, быстрота, выносливость, ловкость, гибкость, физический, технический, тактический, психологический, станции, мост.

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USING CIRCULAR TRAINING TO INCREASE THE LEVEL OF PHYSICAL FITNESS OF GRECO-ROMAN STYLE WRESTLERS

Annotation. The article provides recommendations for improving results in competition and is closely related to optimizing the means and methods of the training process for Greco-Roman wrestlers. The proportion and composition of physical training means are of particular importance in the training of wrestlers, since the dynamism and excitement of Greco-Roman wrestling are studied in technical and tactical training. It has been studied that the preparation of young wrestlers to the level of development of their physical qualities largely depends on the further growth of sports and technical results. It has been shown that circuit training techniques specially designed for beginners help to quickly acquire the necessary skills and develop all physical qualities.

Key words: strength, speed, endurance, agility, flexibility, physical, technical, tactical, psychological, stations, bridge.

Актуальность Греко-римская борьба как вид единоборства является сложным в координационном отношении видом спортивной деятельности, ограниченной рамками существующих международных правил соревнований. Быстрый рост мирового уровня спортивного мастерства в борьбе, ее возрастающая динамичность, требуют пристального внимания к совершенствованию всех сторон подготовки, от которых зависят спортивные достижения. К числу таких факторов, бесспорно, относится физическая подготовленность борцов, а среди основных составляющих физической подготовленности, наряду с такими двигательными качествами, как сила, быстрота, выносливость, ловкость, большую роль играет столь существенная характеристика двигательных возможностей спортсмена, как его гибкость, подвижность суставов.

Исходя из требований соревновательной деятельности и тенденций развития спортивной борьбы, в тренировочном процессе должны вноситься коррективы в физическую, техническую, тактическую, психологическую подготовку будущих мастеров ковра.

Круговая тренировка позволяет воспитывать у спортсменов такие физические качества, как сила, быстрота, выносливость, гибкость и ловкость, и комплексные формы их проявления - силовую, скоростную, скоростно-силовую выносливость и т.д.

При проведении круговой тренировки в зале борьбы или в тренажёрном зале отводятся специальные места для выполнения физических упражнений - "станции". На каждой станции, если это необходимо, размещается инвентарь или оборудование для выполнения физических упражнений. Станции располагаются по кругу, что и послужило причиной для названия "круговая тренировка".

Объект исследования: процесс повышения уровня физической подготовленности борцов греко-римского стиля.

Предмет исследования: круговая тренировка, как средство повышения уровня физической подготовленности борцов греко-римского стиля.

Цель работы: практическое изучение методики использования круговой тренировки для повышения уровня физической подготовленности борцов греко-римского стиля.

Задачи работы:

1. Подобрать и проанализировать научно-методические источники.
2. Изучить методику и подобрать тесты для определения уровня физической подготовленности борцов греко-римского стиля.
3. Подготовить комплекс круговой тренировки для повышения уровня физической подготовленности борцов греко-римского стиля.

4. Сделать заключение.

Методы исследования:

- Анализ научно-методических источников.
- Изучение документов и материалов.
- Метод проекта.
- Метод логического заключения.

Теоретическое обоснование повышения уровня физической подготовленности борцов греко-римского стиля.

1.1 Физическая подготовленность и её повышение у борцов греко-римского стиля

1.2 Круговая тренировка, как средство повышения уровня физической подготовленности борцов греко-римского стиля

1.3 Методика повышения уровня физической подготовленности борцов греко-римского стиля методом круговой тренировки

Анализ научно-методических источников показал, что повышение уровня физической подготовленности направлено на обеспечение подготовки борцов к выступлению на соревнованиях и достижению в ходе их максимально возможного результата. Спортсмены, занимающиеся греко-римского борьбой, должны быть физически развиты. Нельзя добиться стабильного результата в борьбе за счёт лишь одного преимущества в силе, выносливости или ловкости. Комплексное развитие физических качеств с учётом особенностей соревновательной деятельности, может быть, достигнуто с помощью круговой тренировки. Круговая тренировка должна в этом случае органически вписываться в тренировочном процессе, как его составная часть с учётом периодов и этапов подготовки борца.

Практическое изучение процесса повышения уровня физической подготовленности борцов греко-римского стиля методом круговой тренировки.

1. Методика определения уровня физической подготовленности борцов греко-римского стиля

2. Характеристика тестов для определения уровня физической подготовленности борцов греко-римского стиля

3. Характеристика комплекса упражнений круговым методом для повышения уровня физической подготовленности борцов греко-римского стиля.

На первом этапе исследовательской деятельности необходимо использование контрольных нормативов (тестов). Термин тест в переводе с английского языка означает «проба, испытание». Тесты применяются для решения многих научных и практических задач. Среди других способов оценки физического состояния человека (наблюдение, экспертные оценки) метод тестов (в нашем случае - двигательных или моторных) является главным методом, используемым в спортивной метрологии и других

научных дисциплинах («учении о движениях», теории и методике физического воспитания).

На втором этапе исследовательской деятельности для выявления уровня физической подготовленности был подобран комплекс контрольных упражнений, рекомендуемых научно-методической литературой.

Для определения уровня развития силовой выносливости - сгибание и разгибание рук в упоре лёжа ("отжимание").

Для определения уровня развития силы - подтягивание на перекладине.

Для определения уровня развития быстроты - прыжки через скакалку - 10 с.

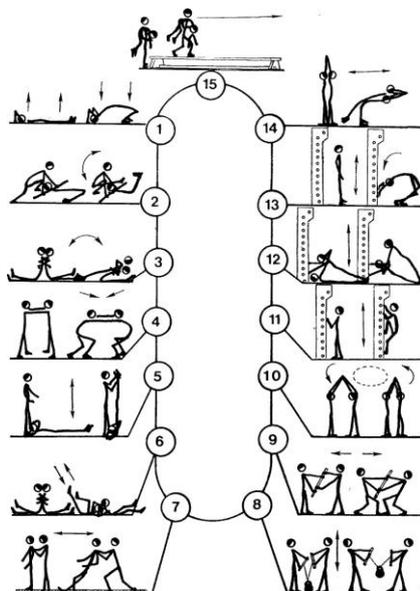
Для определения уровня развития общей выносливости - кроссовый бег - 3 км.

Для определения уровня развития ловкости - челночный бег 3 по 10 м.

На следующем этапе исследовательской деятельности профессиональными тренерами-преподавателями борцов греко-римского стиля разработаны наиболее оптимальные комплексы специальных упражнений для достижения желаемого повышения уровня физической подготовленности, соблюдая который можно приблизиться еще на один шаг к успеху:

Комплекс упражнений методом круговой тренировки для борцов греко-римского стиля.

Применение круговой тренировки в основной части занятия связано с развитием физических качеств в условиях, когда организм еще не устал и готов выполнить работу в большом объеме и оптимальных условиях нагрузки. Комплексы, входящие в основную часть занятия, носят общеразвивающий характер с силовой направленностью, органически связаны с профессионально-прикладной и специальной подготовкой. В заключительной части занятия комплексы круговой тренировки планируются реже и в основном тогда, когда плотность нагрузки на занятии недостаточна. Цель таких комплексов - совершенствование, закрепление и повторение пройденного материала основной части занятия.



1) лежа на спине, руки за головой, вставать на «мост», выполняя пружинистые покачивания, стоя на голове;

2) первый партнер лежит на спине, поднимая и опуская прямые ноги под углом с правой и левой стороны; второй из упора присев переносит центр массы с одной ноги на другую, полностью выпрямляя ногу в коленном суставе и опираясь о предплечье партнера;

3) партнеры сидят на полу спиной друг к другу, соединив руки в локтевых суставах, выполняют сгибание и разгибание туловища, опираясь о спину партнера;

4) партнеры стоят лицом друг к другу, взявшись руками за шею, в силовом единоборстве стремятся согнуть шею партнера, выводя его из равновесия;

5) первый партнер лежит на спине, взявшись руками за ноги второго, второй – поднимает за ноги первого, помогая выйти в стойку на лопатки;

6) партнеры сидят на полу спиной друг к другу, ноги врозь, соединив руки в локтевых суставах, выполняют силовое единоборство, стремясь наклонить партнера в свою сторону;

7) партнеры стоят друг за другом на середине мата, силовое единоборство между ними, толкая партнера в спину за пределы мата;

8) совместное накручивание кистями рук на блоки и раскручивание груза (гири, блин от штанги и др.);

9) партнеры стоят лицом друг к другу, взявшись руками за гимнастическую палку, и вырывают палку из рук партнера;

10) партнеры стоят ноги на ширине плеч, взявшись руками вверх, совместные вращения в правую и левую стороны;

11) лазанье при помощи рук и ног по гимнастической стенке вверх и вниз на скорость;

12) первый партнер лежит под пристенной навесной перекладиной, взявшись за нее руками, второй в упоре о перекладину сверху – сгибание и разгибание рук партнерами;

13) стоя спиной к гимнастической стенке, перебирая руками рейки, переходить в положение «моста» и возвращаться в исходное положение;

14) партнеры стоят спиной друг к другу, взявшись руками вверху, выполняя поочередные наклоны вперед с партнером на спине;

15) перенос лежащего на плече партнера по гимнастической скамейке.

Заключение

Анализ научно-методических источников показал, что повышение результатов в соревновании находится в тесной взаимосвязи с оптимизацией средств и методов тренировочного процесса. Особое значение в подготовке борцов приобретают соотношение и состав средств физической подготовки, т.к. на первый план, вместе с технико-тактической подготовленностью выходят динамичность и зрелищность греко-римского борья.

Подготовка юных борцов - одна из главных задач подготовки спортивного резерва, от того насколько рационально будут решены вопросы тренировки в молодом возрасте, процесс начального становления технического мастерства, уровня развития физических качеств во многом зависит дальнейший рост спортивно-технических результатов.

Планирование тренировочного процесса требует от тренера разнообразных знаний и практического опыта. Необходимо творчески перерабатывать самый передовой опыт и использовать знания об объективных взаимосвязях между организацией тренировки и ростом спортивных достижений.

Специально разработанная для начинающих борцов методика круговой тренировки поможет более быстрому усвоению необходимых навыков и развитию всех физических качеств.

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ИНТЕГРАЦИЯ СИСТЕМЫ ТРИГОНОМЕТРИЧЕСКИХ УРАВНЕНИЙ И НЕРАВЕНСТВ С ИСПОЛЬЗОВАНИЕМ СОВРЕМЕННЫХ ИКТ

Аннотация: в статье рассматривается Интеграция системы тригонометрических уравнений и неравенств с использованием современных ИКТ

Ключевые слова: интеграция, система, тригонометрия, уравнения, неравенство, информационно-коммуникационные технологии.

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INTEGRATION OF A SYSTEM OF TRIGONOMETRIC EQUATIONS AND INEQUALITIES USING MODERN ICT

Abstract: the article discusses the integration of a system of trigonometric equations and inequalities using modern ICT

Key words: integration, system, trigonometry, equations, inequality, information and communication technologies.

Отличия в процессах восприятия, переработки, воспроизведения информации у учеников есть, дети отличаются обучаемостью и, соответственно, обученностью. Одинаково всех учить нельзя. Увеличение умственной нагрузки на уроках математики заставляет задуматься над тем, как поддержать у учащихся интерес к изучаемому предмету, их активность на протяжении всего урока. Огромную помощь в решении этого вопроса может оказать компьютер. Использование компьютера при обучении позволяет создать информационную обстановку, стимулирующую интерес и пытливость ребёнка.

Неоценимую помощь оказывает мне компьютер при подготовке и проведении уроков по теме "Тригонометрия". Ученикам порой кажется, что тригонометрия - это скучный набор формул и графиков. Использование ИКТ позволяет расширить знания учащихся о тригонометрических функциях, познакомить школьников с новыми понятиями и методами, показать насколько интересен и увлекателен мир тригонометрии. При изучении этой темы учитель сталкивается со следующими проблемами: построение графиков тригонометрических функций отнимает много времени на уроке, неизбежная неточность полученных графиков не позволяет вести сколько-нибудь серьезное обсуждение связи этих графиков с реальными периодическими процессами. Графическая иллюстрация при изучении тем "Преобразование графиков тригонометрических функций", "Свойства тригонометрических функций", "Тригонометрическая окружность", "Решение тригонометрических уравнений и неравенств", актуализация довольно большого объема знаний, полученных ранее, вот те преимущества, которые даёт использование компьютера. Эти процессы идут значительно быстрее, а за счет экономии времени при построении графиков удастся рассмотреть большее количество примеров. Изучаемый материал становится доступным и очевидным с использованием возможностей анимации. График, выполненный на доске, проигрывает виртуальному уже хотя бы потому, что виртуальный можно воспроизводить в неизменном виде (что актуально для зрительной памяти) любое количество раз; при необходимости можно возвращаться к предыдущим этапам построения. Использование мультимедийных средств позволяет изучать тригонометрические функции не только продуктивно, но и интересно (этому способствует использование визуально-графических и звуковых эффектов). Учащиеся учатся устанавливать связь словесного описания (типа "затухающее колебание с постоянным периодом") с графическим представлением. При этом такие ключевые понятия как период, амплитуда, фаза наполняются конкретным смыслом, а разнообразие

изучаемых функций даёт представление о многообразии, сложности и распространённости колебательных процессов.

Тема "Тригонометрические уравнения" - достаточно сложная тема, требующая знания большого количества однотипных формул. Поэтому удобно иметь сюжетную "картинку", позволяющую запомнить формулы, привязать их к единичной окружности. Применять ИКТ целесообразно в обучающем, тренировочном режимах для отработки элементарных умений и навыков после изучения отдельных тем тригонометрии, например, "Преобразование тригонометрических выражений" с применением основных формул тригонометрии, а также в режиме диагностического тестирования качества усвоения материала учащимися (компьютерное тестирование является эффективным средством контроля знаний учащихся и этапом подготовки к экзаменам). При работе со слабыми учащимися применение компьютера обычно значительно повышает их интерес к изучаемой теме.

В своей работе по этой теме я опираюсь на различные образовательные технологии, используя при этом возможности компьютера.

Проектная деятельность вырабатывает у учащихся стремление и умение самостоятельно добывать и использовать новые знания. Достигается связь теоретических знаний с практическими умениями, учащиеся осознают роль знаний в жизни и обучении. Проектное обучение позволяет использовать знания учащихся из разных областей для решения одной проблемы, даёт возможность применять полученные знания на практике, выдвигать при этом новые идеи. В 10-м классе при изучении тригонометрии мои учащиеся разработали мини - проекты, в которых обобщили знания о свойствах тригонометрических функций, широко отразили применение этих функций в физике. Выполняя исследовательские работы, ребята находили ответы на интересующие их вопросы: "Тригонометрия. А можно ли без нее?", "Как помогает тригонометрия физике?", "А где еще нужна тригонометрия?", "Какие житейские ситуации приводят к появлению тригонометрических уравнений?". Результаты работы учащимися были представлены в виде презентаций, которые содержали также материал из истории этих функций.

Технология модульного обучения алгоритмизирует последовательность действий учителя и ученика (я её использую при изучении темы "Решение тригонометрических уравнений"). Эта технология привлекает меня тем, что ученик основное время работает самостоятельно, учится ставить перед собой конкретные цели, планировать их достижение, организовывать свою работу в соответствии с составленным планом, контролировать достигнутые результаты, оценивать свою работу.

При проведении интегрированного урока алгебры - информатики в 10-м классе при изучении нового материала второго учебного элемента

"Формулы двойного аргумента" модуля по теме "Формулы тригонометрии" учащимся предлагается изучить материал самостоятельно с помощью презентации по теме урока (*Приложение 2*), выполнить обучающую дифференцированную самостоятельную работу. Правильность выполнения заданий оценивается с помощью программы, подготовленной учителем информатики. Предложенный для самостоятельного изучения материал содержит доказательство изучаемых формул, примеры доказательства тригонометрических тождеств, упрощения и вычисления тригонометрических выражений, решения тригонометрических уравнений. Таким образом, при выполнении обучающей дифференцированной самостоятельной работы учащимся предлагаются примеры с алгоритмическими предписаниями, с сопутствующими указаниями, с образцом выполнения. При неправильном выполнении задания, учащимся даются рекомендации. Более сильным учащимся при успешном выполнении основной части самостоятельной работы предлагается творческое задание. Выполнение теста на компьютере позволяет учащимся сразу же диагностировать, а также корректировать свои знания по теме, применить на уроке знания, полученные ранее.

Наглядность, быстрота диагностики знаний учащихся, повышение роли самостоятельной работы учащихся, и, конечно же, возможность осуществления дифференцированного подхода (индивидуальный темп работы, подсказки), формирование всесторонней картины мира - вот те неоспоримые преимущества, по моему мнению, которые говорят в пользу применения при подготовке к уроку и на самих уроках компьютерных технологий. А применение компьютера при изучении тригонометрии существенно влияет на методику её преподавания.

Сейчас, когда наше образование согласно Государственным стандартам Кыргызской Республики становится компетентностно ориентированным учителя задумываются над тем как это грамотно реализовать. Живя в XXI веке мы понимаем, что на первый план выходят информационные технологии и учитель, живя в этом быстроменяющемся мире должен так же быстро уметь учиться новому и учить этому своих учеников.

При изучении школьного курса математики одной из самых сложных тем в понимании детей является тема «Тригонометрические функции». Понятие «функция» является одним из ключевых понятий математики, а идея функциональной зависимости находит свое отражение не только в математике, но и в ряде других наук, таких как физика, химия, биология, медицина и т. д., что делает ее основополагающей для понимания и изучения процессов и явлений, происходящих в природе и обществе.

Вместе с тем, именно тригонометрический материал имеет большую практическую направленность, что требует от учащихся прочного овладения основными понятиями, умения выполнять различного рода

преобразования тригонометрических выражений, исследовать тригонометрические функции, строить их графики. А. Г. Мордкович в своей статье «Методические проблемы изучения тригонометрии в общеобразовательной школе» [1] сформулировал три основных тезиса, которыми следует руководствоваться при организации изучения тригонометрического материала в школе:

1. Основное внимание на пропедевтическом этапе изучения материала надо уделить модели «числовая окружность на координатной плоскости».

2. Времени на изучение в школе собственно тригонометрических уравнений практически не остаётся, потому что непреодолимые трудности у учащихся возникают уже на этапе формирования умений осуществлять тождественные преобразования тригонометрических выражений.

3. Тригонометрическими формулами целесообразно заниматься только после того, как учащийся овладеет двумя «китами», на которых базируется все изучение тригонометрического материала: числовой окружностью и простейшими тригонометрическими уравнениями.

Здесь на помощь к учителю могут прийти современные средства обучения такие, как компьютер, так и интерактивная доска. Имея в арсенале нужное программное обеспечение, или же создавая его самому можно привить детям любовь даже к этой сложной, но очень важной теме. Все мы знаем, что человек воспринимает информацию на 90% с помощью органов зрения и поэтому красочно оформленный наглядный интерактивный материал поможет в обучении.

Мы все прекрасно понимаем, что мотивация играет очень важную роль в обучении, учитель должен уметь заинтересовать ученика именно процессу обучения. Информационные технологии являются мощным средством обучения, которое способно повысить его эффективность, создать мотивацию ученика. Это осуществляется не только благодаря новизне работы с компьютером, которая сама по себе нередко способствует повышению интереса к учебе, но и возможности регулировать предъявление задач по трудности, поощряя правильные решения, не прибегая при этом к нравоучениям и порицаниям.

Интерактивная доска помогает сократить время на объяснении теоретического материала и заранее подготовить больше практических заданий. И в отличие от обычного мультимедийного проектора интерактивная доска позволяет не только демонстрировать слайды и видео, но и рисовать, чертить, наносить на проецируемое изображение пометки, вносить любые изменения, передвигать объекты и надписи по экрану, и сохранять их в виде компьютерных файлов. Заранее подготовленные тексты, таблицы, диаграммы, картинки, а также гиперссылки к мультимедийным файлам, делают процесс обучения ярким, наглядным, динамичным, не нужно тратить время на то, чтобы написать текст на обычной доске или перейти от экрана к клавиатуре. Интерактивная доска

позволяет выполнять большое количество интерактивных упражнений: «генератор фрагментов», «бегущая строка», «водоворот», «случайный выбор картинка», «вопрос-ответ», «средство для проверки», «найти пару», «мозаика», «множественный выбор» и т.д. Файлы предыдущих занятий можно всегда открыть, чтобы повторить пройденный материал. Всё, что учащиеся делают на доске, можно сохранить и использовать в последующем. Учитель всегда может вернуться к предыдущему этапу урока и повторить его ключевые моменты.

Обучение работе на интерактивной доске в Бишкеке проводит академия Алтын-Туйун. В интернете существует масса бесплатных уроков как в видео формате, так и в текстовом по созданию уроков в программе Smart Notebook,,

Я предлагаю использовать, кроме программ к интерактивным доскам и интерактивных презентаций, еще и готовые электронные тренажеры, которые можно скачать в свободном доступе в сети Internet [2]. Я предлагаю рассмотреть некоторые из них. Тренажеры, рассмотренные в статье, рассчитаны в основном на 10 класс.

Тренажер **Trigonom**, позволяет выполнять преобразование графиков тригонометрических функций, свойства тригонометрических функций не только демонстрируются на графике, но и указываются, тоже касается базовых уравнений и неравенств. Этот тренажер объединяет в себе несколько тренажеров. Основные понятия не только показаны визуально, но также есть возможность прочитать числовые значения. Рассмотрим некоторые вкладки подробнее.

Вкладка программы «Основные понятия» (см. рис. 1) помогает формировать понятия тригонометрических функций числа (см. рис. 1). Она демонстрирует:

- изображение числа на тригонометрической окружности;
- понятия косинуса, синуса, тангенса и котангенса числа;
- использование тригонометрической окружности для решений некоторых задач, которые следует ученикам завершить (при помощи учителя).

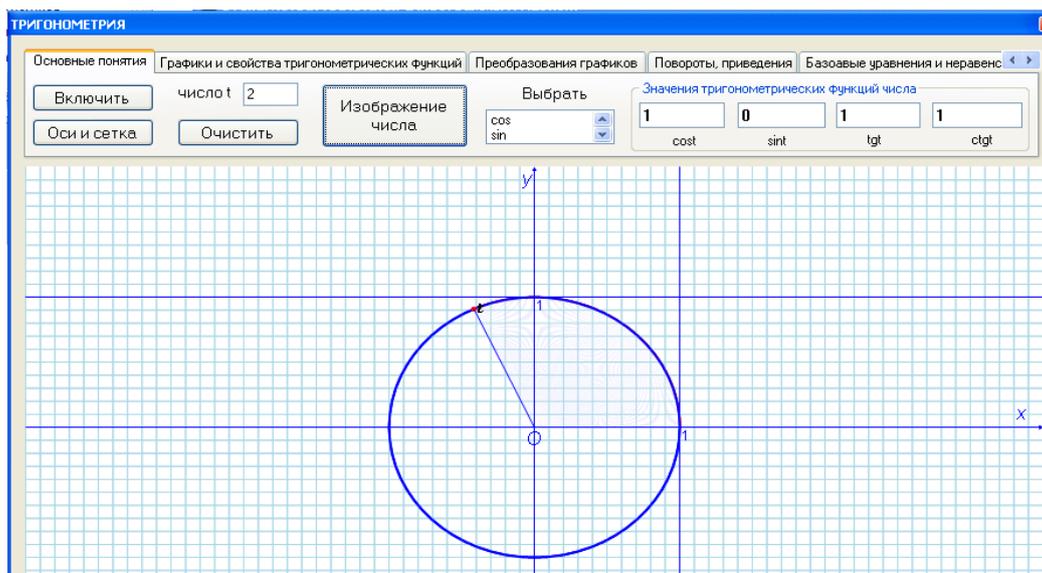


Рис. 1. Вкладка программы Trigonom «Основные понятия».

Вкладка программы *«Графики и функции»* (см. рис. 2) предназначена для демонстрации графиков тригонометрических функций и их свойств. Выбираем в левом списке функцию - демонстрируется график этой функции. В правом списке перечислены свойства функции. Выбираем свойство - демонстрируется свойство для этой функции. Важно чтобы перед выбором свойства, график функции был отображен. При выборе другой или этой же функции окно рисунка очистится, и будет строиться график избранной функции заново.

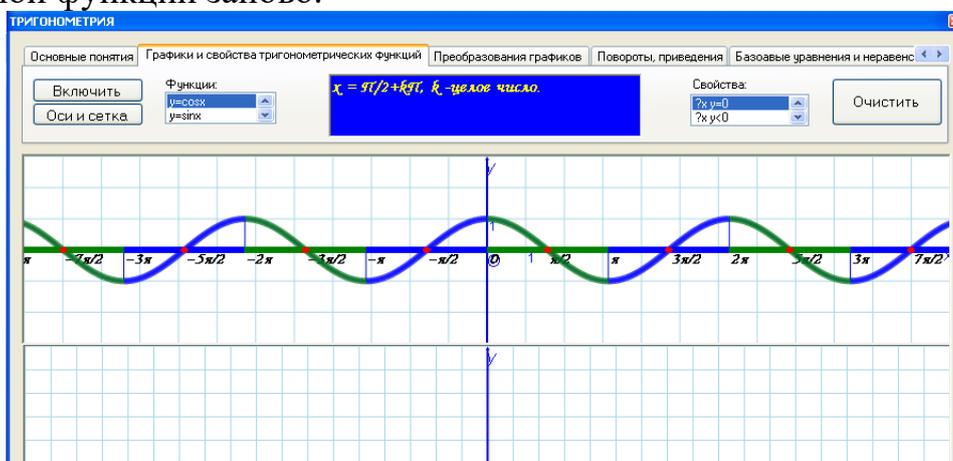


Рис. 2. Вкладка программы Trigonom «Графики и функции».

Вкладка программы *«Повороты, приведения»* (см. рис. 3) демонстрирует поворот точки координатной плоскости (центр поворота (0; 0) на угол, кратный половине числа π (левый рисунок), и получения формул приведения (на правом рисунке демонстрируется такой же поворот точки тригонометрической окружности). Под рисунками, в текстовом поле выводятся результат наблюдения.

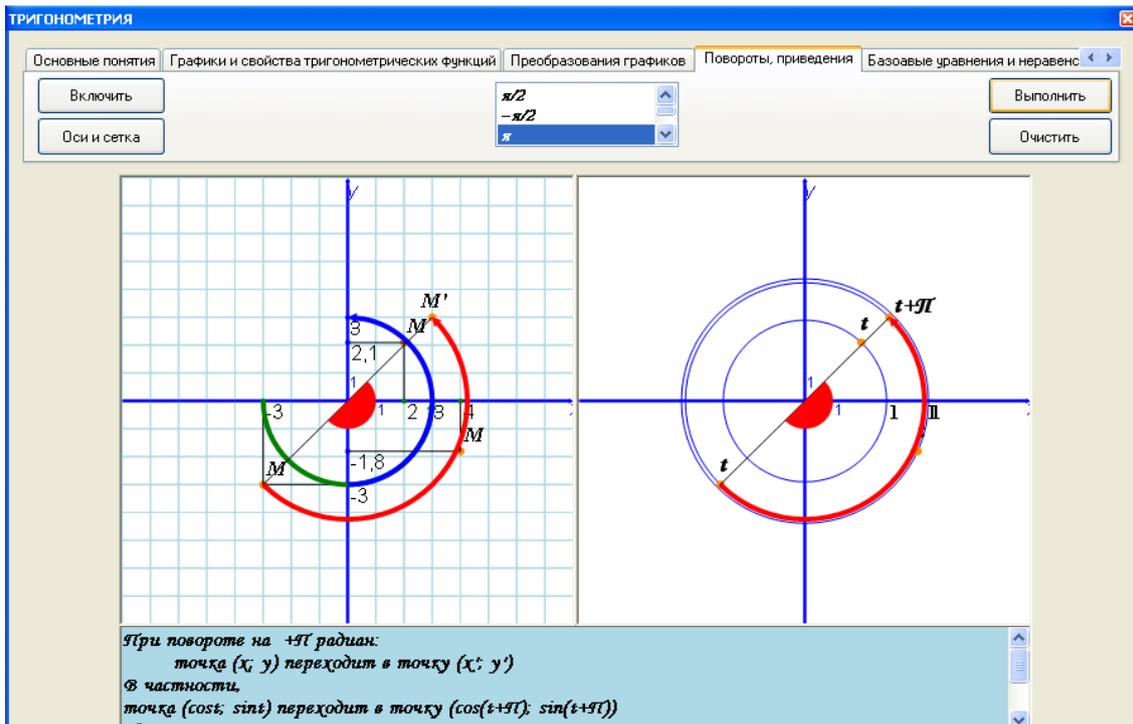


Рис. 3. Вкладка программы Trigonom «Повороты, приведения».

Вкладка программы «Обратные функции, их графики» (см. рис. 4) демонстрирует определения обратных тригонометрических функций числа и графики обратных тригонометрических функций. График строится путем зеркального отражения (осевой симметрии) части графика соответствующей тригонометрической функции относительно прямой $y=x$ (это особенно «подчеркнуто» при построении графика функции $y=\text{arctg}x$).

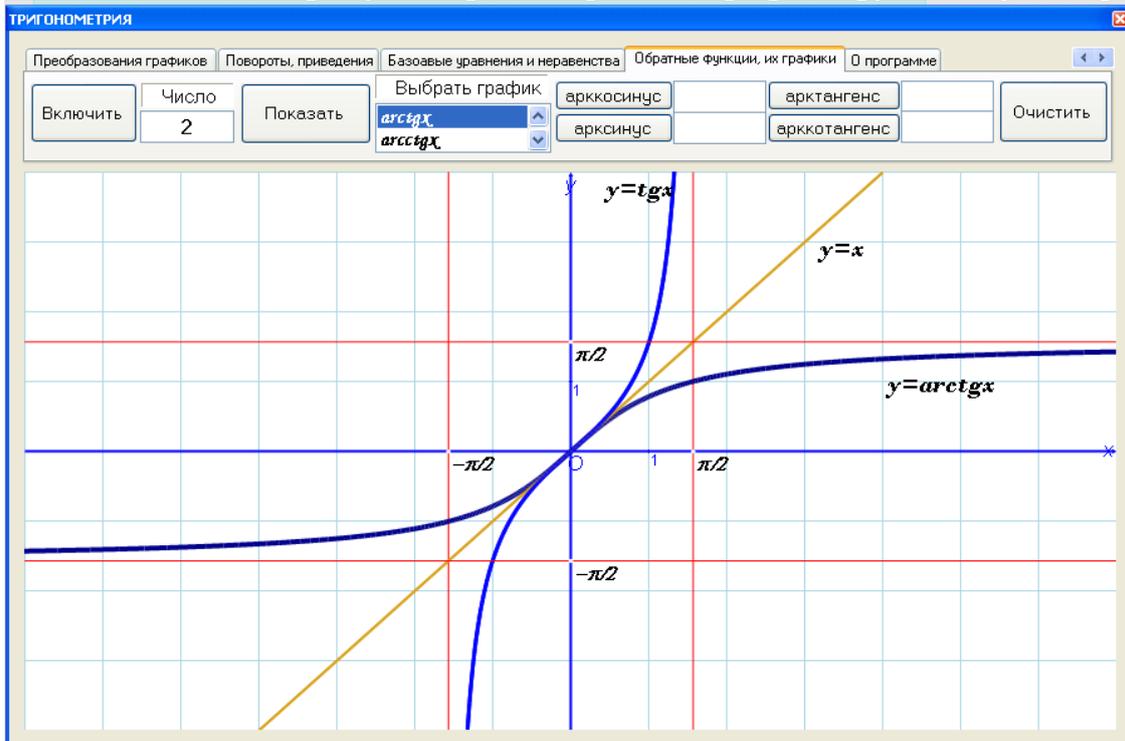


Рис. 4. Вкладка программы Trigonom «Обратные функции, их графики».

На сайте также представлены вкладки программы Trigonom в виде отдельных программ более ранних версий.

Компьютерная программа по математике «Установка соответствия» (см. рис. 5) предназначено для проверки (самопроверки) знаний формул. Материал для оболочки содержится в папке-теме Тригонометрия. В этой папке находятся папки-варианты: v1, v2, v3, v4, содержащие "выражения".

Ординарным кликом выбираем те два выражения, которые есть левой и правой (порядок не играет роли) частью формулы (тригонометрического тождества). Выражения исчезают, приоткрывая часть рисунка. Если выбор сделан удачно (т.е. правильно), то в нижнем текстовом поле появится звездочка.

Результат можно определить по количеству звездочек. Впрочем, когда все выражения будут исчерпаны, станет доступной кнопка результат и в окне сообщений можно прочесть результат в баллах (шкала выбрана от 0 до 12).

Каждый вариант охватывает только десять формул. Формулы в вариантах не повторяются. Радует то, что каждый учитель может добавить темы и задания в данную оболочку.

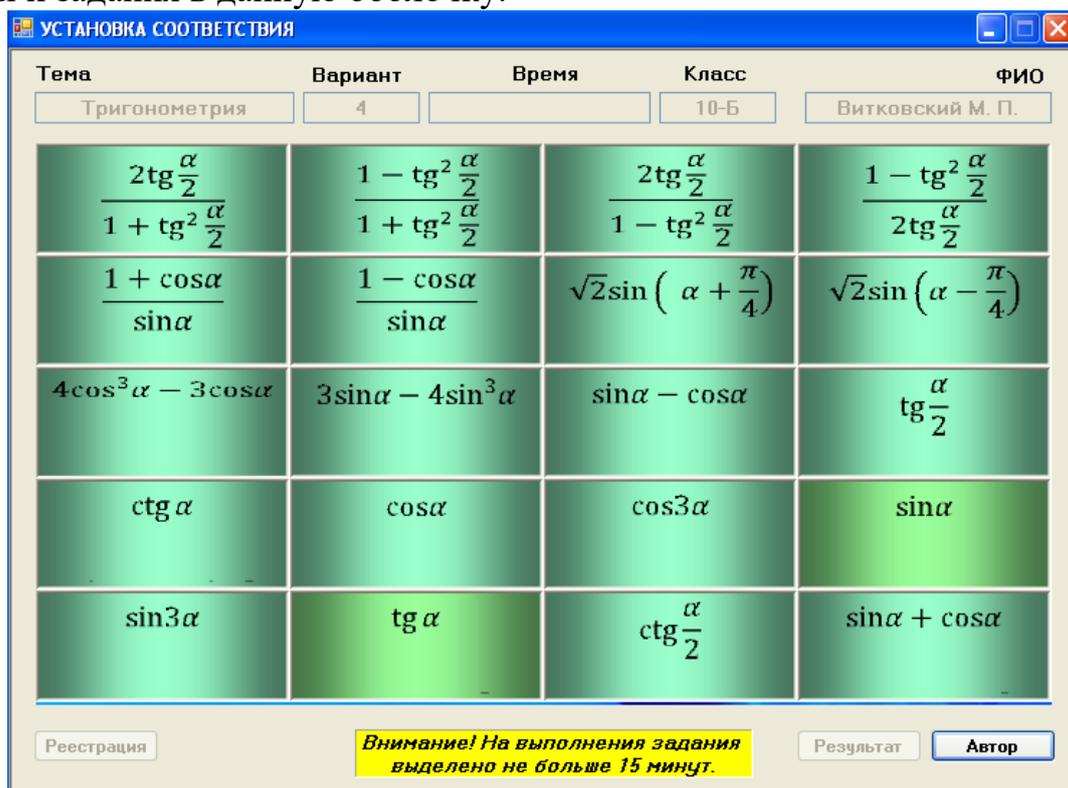


Рис. 5. Окно программы «Установка соответствия».

Учащиеся воспринимают подобные тренажеры, при должной подаче, как игру, тем самым повышается мотивация к изучению темы. Зачастую у учащихся возникает желание установить эти программы у себя на домашнем компьютере, чтобы лишний раз попрактиковаться. Тем самым

они самостоятельно глубже изучают эту сложную тему, и снимается психологический барьер страха перед тригонометрией. В этой статье, рассмотрено только 2 тренажера, которые я рекомендую при изучении темы «Тригонометрические функции», каждый учитель при желании может подобрать для себя подобные тренажеры или создать их самостоятельно.

Из практики можно сделать вывод, что ученик, который раньше тихо сидел за последней партой, вдруг становится активным и начинает мыслить. Учащийся, который вечно срывал занятия, направляет свою энергию на работу. А тот, кому просто тяжело учиться, находит новые возможности для самовыражения.

Уроки с использованием ИКТ имеют практические, теоретические и познавательные результаты, они интересны ученикам. Однако, как показала практика, используя информационные технологии в учебном процессе, не стоит делать это эпизодически, бессистемно, иначе они не повлияют на результаты обучения.

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ОБРАЗОВАТЕЛЬНЫЕ ТЕХНОЛОГИИ И ДИЗАЙН STEAM

Аннотация: внедрение образовательной технологии STEAM в сферу дошкольного образования, преподавание в качестве факультативного предмета не только специалистам, работающим в системе дошкольного образования, но и студентам высших учебных заведений, обучающимся в данной сфере. Студенты, обучающиеся в высших учебных заведениях, учатся по образовательной технологии STEAM, меняя свои взгляды на образование. Воспитатели, педагоги, обучающиеся и их родители (законные представители) дошкольных образовательных организаций могут использовать технологию STEAM исходя из потребностей образования. Анализируется процесс и статус использования технологии STEAM в мировом образовательном опыте.

Ключевые слова: STEAM, творчество, обучение, познавательный, игровой метод, технология обучения, деятельность, развивающая среда, STEAM-педагоги, творческое мышление, эстетическое удовольствие, интеллектуальные способности.

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EDUCATIONAL TECHNOLOGY AND STEAM DESIGN

Abstract: the introduction of STEAM educational technology into the field of preschool education, teaching as an elective subject not only to specialists working in the preschool education system, but also to students of higher educational institutions studying in this field. Students studying in higher education institutions learn through STEAM educational technology, changing the way they think about education. Educators, teachers, students and their parents (legal representatives) of preschool educational organizations can use STEAM technology based on educational needs. The process and status of using STEAM technology in global educational experience is analyzed.

Key words: STEAM, creativity, learning, cognitive, game method, teaching technology, activity, developmental environment, STEAM teachers, creative thinking, aesthetic pleasure, intellectual abilities.

Сегодня STEAM-образование — один из главных трендов в мире, основанный на применении междисциплинарного практического подхода.

Обязательными условиями такого образования являются его непрерывность и способность детей взаимодействовать в рабочих группах, где они могут собирать идеи и обмениваться идеями.

Он составляет основу таких модулей моделирования, как «ЛЕГО-конструирование», «Математическое развитие», «Фокусник-бумага», «Мультстудия», «Мир глазами детей». STEAM вдохновляет детей исследовать, как изобретатели и ученые, моделировать, как технологи, проектировать, как инженеры, рисовать, как художники, думать, как математики, и играть, как дети. Развитие творческого потенциала молодого поколения остается важной задачей дошкольных образовательных организаций, что, в свою очередь, требует совершенствования образовательного процесса с учетом психологических законов системы.

Современному обществу нужен активный, инициативный, творческий мыслитель и добрый гражданин. Поэтому возникла необходимость внедрения STEAM-технологии в образовательный процесс детского сада, позволяющей привлечь дошкольников к научно - техническому творчеству и создать благоприятные условия для формирования творческого мышления и воображения, а также приобретения начальных технических навыков. Современное образование готовит ребенка к будущей жизни в обществе и требует от него наличия особых интеллектуальных способностей. Развитие умения получать, обрабатывать и применять полученную информацию – основа STEAM-технологии.

Если дошкольные педагоги организуют свою деятельность с помощью технологии STEAM, дети приобретут дополнительные практические навыки. Интересные занятия в форме игр раскрывают творческий потенциал ребенка. Дети учатся видеть взаимосвязь между событиями, лучше понимают принципы логики, а в процессе создания собственных моделей открывают для себя новые и уникальные вещи. Комплексный подход помогает развивать у них интерес и вовлеченность в образовательный процесс. Технология STEAM в современном образовании все больше направлена на формирование основных личностных навыков, развитие способности детей самостоятельно решать задачи, совершенствование умений работать со знаниями, развитие интеллектуальных способностей. В связи с этим актуальное значение приобретает формирование у детей технического мышления, развитие исследовательских, инженерных и строительных навыков.

Благодаря STEAM-подходу дети могут войти в логический процесс событий, понять их взаимоотношения, систематически изучать мир и развить умение выходить из инженерных, критических ситуаций, развивать навыки работы в команде, изучать основы управления и самопрезентации. могут научиться.

Проектирование образовательных технологий STEAM

Ниже представлен проект «Мир глазами детей» по технологии STEAM.

Особенности проекта: межгрупповое сотрудничество. Цель: внедрение образовательных модулей STEAM-технологии: «Лего-конструктор», «Математическое развитие», «Фокусник-бумага», «Мультистудия» для развития интеллектуальных способностей дошкольников и вовлечения их в научно-техническое творчество.

Задачи проекта:

1. Создание педагогически целесообразной, научной и творческой среды развития в дошкольной образовательной организации.

2. «ЛЕГО-конструкция», «Математическое развитие». Организация работы образовательных модулей типа «волшебник-бумага», «мультистудия», «мир глазами детей».

Заинтересовать и вовлечь родителей в работу по усвоению знаний детей

4. Формирование исследовательских навыков, самосознания детей.

5. Развитие навыков сотрудничества с другими участниками проекта.

Инновация: комплексное использование современных методов и элементов STEAM-технологий в деятельности с учетом интеграции образовательных областей в дошкольном образовании. Для достижения цели и решения поставленных задач был разработан следующий модуль.

Модуль «ЛЕГО-дизайн».

Этот модуль позволяет познакомить детей с моделированием с помощью конструкторов Lego. Через образовательный модуль «ЛЕГО-Конструктор» - умение проводить практические и мысленные эксперименты, обобщать, развивать речь и развивать речевые комментарии и результаты собственной деятельности - свободное общение на родном языке (словосочетания, грамматический строй речи, фонетический строй, исходные представления о смысловой структуре) - умение создавать новые образы, воображать, использовать сходство.

Образовательный модуль «Математическое развитие».

Компания разработала настольные игры, руководства для сенсорного развития, геометрические объекты и наборы чисел, дисплеи и раздаточные материалы для математического развития, логические головоломки, сортеры, табло, математические конструкторы и многое другое. Посредством образовательного модуля «Математическое развитие» осуществляется комплексное решение задач математического развития с учетом возраста и индивидуальных особенностей детей в математических развивающих играх и познавательных исследованиях. Лепка с помощью «Волшебника-бумаги» помогает познакомить детей с древнейшим миром искусства складывания бумаги с помощью клея и ножниц. Уроки оригами позволяют детям удовлетворить свои учебные интересы, повышают осведомленность в этой области образования, обогащают коммуникативные

навыки и имеют возможность осуществлять совместную деятельность. Также это способствует развитию мелкой моторики, что существенно влияет на развитие речи детей.

Конструктор из бумаги помогает сбалансированному развитию логического и образного мышления, ребенок может поэтапно планировать свою работу и доводить ее до желаемого результата.

Часть STEAM-технологий – это знакомство детей с цифровыми технологиями. В этом поможет модуль «мультистудия», дети будут создавать мир своими глазами. Это позволяет детям представить результаты своей работы в различных проектах на современном уровне, создав собственный анимационный фильм посредством «мультистудии».

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ЛЕКАРСТВЕННЫЕ РАСТЕНИЯ И ИХ ИСПОЛЬЗОВАНИЕ В ФИТОТЕРАПИИ

Аннотация. В статье рассматриваются особенности использования лекарственных растений в фитотерапии. Основу фитотерапии составляют лекарственные травы, которые оказывают лечебное или профилактическое действие на различные виды заболеваний. Фитотерапия - прекрасный способ улучшить пищеварение, укрепить иммунитет и придать дополнительный жизненный тонус.

Ключевые слова: препарат, иммунитет, стадия, медицина, сироп, трава, болезнь, профилактика.

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MEDICINAL PLANTS AND THEIR USES IN PHYTOTHERAPY

Annotation. The article discusses the features of the use of medicinal plants in herbal medicine. The basis of herbal medicine is made up of medicinal herbs that have a therapeutic or preventive effect on various types of diseases. Herbal medicine is a great way to improve digestion, strengthen the immune system and give additional vitality.

Key words: drug, immunity, stage, medicine, syrup, herbs, disease, prevention.

В настоящее время лекарственные растения в современной медицине еще не утратили своих позиций, они привлекают к себе все более пристальное внимание ученых. Из более чем 3000 препаратов, применяемых в медицине, 40 % вырабатывается из лекарственных растений.

В прошлом на самых ранних стадиях развития человечества растению употребляли не только как пищу, а использовали для лечения болезни. Лечение травами лекарственными растениями применяется тысячелетиями. Первые находки относятся ко временам шумеров (6000 лет до н. э.), вавилонян и ассирийцев — древнейших народов мира. Одно из самых известных фармакологических свидетельств Древнего Египта — «папирус Эберса», датированный 1570 годом до нашей эры. В нем перечислено несколько сот растений, и написаны рецепты для лечения различных болезней [1].

Лекарственные растения (*Plantae medicinalis*) — это дикорастущие и культивируемые растения, применяемые для профилактики и лечения заболеваний человека и животных. Система лечения лекарственными растениями называется фитотерапией. Термин «фитотерапия» (от греч. *phyton* — растение и *therapeia* — лечение) в буквальном переводе с латинского означает «лечение травами». Фитотерапия лечит болезни лекарственными травами или их частями в свежем, сушеном состоянии или в виде соков, сиропов и настоек. Основу фитотерапии составляют лекарственные травы, которые оказывают лечебное или профилактическое действие на различные виды заболевания. В основе многих фармакологических препаратов лежат вещества, полученные из лекарственных растений [4].

Термин «фитотерапия» в буквальном переводе с латинского означает «лечение травами». Вплоть до начала XX века фитотерапия занимала почетное место среди прочих методов лечения. По классификации ВОЗ фитотерапия является одной из составных частей традиционной медицины. На сегодняшний день более 50 % опрошенных предпочитают лечиться лекарственными средствами природного происхождения и только 20 % считают, что химические средства более надежны [3].

Фитотерапия - прекрасный способ улучшить пищеварение, укрепить иммунитет и придать дополнительный жизненный тонус. Лекарственные средства, используемые в фитотерапии, богаты микро- и макроэлементами, а также витаминами и антиоксидантами. Использование различных видов экстрактов лекарственных растений является прекрасным дополнением к здоровому питанию. Чаще всего фитотерапия используется для симптоматического лечения различных заболеваний [5].

Лечение лекарственными растениями дает антибактериальный, противовирусный, противоаллергический, мочегонный эффекты, обезболивает и оказывает влияние на иммунную систему.

В фитотерапии отличают три фактора:
применяется внутрь орально или наружно;
оказывает мягкий и накопительный эффект на организм;
требует времени для результата, от нескольких месяцев до нескольких лет.

Чаще всего фитотерапия применяется для лечения хронических заболеваний систем:

- ✓ пищеварительной;
- ✓ дыхательной;
- ✓ сердечно-сосудистой;
- ✓ мочеполовой;
- ✓ эндокринной;
- ✓ нервной;
- ✓ опорно-двигательной систем;
- ✓ а также кожи.

В настоящее время около 100 видов лекарственных растений исследованы и используются для изготовления лекарств. Качество и эффективность фито препаратов, научно подтверждены измерениями и официально проводимыми клиническими исследованиями. Все фито препараты проходят государственную регистрацию в соответствии с порядком, принятым для лекарственных средств [2].

Таким образом, фитотерапия -это комплексная наука, которая включает данные о растении - его химическом составе, лекарственном препарате, способе его получения, симптоматике заболевания, диагнозе и способе лечения. Только при совместном изложении этих данных они могут отражать собственно фитотерапию.

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ЗАНЯТОСТЬ И УСТОЙЧИВЫЙ ЭКОНОМИЧЕСКИЙ РОСТ: КЛЮЧЕВЫЕ ФАКТОРЫ ВЗАИМОСВЯЗИ

Аннотация. Устойчивый экономический рост является самым мощным инструментом сокращения бедности и улучшения качества жизни в странах, что подтверждается неопровержимыми доказательствами в опубликованных исследованиях. На протяжении исторического пути развития любого государства экономическому росту и обеспечению занятости населения посвящено особое внимание. Занятость имеет важное значение для обеспечения более высоких темпов роста экономики и ее устойчивости.

Ключевые слова: экономический рост, сокращение бедности, занятость, устойчивое развитие.

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EMPLOYMENT AND SUSTAINABLE ECONOMIC GROWTH: KEY FACTORS IN THE RELATIONSHIP

Annotation. Sustainable economic growth is the most powerful tool for reducing poverty and improving the quality of life in countries, as demonstrated by overwhelming evidence in published research. Throughout the historical development of any state, special attention is devoted to economic growth and employment. Employment is essential for higher economic growth and sustainability.

Key words: economic growth, poverty reduction, employment, sustainable development.

Введение

Устойчивый и всеохватный экономический рост может способствовать прогрессу, создавать достойные рабочие места для всех и улучшать уровень жизни. Рост экономики способствует повышению качества жизни, которое так важно для многих развивающихся стран. Рост необходим, чтобы удовлетворить нужды растущего населения планеты. При этом он должен быть устойчивым, чтобы растущие объемы производства не вредили окружающей среде. Сейчас мировая экономика восстанавливается

после кризиса, но неравенство доходов населения по-прежнему растёт. Рабочих мест не хватает на всех - ежегодно в мире требуются десятки миллионов новых мест для растущего трудоспособного населения.³ Именно 8 цель устойчивого развития, которая называется «Достойная работа и экономический рост», разработанная ООН в 2015 году, рассматривает эту актуальную проблему.

Основными целями, которые рассматриваются в рамках этой проблемы это поддержание экономического роста на душу населения в соответствии с национальными условиями и, в частности, рост валового внутреннего продукта на уровне не менее 7 процентов в год в наименее развитых странах и на протяжении всего срока до конца 2030 года постепенно повышать глобальную эффективность использования ресурсов в системах потребления и производства и стремиться к тому, чтобы экономический рост не сопровождался ухудшением состояния окружающей среды, как это предусматривается десятилетней стратегией действий по переходу к использованию рациональных моделей потребления и производства, причем первыми этим должны заняться развитые страны.⁴

Обзор литературы

Анализ зарубежных теоретических источников позволяет говорить о наличии целого ряда работ, посвященных взаимосвязи макроэкономического роста и занятости и проблемам в их обеспечении, в числе таких можно отметить труды: Adams R. (2002), Auzina-Emsina A. (2014), Badunenko O. & Romero-Bvila D. (2018), Iyanatul I. And Kucera D. (2013), Kudbiev Sh. D. (2020), Hauben H., Lenaerts K., Waeyaert W. (2020), Payton A. (2017), Weeks John (2011).⁵

В отечественной научной литературе проблема занятости населения является также объектом пристального внимания многих ученых. Среди значимых ученых внесших свой вклад в увеличение занятости населения можно назвать таких ученых как Абдурахманов К.Х., Умурзаков Б.Х., Зокирова Н.К., Кудбиев Ш.Д., Абдурахманова Г.К., Беркинов Б.Б., Насимов Д.А., Ирматова А.Б. и др.⁶

Методология исследования

Для проведения исследования был использован сравнительный анализ данных о занятости и экономическом росте в различных странах за последние десятилетия. Были использованы данные статистических организаций, отчеты международных финансовых институтов и научные

³ <https://sdg.openshkola.org/goal8>

⁴ <https://www.un.org/sustainabledevelopment/ru/economic-growth/>

⁵ Adams, R. Economic Growth, Inequality and Poverty: Findings from a New Data Set, Policy Research Working Paper 2972, World Bank, February 2002; Auzina - Emsina, A. (2014). Labour productivity. Economic growth and global competitiveness in post-crisis period. Procedia — Social and Behavioral Sciences, 156.-317–321;

⁶ Абдурахманов К.Х. Искусственный интеллект - основа устойчивого развития экономики. Учебное пособие. М.: ФГБОУ ВО «РЭУ им. Г. Плеханова», 2023. - 358 с.; Абдурахманов К.Х. Экономика труда. Теория и практика: Учебник. М.: ФГБОУ ВО «РЭУ им. Г. Плеханова», 2019. - 662 с.;

публикации. Анализ был проведен с применением корреляционного анализа и статистических методов.

Анализ и результаты

На основе проведенного исследования было выявлено прямое взаимосвязь между уровнем занятости и экономическим ростом. Страны с высокими показателями занятости обычно демонстрируют стабильный рост экономики. Кроме того, устойчивый экономический рост, основанный на инновациях, экологической устойчивости и социальной ответственности, способствует созданию новых рабочих мест и повышению уровня благосостояния населения. Проведенный обзор зарубежных научных исследований показал, что сегодня в ведущих зарубежных научных центрах и высших учебных заведениях имеется значительное количество работ с количественными и качественными факторами макроэкономического роста в условиях устойчивого развития, где упор сделан на одном из основных акцентов – занятости, создание эконометрических моделей выражения экономического роста и качественных показателей в точных количественных значениях.

В приведенных организациях проводятся научные исследования по приоритетным направлениям эффективного использования факторов экономического роста; создания и реализации моделей определения показателей воздействия; обеспечения макроэкономической стабильности; совершенствования методологии повышения качества экономического роста; обеспечения стабильного роста валовой факторной производительности на основе эффективного использования факторов производства; разработки многофакторных моделей, направленных на оценку источников, влияющих на качество экономического роста; снижения уровня бедности по критериям инклюзивного роста за счет увеличения потенциала человеческого капитала и снижения межрегиональных диспропорций, в том числе за обеспечение роста занятости.

Анализ экономических источников показал наличие разных авторских предположений по проблематике экономического роста и занятости. Например, экономический рост наступает, когда экономические субъекты способны производить товары и услуги с возрастающей эффективностью. По мнению Адама Наес: «Когда целая группа экономических субъектов может производить товары и услуги более эффективно, это называется экономическим ростом». Отдельный работник более продуктивен и стоит больше, когда он может более эффективно превращать ресурсы в ценные товары и услуги. Это означает, что экономика должна иметь лучшие инструменты и оборудование, чтобы обеспечить реальную производительность, а именно средства производства, большую специализацию и трудовые навыки работающих людей. С другой стороны, отсутствие возможности поступательного обеспечения населения

занятостью способствует фрикционной и структурной безработице и влияет на производительность рабочей силы. Это в дальнейшем сказывается на уровне жизни населения и развития экономики, измеряемого ВВП на душу населения, а также на потенциале экономического роста, измеряемом совокупным спросом и ВВП.

Макроэкономические особенности развития страны и соответствующая такому развитию политика, как показывают исследования, могут оказывать значительное влияние на обеспечение занятости. Такое взаимодействие является относительно менее изученной областью исследований, особенно в контексте развивающихся стран. Имеют место определенные сомнения о традиционных рамках макроэкономической политики, где его основная роль заключается в обеспечении стабильности, которая, как ожидается, обеспечит устойчивый экономический рост и занятость⁷. Одной из причин этого кроется в представлении роли такой политики.

Главный урок исследований, проводимых в течение более полвека в мире в области развития, заключается по мнению Адамс Р., Раваллион М. и Чен С. в том, что экономический рост является наиболее эффективным способом «вытащить людей из бедности и добиться их более широкие цели для лучшей жизни». Приведенные этими авторами оценки показывают, что 10-процентное увеличение среднего дохода в стране снизит уровень бедности на 20–30 процентов. В среднем однопроцентное увеличение дохода на душу населения снижает бедность на 1,7%. Поэтому, постоянное поддержание определенного уровня занятости в экономике является непростой задачей, особенно в проявлении тех или иные кризисных явлений. Развивающиеся страны именно по этим причинам экономическими мерами стараются добиться уменьшения последствий рецессий и осуществляют сбалансированную макроэкономическую политику. Это нашло подтверждение в принятых мерах относительно пандемии коронавируса.

Разумная макроэкономическая политика в развивающихся странах является важным фактором, определяющим устойчивость рынка труда, и очень эффективна в предотвращении сокращения занятости во время экономических спадов. В тоже время последние опубликованные исследования по развивающимся странам⁸ указывают на то, что взаимосвязи между экономическим ростом, инфляцией и бюджетным дефицитом не всегда поддерживают общепринятые рамки. Ни одна из связей, то есть между стабильностью и ростом, а также между ростом и

7 World Employment and Social Outlook (2021). The role of digital labour platforms in transforming the world of work. International Labour Office, Geneva: ILO, 2021. [Электронный ресурс]- Режим доступа: [wcms_771749.pdf](#). (дата обращения: 05.09.2022).

8 OECD (2017). OECD employment outlook 2017. Paris: OECD. [Электронный ресурс]: https://www.oecd-ilibrary.org/employment/oecd-employment-outlook-2017_empl_outlook-2017-en (дата обращения: 05.09.2022).

занятостью — не является автоматической. Хотя стабильность необходима для роста, она не гарантирует, что за этим последует устойчивый рост.

Исследования показали, что между экономическим ростом и занятостью взаимосвязь также не является инвариантной. По мнению Хан А.Р.⁹ аналогичный рост может быть связан с различными результатами с точки зрения занятости. Одной из причин таких различий может быть характер роста, на который, в свою очередь, оказывает влияние макроэкономическая и отраслевая политика.

В рамках традиционной макроэкономической политики макроэкономическая стабильность концептуализируется в следующих терминах: невысокой (подразумевающей нижний предел однозначной цифры) инфляции; низкого бюджетного дефицита (предпочтительно ниже 5% ВВП); низкого уровня дефицита текущего счета и стабильности обменного курса. В этих рамках относительные цены играют важную роль в распределении ресурсов в экономике. Это означает, что если рыночный механизм функционирует свободно, то макроэкономическая стабильность должна приводить к росту производства и, следовательно, занятости. Однако эта структура основана на нескольких предположениях.

Во-первых, инфляция вредна для экономического роста, и, следовательно, для роста необходима низкая инфляция. В дополнение к низким темпам инфляции стабильность при этом также важна. Это связано с тем, что ожидания инфляции становятся важным фактором, непосредственно влияющим на инвестиционные решения. Для контроля инфляции было бы необходимо использовать денежно-кредитную политику, где процентная ставка является ключевым арсеналом. По мнению Блекхард О.¹⁰ налогово-бюджетная политика играет относительно второстепенную роль в борьбе с инфляцией.

Во-вторых, дефицит бюджета подпитывает инфляцию, что может повлиять на экономический рост, вытесняя частные инвестиции. Это может двояко повлиять на обеспечение занятости. С одной стороны, если правительство страны берет кредиты у коммерческих банков, то это может привести к повышению процентных ставок и нехватке средств, что отрицательно скажется на частных инвестициях и экономическом росте. Но, с другой стороны, если правительство заимствует у центрального банка, а последний удовлетворяет возросший спрос, результатом будет дополнительное давление на инфляцию.

В-третьих, внешнего рынка традиционная структура подразумевает почти двойной подход выбора между двумя крайними альтернативами. Либо полностью фиксированных, либо полностью гибких обменных курсов

9 Khan, A.R. (2007). Asian experience on growth, employment and poverty: An overview with special reference to the findings of some recent case studies. Geneva, Colombo: ILO, UNDP.

10 Blanchard, O., G. Dell'Ariccia, and P. Mauro. (2010). Rethinking macroeconomic policy. IMF Staff Position Note, SPN/10/03. IMF, Washington.

как для текущих счетов, так и для счетов операций с капиталом. Обоснование гибкого обменного курса заключается в том, что это помогло бы избежать внешнего дефицита и сохранить конкурентоспособность на внешнем рынке. Другим предположением является то, что конвертируемость национальной валюты важна для привлечения иностранных инвестиций.

Из вышеприведенного следует предположения, приведенные на рис. 1. на которых основана традиционная макроэкономическая основа стабильности роста, соответственно влияющая на обеспечение устойчивой занятости.

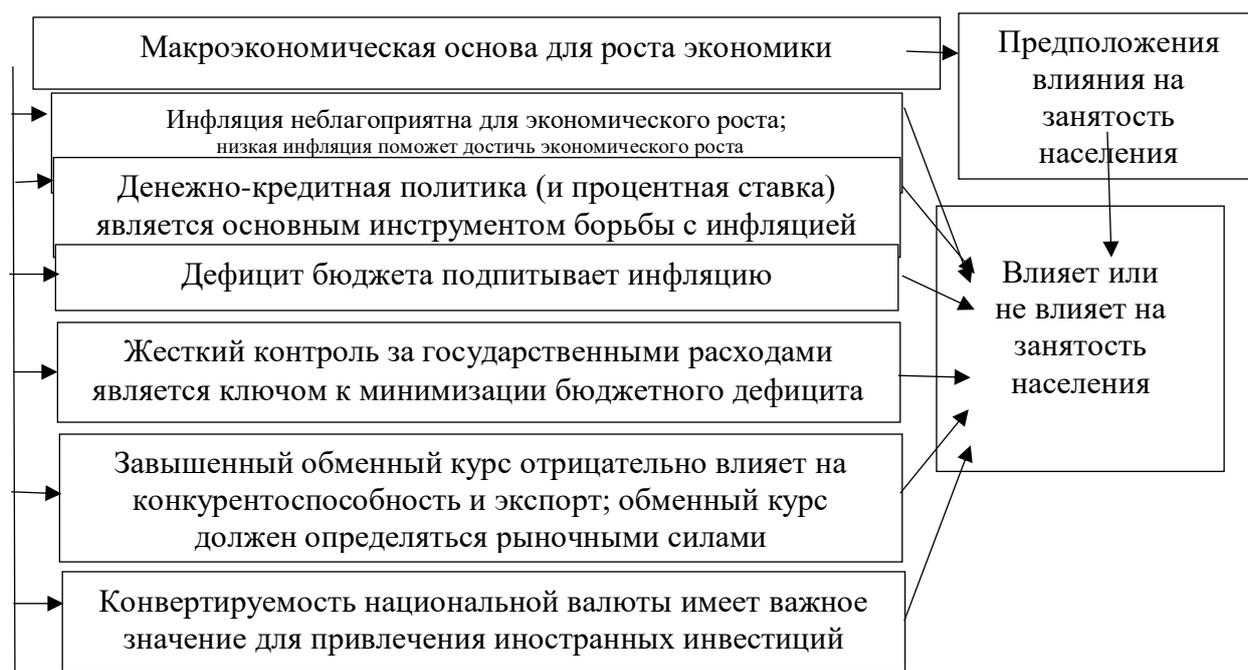


Рис. 1. Предположения макроэкономической основы роста экономики с точки зрения их влияния на занятость населения

Источник: составлена автором по результатам исследования.

Однако многие из приведенных предложений в контексте развивающихся стран могут оказаться неверными. Особенно в том виде, в котором они обычно представляются. В своих исследованиях некоторые зарубежные авторы¹¹ все же подняли вопросы относительно ряда из вышеприведенных предположений и рекомендовали внести изменения. Изменение направлений динамики экономического роста является базой, влияющей на изменение занятости населения. Занятость, как это известно, является одним из основных макроэкономических показателей и сопоставима по значимости с рядом социальных и экономических индикаторов. В числе таковых отметим следующие: ВВП, уровень цен, реальные денежные доходы и др. Между тем, с повышением занятости в государстве возрастает

11 Maudos, J., Pastor, J. M., & Serrano, L. (2000). Efficiency and productive specialization: An application to the Spanish regions. *Regional Studies*, 34, 829–842.

и производство ВВП, создаются и развиваются предпосылки к расширенному воспроизводству и социальной жизни.

В Узбекистане в последние годы обеспечивается стабильный экономический рост, характеризующийся увеличением в 2017-2023 годах физического объема ВВП в 2,8 раза. Так, нами отмечено¹², что в 2022 г. по сравнению с 2021 г. этот показатель возрос на 5,7% составил 888,3 трлн. сум, где наибольший вклад внесла отрасль промышленности, обеспечившая увеличение показателя на 5,2% (табл. 1).

Таблица 1

Макроэкономические индикаторы, характеризующие экономический рост Узбекистана, темпы роста в % к предыдущему году

Показатель	2017 г.	2018 г.	2019 г.	2020 г.	2021 г.	2022 г.
ВВП	104,4	105,4	105,7	101,9	107,4	105,7
Дефлятор ВВП	119,1	127,0	117,9	111,6	113,5	113,7
Уровень инфляции (прирост по сравнению с прошедшим годом)	14,4	14,3	15,2	11,1	10,0	12,3
Промышленная продукция	105,2	110,8	105,0	100,9	108,8	105,2
Потребительские товары	106,7	114,7	110,3	105,7	113,9	119,4
Сельское, лесное и рыбное хозяйство	101,2	100,3	103,1	102,9	104,0	103,6
Инвестиции в основной капитал	119,4	129,9	138,1	95,6	102,9	100,9
Строительные работы	106,0	114,3	122,9	109,5	106,8	106,6
Розничный товарооборот	101,9	106,5	109,1	105,7	113,2	112,6
Оказанные рыночные услуги	110,7	108,9	113,2	103,0	119,5	115,9
Экспорт	103,8	111,4	124,8	86,5	110,0	115,9
Импорт	115,4	138,7	125,0	87,1	120,4	120,4

Источник: Составлена автором на основе данных Агентства статистики при Президенте Республики Узбекистан.

Также темп роста экономики за 2022 год обеспечен за счет полученных объемов строительных работ на 106,6%, оказанные рыночных услуг на 115,9% и отрасли сельского, лесного и рыбного хозяйства на 103,6%. Между тем, уровень инфляции в республике в прошлом году (2021г.) показал снижение по сравнению с 2021 г. на 2,3 п.п.

Экономический рост, который сопровождается генерированием рабочих мест, является общей и необходимой предпосылкой достижения рациональной занятости и снижения уровня безработицы. Предметом анализа экономического развития с точки зрения занятости выступает оценка того, в какой степени экономический рост удовлетворяет потребность в увеличении количества рабочих мест и роста производительности труда (дохода), которую необходимо выполнять в отраслевом разрезе для более значимого исследования.

¹² Амирджанова С. С. Анализ рынка труда и занятости населения в Узбекистане // Иқтисодий ва инновацион технологиялар. Том 10. 2022. - №3. - С. 31-44. DOI: https://doi.org/10.55439/EIT/vol10_iss3/a6.

Между тем, возможность к занятости относится к способности людей адекватно выполнять работу на рабочих местах, в текущем и будущем времени, внутри и вне текущей организации. От характеристики рынка труда и людей, их способностей, навыков и знаний может зависеть возможность сохранить или найти работу. Для того чтобы не потерять свои навыки и сохранить занятость экономически активному человеку важно постоянно развивать и обновлять профессиональный уровень. Поэтому в стране требуется проводить политику, направленную на повышение качества рабочей силы. Особый акцент сделать на формирование высококвалифицированных кадров. На сегодняшний день, в государственных учреждениях Узбекистана более 55% вакантных рабочих мест требуют от соискателей высшее образование, а в частном секторе основным требованием является опыт работы. Например, в крупных компаниях более 60% вакантных рабочих мест требует наличия высшего образования, в малых предприятиях всего лишь 5%. Всего 18% молодежи вступающие в первые на рынок труда имеют высшее образование¹³.

При этом структура или характер роста особенно актуальны, так как воздействие экономического роста на занятость зависит, во-первых, от его темпов, во-вторых, от степени преобразования им производительных рабочих мест, в-третьих, от ряда факторов создания рабочих мест, в числе которых отраслевая структура роста и капиталоемкость отдельных секторов.

Сегодня занятость в Узбекистане обеспечивается множественностью форм участия трудоспособного населения в деятельности с получением соответствующих доходов. Доля постоянного населения в трудоспособном возрасте по отношению к общей численности населения в 2021 году составила 57,9%, а уровень экономической активности населения возрос за последние пять лет с 73,5% до 74,1%.

Как правило, помимо увеличения количества рабочих мест одним из факторов является повышение производительности труда, а также уровень дохода от занятости, который в свою очередь активизирует потребительские расходы населения. В Узбекистане за последние пять лет совокупные доходы населения увеличились в 2,2 раза, а на душу населения - в 2 раза. В 2022 г. В связи с изменением потребительских цен, темпы роста совокупного дохода населения, по сравнению с аналогичным периодом 2021 года, в реальном выражении составили 109,7%. Это один из рекордно высоких показателей роста реального совокупного дохода с 2014 г.

Заработная плата имеет также стабильный рост, характеризующийся ее повышением. Среднемесячная номинальная начисленная заработная плата в 2022 г. увеличилась на 21,2% (+20,3% в 2021 г.). Рост заработной

13 Анализ формирования спроса на рынке труда Узбекистана в разрезе отраслей и специальностей. Институт прогнозирования и макроэкономических исследований. [Электронный ресурс]: <https://ifmr.uz/publications/articles-and-abstracts/labor>. (дата обращения: 02.09.2022).

платы происходил на фоне увеличения минимальной заработной платы с 1 июня 2022 г. до 920 тыс. сум. Таким образом, возможность занятости населения является жизненно важным и необходимым условием для роста национальной рабочей силы и благосостояния общества. Следует заметить, что потребительские расходы являются компонентом, который оказывается в числе наиболее влияющих на ВВП страны.

Выводы и предложения

Подводя итоги можно сказать, что взаимосвязь между уровнем занятости и экономическим ростом очень актуальна. Страны с высокими показателями занятости обычно демонстрируют стабильный рост экономики. Кроме того, устойчивый экономический рост, основанный на инновациях, экологической устойчивости и социальной ответственности, способствует созданию новых рабочих мест и повышению уровня благосостояния населения. Результаты исследования подтверждают важность рационального сочетания политики занятости с мерами по стимулированию устойчивого экономического роста. Дальнейшие усилия должны быть направлены на создание благоприятной экономической среды, способствующей стимулированию трудовой активности, инвестициям в человеческий капитал и развитию инноваций для обеспечения устойчивого роста и снижения социальной неравенства. В заключении отметим, что стимулирование экономического роста является важнейшей компонентой. Поэтому, решение этой задачи обеспечивается принятыми приоритетными мерами. В числе таковых сегодня выделены: качество образования и его повышение; обеспечение полноценного здравоохранения и питания в целях укрепления и повышения человеческого капитала страны; развитие гибкой экономики и предпринимательства и обеспечение их приоритетности; повышение доступа к технологиям и расширение инноваций; содействие общественной и экономической активности женщин и молодежи.

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**МЕТОДЫ ИСПОЛЬЗОВАНИЯ СОВРЕМЕННЫХ
ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ СИСТЕМ ПРИ
ВЫПОЛНЕНИИ ФАКТОРОВ НАД РАЦИОНАЛЬНЫМИ И
ИРРАЦИОНАЛЬНЫМИ ЧИСЛАМИ**

Аннотация: в статье рассматриваются Методы использования современных информационно-коммуникационных систем при выполнении факторов над рациональными и иррациональными числами.

Ключевые слова: ИКТ, использование, методы, система, факторы, рациональными и иррациональными числа.

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**METHODS OF USING MODERN INFORMATION AND
COMMUNICATION SYSTEMS WHEN PERFORMING FACTORS
OVER RATIONAL AND IRRATIONAL NUMBERS**

Abstract: the article discusses methods of using modern information and communication systems when performing factors on rational and irrational numbers.

Key words: ICT, use, methods, system, factors, rational and irrational numbers.

Материал, связанный с неравенствами, составляет значительную часть школьного курса математики. Одним из сложных разделов алгебры, изучаемых в школьной программе, являются иррациональные неравенства, так как в школе им уделяют достаточно мало внимания. Трудности при изучении данного вида неравенств связаны со следующими их особенностями:

- в большинстве случаев отсутствие четкого алгоритма решения иррациональных неравенств;

- при решении неравенств данного вида приходится делать преобразования, приводящие к неравенствам, не равносильным данному, вследствие чего чаще всего возникают ошибки, которые обычно связаны с потерей или приобретением посторонних корней в процессе решения.

Опыт показывает, что учащиеся в недостаточной степени овладевают умением решать иррациональные неравенства, часто допускают ошибки

при их решении. Однако задачи по теме «Иррациональные неравенства» встречаются на вступительных экзаменах, и они довольно часто становятся «камнем преткновения».

Вместе с тем, увеличение умственной нагрузки на уроках математики заставляет задуматься над тем, как поддержать у учащихся интерес к изучаемому предмету, их активность на протяжении всего урока. Использование же компьютерных технологий при обучении позволяет создать информационную обстановку, стимулирующую интерес и пытливость учащихся. Важно и то, что компьютер позволяет организовать процесс обучения по индивидуальной программе.

Выше изложенное обусловило проблему методической разработки: обучение школьников решению иррациональных неравенств, используя при этом ИКТ.

Данная методическая разработка имеет две цели:

1)познакомить с методикой решения некоторых типов иррациональных неравенств;

2)продемонстрировать возможности использования информационных компьютерных технологий в процессе обучения математике.

Данная методическая разработка содержит модель урока с использованием ИКТ по теме «Иррациональные неравенства». В разработке представлен теоретический материал, посвященный общим и частным принципам решения иррациональных неравенств, а также разнообразные примеры и задания для самостоятельного решения, методические указания по проведению урока с использованием ИКТ.

Модель урока приводится в форме урока обобщения, систематизации знаний обучаемых по решению иррациональных неравенств с использованием компьютерных технологий.

Для решения иррациональных неравенств с модулями применяется логический подход, при котором неравенства представляются равносильными системами или совокупностями неравенств. Важное место на данном уроке отводится работе с ЦОРаами, что индивидуализирует образовательный процесс и дает возможность ученику самому создать индивидуальный образовательный маршрут по данной теме. Для самостоятельного обобщения материала учащиеся обращаются к электронному учебнику и используют Интернет.

При проведении урока использовались ИКТ-технологии:

Работа с электронным учебником (в классе и дома); Работа с тест-программой, созданной в MS Excel; Использование заранее созданной презентации (MS Power Point) для замены классной доски (изображение на экране монитора отображается на большом экране с помощью мультимедийного проектора) и мультимедийного проектора для отображения на экране верно выполненного домашнего задания; Использование локальной сети для передачи информации на компьютер

учителя; Ведение электронного классного журнала (MS Excel); Использование ресурса глобальной сети Интернет.

Иррациональные неравенства есть неравенства, содержащие переменную под знаком радикала.

Основная идея решения иррационального неравенства – с помощью различных преобразований, сохраняющих равносильность неравенств, освободиться от радикалов, содержащих переменную.

Основные методы решения иррациональных неравенств:

Возведение обеих частей неравенства в одну и ту же степень. Введение новой переменной Комбинированный метод, сочетающий оба первых метода. Для некоторых видов неравенств учитывается

$$\sqrt[n]{f(x)} \geq 0 \quad \text{для всех } x, \text{ при которых } f(x) \geq 0$$

Основная идея определения ОДЗ иррационального неравенства:

$$D(\sqrt[n]{f(x)}) = D(f(x)),$$

$$D(\sqrt[n]{f(x)}) = \{x | f(x) \geq 0\}.$$

Современный период развития цивилизованного общества называют этапом информатизации. Характерной чертой этого периода является тот факт, что доминирующим видом деятельности в сфере общественного производства, повышающим его эффективность и наукоёмкость, становится сбор, обработка, продуцирование, хранение, передача и использование информации, осуществляемые на базе современных информационных технологий.

Одним из главных направлений процесса информатизации современного общества становится информатизация образования, обеспечивающая широкое внедрение в практику психолого-педагогических разработок, направленных на интенсификацию процесса обучения, реализацию идей развивающего обучения, совершенствование форм и методов организации учебного процесса, обеспечивающих переход от механического усвоения фактологических знаний к овладению умением самостоятельно приобретать новые знания. Применение в образовании компьютеров и информационных технологий оказывает существенное влияние на содержание, методы и организацию учебного процесса по различным дисциплинам. В конце 90-х годов в образование входят мультимедийные компьютеры, такие программные продукты, как компьютерные энциклопедии, электронные книги, справочники по литературе, живописи, музыке. Это создает возможности гуманитаризации образования. С развитием мультимедийных технологий компьютер становится средством обучения, способным наглядно представлять самую различную информацию. Как следствие, происходит развитие творческого потенциала обучаемого, способностей к коммуникативным действиям, навыков экспериментально-исследовательской работы; культуры учебной

деятельности; интенсификация учебно-воспитательного процесса, повышение его эффективности и качества. ***Существуют различные возможности использования компьютеров в школе:***

Организация учебного процесса (подготовка расписания, электронных документов, баз данных по школьникам, учителям, родителям и т.д.);

Подготовка учебных пособий.

Обучение пользователей ПК для решения прикладных задач, обучения основам программирования, дизайна, компьютерному моделированию.

Компьютерное обучение основам наук с помощью специально разработанных программ. Недостатки – игнорирование принципа доступности.

Компьютерный контроль знаний учащихся. Главный недостаток – несоответствие предъявляемых ученику требований уровню его подготовки. Это может создать «ситуацию неуспеха» и снизить мотивацию к учению

Использование компьютера для получения и работы с информацией из сети Интернет.

Учитель в информационном обществе перестает выступать перед своими учениками в качестве источника первичной информации. Он превращается в посредника, который облегчает ее получение. Фундаментальной характеристикой развития человеческой цивилизации является получение, накопление, обработка и потребление информации. В информатизированном обществе без овладения начальной компьютерной грамотностью и умения использовать компьютерные средства для решения определенных задач, немислима реализация творческого потенциала человека в современной науке, культуре, производстве, деловых и иных сферах жизни. Современное общество характеризуется, с одной стороны, нестабильностью, быстрой изменчивостью и трудной предсказуемостью, с другой, все большей «открытостью», взаимопроникновением накопленных знаний и опыта.

Изучение функциональной линии в математике основной школы проходит в течение трех лет: 7, 8, 9 классы. За это время учащиеся знакомятся понятием зависимости, функциональной зависимости, видами функций, графиками и их свойствами

В курсе алгебры 7 класса впервые встречаются понятие функции. Для наглядности, я использую мультимедийные презентации.

Что такое функция.

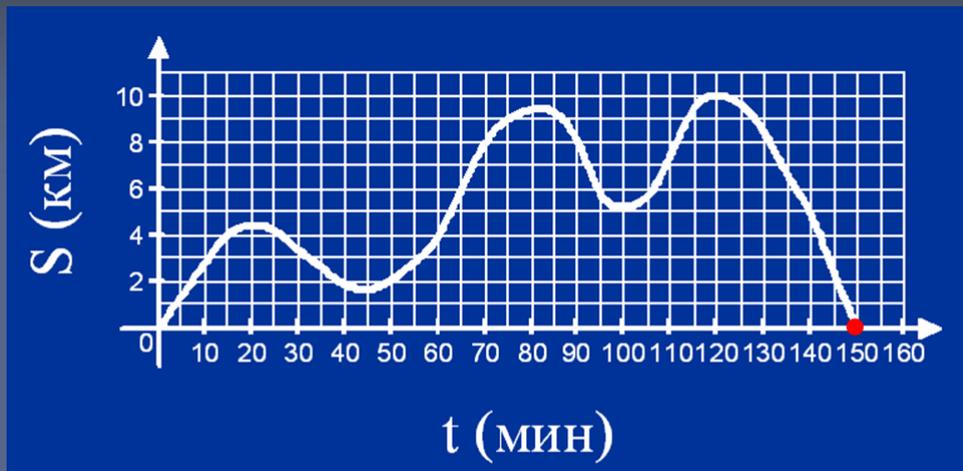
Функциональная зависимость или функция – зависимость, при которой каждому значению независимой переменной соответствует единственное значение зависимой переменной.

Значение функции

Значение зависимой переменной

Область определения

Значения, которые принимает независимая переменная.



На рисунке показана функциональная зависимость изменения $S(\text{км})$ от $t(\text{мин})$

Область определения

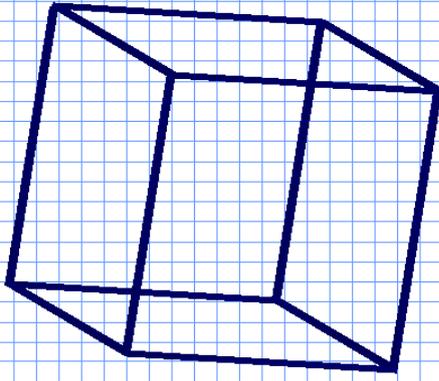
$$t \in [0; 150]$$

Значение функции

$$S \in [0; 10]$$

Для закрепления полученных знаний, учащимся предлагается работа на математических тренажерах, например:

Задание: Изменение объема куба в зависимости от длины его ребра



Длина ребра a

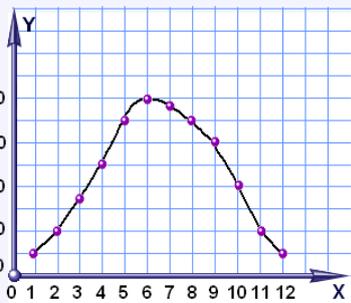
Объем: 2924 000

ВПЕРЕД

Объем куба зависит от длины его ребра

$V=a^3$ **ВЫХОД**

Задание:



На рисунке изображен график зависимости долготы дня от времени года. По оси ординат отложена долгота дня первого числа каждого месяца в минутах. По оси абсцисс - номер месяца.

1) В каком месяце долгота дня первого числа равна 600 мин. -

750 мин. -

850 мин. -

2) В какое время года долгота первого дня месяца наибольшая -

наименьшая -

Если ответов более, чем один, укажите их через «;» или хотя бы один из них.

ПОМОЩЬ **ГОТОВО** **ВЫХОД**

Далее обучающиеся знакомятся с линейной функцией, ее графиком и свойствами. Для объяснения и закрепления знаний учащихся, в работе я также использую мультимедийные презентации и математические тренажеры. Также использую прикладное программное обеспечение операционной системы Линукс, где учащиеся самостоятельно строят графики функции.

Презентации очень помогают учащимся наглядно воспринимать информацию. Анализируя результаты обучения с использованием презентаций, качество обучения намного выше, чем, обучая без использования ИКТ. Также использование презентаций экономит время, что способствует большей работе на развитие практических навыков.

С математическими тренажерами учащимся очень нравится работать, они решают задачи на компьютере, не используя письменных

принадлежностей. Все задания представлены в виде игры. Результат демонстрируется в анимированном виде, поэтому у учащихся развивается не только навык решения задач, но и они видят результат своей работы в моделированном виде и способствует повышению интереса к изучению предмета. Помимо изучения математического материала, у учащихся развивается навык работы с компьютером, таким образом осуществляются межпредметные связи (математика-информатика)

Для осуществления контроля знаний учащихся я использую в работе интерактивные тесты. Результат выполнения теста выводится на экран сразу, после введения ответов на вопросы. Это очень удобно и экономично во времени.

Анализируя опыт работы в практике применения ИКТ при обучении математике, считаю, что у учащихся повышается мотивация к обучению, результативность обучения растет, даже у детей с проблемами в обучении по состоянию здоровья.

Для меня применение ИКТ – это экономия времени на уроке, разнообразие дидактического и наглядного материала, осуществление дифференциации и индивидуализации в обучении контроле знаний учащихся.

В рамках подготовки к уроку также происходит меньше временных затрат. Посредством Интернет появляются возможности апробации передового педагогического опыта, современных педагогических и математических технологий.

Но несмотря на позитивные стороны применения ИКТ в обучении, нельзя забывать и о проблемах, которые возникают: утрата зрения педагогов и снижение зрения обучающихся, пропадает интерес к книге и письму у учащихся.

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ИСПОЛЬЗОВАНИЯ ПРОЕКТНЫХ МЕТОДОВ ОБУЧЕНИЯ В ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЯХ

Аннотация. В статье рассматриваются особенности применения проектных методов обучения в высших учебных заведениях. При использовании проектного метода разрабатывается проект, который заранее тщательно планируется преподавателем и обсуждается с учащимися. Метод проектов ориентирован на самостоятельную деятельность студентов.

Ключевые слова: метод, проект, общества, студенты, процесс, проблема, исследования.

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USING PROJECT-BASED TEACHING METHODS IN HIGHER EDUCATIONAL INSTITUTIONS

Annotation. The article discusses the features of the use of project-based teaching methods in higher educational institutions. When using the project method, a project is developed, which is carefully planned in advance by the teacher and discussed with students. The project method is focused on the independent activity of students.

Key words: method, project, society, students, process, problem, research.

Метод проектов разработанный ещё в первой половине XX века, вновь сегодня стала актуальным в современном информационном обществе.

Проектный метод обучения – это метод, направленный на развитие творческих и познавательных процессов, критического мышления, умения самостоятельно получать знания и применять их в практической деятельности, ориентироваться в информационном пространстве.

Метод проектов ориентирован на самостоятельную деятельность студентов, организованную в виду индивидуальной, парной или групповой работы, выполнение которой ограничено конкретным временным отрезком.

Самостоятельная деятельность студентов направлена на поиск и усвоение учебной информации [1].

Проектный метод обучения предполагает осуществление работы над осознанием какой-то проблемы и процессом ее раскрытия. Студенты должны спланировать действия работы над решением проблемы, сформулировать гипотезу и замысел решения, четко распределить роли между собой, если работа осуществляется в группе, описать задание для каждого члена группы [7].

Использование проектного метода обучения осуществляется тогда, когда в образовательном процессе возникает творческая или исследовательская задача, решение которой требует от учащихся использования интегрированных знаний в различных областях, а также применения исследовательских методик. При использовании проектного метода разрабатывается проект, который заранее тщательно планируется преподавателем и обсуждается с учащимися [8].

Основной целью проектного метода обучения является:

- -повышать личной уверенности у каждого студента участника проектного обучения, его самореализации и рефлексии.
- -развивать у студентов осознание значимости коллективной работы и сотрудничества, совместной деятельности в процессе выполнения творческих заданий;
- -вдохновлять студентов на развитие коммуникабельности.
- - развивать исследовательские умения: анализировать проблемную ситуацию, выявлять проблемы, осуществлять отбор необходимой информации из литературы, проводить наблюдения практических ситуаций, фиксировать и анализировать их результаты, строить гипотезы, осуществлять их проверку, обобщать, делать выводы [2].

Деятельность проектного обучения можно разделить на следующие этапы:

- ✓ - выбор проблемной ситуации и знакомства с проблемой;
- ✓ -ориентированность на решение проблемы;
- ✓ - деление на группы и коллективная работа над проектом;
- ✓ - самостоятельная работа участников группы;
- ✓ - презентация и обсуждение разработанных проектов. [4]

Существуют различные классификации проектов. Так, Е.С. Полат (2001) предлагает пять основных критериев, по которым различают типы проектов.

По доминирующему в проекте методу или виду деятельности:

- Исследовательские;
- творческие;
- ролево-игровые;
- информационные;
- практико-ориентированные (прикладные).

По количеству участников проекта:

- индивидуальные;
- парные;
- групповые.

По продолжительности проекта:

- краткосрочные;
- средней продолжительности;
- долгосрочные.

По результатам:

- доклад, альбом, сборник, каталог, альманах;
- макет, схема, планкарта;
- видеофильм;
- выставка; и др.

Использование метода проектного обучения в высших учебных заведениях даёт возможность расширить профессиональные возможности будущих специалистов, сделать их наиболее конкурентоспособными. Также данный метод помогает развитию личности студентов и оказывает влияние на самоопределение и саморазвитие каждого из участников проектной деятельности. Возможности использования проектного метода в образовании и работе с молодежью на современном этапе [3].

Таким образом, основой проектных методов обучения является исследовательская деятельность учащихся, организованная преподавателем и направленная на развитие их творческого потенциала и познавательной активности. Метод проектов может принести пользу только при правильном его применении, хорошо продуманной структуре осуществляемых проектов и личной заинтересованности всех участников проекта в его осуществлении.

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ЛЕЧЕНИЕ И ПРОФИЛАКТИКА ЖЕЛЕЗОДЕФИЦИТНОЙ АНЕМИИ У БЕРЕМЕННЫХ ЖЕНЩИН

Резюме. В работе представлен актуальной мировой проблеме в акушерской и перинатальной практике – железодефицитной анемии у беременных. Данная патология, несмотря на внедрение современных методов диагностики, профилактики и лечения, остается значимой в настоящее время. Установлено, что среди болезней крови у беременных на долю различных форм анемии приходится 90 %, из которых 75–90 % составляет железодефицитная анемия (ЖДА). Другие формы малокровия встречаются не чаще, чем в популяции небеременных женщин.

Ключевые слова: Ключевые слова: анемия, беременная женщина, количество железа в организме.

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TREATMENT AND PREVENTION OF IRON DEFICIENCY ANEMIA IN PREGNANT WOMEN

Resume. The paper presents an urgent global problem of obstetric and perinatal practice – iron deficiency anemia in pregnant women. This pathology, despite the introduction of modern methods of diagnosis, prevention and treatment, currently remains relevant. Among the blood diseases in pregnant women, the share of various forms of anemia accounts for 90%, of which 75-90% is iron deficiency anemia (WAIT). Other forms of anemia are more common than in non-pregnant women.

Keywords: anemia, pregnant woman, amount of iron in the body.

Введение. Железо является важным микроэлементом, участвующим во многих процессах, обеспечивающих жизнедеятельность организма [3,6,11]. В качестве ключевого компонента оно участвует в доставке кислорода в органы и ткани, что важно для обеспечения их функционирования [1,4,7].

У женщин репродуктивного возраста нередко отмечается железодефицит, приводящий к ЖДА [2,5]. Он может быть связан с хронической кровопотерей во время менструаций или некоторых

заболеваний. Во время беременности также возможен дефицит данного микроэлемента — он активно расходуется и на потребности матери, и на развитие плода. ЖДА может возникнуть и вследствие обильной кровопотери во время родов [3,6,9].

Всасывание железа зависит от множества факторов, к ним относятся в первую очередь питание и состояние желудочно-кишечного тракта (ЖКТ). При наличии воспаления в организме повышается содержание гепсидина — регуляторного белка, нарушающего всасывание железа в ЖКТ, в связи с чем развивается ЖДА. У пациентов, страдающих ожирением, также может увеличиваться уровень гепсидина [7,8,10].

Цель исследования. Определить частоту и особенности развития анемического синдрома у беременных женщин, проживающих в условиях Ферганской долине, разработать и обосновать принципы диагностики и лечения железодефицитной анемии с учетом эффективности железосодержащих препаратов.

Материалы и методы исследования. Проспективное исследование включало 102 женщин, разделенных в зависимости от задач исследования на 4 независимых группы.

Результаты исследования. У 29 из 50 девочек пубертатного возраста (58%), проживающих в условиях Ферганской долине, выявлено состояние дефицита железа. У 78% подростков с дефицитом железа отмечен низкий социально-экономический уровень жизни, у 82%- алиментарный фактор.

У беременных женщин, проживающих в условиях ФД, железодефицитная анемия и скрытый дефицит железа наблюдаются соответственно в 44% и 96,5%.

Факторами риска железодефицитной анемии являются: социально - экономические факторы (сравнительный риск 1,7), отягощенный акушерско-гинекологический анамнез (сравнительный риск 1,6), острые и обострение хронических воспалительных заболеваний (сравнительный риск 1,2).

У 46 из 150 беременных женщин с железодефицитной анемией (30,7%) обнаружена патология щитовидной железы, что свидетельствует о необходимости обследования функции щитовидной железы у всех беременных с анемическим синдромом.

У женщин с физиологически протекающей беременностью наблюдается постепенное снижение сывороточного железа и ферритина, наиболее выраженное в III триместре, снижение показателей соответственно $12,3 \pm 1,4$ мкмоль/л и $18,9 \pm 1,7$ мг/л происходят на фоне практически стабильной концентрации гемоглобина в периферической крови, что свидетельствует о наличии скрытого дефицита тканевого и транспортного железа.

Следовательно, показатель гемоглобина не является достаточным критерием для оценки степени дефицита железа у беременных женщин.

Оптимальным является исследование нескольких показателей гемограммы (гемоглобин, цветовой показатель, гематокрит) в сочетании с определением уровня сывороточного железа.

Сравнительная характеристика разных железосодержащих препаратов, показала, что наибольшей эффективностью обладают сорбифер дурулес, феррум лек и фенюльс. Данные препараты обеспечивают достаточно быстрый прирост гемоглобина, способствуют восстановлению показателей феррокинетики в течение 8 недель от начала лечения. Наименее эффективными в отношении прироста сывороточного железа и ферритина оказались препараты тотема и ферроплекс.

Наибольшую частоту побочных эффектов вызывают препараты сорбифер дурулес (30%), затем - ферроплекс, тотема (13,3%) и фенюльс (6,6%). Прием препарата феррум лек не сопровождается выраженными побочными эффектами, эффективность лечения данным препаратом отмечена у всех без исключения пациенток.

На фоне лечения любыми препаратами железа исходы беременности и родов оказались более благоприятными: отмечены меньшая частота преждевременных родов, аномалий родовой деятельности, уменьшение объема кровопотери, более благоприятные исходы для новорожденных, их более высокая оценка по шкале Апгар.

Вывод. Таким образом, из всего вышеописанного можно сделать вывод о том, что ЖДА беременных является серьезной патологией, влекущей за собой множество осложнений со стороны как матери, так и плода. Поэтому данная проблема требует обязательной и незамедлительной коррекции.

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РАСЧЕТ СТАТИЧЕСКИХ НЕОПРЕДЕЛЕМЫХ НЕРАЗРЕЗНЫХ БАЛОК

Аннотация. На практике наиболее распространенным методом расчета статических неопределимых систем является методом сил. Однако в настоящее время в технических вузах нашей республики силовой метод применяется только для расчета статических неопределимых конструкций, а расчет неразрезных балок ведется по трем уравнениям моментов.

Ключевые слова: сплошная балка, внешняя сила, уравнение трех моментов, уравнение равновесия, основная реакция, статическая неопределимость.

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CALCULATION OF STATIC INDEFINABLE NOT CUTTING BEAMS

Annotation. In practice, the most common method for calculating static indeterminate systems is the method of forces. However, at present, in technical universities of our republic, the force method is used only for the calculation of static indeterminate structures, and the calculation of continuous beams is carried out using three moment equations.

Key words: solid beam, external force, three-moment equation, equilibrium equation, main reaction, static indetermination.

Неразрезные балки представляют собой важный класс статических неопределимых балочных систем и часто используются в строительстве и других отраслях современной техники.

На практике наиболее распространенным методом расчета статических неопределимых систем является силовой метод [1-4]. Однако в настоящее время в технических вузах нашей республики силовой метод применяется только для расчета статических неопределенных конструкций, а расчет неразрезных балок ведется по трем уравнениям моментов. Использование метода расчета неразрезных балок с использованием трех моментных уравнений также имеет ряд важных недостатков [5]. Силовой

метод целесообразно использовать для расчета любых статических неопределимых систем (стержень, рамы, балка, пространственных систем).

Определяем степень статической неопределимости балки (рис. 1а).

1. Для определения лишних связей в статически неопределимых стержневых системах воспользуемся следующей формулой:

$$L = C_0 + 2Ш - 3D.$$

Здесь C_0 — число опорных сил реакции; Ш — количество промежуточных шарниры; D — количество дисков. Для неразрезных балок (поскольку Ш = 0 и D = 1) приведенное выше уравнение принимает вид:

$$L = C_0 - 3. (1)$$

В нашем примере, поскольку $C_0 = 6$, $L = 6 - 3 = 3$. Таким образом, неразрезных балок трижды статически неопределим.

2. Выбираем основную систему. (Рисунок 1). В качестве неизвестной единицы силы реакции примем изгибающие моменты опорных сил реакции X_1, X_2, X_3 .

3. Построим канонические уравнения силового метода. Учитывая, что речь идет о трехкратной статической неопределимой балке, имеем систему канонических уравнений:

Такая структура уравнений подходит для любой системы.

4. Действуем единственные изгибающие моменты Рис. 1 (рис. 1, в) и эпюры нагрузки (рис. 1, г) каждый пролет балки рассматриваем как отдельную простую двухопорную балку, последний пролет рассматривается вместе с консолью.

$$\begin{aligned} \delta_{11}X_1 + \delta_{12}X_2 + 0 + \Delta_{1F} &= 0; \\ \delta_{21}X_1 + \delta_{22}X_2 + \delta_{23}X_3 + \Delta_{2F} &= 0; \\ 0 + \delta_{32}X_2 + \delta_{33}X_3 + \Delta_{3F} &= 0. \end{aligned} \quad (2)$$

5. С помощью интеграла Максвелла-Мора находим коэффициенты и свободные члены канонических уравнений (2), применяем метод «преумножения» кривых по правилу А. Н. Верещагина:

$$\delta_{11} = \sum \int \frac{\overline{M}_1 \overline{M}_1}{EJ} dz = \frac{1}{EJ} (\overline{M}_1 \overline{M}_1) = \frac{1}{EJ} \left(\frac{1}{2} \cdot 6 \cdot 1 \cdot \frac{3}{2} \cdot 1 \right) = \frac{2}{EJ};$$

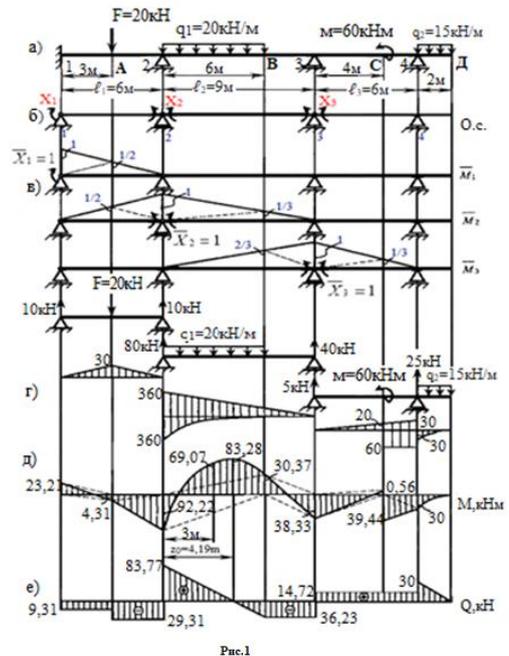


Рис.1

$$\delta_{12} = \delta_{21} = \frac{1}{EJ}; \quad \delta_{22} = \frac{5}{EJ}; \quad \delta_{23} = \delta_{32} = \frac{1,5}{EJ}; \quad \delta_{33} = \frac{5}{EJ};$$

$$\Delta_{1F} = \sum \int \frac{M_F \overline{M}_1}{EJ} dz = \frac{45}{EJ}; \quad \Delta_{2F} = \frac{525}{EJ}; \quad \Delta_{3F} = \frac{430}{EJ}.$$

6. Подставляя найденные значения в систему уравнений (2), ее решением находим:

$$X_1 = 23,61 \text{ кН} \cdot \text{м}; \quad X_2 = -92,22 \text{ кН} \cdot \text{м}; \quad X_3 = -58,33 \text{ кН} \cdot \text{м}.$$

7. Подбираем сечение балка. Для этого находим необходимый момент сопротивления сечения при допустимом $[\sigma] = 160 \text{ МПа}$ напряжении при изгибе [7].

$$W_x \geq \frac{|M_{\max}|}{[\sigma]} = \frac{92,22 \cdot 10^6}{160} = 576,35 \cdot 10^3 \text{ мм}^3 = 576,35^3 \text{ см}^3.$$

По сортаментной таблице выбираем двойную балку $W_x = 597 \text{ см}^3$ из-за ее момента сопротивления.

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РАЗВИТИЯ ФИНАНСОВОЙ ГРАМОТНОСТИ: КЛЮЧ К ФИНАНСОВОЙ УСТОЙЧИВОСТИ И БЛАГОПОЛУЧИЮ

Аннотация. Статья посвящена к развитие финансовой грамотности населения является одной из ключевых задач в современном мире. В условиях быстрого развития экономических процессов и финансовых технологий, меняющихся экономических ситуаций и подходов к созданию благоприятной финансовой устойчивости, приобретение основных навыков в области управления финансами становится все более важным для всех слоев населения. Проведен анализ развития финансовой грамотности в Узбекистане. В заключении отражены направления развития финансовой грамотности.

Ключевые слова: финансовая грамотность, экономика, политика, финансы, семинар, банковское дело, тренинг, финансовое благополучие, благополучие и жизнь человека, качество, онлайн-ресурс, знания, компетентность, навыки.

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DEVELOPING FINANCIAL LITERACY: THE KEY TO FINANCIAL STABILITY AND WELL-BEING

Abstract. The article is devoted to the development of financial literacy of the population, which is one of the key tasks in the modern world. With the rapid development of economic processes and financial technologies, changing economic situations and approaches to creating favorable financial stability, the acquisition of basic skills in the field of financial management is becoming increasingly important for all segments of the population. An analysis of the development of financial literacy in Uzbekistan was carried out. The conclusion reflects the directions for the development of financial literacy.

Key words: financial literacy, economics, politics, finance, seminar, banking, training, financial well-being, well-being and human life, quality, online resource, knowledge, competence, skills.

Финансовая грамотность имеет решающее значение для устойчивого экономического развития и благополучия общества. В свете быстро меняющейся финансовой среды, важно постоянно совершенствовать

развитие финансовой грамотности как среди молодого поколения, так и среди взрослого населения. Это требует комплексного подхода, который включает образовательные программы, социальные и государственные инициативы, а также доступ к финансовым услугам и продуктам.

Один из важнейших шагов в совершенствовании финансовой грамотности – это интеграция обучения финансовой грамотности в образовательные программы. Школы, колледжи и в целом все образовательные учреждения, а также организация и учреждения должны включать обучение базовым финансовым концепциям, повышение навыков и практических подходов населения к планированию бюджета, управлению и освоению новых интеграционных, инновационных и финансово-экономическими процессов, а также, другим аспектам финансов в целом регионах. Это поможет подготовить молодое поколение и население к самостоятельному управлению финансовыми отношениями что важно для успешного и целенаправленного управления финансовыми ресурсами для их будущего успешного приспособления в реальном мире.

Финансовая грамотность – это понимание базовых финансовых концепций и умение применять их на практике для принятия решений о личных финансах. Повышение финансовой грамотности среди населения играет важную роль в обеспечении финансовой стабильности, благосостояния и качества жизни.

Один из основных аспектов финансовой грамотности – умение составлять бюджет и управлять своими финансами. Люди, осознавая свои доходы и расходы, могут управлять ими более эффективно, избегая необдуманных трат и накапливая средства для будущего. Понимание концепций инвестирования, управления долгами и планирования пенсии также являются важными элементами финансовой грамотности.

Развитие финансовой грамотности играет важную роль в образовании и профессиональном росте каждого человека. Это особенно важно для учителей и старших, которые не только формируют умения и знания в молодом поколении, но и могут стать примером в финансовом плане.

В Республике Узбекистан в последние годы уделяется большое внимание развитию финансовой грамотности среди всех граждан. Ведь именно учителя и старшие могут дать основы финансовой грамотности своим сыновьям, ученикам, что поможет им в будущем стать финансово независимыми и ответственными гражданами.

Одним из способов развития финансовой грамотности населения в Узбекистане является проведение специальных тренингов и семинаров. Большое количество образовательных программ и курсов предлагаются для учителей, которые помогают им понять основы инвестирования, управления финансами, планирования бюджета и другие аспекты финансовой грамотности. Такие тренинги предоставляют возможность

учителям узнать новые методики и подходы к повышению финансовой грамотности, которые они могут использовать в своей работе.

В последние годы в Узбекистане началась реализация инициатив в области финансового образования. В 2021 году официально стартовал процесс разработки Национальной стратегии финансовой доступности (НСФД), которую ведет многосторонняя рабочая группа во главе с Центральным банком Республики Узбекистан (ЦБУ) при техническом содействии Группы Всемирного банка (ГВБ). Финансовое образование является одной из составляющих Национальной стратегии финансовой доступности. [1]

Мы являемся свидетелями того, что в ходе нашего исследования вопросам повышения финансовой грамотности в нашей стране уделяется особое внимание, и ряд организаций проводят встречи, семинары, мероприятия по этому поводу в наших учебных заведениях. В частности, проведение мероприятий Global Money Week по инициативе Центрального банка Республики Узбекистан стало традицией и в Узбекистане.

В рамках «Всеобщей денежной недели-2022», ставшей уже традицией, отмечаемой в Узбекистане по инициативе Центрального банка, проводятся различные конкурсы, мастер-классы, онлайн-тесты для учителей, школьников, студентов-волонтеров и молодежи. люди.

Образовательная акция «Всемирная неделя денег» Центрального банка Республики Узбекистан с 2020 года широко отмечается среди детей и молодежи по всей стране, а просветительские мероприятия этого года «Построй свое будущее на свои деньги, с правильным настроем» проводится под лозунгом. [2]

Также в рамках развития финансовой грамотности в Узбекистане активно внедряются различные образовательные проекты и программы тренинги, направленные на повышение их знаний в этой области. В рамках таких проектов население получают не только теоретические знания, но и практические навыки, которые помогут им применять полученные знания в повседневной жизни.

Кроме того, важную роль в развитии финансовой грамотности играет поддержка со стороны государства и образовательных учреждений, а также населения. Создание специальных программ и ресурсов, предоставление доступа к образовательным материалам и обучающим курсам также способствует развитию финансовой грамотности учителей.

Восьмая цель устойчивого развития Узбекистана - Достойная работа и экономический рост [3] предусматривает продвижение всестороннего и сбалансированного роста посредством повышения производительности труда и достойной работы для мужчин и женщин. Эта цель также предусматривает существенно сократить долю уязвимых слоев населения и молодежи, находящихся вне сферы занятости, образования или профессиональной подготовки.

Следовательно, создание достойных рабочих мест — главный вопрос, требующий решения, и главный приоритет для Правительства Республики Узбекистан на сегодняшний день. Решение задач в данной сфере обуславливает необходимость установления связей между уязвимыми слоями населения и моноцентрами «Ишга мархамат», и обучение востребованным навыкам с учетом потребностей рынка труда.

В целях установления и улучшения рабочих связей между моноцентрами «Ишга мархамат», шелтерами и уязвимыми слоями населения, путем ознакомления женщин с инвалидностью, сотрудников и женщин в шелтерах, махаллях, с услугами, оказываемыми моноцентрами, а также предоставления знаний в сферах финансовой грамотности и мягких навыков, которые востребованы на рынке труда. [4]

В целом, развитие финансовой грамотности играет важную роль в образовании и воспитании молодого поколения. Только учителя, обладающие хорошей финансовой грамотностью, смогут корректно и правильно обучать учеников и давать им полезные советы в области экономических и финансовых направлениях. Поэтому внимание к развитию финансовой грамотности учителей в Республике Узбекистан является очень важным и актуальным вопросом.

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Важно начинать обучение финансовой грамотности на ранних этапах образования. Программы по повышению финансовой грамотности и программы тренингов, семинаров должны включать обучение слушателей, учащихся базовым финансовым понятиям, таким как доходы, расходы, бюджетирование, кредиты, инвестиции и планирование финансовых целей.

Это позволит подготовить молодое поколение и населению к умелому управлению собственными финансами в будущем.

Кроме того, необходимо осуществлять социальные программы по повышению финансовой грамотности среди взрослого населения. Взрослые должны иметь доступ к обучающим курсам, семинарам и публичным мероприятиям, направленным на расширение их финансовых знаний и умений. Организации и правительственные учреждения также могут предоставлять ресурсы и информацию о финансовом планировании и управлении долгами.

В свете быстро меняющейся финансовой среды, особенно в контексте цифровизации, образовательные программы также должны включать информацию о цифровых финансовых технологиях и безопасности онлайн-платежей. Обучение электронному банкингу, использованию электронными интерактивными средствами, которые поможет населению и взрослым стать более уверенными в цифровой финансовой среде.

Важным аспектом развития финансовой грамотности также является доступность финансовых услуг и продуктов. Правительства и организации должны усиливать усилия по распространению информации о финансовых продуктах, доступных для широкой аудитории, а также предоставлять услуги финансового консультирования и поддержки при принятии финансовых решений.

В целом, повышение финансовой грамотности является важным инструментом для создания финансовой стабильности и улучшения качества жизни в целом финансовой устойчивости и благополучию. Развитие образовательных программ, социальных и государственных инициатив, а также широкое доступ к информации о финансовых продуктах и услугах – все это содействует улучшению финансовой грамотности и уверенности людей в управлении своими финансами.

Кроме того, обучение финансовой грамотности должно быть доступно для всех возрастных групп. Это предполагает проведение социальных программ, предоставление обучающих курсов, семинаров, публичных мероприятий и информационной кампании по основам финансовой грамотности. Население должно иметь доступ к ресурсам, позволяющим им развить свои навыки управления финансами и принятия финансовых решений.

Для поддержания современного развития финансовой грамотности также очень важно включение обучения о цифровых финансовых технологиях, криптовалютах и электронных платежных системах в образовательные программы. В цифровую эпоху, понимание и уверенное владение цифровыми финансовыми средствами и технологиями становится все более важным для предотвращения финансовых мошенничеств, а также для обеспечения безопасности личных финансов.

Наряду с образовательными программами, важно обеспечивать широкий доступ к финансовым услугам и продуктам для всех граждан. Развитие доступности финансовых услуг, финансового консультирования, возможности открывать банковские счета и т.д., является ключевым аспектом содействия процессу развития финансовой грамотности.

В заключение, совершенствование развития финансовой грамотности требует комплексного подхода и согласованных усилий со стороны образовательных учреждений, правительства, компаний, финансовых организаций и общественности в целом. При этом целью является не только развитие навыков управления финансами, но также их успешное применение в повседневной жизни, с целью создания устойчивой финансовой будущего поколения.

Важным инструментом для развития финансовой грамотности населения являются финансовые консультации и семинары. Они предоставляют возможность участвовать в дискуссиях, получать конкретные рекомендации от профессионалов и делиться опытом с другими людьми.

Развитие финансовой грамотности населения также связано с созданием специальных программ и инициатив, направленных на повышение уровня образования в данной области. Такие программы могут включать в себя целевую поддержку малообеспеченных групп населения, проведение образовательных мероприятий и разработку специальных ресурсов для улучшения финансовой грамотности.

Развитие финансовой грамотности населения является ключевым аспектом для создания финансово устойчивого общества. Поэтому необходимо поощрять и поддерживать различные программы и инициативы, направленные на повышение уровня финансовой грамотности населения. Это поможет обеспечить финансовую защищенность и стабильность как на уровне индивидуумов, так и на уровне всего общества.

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НАЛОГИ КАК МЕХАНИЗМ СТИМУЛИРОВАНИЯ ПРЕДПРИНИМАТЕЛЬСКОЙ ДЕЯТЕЛЬНОСТИ

Аннотация. В статье изложены подходы развития предпринимательской деятельности его роль в развитии экономики. В современных условиях стимулирование бизнеса при помощи налогов является одним из приоритетных направлений улучшения финансового состояния предпринимателей. Изучены теоретические подходы к налоговому стимулу. Отражены подходы государства к развитию предпринимательской деятельности. В заключении даны предложения и подходы по расширению развития предпринимательской деятельности при помощи стимулирования налогов.

Ключевые слова: экономика, стратегия, механизм, предприниматель, производство, регион, прогнозирование, налоговый отчетность, финансовый ресурс, налоговая политика, налоговая система.

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TAXES AS A MECHANISM FOR STIMULATING ENTREPRENEURIAL ACTIVITY

Abstract. The article outlines approaches to the development of entrepreneurial activity and its role in economic development. In modern conditions, stimulating business through taxes is one of the priority areas for improving the financial condition of entrepreneurs. Theoretical approaches to tax incentives have been studied. The state's approaches to the development of entrepreneurial activity are reflected. In conclusion, proposals and approaches are given to expand the development of entrepreneurial activity through tax incentives.

Key words: economy, strategy, mechanism, entrepreneur, production, region, forecasting, tax reporting, financial resource, tax policy, tax system.

Современный мир стремительно развивается, и одним из основных факторов в этом процессе является развитие предпринимательской деятельности. Предприниматели играют важную роль в экономике, создавая новые рабочие места, внедряя инновации и стимулируя

экономический рост. Однако, для многих из них сложная система налогообложения может стать серьезным барьером на пути к развитию бизнеса. Поэтому совершенствование механизма стимулирования предпринимательской деятельности при помощи налогов играет важную роль в поддержке предпринимательства и стимулировании экономического роста.

Одним из ключевых аспектов совершенствования механизма стимулирования предпринимательской деятельности при помощи налогов является создание благоприятной налоговой среды для бизнеса. Это включает в себя упрощение налоговых процедур, уменьшение административных барьеров, а также совершенствования налогового администрирования, сокращение бюрократических издержек. Прозрачность и предсказуемость налоговой политики также являются важными факторами, которые позволяют предпринимателям планировать свою деятельность и принимать решения о долгосрочных инвестициях.

Нужно отметить что в Узбекистане как и во многих странах особое внимание уделяется к развитию предпринимательской деятельности и наряду с этим совершенствованию нормативно правовой с базы которая должна способствовать к развитию этой сферы. Одним из примеров что по инициативе Президента Республики Узбекистана опубликовано Постановление “О дополнительных мерах по широкому вовлечению населения в малый и средний бизнес” [1] Согласно документу, в 2024 году планируется вовлечь 2 миллиона граждан Узбекистана в бизнес.

Кроме того, предусмотрено разрешить в период с 1 января 2024 года по 1 января 2026 года субъектам малого предпринимательства, созданным на основе кооперации с крупными предприятиями с государственным участием, реализацию произведенных ими товаров (продукции) общей стоимостью до 10 миллиардов сумов в течение одного финансового года государственным заказчикам на специальном информационном портале государственных закупок на основании прямых договоров.

Другим важным моментом является установление справедливой налоговой системы, которая стимулирует предпринимательство и инвестиции. Правильное балансирование налоговых ставок и создание системы налоговых льгот для стартапов, инновационных проектов и расширения бизнеса может способствовать развитию предпринимательской деятельности. Снижение налоговых бремен для предпринимателей, особенно на начальных этапах бизнеса, может стимулировать их активность и рост.

При рассмотрении поддержки предпринимательской деятельности при помощи налогов целенаправленно анализировать мнение ученых, ведущих специалистов о сущности, восприятию налогового стимулирования.

По мнению Волкова Д.Б. «Налоговый стимул - наиболее широкое понятие, которое включает в себя любой инструмент налогового стимулирования. Таким образом, к налоговым стимулам относятся и налоговые льготы, и налоговые преференции.»[2]

Середкина Е.М. «понятие налогового стимулирования повышения энергоэффективности как действия со стороны государства, направленного на повышение посредством налоговой политики экономической заинтересованности налогоплательщиков в эффективном использовании энергоресурсов, достижении экономически оправданной эффективности их использования за счет использования нового и более продуктивного оборудования и инновационных технологий, оптимизации существующих систем управления, контроля и использования вторичных энергоресурсов.» [3]

Авторы статьи «Перспективы налогового стимулирования развития экономики России» А.А. Кольцова, Н.М. Старобинская, Т.В. Яковлева утверждают «Высокий процент налоговых изъятий от ВВП в текущий момент времени характеризует фискальную роль налоговой системы, определяет будущие возможности стимулирования экономического развития посредством: расширения государственных инвестиций, субсидирования значимых инновационных проектов, финансирования социальной сферы, достаточного для качественного обновления человеческих ресурсов.» [4]

Мы могли продолжить эти подходы, и многие мнения направлены к развитию предпринимательство, бизнеса. Исходя из анализа мнений авторов налоговое стимулирование должна отвечать с одной стороны к интересам предпринимателей которые повышением доходов, прибыли и с другой стороны к интересам государства которое отражается созданием новых рабочих мест, расширением налогооблагаемой базы, выпуску производственных циклов. Данные подходы играют большую роль в развитии экономического, налогового потенциала регионов в целом государства,

Кроме того, важным аспектом является развитие инструментов налогового стимулирования инвестиций. Налоговые льготы и преференции на инвестиции в сферу инноваций, экологически чистые технологии и развитие производства могут привлечь дополнительные инвестиции в экономику и способствовать созданию новых рабочих мест.

Следует отметить, что важной частью совершенствования механизма стимулирования предпринимательской деятельности при помощи налогов является предоставление доступа к квалифицированной налоговой поддержке и консультациям для предпринимателей. Поддержка со стороны государства в области налогообложения, управления налоговыми рисками и оптимизации налоговых обязательств может существенно облегчить бизнес-процессы и способствовать развитию предпринимательства.

Наконец, для достижения целей совершенствования механизма стимулирования предпринимательской деятельности при помощи налогов необходимо развивать механизмы мониторинга и оценки эффективности налоговых мероприятий, чтобы подстраивать их под нужды развивающейся экономики и предпринимательского сектора.

В целом, совершенствование механизма стимулирования предпринимательской деятельности при помощи налогов требует комплексного и систематического подхода, ориентированного на упрощение налоговых процедур, создание стимулирующей налоговой среды и развитие налоговой поддержки для предпринимателей. Важно, чтобы налоговая политика стимулировала развитие предпринимательства, инвестиций и экономического роста, создавая благоприятные условия для устойчивого развития бизнес-среды.

Предпринимательская деятельность играет важную роль в экономическом развитии любой страны. Предприниматели создают новые рабочие места, стимулируют инновации и повышают конкуренцию на рынке. Однако, для многих потенциальных предпринимателей действующая налоговая система может являться препятствием для начала своего бизнеса.

Одним из способов стимулирования предпринимательской деятельности является предоставление льгот и снижение налоговых ставок для предпринимателей. Это может включать в себя снижение налогов на прибыль, уменьшение налоговых ставок на имущество и землю, а также налоговые каникулы для стартапов. Предоставление таких льгот может стимулировать развитие предпринимательской среды и привлечь новых игроков на рынок.

Кроме того, налоговая система может также предусматривать возможность получения налоговых преференций для предпринимателей, особенно в области инноваций и экологически чистых технологий. Это может стимулировать предпринимателей к разработке и внедрению новых технологий, что в свою очередь способствует росту экономики и повышению конкурентоспособности страны.

Также важным механизмом стимулирования предпринимательской деятельности является упрощение налоговой отчетности и уменьшение административной нагрузки для предпринимателей. Предоставление простой и прозрачной налоговой системы может способствовать увеличению числа предпринимателей и снижению затрат на соблюдение налоговых обязательств.

Наконец, важно обратить внимание на роль налогового консультирования и обучения предпринимателей в вопросах налогообложения. Обучение предпринимателей в вопросах налоговой политики и консультирование по вопросам налогообложения может помочь

им избежать непредвиденных налоговых обязательств и уменьшить риски налоговых споров.

Таким образом, использование налогового механизма для стимулирования предпринимательской деятельности является важным инструментом для создания благоприятной предпринимательской среды. Предоставление льгот, упрощение налоговой отчетности, обучение и консультирование предпринимателей - все это может способствовать развитию предпринимательства и экономическому росту страны.

Для совершенствования механизма стимулирования предпринимательской деятельности при помощи налогов следует рассмотреть несколько важных аспектов.

Во-первых, необходимо уделить внимание упрощению налоговой системы для предпринимателей. Сложность налоговых процедур и неопределенность в отношении налоговых обязательств могут стать серьезным бременем для предпринимателей. Поэтому упрощение процедур, автоматизация отчетности и уменьшение административных барьеров для малого и среднего бизнеса будут способствовать их развитию.

Во-вторых, важно разработать систему налоговых льгот и поощрений для предпринимателей, особенно для стартапов и инновационных проектов. Это может включать в себя снижение налоговых ставок, особые налоговые каникулы для новых бизнесов, а также предоставление преференций для инвестиций в развитие и модернизацию предприятий.

Также необходимо обратить внимание на развитие налоговых стимулов для инвестиций в долгосрочные проекты. Это может включать в себя налоговые льготы для предприятий, осуществляющих инвестиции в новые технологии, экологически чистое производство или расширение производственных мощностей.

Кроме того, важно наладить систему налогового консультирования для предпринимателей. Доступ к квалифицированным налоговым консультантам поможет предпринимателям понимать налоговые обязательства, избегать ошибок и оптимизировать свои налоговые платежи.

И, наконец, стоит обратить внимание на внедрение прогрессивных налоговых механизмов, которые могут поощрять социально ответственное предпринимательство. Например, это может включать в себя снижение налогов для компаний, вкладывающих средства в благотворительные и общественные проекты, а также предоставление налоговых выгод для бизнесов, осуществляющих экологически чистую деятельность.

В целом, совершенствование механизма стимулирования предпринимательской деятельности при помощи налогов требует комплексного подхода, ориентированного на упрощение процедур, предоставление льгот и поощрений, а также обеспечение качественного налогового консультирования для предпринимателей всех уровней.

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**ЭКСПЕРИМЕНТАЛЬНОЕ ОБОСНОВАНИЕ МЕТОДИКИ
СОВЕРШЕНСТВОВАНИЯ ДВИГАТЕЛЬНОЙ АКТИВНОСТИ
ТЕННИСИСТОВ С ОГРАНИЧЕННЫМИ ФИЗИЧЕСКИМИ
ВОЗМОЖНОСТЯМИ**

Аннотация. В статье даны рекомендации по адаптации игроков в настольный теннис с ограниченными возможностями здоровья к тренировочному процессу, тактико-теоретической подготовке, общей и специальной физической подготовке, технической подготовке и развитию физических качеств юных теннисистов, и достижению высоких результатов в соревнованиях.

Ключевые слова: адаптивность, конкуренция, эффективность, работоспособность, тактико-теоретическая подготовка.

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**EXPERIMENTAL JUSTIFICATION OF THE METHOD OF
IMPROVING THE MOTOR ACTIVITY OF TENNIS PLAYERS WITH
LIMITED PHYSICAL CAPABILITIES**

Annotation. The article gives recommendations on the adaptation of table tennis players with disabilities to the training process, tactical and theoretical training, general and special physical training, technical training and development of physical qualities of young tennis players and achieving high results in competitions.

Key words: adaptability, competition, efficiency, efficiency, tactical and theoretical training.

Воспитание чувства мужества и патриотизма, преданности Родине через пропаганду достижений молодежи, образцового образа жизни, широкое вовлечение молодежи в параспортные виды спорта, а также в соответствии с Указом Президента Республики Узбекистан от 18 мая 2021

года № ПП-5114 “О дополнительных мерах по развитию паралимпийского движения” – сен подписал свое решение.

В "Стратегии развития физической культуры и спорта в Республике Узбекистан на период до 2021 года" указано, что одним из направлений развития физической культуры и спорта является совершенствование физического воспитания лиц с ограниченными возможностями здоровья, привлечение их к занятиям спортом. Необходима разработка современных научно обоснованных методик, программ и технологий организации физического воспитания и спортивной тренировки инвалидов.

Одним из видов спорта, которым могут заниматься люди с поражением опорно-двигательного аппарата, считается настольный теннис, включенный в программу Паралимпийских игр. Это зрелищный, интересный вид спорта с красочной техникой, богатым запасом тактических вариантов и игровых комбинаций, требующий определенного уровня спортивной подготовки и оказывающий всестороннее воздействие на организм спортсменов, особенно спортсменов с ограниченными физическими возможностями.

Одним из основных направлений развития физической культуры и спорта является совершенствование физического воспитания лиц с ограниченными возможностями передвижения и инвалидов, привлечение их к занятиям спортом; для образовательных учреждений всех типов предусматривается разработка и внедрение в практику образовательных программ по физическому воспитанию детей с ограниченными возможностями здоровья (НСН) и детей с ограниченными возможностями здоровья. Разработка современных научно обоснованных методик, программ и технологий физического воспитания и спортивной подготовки инвалидов, создание условий для регулярной физкультурно-спортивной подготовки в специализированных образовательных учреждениях являются очень важными.

Проблема восстановления утраченных функций больных БСФ очень актуальна, так как наиболее распространенные методы реабилитации инвалидов не всегда позволяют достичь желаемого результата в данной области, и они, как правило, опираются на традиционные технологии подготовки, а также реабилитации. Одним из наиболее целесообразных в этом отношении реабилитационных мероприятий является привлечение инвалидов к занятиям физической культурой и спортом.

С целью определения эффективности разработанной методики совершенствования подвижности теннисистов с ограниченными физическими возможностями был проведен педагогический эксперимент, который длился 6 месяцев.

Контрольно-экспериментальные группы (по 10 человек в каждой группе) участвовали в исследованиях по данному направлению,

контрольно-экспериментальные группы существенно не отличались по всем исходным показателям двигательной активности по таблице.

Общее количество часов в контрольных и экспериментальных группах было одинаковым (8-10 часов в неделю). Соотношение отдельных видов обучения в контрольных и экспериментальных группах различалось, так как опыт позволял повысить уровень подготовленности к активизации учебно-воспитательного процесса в группе (с помощью искусственной контрольной среды). специальные и соревновательные-увеличение объема игрового обучения.

В контрольной группе тренировочный процесс проводился по обычной методике, по программе "настольный теннис" (г.В.Барчукова, В.А.Воробьев, О.В.Майцин, 2004). Общее количество часов в контрольных и экспериментальных группах было одинаковым (8-10 часов в неделю).

Таблица 1

Контрольные и экспериментальные показатели подготовленности групп

№	Параметры		Контрольная группа M1±m	Экспериментальная группа m2±m	Разница		P
					Единица	%	
1	"Вырезать" треугольник" (количество)	правый	15,6±0,4	15,1±0,3	-0,5	3,2	>0,05
2		левый	11,6±0,3	11,9±0,2	0,4	3,4	>0,05
3	Жонглирование (количество)		7,7±0,12	7,4±0,21	-0,3	3,9	>0,05
4	Резко слева %		10,5±0,5	10,7±0,07	0,2	1,9	>0,05
5	Резко справа %		9,3±0,29	9,5±0,3	0,2	2,2	>0,05
6	Прокрутка вверх вправо %		11,1±0,1	10,8±0,4	-0,3	2,7	>0,05
7	Высокий оборот "поворот" (количество)		5,8±0,3	5,7±0,1	-0,1	1,7	>0,05
8	"Восьмерка" («восмерка») резать (кол-во)	по прямой	14,1±0,7	14,2±0,4	0,1	0,7	>0,05
9		дигональ	10,8±0,2	11,2±0,4	0,4	3,7	>0,05
10	Подача мяча (кол-во) 10 раз	вращение с низу	5,9±0,1	5,8±0,8	-0,1	1,7	>0,05
11		накат	6,8±0,3	6,9±0,3	0,1	1,5	>0,05
12	Реакция на свет (с)		0,27±0,01	0,26±0,01	-0,01	3,7	>0,05
13	Реакция на движущийся объект		0,15±0,001	0,14±0,02	-0,01	6,7	>0,05
14	Боковое движение 5x10 (с)		65,1±2,5	67,3±2,4	2,2	3,4	>0,05
15	"Бег" в восьмерке ("восмерке") (s)		15,4±0,3	15,7±0,1	0,3	1,9	>0,05
16	Бег вокруг стола (s)		15,1±0,2	14,9±0,2	-0,2	1,3	>0,05

Соотношение отдельных видов обучения в контрольных и экспериментальных группах различалось, так как опыт позволял повысить уровень обучения за счет активизации процесса обучения и воспитания в группе (с помощью искусственно контролируемой среды). специальные и соревновательные-увеличение объема игрового обучения.

Кроме того, особенностью разработанной методики является то, что в экспериментальной группе экспериментальная методика применялась для улучшения двигательной активности теннисистов с последствиями ограниченных физических возможностей. На основе понятия "Искусственный контроль".

Нами изучены показатели эффективности и надежности соревновательной деятельности теннисистов с ограниченными физическими возможностями различного спортивного мастерства. В исследовании приняли участие 10 теннисистов по 1, 2 и 3 видам спорта в каждой группе.

Согласно стратегии развития физической культуры и спорта в Узбекистане до 2020 года, одним из основных направлений развития физической культуры и спорта является разработка современных, научно обоснованных методик, программ и технологий спортивной тренировки инвалидов. Одним из наиболее перспективных направлений является использование искусственной среды управления и методики формирования действий в соответствии с заданным результатом.

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СОДЕЙСТВИЕ РАЗВИТИЮ РЫНКА «ЗЕЛЕНОГО» ФИНАНСИРОВАНИЯ В УЗБЕКИСТАНЕ

Аннотация. В современном мире проблемы изменения климата и экологического кризиса становятся все более актуальными. В ответ на эти вызовы многие страны активно развивают рынок "зеленого" финансирования, который направлен на финансирование проектов, способствующих более устойчивому развитию и снижению негативного воздействия на окружающую среду. В данной статье рассмотрим содействие развитию рынка "зеленого" финансирования в Узбекистане.

Ключевые слова: зеленое финансирование, рынок, инвестиции, устойчивое развитие.

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PROMOTING THE DEVELOPMENT OF THE GREEN FINANCE MARKET IN UZBEKISTAN

Abstract. In the modern world, the problems of climate change and the environmental crisis are becoming more and more urgent. In response to these challenges, many countries are actively developing the green finance market, which is aimed at financing projects that contribute to more sustainable development and reduce negative environmental impacts. In this article, we will consider the promotion of the development of the "green" financing market in Uzbekistan.

Key words: green finance, market, investments, sustainable development.

В настоящее время рынок "зеленого" финансирования в Узбекистане находится на начальной стадии развития. Государство признает важность устойчивого развития и принимает меры для стимулирования "зеленых" инвестиций, однако еще не созданы все необходимые инструменты и механизмы для развития данного рынка.

Государство играет ключевую роль в развитии рынка "зеленого" финансирования в Узбекистане. Оно осознает важность устойчивого развития и принимает активные меры для стимулирования "зеленых"

инвестиций. Во-первых, правительство Узбекистана приняло ряд налоговых льгот и стимулов для инвесторов, которые реализуют "зеленые" проекты. Например, предоставление налоговых каникул на определенный период, освобождение от уплаты налога на добавленную стоимость (НДС) при импорте оборудования и технологий для "зеленых" инвестиций. Такие меры снижают финансовые барьеры для инвесторов и делают "зеленые" проекты более привлекательными.

Во-вторых, государство финансирует экологические проекты из государственного бюджета. Например, создан Государственный экологический фонд, который выделяет средства на реализацию "зеленых" проектов. Это позволяет снизить финансовые риски для инвесторов и создает дополнительные источники финансирования "зеленых" проектов.

В-третьих, для развития рынка "зеленого" финансирования важно создание специализированных институтов и фондов, которые будут осуществлять контроль и поддержку данного рынка. Например, можно создать Национальный фонд "Зеленый Узбекистан", который будет финансировать "зеленые" проекты и предоставлять гарантии инвесторам. Такие институты помогут улучшить инвестиционный климат и повысить доверие инвесторов к рынку "зеленого" финансирования.

Кроме того, государство может разрабатывать и внедрять стратегии и планы действий для развития рынка "зеленого" финансирования. Например, можно разработать национальную стратегию "Зеленое финансирование 2030", в которой будут определены цели, приоритеты и механизмы развития рынка. Это позволит создать единое видение и координацию действий всех заинтересованных сторон.

Однако для полноценного развития рынка "зеленого" финансирования необходимо создание правовой и институциональной базы. Важно разработать специальные законы и нормативные акты, регулирующие деятельность "зеленых" инвестиций, а также создать специализированные институты, которые будут осуществлять контроль и поддержку данного рынка.

Привлечение иностранных инвесторов также является важным аспектом развития рынка "зеленого" финансирования в Узбекистане. Для этого необходимо проводить информационные кампании, презентации и деловые форумы, чтобы привлечь внимание иностранных инвесторов к потенциалу "зеленого" рынка Узбекистана. Для успешного развития данного рынка необходимо также развивать экологическое образование и повышать осведомленность населения о проблемах окружающей среды. Чем больше люди осознают важность устойчивого развития и готовы поддерживать "зеленые" проекты, тем больше будет спрос на "зеленое" финансирование.

Для развития рынка "зеленого" финансирования в Узбекистане необходимо создание специализированных финансовых инструментов и

механизмов. Например, можно создать "зеленые" облигации, которые будут финансировать экологические проекты. Такие инструменты помогут привлечь инвесторов и предоставить дополнительные источники финансирования для "зеленых" проектов.

Сотрудничество с международными организациями и финансовыми институтами также может способствовать развитию рынка "зеленого" финансирования в Узбекистане. Например, страна может привлекать финансовую поддержку и экспертизу от международных фондов и банков, которые специализируются на "зеленых" инвестициях. Для обеспечения доверия инвесторов и эффективности рынка "зеленого" финансирования важно проводить оценку и сертификацию "зеленых" проектов. Такие оценки помогут определить энергоэффективность и экологическую выгоду проекта, а также установить его соответствие международным стандартам и требованиям.

Необходимо также уделить внимание образованию и подготовке кадров в области "зеленого" финансирования. Образовательные программы и курсы должны быть разработаны для обучения специалистов, которые будут работать на рынке "зеленого" финансирования и развивать данную отрасль.

Выводы. Развитие рынка "зеленого" финансирования в Узбекистане является важным шагом в направлении устойчивого развития и снижения экологического воздействия. Для достижения этой цели необходимо создание правовой и институциональной базы, привлечение иностранных инвесторов, создание специализированных финансовых инструментов и механизмов, а также оценка и сертификация "зеленых" проектов. Важным аспектом является также образование и подготовка кадров, которые будут работать на рынке "зеленого" финансирования. Стратегическое сотрудничество с международными организациями и финансовыми институтами также может способствовать развитию данного рынка в Узбекистане.

Использованные источники:

1. Постановление Президента Республики Узбекистан от 02.12.2022 г. № ПП-436 «О мерах по повышению эффективности реформ, направленных на переход Республики Узбекистан на «зеленую» экономику до 2030 года».
2. Постановление Кабинета Министров Республики Узбекистан от 29.09.2023 г. №515 «О мерах по расширению внедрения сертификатов «зеленая энергия» и совершенствованию механизмов «зеленого финансирования»
3. Худякова, Л. С. Международное сотрудничество в развитии «зеленого» финансирования /Л. С. Худякова // Деньги и кредит. - 2017. - № 7. - С. 10-18.

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ЭВОЛЮЦИЯ ОБУЧЕНИЯ И РАЗВИТИЯ ПЕРСОНАЛА В ОРГАНИЗАЦИЯХ

Аннотация. В данной статье описаны история и этапы развития системы обучения и развития сотрудников на предприятиях и в организациях. Также представлена история ранних исследований в этой области.

Ключевые слова: обучение и развитие персонала, ученичество и обучение на рабочем месте, обучение в классе и в вестибюле, машинное и компьютерное обучение, электронное обучение, геймификация, дистанционное обучение

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EVOLUTION OF TRAINING AND DEVELOPMENT OF EMPLOYEE IN ORGANIZATIONS

Annotation. This article describes the history and stages of development of the system of training and development of employees in enterprises and organizations. The history of early academic research in this area is also presented.

Keywords: employee training and development, apprenticeship and on-the-job training, classroom and lobby training, machine and computer learning, e-learning, gamification, distance learning.

Введение

На протяжении веков финансовый капитал традиционно доминировал в управлении организаций и предприятий. Но в современном мире, где инновации и интеллектуальный капитал имеют большое значение для успеха организаций, все больше внимания уделяется ценности

человеческого капитала. Исследования, проведенные учеными США (проанализировано более 3100 рабочих мест), показали, что в результате повышения уровня образования работников на 10,0% общая производительность труда увеличивается на 8,6%. Для сравнения можно отметить, что при увеличении основных фондов до этого уровня производительность труда увеличивается всего на 3,4%. Другими словами, прибыль от инвестиций в человеческий капитал в три раза превышает прибыль от инвестиций в технологии¹⁴.

В сегодняшней конкурентной бизнес-среде организации сталкиваются с новыми проблемами в эффективном наборе и оптимизации человеческих ресурсов. Кроме того, организации сталкиваются с усилением конкуренции из-за глобализации, технологий и изменений в политической и экономической среде. Чтобы преодолеть эти проблемы, необходима комплексная практика управления человеческими ресурсами (HRM), которая превратит человеческие ресурсы организации в устойчивое конкурентное преимущество.

Поэтому одним из способов мотивации этих организаций является правильное обучение и развитие своих сотрудников для повышения их производительности¹⁵. Потому что сотрудники являются «кровотоком» организации, наиболее ценным активом и основным источником конкурентных преимуществ организаций. Успех или неудача компании зависит от эффективности ее сотрудников. Для управления крупными и малыми организациями, прежде всего, необходимо обеспечить их квалифицированным персоналом.

Система формального образования не может адекватно научить конкретных работников необходимым навыкам для предполагаемой должности в определенной организации. Работников, обладающих знаниями, умениями и навыками, необходимыми для эффективной работы, сравнительно немного. В результате многие организации ощущают необходимость во всестороннем обучении сотрудников с целью приобретения современных знаний и навыков, чтобы внести существенный вклад в их рост.

Основная цель обучения и развития — улучшить навыки сотрудников, чтобы организация могла максимизировать эффективность и производительность своих человеческих ресурсов. Как поясняет М. Армстронг в своей книге, организации могут получить выгоду от обучения и развития, завоевав «сердца и умы» своих сотрудников, заставляя их

14 Каландар Абдурахманов Экономика труда: Теория и практика / Учебник. Каландар Абдурахманов. Переработанное и дополненное 3-е издание. Т.: Государственное издательское предприятие «ФАН» Академии наук Республики Узбекистан, Т.: 2019. С.236.

15 Aboyassin, N. A., & Sultan, M. A. (2017). The Role of Human Resources Training in Improving the Employee's Performance: Applied Study in the Five Stars Hotels in Jordan. *International Journal of Business Administration*, 8(5), 46.

чувствовать себя едиными с организацией, усерднее работать ради интересов организации и оставаться с ней¹⁶.

Система обучения и развития в организациях не пришла к сегодняшнему дню в одночасье и имеет свою историю развития. Ниже мы проанализируем эволюцию развития этой системы.

Методы исследования. В данном исследовании нами были использованы методы анализа и синтеза, сравнения и абстрагирования различных источников литературы (печатных изданий, интернет-изданий, научных статей) по истории обучения и развития.

Обзор литературы

Особенности обучения и развития во всем мире связаны с эпохой древних цивилизаций. В западном мире первые статьи об обучении появились в журналах для рабов южных штатов еще до Гражданской войны в США¹⁷, а подходы и философия преподавания широко обсуждались влиятельным американским чернокожим учителем, оратором и лидером Букером Т. Вашингтоном¹⁸. Первой академической публикацией, посвященной обучению, была статья 1918 года в «Журнале прикладной психологии», в которой рассматривалась учебная программа бакалавриата для прикладных психологов. В 1934 году в первом справочнике по образованию взрослых обсуждались вопросы обучения¹⁹. Вторая мировая война повлияла на фокус исследований прикладной психологии на эффективности программ обучения, особенно в военном контексте. К 1960-м и 1970-м годам в этой области началась разработка теории и теоретические исследования²⁰. В 1980-е годы повышенное внимание уделялось тому, как сотрудники воспринимают и реализуют программы обучения, а также поощрялся сбор данных для целей оценки, особенно программ обучения управленческих кадров²¹. В 1980-х и 1990-х годах развивающаяся часть обучения и развития становилась все более популярной, и на сотрудников большее влияние оказывала концепция «обучения на протяжении всей жизни». Именно в это десятилетие впервые были проведены исследования, выявившие влияние и значение обучения и

16 Armstrong, M. (2009). *Armstrong's handbook of Human Resource Management Practice* (11th ed.). London (UK) and Philadelphia (USA): Kogan Page Limited.

17 Phillips, Lisa (8 March 2013). "David R. Roediger and Esch Elizabeth. *The Production of Difference. Race and the Management of Labor in US History*. Oxford University Press, Oxford [etc.]2012. x, 286 pp. Ill. £22.50". *International Review of Social History*. 58 (1): 129–131. doi:10.1017/s0020859013000059. ISSN 0020-8590. S2CID 144977591

18 Up from Slavery: An Autobiography, by Booker T. Washington (gutenberg.org)

19 Rowden, D (1934). *Handbook of adult education in the United States*. American Association for Adult Education.

20 Bell, Bradford S.; Tannenbaum, Scott I.; Ford, J. Kevin; Noe, Raymond A.; Kraiger, Kurt (2017). "100 years of training and development research: What we know and where we should go". *Journal of Applied Psychology*. 102 (3): 305–323. doi:10.1037/apl0000142. hdl:1813/74878. ISSN 1939-1854. PMID 28125262. S2CID 26505012

21 Burke, Michael J.; Day, Russell R. (1986). "A cumulative study of the effectiveness of managerial training". *Journal of Applied Psychology*. 71 (2): 232–245. doi:10.1037/0021-9010.71.2.232. ISSN 0021-9010

развития на развитие позитивной культуры²². К началу 21 века было проведено больше исследований по таким темам, как командная тренировка, например кросс-обучение. Обучение навыкам развивалось в различных организационных формах в промышленно развитых странах.

Результаты.

Идея обучения и развития (T&D) не является новой для 21 века, скорее, она развивалась с ранних этапов человеческой цивилизации и постепенно превратилась в тот сложный процесс, которым является сегодня. То есть, если история образования связана с появлением человека, то формальная система обучения и развития персонала на организационном уровне появилась не так давно. Ниже мы анализируем историю развития, выявленную и обобщенную из различных источников в ходе наших исследований по обучению и развитию.

Таблица 1.

Хронология обучения и развития сотрудников

№	Периоды	Элементы
1.	Период до промышленной революции	Ученичество и обучение на рабочем месте
2.	Индустрия 1.0	Обучение в классе и в вестибюле
3.	Индустрия 2.0	Ролевые игры, обучение рабочим инструкциям, индивидуальное обучение.
4.	Индустрия 3.0	Машинное и компьютерное обучение
5.	Индустрия 4.0	Мобильное обучение, геймификация, дистанционное обучение

1. Ученичество (400-1400 гг. н. э.). Согласно Кодексу Хаммурапи, закону, который регулировал Древний Египет (2000 г. до н. э.), ученичество было одним из первых типов образовательной практики, получивших широкое распространение, особенно в средние века. Поскольку ремесленники были востребованы, большинство детей того времени отправляли в ученики к мастерам этого вида искусства, делясь с ними знаниями и обучая их навыкам, необходимым для достижения успеха в ремесле.

2. а) Обучение в классе (1800-е гг.). Хотя в прошлом использовалось простое обучение и ученичество на рабочем месте, промышленная революция положила начало современному обучению сотрудников. Впервые работодатели столкнулись с большим количеством неподготовленных работников и должны были стратегически подумать об обучении сотрудников.

Аудиторный тип обучения сотрудников возник в результате увеличения количества заводов, которые зависели от рабочей силы для

²² Birdi, Kamal; Allan, Catriona; Warr, Peter (1997). "Correlates and perceived outcomes of 4 types of employee development activity". *Journal of Applied Psychology*. 82 (6): 845–857. doi:10.1037/0021-9010.82.6.845. ISSN 0021-9010. PMID 9638086

управления сложным оборудованием. Фабрикам требовались быстро и дешево обученные рабочие, чтобы удовлетворить высокий спрос на промышленные товары.

Недостатки аудиторного обучения тогда были во многом такими же, как и сегодня: поскольку рабочие учились выполнять свою работу вне контекста, им приходилось запоминать то, чему их учили в классе, прежде чем вернуться на производственную линию. Более того, из-за характера классного обучения их преподавание было абстрактным и теоретическим. Это увеличило информационную нагрузку сотрудников и заставило их воплощать полученные знания в практические действия.

б) Обучение в вестибюле (1800-е гг.). Также в те годы наряду с аудиторным обучением организовывалось вестибюльное обучение, понимаемое как «обучение вблизи рабочего места». Этот метод проводилось внутри фабрики, но в специальном помещении, достаточно большом, чтобы вместить до десяти рабочих, их инструкторов и машины²³. Обучение в вестибюле позволяет обучаемому сосредоточиться на изучении новых навыков, а не на выполнении реальной работы. После обучения работника устраивают на аналогичную работу в мастерской. Следует отметить, что высококвалифицированный и обученный инструктор назначался ответственным за программу²⁴.

3. а) Ролевые игры (1930-е гг.). Ролевая игра, впервые разработанная в 1910-х годах психиатром доктором Джейкобом Морено, представляла собой новый метод обучения сотрудников, помещая их в контролируемую среду, с которой они могут столкнуться на работе, но в контролируемую среду, которая не представляла никакой угрозы для здоровья их жизни. Ролевая игра давала сотруднику возможность применить необходимые навыки в конкретной ситуации²⁵.

б) Обучение профессиональной подготовке (1940-е годы). Профессиональное обучение, популярное во время Второй мировой войны, было разработано специально для того, чтобы дать «руководителям оборонных заводов» необходимые навыки, которые затем могли обучать своих собственных рабочих в различных отраслях промышленности.

Индивидуальное обучение обычно заменяет преподавателя материалами для самостоятельного обучения, что позволяет снизить затраты и повысить масштабируемость. Этот метод основан на запрограммированном материале или обучении, разбитом на легко

23 Vestibule Training. (2010, September 11). Big Dog and Little Dog's Juxtaposition of Performance, Learning, Leadership, and Knowledge. Retrieved April 12, 2013, from <http://www.nwlink.com/~donclark/hrd/history/vestibule.html>.

24 Bekimbetova, G. (2021). МЕТОДИКА ОБУЧЕНИЯ СОТРУДНИКОВ В ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ИХ ДЕЯТЕЛЬНОСТИ . Архив научных исследований, 1(1). извлечено от <https://journal.tsue.uz/index.php/archive/article/view/243>

25 Role Playing. (2010, September 11). Big Dog and Little Dog's Juxtaposition of Performance, Learning, Leadership, and Knowledge. Retrieved April 12, 2013, from <http://www.nwlink.com/~donclark/hrd/history/roleplay.html>.

усваиваемые этапы. После выполнения каждого шага он подкрепляется методами, требующими активной реакции слушателя, такими как мини-викторина, построение графика или решение задачи.

4. а) Раннее машинное обучение (1960-е годы). Хотя первое компьютерное обучение было введено только в 1960-х годах, эта технология была использована в образовательных целях в 1924 году с появлением первой «испытательной машины». Несколько десятилетий спустя, в 1954 году, профессор Гарварда предложил идею «обучающей машины». Эта грубая технология впервые позволила школам проводить программированное обучение своих учеников без учителей. Устройство работало за счет просмотра вопросов через небольшое окошко, после чего студент мог проверить себя. Правильные ответы вознаграждались. В 1959 году ученые из Университета Иллинойса создали систему машинного обучения, известную как PLATO, которая широко использовалась на протяжении 40 лет²⁶.

б) Компьютерное обучение (1980-1990-е гг.). В начале 1990-х годов компьютеры стали неотъемлемой частью повседневной жизни в развитых странах. Система обучения и развития сотрудников также стала использовать эту технологию. Воспользовавшись этой возможностью, самообучение посредством вебинаров стало тенденцией. Аудитория могла участвовать в этих видеоуроках, не выходя из-за офиса, без необходимости посещать место проведения. Кроме того, при компьютерном обучении используются индивидуальные методы обучения для компьютерного обучения сотрудников.

в) Смешанное обучение (1990-2000 гг.). Понятия электронного обучения (электронного обучения) и мобильного обучения вошли в научный термин и активно используются компаниями.

²⁶PLATO (компьютерная система) - [https://ru.wikipedia.org/wiki/PLATO_\(%D0%BA%D0%BE%D0%BC%D0%BF%D1%8C%D1%8E%D1%82%D0%B5%D1%80%D0%BD%D0%B0%D1%8F_%D1%81%D0%B8%D1%81%D1%82%D0%B5%D0%BC%D0%B0\)](https://ru.wikipedia.org/wiki/PLATO_(%D0%BA%D0%BE%D0%BC%D0%BF%D1%8C%D1%8E%D1%82%D0%B5%D1%80%D0%BD%D0%B0%D1%8F_%D1%81%D0%B8%D1%81%D1%82%D0%B5%D0%BC%D0%B0))

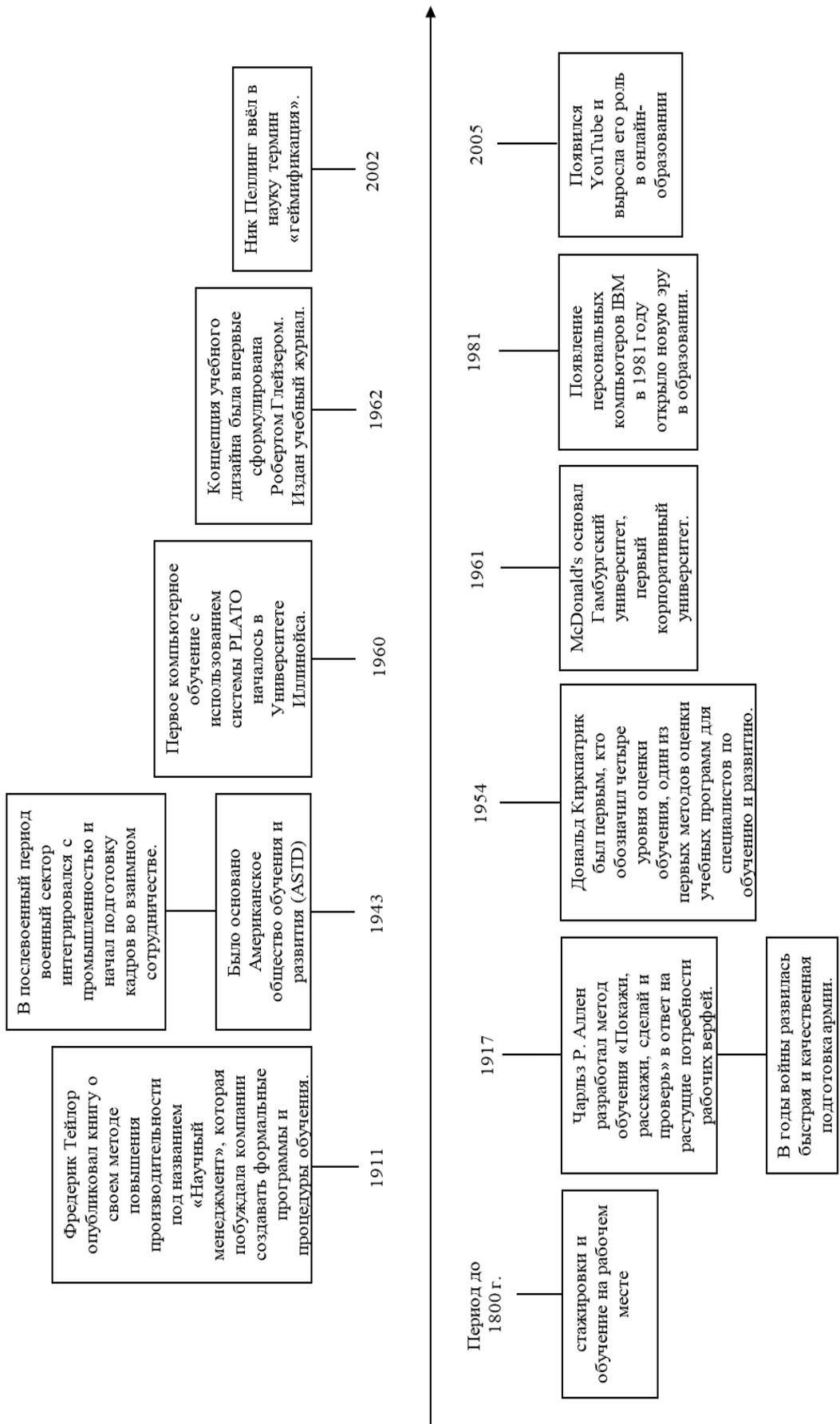


Рисунок 1. История развития системы обучения и развития

5. Электронное обучение (с 2000 г. по настоящее время). Это обучение с помощью интернета и цифровых технологий. В условиях быстрого развития технологий и ситуации с пандемией работодатели и тренеры сталкиваются с проблемой обучения за пределами офиса. Были заново изобретены методы и инструменты обучения. Правильное и оптимальное использование инструментов помогает преодолеть разрыв между теоретической подготовкой и практическим использованием. Благодаря эффективной системе управления обучением компании могут проводить более увлекательные учебные курсы, предоставляя сотрудникам свободу учиться в удобном для них темпе. Включение различных мультимедийных инструментов и методологий позволяет получить практический опыт за счет сокращения времени и бюджета обучения.

В целом, обучение и развитие сотрудников на предприятиях и в организациях с развитием технологий становится все богаче и сложнее. В последние годы для обеспечения эффективности программ обучения и развития уделяется внимание использованию всех доступных методов в смешанной форме, отдавая приоритет одному из них. Например, если принять во внимание, что основная рабочая сила на рынке труда представлена поколением Y, то сложно представить обучение этого поколения без цифровых технологий. С этой точки зрения роль геймификации в образовании также возрастает. Геймификация – это вовлечение студентов/участников в процесс обучения/работы нетрадиционным способом с помощью игры. Правильно спроектированная геймификация повышает мотивацию пользователя и желание приобщиться к образовательной системе. Кроме того, платформа YouTube вносит большой вклад в развитие самостоятельного образования. Благодаря этой платформе у сотрудников появилось возможность быстро получить необходимые им знания и навыки, не покидая рабочего места.

Заключение:

Ранняя история обучения и развития была сформирована историческими событиями и преобразующим вкладом мыслителей-новаторов. Эта ранняя история имеет последствия для отраслей и их заинтересованных сторон. Сейчас частные и государственные организации тратят огромные суммы денег на обучение и развитие, и почти каждый работающий взрослый человек проводит часы своей жизни, участвуя в обучении. Существует как деловая, так и личная необходимость лучше понимать, как люди учатся на работе и как лучше всего разрабатывать, реализовывать и поддерживать мероприятия по обучению и развитию. За последние 100 лет уровень знаний в области обучения и развития значительно изменился, и исследования позволили получить множество практических идей, которые могут помочь в практической деятельности.

Исходя из историй и глядя на будущее можно сказать что, электронное обучение будет продолжать развиваться и внедрение

искусственного интеллекта и нейронных сетей сделает программное обеспечение для электронного обучения более умным и отзывчивым. Новые программы онлайн-обучения будут как предписывающими, так и адаптивными. Предписывающие программы будут определять сильные и слабые стороны учащегося и соответствующим образом корректировать учебную программу. Компьютер станет лучше справляться с этой задачей по мере того, как узнает человека. Другими словами, компьютер также будет учиться на собственном опыте. Все это приводит к огромному скачку в качестве интерактивности программного обеспечения для электронного обучения. Вместо того, чтобы перелистывание страниц было основным способом вовлечения учащегося, новое программное обеспечение будет реагировать в соответствии с поведением учащегося, особенно с ответами на тесты и задачи производительности.

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ВЛИЯНИЕ АССОРТИМЕНТНОЙ ПОЛИТИКИ НА КОНКУРЕНТОСПОСОБНОСТЬ ТОРГОВОЙ КОМПАНИИ

Аннотация. В данной статье рассматриваются теоретические основы ассортиментной политики. Выделяются понятие, комплекс целей, а также факторы формирования и реализации ассортиментной политики торговой компании. Особенное внимание уделяется способам повышения конкурентных позиций компаний за счет ассортиментной политики.

Ключевые слова: товарный ассортимент, ассортиментная политика, торговая компания, конкурентоспособность.

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THE IMPACT OF ASSORTMENT POLICY ON THE COMPETITIVENESS OF A TRADING COMPANY

Abstract. This article discusses the theoretical foundations of assortment policy. The concept, the set of goals, as well as the factors of formation and implementation of the assortment policy of a trading company are highlighted. Special attention is paid to ways to increase the competitive position of companies through assortment policy.

Keywords: product range, assortment policy, trading company, competitiveness.

В современном мире, в условиях конкурентной борьбы, рынок определяет необходимый ему ассортимент, поэтому перед любой торговой компанией ставится задача – удовлетворить потребительский спрос

наиболее эффективным способом, нежели это сделают конкуренты. При нерационально выстроенной структуре ассортимента происходит снижение как потенциального, так и реального уровня прибыли, наблюдается потеря конкурентных позиций на потребительском и товарном рынках. Все это, в конечном итоге, приводит к снижению экономической устойчивости.

Для того, чтобы не потерять свою конкурентоспособность, торговым организациям необходимо правильно спланировать и сформировать ассортимент товаров, который будет способствовать повышению экономических показателей, укреплению рыночных позиций и обеспечивать успех на долгосрочную перспективу.

Ключевым элементом эффективной деятельности торговых предприятий является комплекс маркетинга, основа которого строится на ассортиментной политике.

Ассортиментная политика – это политика, основная суть которой состоит в определении номенклатуры товаров, которые будут производиться и реализовываться с учетом возможностей компании, потребностей рынка, степени риска, сезонности спроса, конъюнктуры и динамики цен и др. [1, с. 156]

Основная цель ассортиментной политики – это не только формирование полного, оптимального, рационального ассортимента, отвечающего потребностям рынка и соответствующего стратегическим целям компании, но также создание уникального и привлекательного предложения для потребителей, способного выделить торговое предприятие среди конкурентов. Благодаря грамотному построению ассортиментной политики, компании могут реализовывать комплекс целей:

- эффективное удовлетворение запросов как потенциальных клиентов, так и уже существующих;
- увеличение количества потребителей;
- оптимизация финансовых затрат;
- увеличение объемов прибыли;
- модернизация производства, хранения и сбыта товарной продукции;
- расширение производства и внедрение новых технологий;
- гибкость в принятии решений относительно изменения товарного ассортимента. [2, с. 148]

На формирование и реализацию ассортиментной политики оказывает влияние множество факторов, среди которых можно выделить наиболее значимые, такие как:

- специализация торговой организации;
- способы формирования и стимулирования спроса;
- наличие и доступность необходимого сырья;
- материально-техническая база предприятия;
- каналы распределения товаров и отлаженная система поставок;

- методы стимулирования сбыта;
- рекламная поддержка товаров, в условиях насыщенного рынка. [3, с. 143]

Существует множество способов, при помощи которых ассортиментная политика может оказывать влияние на конкурентоспособность торговой компании.

Во-первых, дифференциация товарного ассортимента, то есть определение и выделение особенностей ассортимента товаров, которые способны отличить собственные предложения от предложений компаний-конкурентов. Разнообразный ассортимент создает уникальное торговое предложение и помогает выделиться на фоне конкурентов. Необходимо делать акцент на высоком качестве и удобстве использования товаров, а также на новизне и инновационности.

Во-вторых, товарная персонализация, которая позволяет подстраивать ассортимент под запросы отдельных сегментов потребителей. Реализация данного способа возможна при помощи оценки и анализа потребностей целевой аудитории торговой компании, а впоследствии разделение потребителей на сегменты. За счет сегментирования, компании могут выстраивать, корректировать и адаптировать ассортимент исходя из запросов отдельных сегментов, тем самым завоевывая внимание и доверие потребителей, удовлетворяя различные их потребности.

Таким образом, ассортиментная политика играет важную роль в деятельности торговых компаний на рынке, а также в формировании ее конкурентных преимуществ. Рационально сформированный товарный ассортимент помогает компаниям в привлечении большего числа потребителей, способствует укреплению рыночных позиций и обеспечению устойчивого роста и развития на долгосрочную перспективу.

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ОБРАБОТКА ВИДЕОМАТЕРИАЛОВ ПРИ РАЗРАБОТКЕ ОБРАЗОВАТЕЛЬНЫХ РЕСУРСОВ

Аннотация: в статье говорится о обработке видеоматериалов при разработке образовательных ресурсов.

Ключевые слова: обработка, видео, видеоматериал, разработка, образование, обучение, информационно-коммуникационные системы, ресурсы.

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PROCESSING OF VIDEO MATERIALS IN THE DEVELOPMENT OF EDUCATIONAL RESOURCES

Abstract: the article talks about the processing of video materials in the development of educational resources.

Key words: processing, video, video material, development, education, training, information and communication systems, resources.

В последние годы всё чаще поднимается вопрос об использовании новых информационных технологий в образовании. Одним из

приоритетных направлений является широкое внедрение электронных образовательных ресурсов (ЭОР) в учебный процесс.

Применение ЭОР означает необходимость учета чувственного восприятия изучаемых объектов, их макетов или моделей и их личное наблюдение учащимися. Восприятие нового учебного материала идёт через активизацию не только зрения (*текст, цвет, видео, анимацию*), но и слуха (голос диктора или актёра, музыкальное или шумовое оформление), что позволяет создать определенный эмоциональный фон, который повышает эффективность усвоения предъявляемого материала.

Разберём что же такое видео. Видео (от лат. video -смотрю, вижу)-множество технологий записи, обработки, передачи, хранения и воспроизведения визуального или аудиовизуального материала, а также распространённое название для собственно видеоматериала, телесигнала или кинофильма, в том числе записанного на физическом носителе (видеокассете, видеодиске и т. п.).

Видеоинформация, непосредственно, — это изображение, зафиксированное на магнитной ленте, киноплёнке, фотоснимке или на оптическом диске, с которых оно может быть воспроизведено.

Основные параметры видеосигнала:

- количество (частота) кадров в секунду (число неподвижных изображений, сменяющих друг друга при показе 1 секунды видеоматериала и создающих эффект движения объектов на экране); чересстрочная развёртка; разрешение; соотношение сторон экрана; количество цветов и цветовое разрешение; битрейт или ширина видеопотока (для цифрового видео).

Битрейт выражается битами в секунду (бит/с, bps), а также производными величинами с приставками кило- (кбит/с, kbps), мега- (Мбит/с, Mbps) и т. д.

Скорость передачи данных с использованием битов в секунду блока (символ: «бит/с»), часто применяется в сочетании с приставками из международной системы измерения единиц (СИ), такими как «кило» (1 кбит/с = 1000 бит/с), «мега» (1 Мбит/с = 1000 кбит/с), «гига» (1 Гбит/с = 1000 Мбит/с) или «тера» (1 Тбит/с = 1000 Гбит/с). Нестандартная аббревиатура «bps» часто используется для замены стандартного символа «бит/с», так что, например, «1 Мбит» используется для обозначения одного миллиона бит в секунду. Один байт в секунду (1 Б/с) соответствует восьми битам в секунду (8 бит/с). Кроме того, могут использоваться двоичные приставки киби-, меби-.

Целесообразность использования видео в учебном процессе можно объяснить:

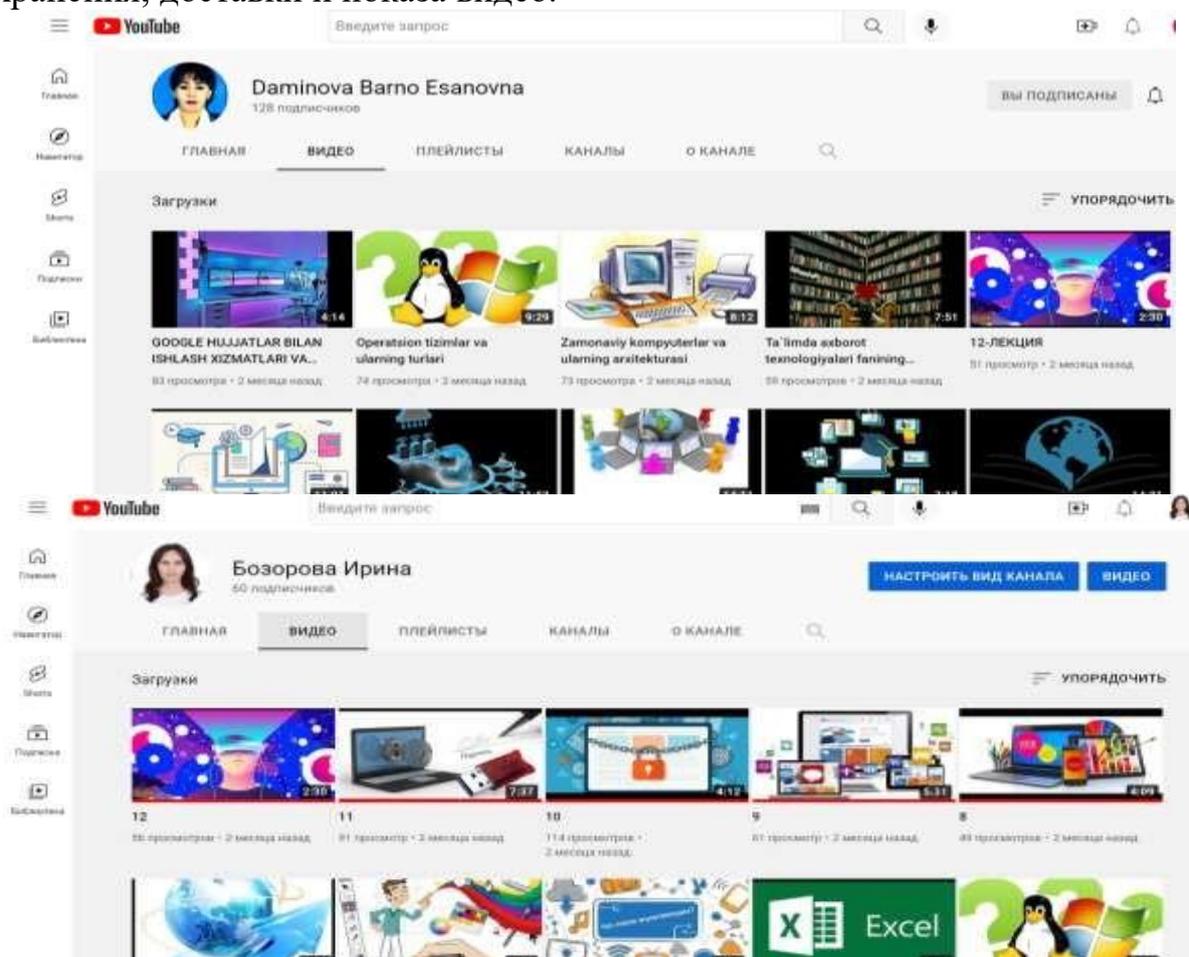
- 1) наличием определенного опыта пользования видеотехникой и видеопродукцией;

2) доступностью видеоматериалов, которые могут быть записаны с различных источников;

3) возможностью более активной творческой деятельности учителя, преподавателя.

Пример видеоматериалов, созданных для поддержки проведения лекции, можно разместить и просмотреть на сайте YouTube.

YouTube - видеохостинг, предоставляющий пользователям услуги хранения, доставки и показа видео.



Внешний вид видеохостинга YouTube

Видео формат видеофайла — определяет структуру видеофайла. Имеется множество форматов кодирования и сжатия видеофайлов, рассмотрим некоторые из них или почти все.

ASF формат (Active Streaming Format) — потоковый формат от Microsoft (расширение видеофайла.asf.wma или.wmv.)

ASF является мультимедиа контейнером, и не содержит указаний на то, каким образом данные должны быть закодированы, а только определяет структуру потока данных.

AVI формат (Audio-Video Interleaved) разработан Microsoft для хранения и воспроизведения видеороликов, представляет собой контейнер,

в котором может быть, что угодно, начиная от MPEG1 и заканчивая MPEG4.

Он может содержать в себе потоки четыре типов — Video, Audio, MIDI, Text.

AVI может содержать и только один поток — или видео, или аудио.

FLV формат (Flash Video) — видеофайлов, используемый для передачи видео через Интернет. Используется такими сервисами, как YouTube, Google Video, RuTube, Tube.BY, Муви, Obivu и др.

Видеофайлы в формате FLV можно просматривать в большинстве ОС, потому что он использует Adobe Flash и плагины к большинству браузеров, и поддерживается многими программами для воспроизведения видео, работающими с помощью DirectShow.

MPG формат (Moving Pictures Experts Group) — видеофайл, в котором содержится видео, закодированные:

- Mpeg1 формат — позволяет кодировать видеоданные со скоростью передачи около 1,5 миллиона бит в секунду (bps). Этот формат был разработан специально для использования на компакт-дисках форматов Video-CD и CD-i. Большинство реализаций стандарта MPEG-1 обеспечивают воспроизведение с разрешением 352×240 точек и скоростью 30 кадров в секунду (fps). При использовании этого стандарта получено изображение по качеству несколько хуже, чем получаемое с помощью обычного видеомэгнитофона.

- Mpeg3 формат — для телевидения высокой чёткости (HDTV), но позже стал частью стандарта Mpeg2 и отдельно теперь не упоминается.

- Mpeg4 (распространено краткое написание MP4) — стандарт рассчитан на очень низкие потоки данных для применения в видеотелефонах, мультимедийной электронной почте, электронных информационных изданиях и т.п.

MPEG1-2 (MPG) –формат хранения видео и звука с компрессией и потерей данных.

MPEG4 (MP4) – фильм или видео клип, сжатый в MPEG-4 стандарт, обычно используется для обмена и передачи видеофайлов в Интернете, видеотелефонах, мультимедийной электронной почте, электронных информационных изданиях и т.п. В этом формате используется раздельное сжатие для аудио и видео дорожек.

В соответствии со стандартом MPEG-4, видеофайлы формата MPEG-4 содержат видеоданные, сжатые с помощью методов MPEG-4, и звуковые данные, сжатые с помощью метода Advanced Audio Coding (AAC).

MPEG7 — это не является продолжением Mpeg4, а разработан для Интернета. Используется специализированный язык DDL (Description Definition Language — язык описания определений).

WMV формат (Windows Media Video) — Видеофайл, записанный в формате Windows Media.

Файлы Windows Media Video (WMV) являются файлами в формате Advanced Systems Format (ASF), содержащими аудио-, видео- или смешанные записи, упакованные с помощью кодеков Windows Media Audio (WMA) и Windows Media Video (WMV).

Использование отдельного расширения позволяет установить на компьютер несколько проигрывателей и использовать часть из них для воспроизведения видеофайлов с расширением WMV.

Программные средства обработки видеоматериалов, используемых в учебном процессе.

Для реализации записи видеоматериалов можно использовать различное программное обеспечение (ПО). Проанализировав достаточное количество программных средств, для изучения мы выделили следующее ПО: «Ashampoo Snap»; «Movavi Screen Capture Studio»; «ActivePresenter»; «HyperCam»; «iSpring Free Cam»; «FastStone Capture»; «CamStudio»; «UVScreenCamera»; «Free Screen Video Recorder».

Использовать видеоматериалы на занятии можно в разные моменты:

- для поиска необходимой информации в ходе изучения нового материала (в любой момент проведения занятия);
- для подведения итогов или обобщения материала (в любой момент занятия);
- для поддержки мотивации на занятии, при актуализации, постановке цели занятия или проблемной ситуации;
- для закрепления полученных знаний (в конце занятия).

Видеофайлы и их форматы.

Формат видео файла определяет структуру видео файла, - то, как хранится файл на носителе информации (CD, DVD, жестком диске или канале связи). Обычно разные форматы имеют различные расширения файла (*.avi, *.mpg, *.mov и др.).

В настоящее время практически все вендоры мобильного рынка оснащают свои аппараты встроенными камерами с возможностью записи и воспроизведения видео файлов. Используемый при этом видео-формат основан на протоколе MP4/3gp, однако это совсем не значит, что современные телефоны не умеют понимать и другие форматы представления видеоданных.

3GPP (3rd Generation Partnership Project) - стандарт индустриального формата мультимедиа файлов, разработанный для использования в мобильных сетях третьего поколения (3G). Основная область применения 3GPP - это обмен данными между устройствами типа PDA или мобильными телефонами. Формат поддерживает видео, аудио, текстовые и потоковые данные упакованные в.3gp файл. Установив необходимые компоненты, вы получите возможность просматривать файлы в этом формате, включая переданные или присланные по электронной почте с беспроводных устройств или мобильных устройств

3GPP является частным случаем MP4 Video. Этот стандарт вошел в обиход сравнительно недавно, благодаря компании Philips, приложившей немало усилий для адаптации стандарта MPEG-4 для потокового вещания.

Стандарт 3GPP стал основным в камерафонах с возможностью записи видео. Изначально он являлся базовым в смартфонах SonyEricsson, для них был даже разработан специальный софт для просмотра компанией PacketVideo - PVPlayer, позволяющий проигрывать видео на полный экран. В настоящее время этот проигрыватель доступен практически для всех смартфонов на базе операционных систем Symbian, Windows Mobile, а также для КПК класса PocketPC.

К достоинствам формата можно отнести то, что при несовпадении размеров исходной картинки, она автоматически преобразуется в размер, поддерживаемый телефоном. Однако качество видеороликов очень низкое, т.к. изначально этот формат предназначался для оперативной записи видеоматериала с помощью встроенной камеры, последующего просмотра и отправки в качестве вложения в MMS (ограничение в 100 Кб).

Низкое качество видео обусловлено низким разрешением картинки, которое может быть либо QCIF (176x144), либо sub-QCIF (128x96), низкой частотой кадров - не более 15 в секунду, и особенностями записи звука. Звук, сопровождающий видеофрагмент, может быть записан в формате AMR (максимальный поток 12.2 кбит/с), либо WB AMR (поток 23.05 кбит/с).

Real Video - самый распространенный сетевой потоковый аудио/видео стандарт, предложенный фирмой RealOne, широко используемый для представления в Интернете и кабельных сетях музыки и видео. Стандарт завоевал огромную популярность во всем мире как средство размещения в Интернете аудио/видео контента с малым размером файлов и вполне приличным качеством. Небольшой размер выходного файла позволяет существенно экономить трафик при трансляции по каналам связи, в том числе и в GSM-сетях. Файлы RealVideo обычно имеют расширение ".rm", ".ram" или ".rmvb".

Для воспроизведения на телефоне файл должен иметь геометрию изображения не больше 208x176 точек и содержать общий поток данных не выше 340 кБит/с.

MobiClip Video - классический MPEG-1. В октябре 2003 компания MobiClip представила очень интересный формат. Формат является по сути универсальным. Файлы, сконвертированные в этом формате, имеют расширение *.mo и могут нести в себе звук, видео и flash-анимацию.

На сайте производителя этот формат рекламируется как мобильное полноэкранное видео «без тормозов». Существенным его ограничением является его непотоковый характер, то есть для просмотра необходимо загрузить весь файл целиком. Другим, не принципиальным, но существенным ограничением формата является большой объем полученных

файлов. Таким образом, на телефонах появился формат видео, способный обеспечить высокое качество изображения при практически кинематографической частоте кадров. Качество воспроизведения зависит лишь от объема доступной памяти. Видеоролик проигрывается на полный экран.

В современных устройствах возможен также просмотр видео в форматах DivX и AVI.

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ИСПОЛЬЗОВАНИЕ ЭЛЕМЕНТОВ АВТОМАТИЗАЦИИ В ПОВЫШЕНИИ ТВОРЧЕСКОЙ АКТИВНОСТИ СТУДЕНТОВ

Аннотация. В данной статье представлены примеры простых автоматических устройств, которые побуждают учащихся к техническому творчеству. С помощью этого метода даются рекомендации по развитию технического творчества учащихся.

Ключевые слова: автоматическое устройство, техника, творческая способность, датчик, схема, электродвигатель, электромагнит.

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USE OF ELEMENTS OF AUTOMATION IN INCREASING THE CREATIVE ACTIVITY OF STUDENTS

Abstract. This article presents examples of simple automatic devices that lead students to technical creativity. Through this method, recommendations are made on the development of technical creativity of students.

Key words: automatic device, technique, creative ability, sensor, circuit, electric motor, electromagnetic.

Введение: В настоящее время научить студентов делать самостоятельные выводы на основе этих знаний, организовывать свое творческое мышление является одной из основных задач студентов. Использование элементов автоматизации весьма эффективно для успешного решения этих задач. Объяснение принципа работы основных элементов автоматики – датчиков, усилителей и реле, а также приведение примеров их использования на производстве, в различных областях техники повышает эффективность занятий. Приводя примеры простых автоматических устройств и показывая, что учащиеся могут легко изготовить их дома, в учебных мастерских, в физико-технических кружках, можно оживить творческую активность учащихся [1-4]. В данной статье

представлены примеры простых автоматических устройств, направляющих учащихся к техническому творчеству.

1. Подключенное к цепи устройство, например электродвигатель (ЭД), может выйти из строя из-за короткого замыкания в электрической цепи (рис. 1). Какую электрическую цепь можно использовать для обнаружения этого состояния по сигнальной лампе? Эту задачу можно решить с помощью простого электромагнита (ЭМ) следующим образом.

При подключении переключателя K_1 на рисунке 1 запускается электродвигатель (ЭД) в блоке А. Если в зажимах электродвигателя произошло короткое замыкание и сгорел предохранитель ПР (предоксранит), то через электромагнит протекает большой ток. В результате О-сердечник втягивается в индуктивную катушку и изгибает П-пластину, и включается выключатель K_2 , загорается аварийная лампа ЛА в Б-блоке. Известно, что подобные схемы широко используются при автоматической регулировке, контроле и управлении технологическими процессами. Постановка подобных задач и нахождение их решения повышает творческие способности учащихся, развивает конструктивную и творческую деятельность. В процессе производства можно познакомиться с используемыми в этих процессах элементами автоматизации и областями их использования [4-8].

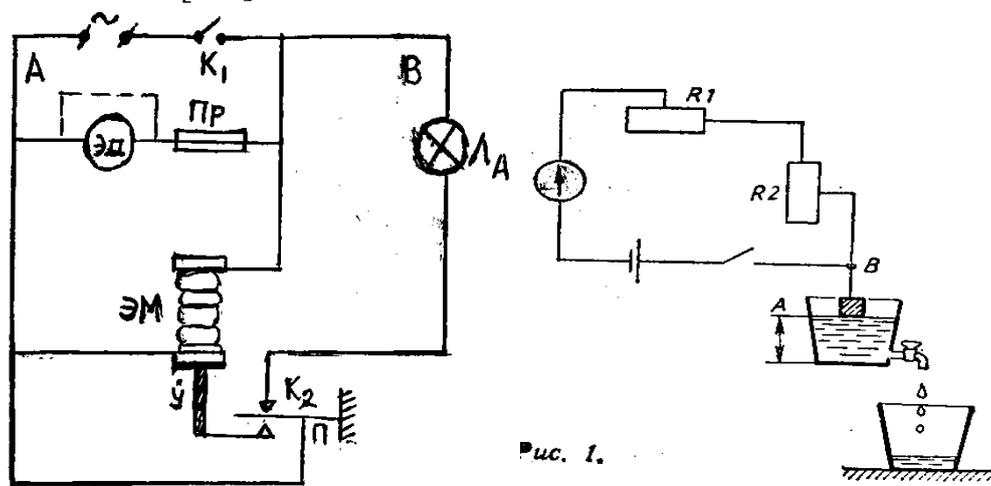


Рис. 1.

2. Определение количества жидкости в закрытой таре.

Краткую теоретическую часть каждого предмета объяснит преподаватель. В нем описывается, к какому разделу курса физики отнесены учебные материалы, элементы изготовляемого устройства, принципы работы. В кружках «Физика» и «Технический» по изучению и изготовлению технических устройств решается задача «Определение количества жидкости в закрытых емкостях».

Для выполнения этой задачи используются следующие элементы: 2 электрических резистора-реостата (100 Ом), источник постоянного напряжения 4 В-ЛИП-90 шт., соединительные провода.

Устройство и схема собраны, как показано на рисунке 2. Когда клапан открывается и жидкость начинает течь, клапан перемещается вниз. В это время изменяется сопротивление проволочного реостата R2 и изменяется ток в цепи. Изменение величины тока, показываемого миллиамперметром, эквивалентно изменению количества жидкости в закрытой емкости [5].

Чтобы определить количество жидкости в закрытой емкости, можно выразить силу тока в системе гальванометр-реостат в литрах.

По мере уменьшения количества жидкости в закрытой емкости рычаг реостата R2 перемещается вниз. Сопротивление цепи увеличивается, ток уменьшается. В этом случае гальванометр, калиброванный в литрах, показывает количество расхода жидкости.

3. Изготовление электромеханического устройства, рассчитывающего равные промежутки времени.

Необходимые инструменты для выполнения работ: источник питания - выпрямитель типа ВС-4-12, емкость с краном, несколько лампочек, работающих на напряжение 3,5 В, электрический звонок и соединительные провода [6-8]. Работа устройства основана на последовательном загорании лампочек в результате протекания воды в баке через кран (рис. 2)

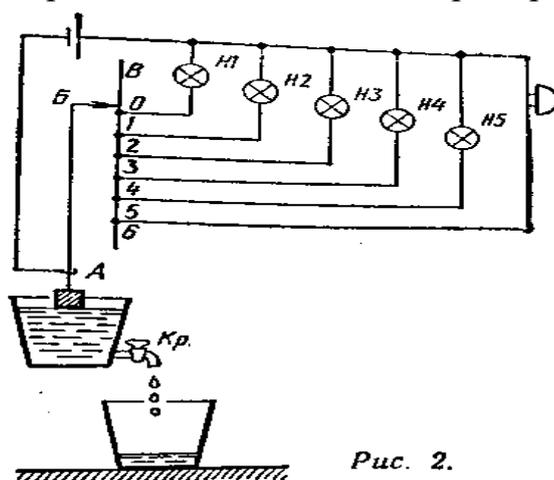


Рис. 2.

Студентам разрешается изготовить устройство по-другому, с модификациями в зависимости от их технического творчества – способностей.

Мы предлагаем собрать вариант, показанный на рисунке 2. В нем один конец металлического провода Г-образной формы прикреплен к экрану, и по мере уменьшения воды он перемещается и касается контактов, при этом лампочки загораются последовательно с одинаковым интервалом времени. Наконечник электрический звонок работает. Такие устройства можно использовать для автоматизации школьных звонков и других подобных задач [7-8].

Вывод: На основе данных устройств учащиеся с интересом готовятся к классной деятельности по повышению своих знаний, умений и технического творчества. Они будут иметь понятия об элементах

автоматики, датчиках, усилителях, технических устройствах и их элементах. При выполнении таких заданий формируются творческие способности учащихся, повышается интерес учащихся к технике, науке, средствам автоматизации.

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ЦИФРОВЫЕ ТЕХНОЛОГИИ В ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЯХ УЗБЕКИСТАНА: СОСТОЯНИЕ, АНАЛИЗ И ПЕРСПЕКТИВЫ ВНЕДРЕНИЯ

Аннотация. Статья посвящена анализу, состояниям и перспективам внедрения цифровых технологий в высшие учебные заведения Республики Узбекистан. Также описаны различные цифровые инструменты и платформы для обучения, такие как электронные учебники, онлайн-курсы, системы управления обучением и другие.

Ключевые слова: цифровая технология, учебные заведения, инструменты, платформа, обучение, образование, перспектива.

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DIGITAL TECHNOLOGIES IN HIGHER EDUCATIONAL INSTITUTIONS OF UZBEKISTAN: STATUS, ANALYSIS AND IMPLEMENTATION PROSPECTS

Abstract. The article is devoted to the analysis, status and prospects for the implementation of digital technologies in higher educational institutions of the Republic of Uzbekistan. Various digital tools and platforms for learning are also described, such as electronic textbooks, online courses, learning management systems and others.

Key words: digital technology, educational institutions, tools, platform, training, education, perspective.

Введение

Современный мир стремительно меняется, и образование не остается в стороне от этих изменений. Цифровые технологии становятся неотъемлемой частью учебного процесса в высших учебных заведениях по всему миру, включая Узбекистан. В данной статье мы рассмотрим состояние, анализ и перспективы внедрения цифровых технологий в высших учебных заведениях Узбекистана.

Состояние внедрения цифровых технологий в высших учебных заведениях Узбекистана

В последние годы в Узбекистане наблюдается активное внедрение цифровых технологий в высших учебных заведениях. Многие университеты уже внедрили различные цифровые инструменты и платформы для обучения, такие как электронные учебники, онлайн-курсы, системы управления обучением (LMS) и т.д. Это позволяет студентам получать доступ к образовательным ресурсам в любое время и из любого места, а также повышает эффективность учебного процесса.

Однако, несмотря на положительные изменения, есть еще много возможностей для улучшения. Некоторые университеты все еще отстают в использовании цифровых технологий, а некоторые студенты и преподаватели могут испытывать трудности с адаптацией к новым методам обучения.

Анализ внедрения цифровых технологий в высших учебных заведениях Узбекистана

Анализ внедрения цифровых технологий в высших учебных заведениях Узбекистана показывает, что есть еще много возможностей для улучшения. Некоторые университеты все еще отстают в использовании цифровых технологий, а некоторые студенты и преподаватели могут испытывать трудности с адаптацией к новым методам обучения. Однако, в целом, наблюдается положительная тенденция к использованию цифровых технологий в образовании.

Перспективы внедрения цифровых технологий в высших учебных заведениях Узбекистана

Перспективы внедрения цифровых технологий в высших учебных заведениях Узбекистана выглядят многообещающими. С развитием технологий и изменением потребностей студентов и преподавателей,

университеты будут продолжать внедрять новые цифровые инструменты и платформы. Это может включать в себя использование виртуальной и дополненной реальности, искусственного интеллекта и других инновационных технологий.

Однако, для успешного внедрения цифровых технологий в высших учебных заведениях Узбекистана необходимо учитывать ряд факторов. Важно обеспечить доступность и качество интернет-соединения, а также обучить студентов и преподавателей использованию новых технологий. Кроме того, необходимо разработать соответствующие нормативные акты и стандарты, чтобы обеспечить безопасность и конфиденциальность данных.

Заключение

Внедрение цифровых технологий в высших учебных заведениях Узбекистана является важным шагом в развитии образования в стране. Это позволяет улучшить качество образования, повысить эффективность учебного процесса и подготовить студентов к работе в цифровом мире. Однако, для успешного внедрения цифровых технологий необходимо учитывать ряд факторов и продолжать работу по улучшению и развитию этой области.

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ЭКСПЛОРАЦИЯ АНАЛИТИЧЕСКОЙ МАТЕМАТИЧЕСКОЙ МОДЕЛИ СТРОИТЕЛЬНЫХ СИСТЕМ ИЗ ДЕРЕВА И ЖЕЛЕЗОБЕТОНА В АРИДНОМ ЖАРКОМ КЛИМАТЕ

Аннотация. В данной статье анализируется проблема проектирования строительных систем из дерева и железобетона в условиях аридного жаркого климата, с учетом особенностей Узбекистана. Рассматриваются современные методы компьютерного моделирования, геоинформационных систем и алгоритмов оптимизации для создания устойчивых и энергоэффективных конструкций.

Ключевые слова: проектирование, строительные системы, дерево, железобетон, аридный климат, Узбекистан, компьютерное моделирование, устойчивость, экологические аспекты, современные технологии.

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EXPLORATION OF AN ANALYTICAL MATHEMATICAL MODEL OF BUILDING SYSTEMS MADE OF WOOD AND REINFORCED CONCRETE IN ARID HOT CLIMATES

Abstract. This article analyzes the problem of designing building systems made of wood and reinforced concrete in an arid hot climate, taking into account the characteristics of Uzbekistan. Modern methods of computer modeling, geographic information systems and optimization algorithms for creating sustainable and energy-efficient structures are considered.

Key words: design, building systems, wood, reinforced concrete, arid climate, Uzbekistan, computer modeling, sustainability, environmental aspects, modern technologies.

В современном строительстве, особенно в регионах с аридным жарким климатом, вопрос эффективного использования материалов и создания устойчивых конструкций остается приоритетным. Эксплорация аналитической математической модели строительных систем из дерева и железобетона представляет собой ключевой аспект в разработке устойчивых и энергоэффективных зданий в подобных климатических условиях.

Дерево и железобетон - два основных материала, которые давно используются в строительстве благодаря своей прочности, доступности и экологической устойчивости. В аридных жарких зонах, где тепловые нагрузки и воздействие окружающей среды могут быть особенно высокими, оптимальное сочетание этих материалов может обеспечить не только устойчивость конструкций, но и эффективную теплоизоляцию и защиту от экстремальных погодных условий.

Аналитическая математическая модель позволяет систематизировать и анализировать различные аспекты взаимодействия материалов, нагрузок и условий окружающей среды на прочность и долговечность строительных систем. Используя, такие модели, исследователи и инженеры могут оценить оптимальные параметры конструкций, минимизировать ресурсозатраты и снизить негативное воздействие на окружающую среду.

Существует множество современных методов, применяемых при исследовании и разработке эксплорации аналитических математических моделей строительных систем из дерева и железобетона в аридном жарком климате. Вот несколько из них:

Компьютерное моделирование и симуляция: С использованием специализированных программных средств и техник компьютерного моделирования, исследователи могут создавать аналитические математические модели, учитывающие различные факторы, такие как тепловые нагрузки, влажность, механические свойства материалов и т. д. Это позволяет анализировать поведение строительных систем в различных климатических условиях и оптимизировать их проектирование.

Использование геоинформационных систем (ГИС): ГИС позволяют собирать, хранить, анализировать и визуализировать пространственные данные, такие как климатические условия, типы почвы, топография и другие параметры, влияющие на строительные системы. Интеграция данных ГИС с аналитическими моделями помогает более точно прогнозировать поведение строительных конструкций.

Методы оптимизации и алгоритмы машинного обучения: Современные методы оптимизации и алгоритмы машинного обучения могут применяться для анализа больших объемов данных и выявления оптимальных параметров строительных систем в аридном жарком климате. Эти методы позволяют учитывать множество переменных и условий, чтобы разработать наиболее эффективные и устойчивые конструкции.

Использование датчиков и IoT (интернет вещей): Установка датчиков температуры, влажности, нагрузок и других параметров на строительные системы позволяет в реальном времени собирать данные о их работе и состоянии. Эти данные затем могут использоваться для улучшения аналитических моделей, обнаружения проблем и оптимизации процессов обслуживания.

Эти современные методы и технологии помогают улучшить процесс разработки и адаптации строительных систем из дерева и железобетона для аридного жаркого климата, что способствует созданию более устойчивых и эффективных конструкций.

Узбекистан, как и другие страны Центральной Азии, испытывает высокие температуры летом и низкие зимой, что создает особые вызовы для строительных конструкций. В аридном климате строительные системы должны быть спроектированы таким образом, чтобы обеспечивать комфортное внутреннее пространство и эффективное использование ресурсов.

Использованные источники:

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ИССЛЕДОВАНИЕ ТЕХНИЧЕСКИХ АСПЕКТОВ УСИЛЕННЫХ ЖЕЛЕЗОБЕТОННЫХ КОЛОНН В КОНТЕКСТЕ ЦЕНТРАЛЬНО СЖАТЫХ СТРУКТУР

Аннотация. В данной работе рассматриваются технические аспекты усиления железобетонных колонн в контексте центрально сжатых структур. Анализируются основные принципы и методы усиления колонн, учитывающие особенности центрального сжатия. Предоставляются обзор современных технологий и материалов, применяемых для усиления колонн, а также рассматриваются их преимущества и ограничения.

Ключевые слова: усиление, железобетонные, колонны, технические, аспекты, центральное, сжатие, методы, материалы, проектирование.

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STUDY OF THE TECHNICAL ASPECTS OF REINFORCED CONCRETE COLUMNS IN THE CONTEXT OF CENTRALLY COMPRESSED STRUCTURES

Abstract. This paper examines the technical aspects of strengthening reinforced concrete columns in the context of centrally compressed structures. The basic principles and methods of strengthening columns are analyzed, taking into account the features of central compression. An overview of current technologies and materials used for column strengthening is provided, and their advantages and limitations are discussed.

Keywords: reinforcement, reinforced concrete, columns, technical, aspects, central, compression, methods, materials, design.

В современном инженерном проектировании и строительстве, особенно в контексте развивающихся технологий и строгих стандартов

безопасности, исследование технических аспектов усиленных железобетонных колонн в контексте центрально сжатых структур представляет собой ключевой аспект. Железобетонные колонны, как неотъемлемая часть многих зданий и сооружений, играют существенную роль в обеспечении их прочности, устойчивости и долговечности.

Центрально сжатые структуры являются одним из наиболее распространенных типов конструкций, где колонны подвергаются значительным компрессионным нагрузкам. В связи с этим важно проводить исследования, направленные на оптимизацию проектирования, улучшение материалов и методов укрепления железобетонных колонн для обеспечения их эффективности и надежности в условиях динамической нагрузки и воздействия различных факторов окружающей среды. В современной инженерной практике изучение исследования технических аспектов усиленных железобетонных колонн в контексте центрально сжатых структур является ключевой областью интереса. Железобетонные конструкции, особенно колонны, играют важную роль в современном строительстве, их прочность, устойчивость и долговечность являются основополагающими аспектами для обеспечения безопасности зданий и инфраструктуры в целом.

Исследование технических аспектов усиленных железобетонных колонн направлено на повышение их надежности и эффективности в условиях различных нагрузок и воздействий. В частности, изучение центрально сжатых структур представляет собой важное направление исследований, поскольку оно позволяет оптимизировать проектирование и конструирование колонн, обеспечивая оптимальное распределение нагрузок и максимальную устойчивость.

Анализ технических аспектов усиленных железобетонных колонн включает в себя изучение материалов, методов усиления, а также особенностей процесса изготовления и монтажа. Современные методы моделирования, включая компьютерное моделирование и численные расчеты, позволяют проводить более точные и надежные анализы поведения колонн в различных условиях эксплуатации и воздействия сил.

Кроме того, исследования в этой области способствуют развитию новых технологий и инновационных подходов к конструированию железобетонных конструкций, что в свою очередь способствует улучшению качества строительства, повышению безопасности и экономической эффективности проектов.

Таким образом, исследование технических аспектов усиленных железобетонных колонн в контексте центрально сжатых структур является важным направлением инженерных исследований, ориентированным на совершенствование строительных технологий и обеспечение высоких стандартов качества и безопасности в строительной индустрии.

В современном контексте, исследование технических аспектов усиления железобетонных колонн в условиях центрального сжатия представляет собой важную задачу, особенно с учетом необходимости обеспечения надежности и безопасности строительных конструкций. Актуальность данной тематики обусловлена постоянным ростом городской застройки, увеличением нагрузок на существующие сооружения, а также требованиями к повышению устойчивости зданий к различным воздействиям. Исследование технических аспектов усиления железобетонных колонн в условиях центрального сжатия является актуальным и важным направлением в сфере строительной инженерии. Результаты данного исследования могут быть полезны для проектировщиков, строителей и всех заинтересованных сторон, стремящихся к повышению качества и безопасности строительных конструкций.

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ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В РАБОТЕ СОЦИАЛЬНОГО РАБОТНИКА С ПОЖИЛЫМИ ЛЮДЬМИ НА СЕЛЕ

Аннотация. В данной статье рассматриваются вопросы внедрения инноваций в социальное обслуживание граждан пожилого возраста и инвалидов в отделении социального обслуживания на дому в сельской местности. Целью статьи является представить направления социальной работы в сельском социуме для обеспечения доступа граждан пожилого возраста к информационным и образовательным ресурсам, формирования условий для досуга пожилых людей. Статья разработана на основе существующих теоретических изданий о социальной работе и нормативно-правовых актов об основах социальной работы.

Ключевые слова: Социальная работа/сельская социальная среда/организация социальной работы на селе/внедрение новых технологий в социальную работу на селе.

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INNOVATIVE TECHNOLOGIES IN THE WORK OF A SOCIAL WORKER WITH THE ELDERLY IN RURAL AREAS

Abstract. This article discusses the issues of introducing innovations in social services for elderly and disabled citizens in the department of social services at home in rural areas. The purpose of the article is to present the directions of social work in rural society to ensure access of elderly citizens to information and educational resources, the formation of conditions for leisure of the elderly. The article is developed on the basis of existing theoretical publications on social work and normative legal acts on the basics of social work.

Keywords: Social work/rural social environment/organization of social work in rural areas/introduction of new technologies in social work in rural areas.

Национальные проекты, объявленные Президентом Российской Федерации, выдвигают перед обществом ряд серьёзных задач, главной из которых является увеличение продолжительности, уровня и качества жизни, улучшения социального благополучия пожилых граждан, формирования условий для активного долголетия. У пожилых людей в современном мире появляются новые социальные потребности, что обуславливает необходимость внедрения инноваций в социальную сферу как ведущий инструмент повышения качества их жизни.

В настоящее время по данным на 01.02.2024 года, на территории Большереченского района проживает пожилых людей от 60 лет - 5 449 человек, а долгожителей старше 80 лет - 350 человек. На социальном обслуживании состоит 1056 человек пожилых граждан. В 2002 году начался мой трудовой путь в должности социального работника в отделении социального обслуживания на дому граждан пожилого возраста и инвалидов в комплексном центре социального обслуживания населения Большереченского района. Моя работа заключается в предоставлении гражданам социальных услуг таких как: социально-бытовые; правовые, социально-медицинские; социально-психологические. Улучшение социально-экономического положения пожилых граждан и инвалидов, повышение их социального статуса, активизация роли в жизни – приоритет социальной работы в интересах пожилых людей, предмет постоянной заботы социальных работников комплексного центра. Работа с гражданами пожилого возраста в отделении социального обслуживания на дому граждан пожилого возраста и инвалидов № 9 на территории Почекуевского сельского поселения мною организована в соответствии плана мероприятий по повышению качества жизни граждан пожилого возраста на 2022 – 2025 годы, который направлен на решение следующих задач:

- обеспечение доступа граждан пожилого возраста к информационным и образовательным ресурсам;
- вовлечение пожилых людей в активную общественную деятельность;
- формирование условий для досуга пожилых людей.

Мною определены 4 направления работы с гражданами пожилого возраста: образовательное, добровольческое, патриотическое, культурно-досуговое и спортивно-оздоровительное. План носит межведомственный характер. К реализации плана мероприятий привлекаются практически все структурные подразделения: администрация Почекуевского сельского поселения, а также районные, областные и федеральные структуры (налоговая инспекция, управление Пенсионного фонда в р.п. Большеречье, УМВД России по Большереченскому району Омской области и др.).

Образовательное направление с гражданами пожилого возраста представлено вовлечением их в работу Школы "третьего возраста", которая действует при БУ "КЦСОН Большереченского района" на базе отделения

социального обслуживания на дому граждан пожилого возраста и инвалидов с 2022 года. Обучение в Школе проходит по территориальному принципу на базе комплексного центра в онлайн - формате, что позволяет пожилым гражданам отдалённых сельских поселений получать знания по месту жительства. Дополнительное образование получили уже более 100 вовлечённых пожилых жителей села Почекуево. Образовательный процесс организован по 5 направлениям: финансовая грамотность, школа здорового образа жизни, правовая грамотность, школа безопасной жизнедеятельности, досуг.

С 2023 года по просьбе клиентов расширили перечень организаций и подразделений района, привлечённых к проведению занятий: отделения Сбербанка, нотариуса, сотрудников кадастровой палаты и другие структуры. В рамках курса занятий по обучению финансовой грамотности пожилые граждане села узнали о налогах и их уплате, о правилах пользования банкоматами и электронными устройствами; о структуре оплаты за жилищно-коммунальные услуги; о мерах социальной поддержки жителей села по оплате за жилищно-коммунальные услуги. В качестве волонтеров привлекали учителей школы, которые преподавали основы компьютерной грамотности. Курсы занятий по обучению компьютерной грамотности проходят по двум уровням: "Начинающий пользователь" и "Уверенный пользователь". Пожилые люди, находящиеся на моём социальном обслуживании, по-прежнему, хотят быть в курсе всех событий, происходящих в мире, общаться с друзьями, расширять социальные контакты. Учитывая интересы обслуживаемых граждан, процесс обучения в Школе включает курс - "информационное пространство". Граждане пожилого возраста узнают об интересных сайтах для пожилых людей, как правильно совершать интернет-покупки. Пожилые люди, посещающие школу "третьего возраста" каждый год, являются участниками районного чемпионата. Курс занятий по получению знаний здорового образа жизни включал в себя лекции на темы: "Профилактика болезней людей пожилого возраста", "Правила аптечки. Применение лекарственных средств и средств народной медицины", "Мониторинг состояния здоровья и факторы, влияющие на активное долголетие", "Психологические особенности пожилых людей". На курсах по правовой грамотности пожилые люди узнали много нового об изменениях в законодательстве, о том, что должен знать потребитель, о компенсации расходов на уплату взносов на капитальный ремонт, овладели основами гражданского законодательства. Дополнительные знания, полученные по безопасности, помогли пожилым людям избежать мошенничества. Они узнали о правильной эксплуатации газового оборудования, были организованы встречи с участковым полицией на селе.

Пожилые люди изучили актуальные темы по "пенсииному всеобучу":

- виды пенсий, назначенных в РФ, страховая пенсия - порядок перерасчёта и что нужно знать о накопительной пенсии;
- правопреемство пенсионных накоплений, управление средствами пенсионных накоплений;
- перерасчёт пенсий, связанной с заменой периодов работы на не страховые периоды, назначение компенсационной выплаты по уходу;
- ежемесячная денежная выплата федеральным льготникам.

Курс занятий по активному долголетию уже посетили более 50 вовлечённых мною пожилых людей. Они получили знания по укреплению здоровья. Курс включал в себя лекции на тему здорового питания для определённых возрастных групп, как сохранить хорошее самочувствие, а также посетили занятия спортом на базе спортивного зала Почекуевской средней общеобразовательной школы. В течение лекционного курса слушатели имели возможность овладеть новыми знаниями, проявить свои творческие способности, участвовать в спортивных и досуговых мероприятиях. К проведению мероприятий мною были привлечены специалисты подразделений администрации Почекуевского сельского поселения, Бюджетного учреждения здравоохранения Омской области "Большереченская центральная районная больница", бюджетного учреждения культуры Большереченского муниципального района Омской области, муниципального казенного учреждения Большереченского муниципального района "Центр по делам молодёжи, физической культуры и спорта" Большереченского муниципального района. В связи с растущей потребностью посещения пожилыми людьми Школы "третьего возраста", организованной на постоянной основе в 2024 году, обучение граждан, состоящих на моём обслуживании, продолжается по следующим направлениям: финансовая и экономическая грамотность, информационное пространство, культура и искусство, активное долголетие. В программу обучения в этом году включен новый курс – "культура и искусство". Он будет проходить на базе Почекуевской сельской библиотеки.

Граждане старшего поколения, состоящие на моём обслуживании, являются активными участниками волонтерского движения. На базе отделения действует добровольческое движение, основная цель которого является оказание помощи нуждающимся жителям Большереченского района. Деятельность осуществляют пока 10 граждан пожилого возраста, которые вовлечены мною в социально-значимую работу по оказанию услуг нуждающимся гражданам. Волонтеры оказывают помощь одиноким пожилым жителям, инвалидам, оказавшимся в трудной жизненной ситуации. В результате волонтерского движения для одиноких пожилых людей и инвалидов организовывалось добровольцами сопровождение к объектам социального назначения; несложные работы по дому; покупка продуктов; лекарств; написание и чтение писем для слабовидящих; помощь во взаимодействии с жилищно-коммунальными службами и т. д. Пожилые

волонтеры активно участвовали в организации и проведении благотворительных акций по сбору вещей, экологических десантах, посещали нуждающихся в помощи граждан по месту жительства. За два года волонтеры оказали помощь более 40 жителям села Почекуево. Активно взаимодействуют волонтеры с образовательным учреждением в вопросах патриотического воспитания молодежи. Граждане старшего поколения проводят уроки мужества, круглые столы, встречи со школьниками. Тематические мероприятия "Герои живут рядом". Волонтеры совместно со школьниками принимали активное участие в посадке деревьев на аллее памяти, участвуют во Всероссийской акции "Бессмертный полк". Однако одной из самых главных задач является организация содержательного досуга и проведение спортивно-оздоровительных мероприятий. Для этого на селе мною, социальным работником, при содействии других специалистов организован и действует клуб "Нам года не беда" по следующим направлениям: рукоделие, кулинария, ЗОЖ, песенное и танцевальное творчество, в котором находят занятия по душе более 50 граждан пожилого возраста. Смысл и содержание клубной деятельности заключается в общении и информационном обмене, что обеспечивает организованный и содержательно-полезный досуг каждому участнику клуба. Итогами работы клуба служат организация и проведение выставок декоративно-прикладного искусства и серии мастер-классов "Формула рукоделия". На заседаниях члены клуба общаются, делятся секретами рукоделия, шьют, вяжут, показывают своё мастерство, рассказывают о народно-прикладном творчестве, изготавливают сувениры для своих родных, друзей, и жителей села.

Граждане пожилого возраста, состоящие на моём обслуживании, вносят огромный вклад в пропаганду здорового образа жизни и развитие физической культуры. Их неиссякаемая энергия и задор – пример для молодежи. Активисты посещают плавательный бассейн, систематически проводят "дни здоровья" и спортивные мероприятия "В здоровом теле – здоровый дух", "Весёлые старты", "О спорт – ты мир!", "Спартакиады ветеранов" и т. д. Туризм является уникальным средством реабилитации и социализации, даёт возможность полноценного общения и интеграции пожилых людей в обществе. Бюджетное учреждение "Комплексный центр социального обслуживания населения Большереченского района" организует экскурсии в Омский государственный историко-культурный музей-заповедник "Старина Сибирская".

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МАКСИМАЛЬНОЕ ИСПОЛЬЗОВАНИЕ ВОЗМОЖНОСТЕЙ ИНФОРМАЦИОННЫХ СИСТЕМ В ОЦЕНКЕ КАЧЕСТВА ОБРАЗОВАНИЯ

Аннотация. В данной статье обсуждаются наиболее актуальные проблемы современности. По мере роста спроса на ИКТ в областях (информационные и коммуникационные технологии) резко возросла потребность в их защите и предотвращении угроз. Найти инновационные пути реализации этих требований, масштабно перенять международный опыт, оказать всестороннюю помощь информационному процессу, широко внедрить его в жизнь, эффективно использовать аппаратные и программные продукты для защиты своей безопасности становится одной из задач важных направлений деятельности отрасли.

Ключевые слова: информатизация, информационные технологии, межсетевые экраны, виртуальные частные сети, механизм Port Security, система Honeypot.

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MAXIMUM USE OF THE POTENTIAL OF INFORMATION SYSTEMS IN ASSESSING THE QUALITY OF EDUCATION

Annotation. This article discusses some of the most pressing problems of our time. As the demand for ICT in the field (information and communication technologies) grows, so does the demand for their protection and prevention. The search for innovative ways to meet these requirements, the widespread introduction of world experience, comprehensive assistance in the information process, their widespread implementation, the effective use of hardware and software in the field of security are becoming one of the important areas of activity.

Keywords: information, information technology, firewalls, virtual private networks, Port Security mechanism, Honeypot system.

Информационные и коммуникационные технологии сегодняшнего 21 века развиваются быстрыми темпами. Мы можем ясно наблюдать роль ИКТ во всех аспектах нашей повседневной жизни. Как мы знаем, есть любое

направление, которое играет важную роль в нашей жизнедеятельности, и оно состоит из угроз, ошибок и недостатков и, конечно же, уникальных достижений. В настоящее время нет ни одной области, в которой ИКТ не получили бы широкого внедрения. Поскольку спрос на ИКТ в промышленности увеличился, резко возросла потребность в их защите и предотвращении угроз. Поиск инновационных путей реализации этих требований, комплексное сопровождение процессов информатизации, широкое внедрение их в жизнь, эффективное использование технических и программных продуктов для защиты их безопасности становятся одним из важных направлений деятельности отрасли.

Ведь вопрос проведения государственной политики в информационной системе является задачей стратегического значения. В оценке качества образования работа с максимальным использованием возможностей информационных систем, совершенствование существующих систем, обеспечение информационной безопасности системы являются одними из наиболее актуальных вопросов современности.

При оценке качества образования считается, что информационные системы должны иметь удобный, компактный вид. Ценность и конфиденциальность задач, помещенных в информационную систему, создают потребность в кибербезопасности системы.

Вот несколько советов, которые можно использовать для предотвращения сетевых атак:

Стена безопасности (Брандмауэр) — соединение аппаратных и программных средств Стена безопасности (Сетевой экран) — программный или программно-аппаратный элемент компьютерной сети, управляющий и фильтрующий проходящий через нее сетевой трафик в соответствии с установленными правилами. Среди задач, которые решают межсетевые экраны, основной является защита сегментов сети или отдельных хостов от несанкционированного доступа с использованием протоколов сетевой модели OSI или уязвимостей в программном обеспечении, установленном на сетевых компьютерах.

Наиболее распространенным местом развертывания межсетевых экранов является периметр локальной сети для защиты внутренних хостов от внешних атак. При этом атаки могут начинаться и с внутренних узлов — в этом случае, если атакуемый хост находится в той же сети, трафик не будет пересекать периметр сети и межсетевой экран не будет активирован. Поэтому в настоящее время межсетевой экран размещается не только на границе, но и между различными сегментами сети, что обеспечивает дополнительный уровень безопасности. Следующее поколение межсетевых экранов представляет собой компактный высокоскоростной шлюз, который включает в себя комплексное решение для сетевой безопасности и управления трафиком, включая мощную адаптивную защиту от спама,

контроль полосы пропускания для различных сетевых объектов, предотвращение вторжений и удаленное управление..

Устройство имеет интуитивно понятный пользовательский интерфейс с интерактивной системой навигации, встроенным ручным и графическим контролем состояния. Объектно-ориентированная модель управления обеспечивает максимальную оптимизацию конфигурации даже в сложных сетях. Поддержка LDAP/MS AD/RADIUS помогает создавать политики безопасности на основе существующих сетевых практик.

В заключение, реализация политик безопасности в корпоративной сети на основе управляемых коммутаторов может оказаться мощным и очень недорогим решением. Взаимодействуя только с протоколами канального уровня, эти межсетевые экраны фильтруют трафик на очень высоких скоростях. Основным недостатком этого решения является невозможность анализа протоколов высокого уровня.

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ПРИМЕНЕНИЕ ОБЪЕМНОЙ КОМПОЗИЦИИ В РАЗЛИЧНЫХ ОБЛАСТЯХ ИСКУССТВА

Аннотация. Объемная композиция является одним из ключевых аспектов визуального искусства и дизайна. Она описывает способы, которыми художники, дизайнеры и архитекторы используют объем и пространство для создания эффективных и убедительных произведений. Объемная композиция включает в себя различные методы работы с трехмерными формами, перспективой, светотеневыми отношениями и балансом элементов. Эта тема имеет широкое применение в различных областях искусства и дизайна, от живописи до скульптуры, архитектуры и графического дизайна.

Ключевые слова: объемная композиция, трехмерные формы, пространство, перспектива, светотени, баланс элементов, живопись, скульптура, архитектура, графический дизайн.

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APPLICATION OF VOLUMETRIC COMPOSITION IN VARIOUS FIELDS OF ART

Annotation. Volumetric composition is one of the key aspects of visual art and design. It describes the ways in which artists, designers and architects use volume and space to create effective and compelling works. Three-dimensional composition includes various methods of working with three-dimensional shapes, perspective, light and shadow relationships and the balance of elements. This theme has wide application in various fields of art and design, from painting to sculpture, architecture and graphic design.

Keywords: volumetric composition, three-dimensional forms, space, perspective, chiaroscuro, balance of elements, painting, sculpture, architecture, graphic design.

Объемная композиция в искусстве является одним из основных элементов визуального представления. Это понятие отражает возможность создания трехмерных форм и пространственных связей в работе искусства. Оно широко используется в различных видах искусства, таких как живопись, скульптура, архитектура и дизайн.

Объемная композиция позволяет художнику раскрыть пространственные аспекты своего произведения, придать ему глубину и объемность. Она позволяет создать иллюзию трехмерности на плоскости работы или оживить скульптурную форму.

Одним из ключевых элементов объемной композиции является перспектива. Это способ создания иллюзии глубины и пространства. Через использование линий, цвета и тени художник может сделать предметы на работе ближе или дальше от зрителя, создавая эффект глубины и перспективы.

Также в объемной композиции важно учитывать баланс и пропорции. Правильное распределение форм, масс и пространственных отношений помогает создать гармоничное и уравновешенное произведение искусства. Художник может использовать различные элементы и принципы дизайна, такие как масштаб, текстура, цвет и форму, чтобы создать интересные и сложные объемные композиции.

Объемная композиция также может включать в себя использование различных материалов и техник. Например, в живописи это может быть нанесение красок слоями, создание текстуры с помощью рельефных штрихов или применение коллажных элементов. В скульптуре художник может использовать различные материалы, такие как глина, камень, металл или дерево, чтобы создать объемные формы.

Объемная композиция имеет большое значение не только в искусстве, но и в архитектуре и дизайне. В архитектуре объемная композиция позволяет создавать просторные и функциональные здания, учитывая особенности пространства и окружающей среды. В дизайне - это основа для создания трехмерных объектов, таких как мебель, предметы интерьера или промышленный дизайн.

В целом, объемная композиция является одним из ключевых элементов визуального искусства. Она позволяет художникам и дизайнерам создавать произведения, которые оживляются и обретают глубину благодаря использованию трехмерных форм и пространственных отношений.

Ормией, которая позволяет художнику воплотить свои идеи и концепции в трехмерном пространстве. Она дает возможность создать глубину, объем и перспективу, которые делают произведение более привлекательным и убедительным для зрителя.

При создании объемной композиции художник может использовать различные техники и приемы. Один из них – это использование светотени.

Художник может использовать различные оттенки и тени, чтобы создать ощущение объемности и глубины. Также важно учитывать пропорции предметов и объектов в работе. Правильное соотношение размеров элементов помогает создать гармоничную и сбалансированную композицию.

Помимо пропорций и светотени, художник также может использовать линии и формы для создания объемности. Линии могут быть использованы для создания иллюзии движения и пространственных отношений, а формы - для создания трехмерной структуры и объемности. Также важно учитывать текстуру и материалы, которые могут добавить реалистичности и ощущение объема в работе.

Одной из особенностей объемной композиции является возможность создания глубокого пространства и перспективы. Чтобы достичь этого, художник может использовать линейную перспективу, создавая иллюзию глубины и пространства на плоскости картины или скульптуры. Он может также применять межплановые и перекрестные перспективы для создания ощущения трехмерности и пространственных отношений.

Объемная композиция играет важную роль в создании эффекта реализма и глубины в искусстве. Она позволяет художнику передать объем и пространство, создать иллюзию трехмерности и захватить взгляд зрителя. Через применение различных элементов и приемов в объемной композиции, художник может создать произведение, которое оживает и вызывает эмоции у зрителя.

В заключение, объемная композиция является важным элементом визуального представления в искусстве. Она позволяет художнику передать глубину, объем и пространство в работе, создавая более реалистичное и убедительное произведение. Благодаря использованию различных техник и приемов, художник может создавать работы, которые визуально интересны и захватывают взгляд зрителя.

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3. "Creative Perspective for Artists and Illustrators" by Ernest W. Watson
4. "Perspective Made Easy" by Ernest Norling
5. "The Art of Perspective: The Ultimate Guide for Artists in Every Medium" by Phil Metzger
6. "Successful Drawing" by Andrew Loomis
7. "Color and Light: A Guide for the Realist Painter" by James Gurney
8. "Anatomy for Sculptors: Understanding the Human Figure" by Uldis Zarins and Sandis Kondrats
9. "Sculpting from the Imagination: ZBrush" by 3d total Publishing
10. "Dynamic Characters: How to Create Personalities That Keep the Reader Captivated" by Nancy Kress

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ПРОГНОЗИРОВАНИЕ ТЯЖЕСТИ ПОСЛЕДСТВИЙ ПОЖАРОВЗРЫВООПАСНЫХ АВАРИЙ НА ПРЕДПРИЯТИЯХ

Аннотация. Прогнозирование тяжести последствий пожара является процессом оценки возможных последствий пожара на основе анализа различных факторов, таких как тип и количество горючих материалов, размер и планировка здания, наличие систем пожаротушения и эвакуации, а также метеорологические условия. В статье представлена разработка блок-схемы поэтапного проведения прогнозирования тяжести последствий пожаровзрывоопасных аварий на предприятиях. Представленная блок-схема может быть оптимизирована и применена на предприятиях различных отраслей промышленности.

Ключевые слова. Тяжесть последствия пожаров, прогнозирование, пожарная безопасность, пожаровзрывоопасная авария, пожарный риск, опасные факторы пожара, блок-схема.

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FORECASTING THE SEVERITY OF THE CONSEQUENCES OF FIRE AND EXPLOSIVE ACCIDENTS AT ENTERPRISES

Annotation. Predicting the severity of the consequences of a fire is the process of assessing the possible consequences of a fire based on the analysis of various factors such as the type and amount of combustible materials, the size and layout of the building, the availability of fire extinguishing and evacuation systems, as well as meteorological conditions. The article presents the development of a flowchart for step-by-step forecasting of the severity of the consequences of fire and explosive accidents at enterprises. The presented flowchart can be optimized and applied at enterprises of various industries.

Keywords. Severity of the consequences of fires, forecasting, fire safety, fire and explosion hazard, fire risk, fire hazards, flowchart.

Анализ и прогнозирование возможных аварий позволяет выявить слабые места в системе пожарной безопасности объекта, определить

факторы, способствующие возникновению пожаров и взрывов, а также разработать меры по их предотвращению или минимизации последствий. Знание о возможных последствиях аварий позволяет разработать план действий на случай возникновения чрезвычайной ситуации и минимизировать потери среди персонала и населения, а также ущерб для окружающей среды и материальных ценностей. Результаты анализа аварий могут быть использованы для оптимизации производственных процессов, снижения вероятности возникновения пожаро- и взрывоопасных ситуаций, а также повышения уровня безопасности на предприятии в целом.

Анализ последствий тяжести пожара является важным этапом при проектировании пожарной безопасности на предприятии. Необходимость проведения такого анализа указана в следующих нормативных документах, в том числе, Федеральном законе от 22.07.2008 № 123-ФЗ, который определяет нормативные значения пожарного риска для производственных объектов, порядок проведения анализа пожарной опасности производственного объекта и расчета пожарного риска [1].

Целью прогнозирования является определение степени риска для жизни и здоровья людей, а также оценка возможного ущерба имуществу и окружающей среде. Модель учета факторов тяжести последствий пожара проводится на основе анализа ряда аспектов (рис.1).

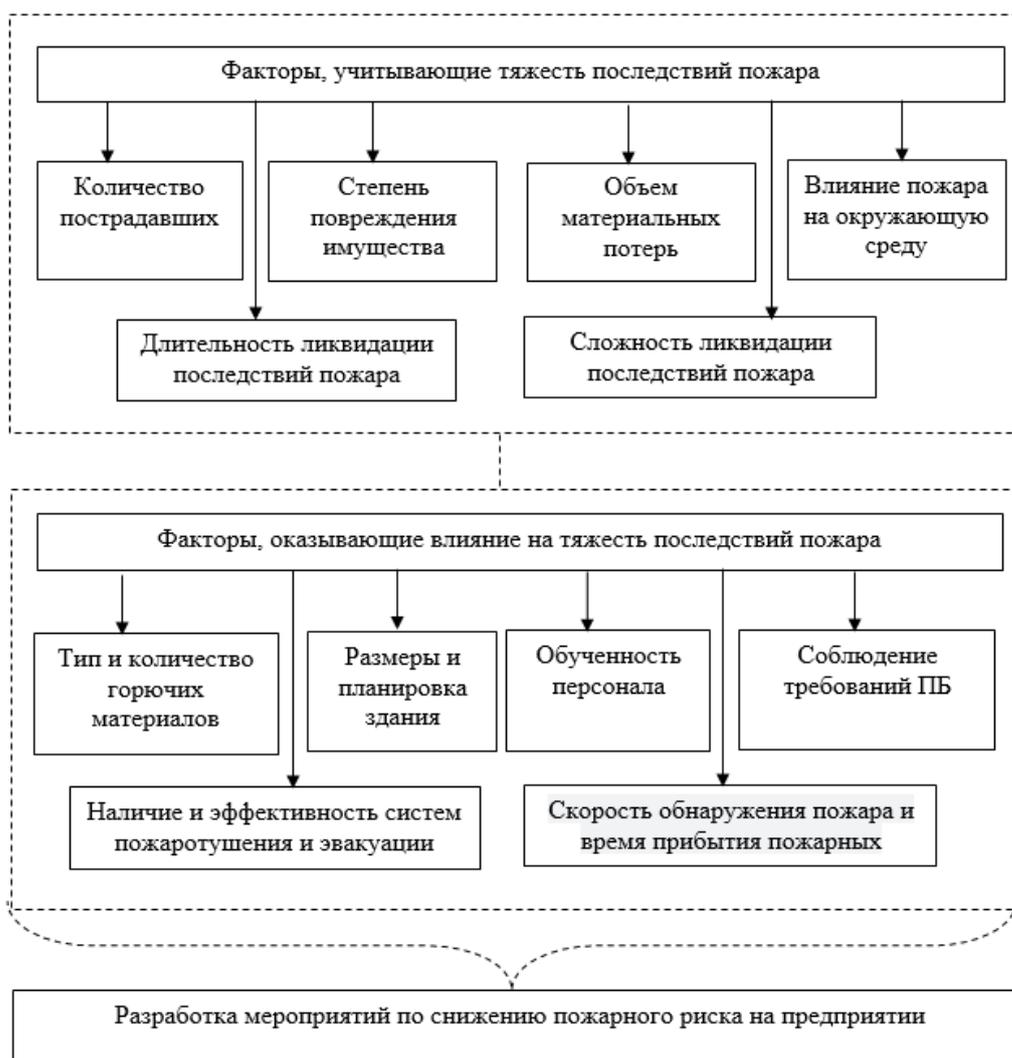


Рисунок 1. Модель учета факторов тяжести последствий пожара

Источник: разработано автором

Все эти факторы, по итогам анализа и прогнозирования тяжести последствий пожаровзрывоопасных аварий учитываются с целью разработки путей снижения пожарного риска.

На основе сравнительного анализа современных методов и программного обеспечения разработана блок-схема поэтапного проведения прогноза тяжести последствий пожаровзрывоопасных аварий (рис. 2).



Рисунок 2. Блок-схема поэтапного проведения прогноза тяжести последствий пожаровзрывоопасных аварий

Источник: разработано автором

Блок-схема поэтапного проведения прогноза тяжести последствий пожаровзрывоопасных аварий включает в себя следующие этапы:

– определение исходных данных, необходимых для проведения прогноза, таких как тип и количество пожаро- и взрывоопасных веществ и материалов, их физико-химические свойства, температура и давление в зоне

аварии, информация о конструкции и оборудовании, а также погодные условия;

– оценка степени опасности аварии, определение возможных сценариев развития аварии и оценка вероятности каждого сценария;

– моделирование распространения пожаров и взрывов с использованием специализированного программного обеспечения, учитывающего все факторы, влияющие на развитие аварии;

– расчет тяжести последствий аварии, включая оценку ущерба для жизни и здоровья людей, экономического и экологического ущерба [2];

– разработка рекомендаций по снижению риска аварий и минимизации их последствий;

– контроль за выполнением рекомендаций и проведение периодического мониторинга и оценки эффективности принятых мер.

Представленная блок-схема может быть оптимизирована и применена на предприятиях различной отрасли промышленности. Для проведения прогнозирования рекомендуется использовать специализированные программы и методы, позволяющие рассчитать степень риска и определить возможные последствия пожара.

В результате внедрения разработанной блок-схемы и технологии в процесс прогнозирования тяжести последствий пожаровзрывоопасных аварий на одной из организации (сегмент нефтегазовой отрасли), выявлено, что на объекте может произойти взрыв ТВС и пожар в резервуарах с топливом и на трубопроводах, который повлечет за собой негативные последствия, которые можно характеризовать, как тяжелые.

Далее представлен сводный отчет тяжести последствий в случае возникновения пожаровзрывоопасной ситуации (см. табл. 1).

Таблица 1 – Сводный отчет тяжести последствий в случае возникновения пожаровзрывоопасной ситуации

Инцидент, приводящий к пожаровзрывоопасной ситуации	Индивидуальный пожарный риск в результате воздействия ОФП	Индивидуальный пожарный риск в зданиях, сооружениях и на территориях объекта	Социальный пожарный риск воздействия ОФП	Негативное воздействие на окружающую среду
взрыв ТВС, пожар в резервуарах с топливом и на трубопроводах	превышает нормативное значение 10^{-8} год ⁻¹	превышает нормативное значение 10^{-6} год ⁻¹	превышает нормативное значение 10^{-7} год ⁻¹	розлив нефтепродуктов, выбросы в атмосферу, негативное воздействие на почву, гидросферу

Источник: разработано автором

По итогам прогнозирования тяжести последствий возможных пожаровзрывоопасных инцидентов необходимо обозначить пути снижения пожарных рисков и предложить соответствующие мероприятия в соответствии с действующим законодательством по пожарной безопасности.

Использованные источники:

1. Технический регламент о требованиях пожарной безопасности [Электронный ресурс]: Федеральный закон от 22.07.2008 № 123-ФЗ (ред. от 25.12.2023). URL: https://www.consultant.ru/document/cons_doc_LAW_78699/ (дата обращения 25.02.2024 года).
2. О порядке проведения расчетов по оценке пожарного риска [Электронный ресурс]: Постановление Правительства РФ от 22.07.2020 № 1084 (вместе с «Правилами проведения расчетов по оценке пожарного риска»). URL: https://www.consultant.ru/document/cons_doc_LAW_358202/ (дата обращения 25.02.2024 года).

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ВЛИЯНИЕ САНКЦИЙ НА РОССИЙСКОЕ ОБРАЗОВАНИЕ

Аннотация: в статье рассмотрено влияние санкций на сферу образования и государственные меры поддержки, направленные на устранение санкционного давления. Автором предложены меры государственных и частных инициатив по развитию отечественного образования в условиях санкций зарубежных стран.

Ключевые слова: сфера образования, санкции, государственные меры поддержки, цифровой вуз.

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THE IMPACT OF SANCTIONS ON RUSSIAN EDUCATION

Abstract: the article examines the impact of sanctions on the education sector and government support measures aimed at eliminating sanctions pressure. The author proposes measures of public and private initiatives for the development of domestic education in the face of sanctions from foreign countries.

Keywords: education, sanctions, government support measures, digital university.

Одной из сфер, на которую были направлены зарубежные санкции, является образование. Особое внимание в санкционных мерах уделяется ограничению в своих возможностях вузов, ученых, студентов.

Основные проявления санкций в отношении российского образования выразились в следующем:

—Российские ученые сталкиваются с препятствиями при публикации своих работ в международных научных журналах, что ограничивает круг изданий и читателей, с целью ограничения возможности интеграции в международное научное сообщество. Это не только лишает российских исследователей возможности обмена научными достижениями с зарубежными коллегами, но и влияет на их научный рейтинг, который

определяется количеством публикаций в международных изданиях. При этом важно отметить, что в российской научной общественности нарастает мнение, что данный критерий оценки научной деятельности является устаревшим и призывают к научной независимости России. В частности, они предлагают формировать национальные научные приоритеты, развивать отечественные научные журналы и повышать их цитируемость.

—Процесс обучения российских студентов в зарубежных образовательных учреждениях сопровождается рядом проблем. В связи с ухудшением международных отношений, многие иностранные университеты прекратили или приостановили сотрудничество с российскими вузами. Так, ректоры эстонских вузов официально объявили о приостановлении совместной работы. Кроме того, сокращаются финансовые возможности для обучения российских студентов за рубежом. Многие фонды закрыли или ограничили программы стипендий и грантов для российских граждан. Под угрозой также находятся программы академического обмена, включая широко известную Erasmus+. Некоторые зарубежные вузы начали исключать студентов из Российской Федерации.

—Наблюдается снижение количества иностранных студентов, обучающихся в российских образовательных учреждениях. Ранее студенты из других стран получали образование в вузах России с помощью поддержки различных фондов и программ академического обмена (DAAD, TEMPUS, Erasmus Mundus, Erasmus+). В настоящее время существует риск прекращения или сокращения финансовой поддержки со стороны этих организаций.

—Происходит сокращение международных проектов в сфере науки и образования, а также отмена научных мероприятий. Одним из примеров является расторжение соглашения между Массачусетским технологическим институтом (MIT) и Сколковским институтом науки и технологий (Сколтех). Перспективы девяти совместных проектов, реализуемых в рамках этого соглашения, остаются неопределенными. Кроме того, Международный конгресс математиков, запланированный в Санкт-Петербурге, будет проведен в онлайн-формате за пределами России. Международный конгресс антропологов и этнологов был отменен. Такая ситуация создает угрозу изоляции российской науки. Существует риск утраты доступа к мировой базе научных знаний. Однако, не все страны и университеты готовы прекращать сотрудничество с Россией. В частности, восточные страны продолжают поддерживать партнерство, а многие западные вузы не одобряют разрыв связей. Ученые разделяют науку от политики, поддерживая межличностные и рабочие контакты с коллегами из России несмотря на давление властей. [4]

—Происходит прекращение сотрудничества между российскими и зарубежными платформами онлайн-образования. С 4 марта американский провайдер открытых онлайн-курсов Coursera ввел ограничения для

российских пользователей, запретив им доступ к платным курсам. Пользователям, которые уже начали обучение, предоставлен трехмесячный срок для его завершения. Кроме того, на сайте Coursera были удалены программы российских университетов. Однако, российские платформы онлайн-образования также предлагают качественные и актуальные курсы по развитию практических навыков. Например, на платформе Skurgo можно пройти курс «Веб-разработчик», который позволит за несколько месяцев освоить новую профессию, а специалисты центра карьеры помогут найти работу по этой специальности. [5]

Государства со своей стороны принимает ряд действенных мер, направленных на смягчение и нивелирование влияния зарубежных санкций на российскую сферу образования, среди которых важно выделить следующие:

1. Министерство просвещения, Министерство цифрового развития, связи и массовых коммуникаций, ПАО "Ростелеком" и Mail.ru Group объединили свои усилия для развития образовательной платформы "Сферум". Данный совместный проект был представлен еще в марте прошлого года и входит в государственную программу по цифровой трансформации образования. Здесь студенты могут просматривать уроки по видео, работать с дополнительными материалами, направлять домашние задания на проверку, организовывать конференции. Платформа обладает своим чатом, которым могут воспользоваться учащиеся и педагоги для обмена документами и общения в рамках образовательной деятельности. Преимуществом платформы является наличие хранилища в облаке и возможность обеспечить доступ к облаку с различных электронных устройств. [6]

2. В свете текущих санкций, глава образовательного центра «Сириус» Шмелева Е.В. высказала инициативу о приостановке закона, регулирующего закупки, осуществляемых в учебных заведениях. [2]

Предложение направлено на снижение санкционного воздействия путем отказа от части бюрократических процедур в части оформления документационного сопровождения закупок и снижения затрат на таможенное оформление в связи с упрощением процедуры импорта.

3. Развитие параллельного импорта с целью замещения ушедших зарубежных компаний и ликвидации дефицита технического обеспечения для исследований. Одной из мер поддержки импортозамещения в сфере образования является выдача краткосрочных займов на льготных условиях.

4. Еще одной мерой поддержки может выступать внедрение предложений по оптимизации работы учебных заведений, а именно приостановление надзорных функций контрольных органов в сфере образования, за исключением надзора по вопросам питания, организации и проведения процедуры ЕГЭ и готовности учреждений к учебному процессу. Также предлагается применить льготы для организаций в образовательной

сфере: установление нулевого процента по налогу на прибыль, предоставление доступа к российскому программному обеспечению.

5. Перспективным направлением выступает ИТ – сфера, предлагается привлечение средств в отрасль (с перспективой развития компаний и расширением отечественного ассортимента) путем организации процедуры государственных закупок российского ПО с предоплатой в размере 50%. Вливание госсредств вызовет и спрос на ИТ-специалистов. Освоить новую профессию в этой сфере можно за несколько месяцев. Например, на курсе Skypro «Инженер по тестированию». Можно начать обучение без опыта в программировании и технического образования. Преподаватели дадут все необходимые знания и навыки, чтобы вы начали искать работу еще до окончания курса.

6. Одним из государственных приоритетов является забота о детях, которая, в частности проявляется в повышенном внимании к детям беженцев. Для упрощения процесса их адаптации привлекаются психологи и педагогические работники, более того, специалисты включены в работу по разработке новаторских учебных программ, направленных на повышение качества знаний по основным учебным дисциплинам.

Помимо мер государственной поддержки, развитию образования должны способствовать и частные инициативы в сфере образования. На наш взгляд, таким может быть и проект создания и лицензирования цифрового вуза в Африке для обучения российских студентов с последующим признанием дипломов в РФ. Рассмотрим основные элементы проекта.

1. Сущность проекта. Создание в африканской стране цифрового негосударственного университета с дистанционным форматом обучения для российских студентов с последующей легализацией дипломов. В Уставе предусмотреть возможность обучения студентов с России по программам высшего образования – бакалавриат, магистратура, специалитет, доктор философии PhD по различным научным направлениям и по российским стандартам. По различным востребованным программам: экономика, педагогика, психология, право и др. Обучение на образовательной платформе, каждому студенту предоставляется доступ с логином и паролем. Наша российская образовательная организация заключает с зарегистрированным африканским университетом договор о сотрудничестве и о сетевой форме реализации образовательных программ.

2. Регистрация вуза. По данным публичных источников: существуют юридические и консалтинговые фирмы, специализирующиеся на регистрации компаний на африканском континенте. Необходимо изучить требования к регистрации в различных странах и осуществить выбор, учитывая затраты, сроки и прочие аспекты, в частности, существует ли возможность регистрации предприятия без личного присутствия или нет, необходимо ли наличие местного партнера-резидента с долей не менее 51% в уставном капитале или нет, каков минимальный размер уставного

капитала, требуется ли заключение договора аренды помещения для офиса или достаточно указания юридического адреса (виртуальный офис). Отмечу, юридические и консалтинговые фирмы предоставляют юридический адрес на срок 1 год. На данном этапе урегулируется вопрос, в какой организационно-правовой форме возможно основание вуза (университета) для дальнейшего получения лицензии – ООО, ТОО, АО, партнерство, компания свободной зоны, совместное предприятие, представительство или иная. На текущем этапе требуется установить наличие свободной экономической зоны, а также может ли представительство российской фирмы получить образовательную лицензию.

3. Лицензирование вуза. Необходимо определить наличие в африканской стране Министерства высшего образования, количество в стране университетов, в том числе частных, а также уточнить, существует ли дистанционное обучение. Требуется определить направления получения лицензии: бакалавриат, магистратура, специалитет, доктор философии PhD. Уточнить, по каким они востребованным образовательным программам (экономика, менеджмент, право, педагогика, психология, здравоохранение и др.), а также можно ли вместе с программами ВО получить лицензию на ПО, СПО и ДПО? Основная проблема заключается в том, как получить необходимое разрешение на создание нового цифрового негосударственного дистанционного университета. Возможно, в некоторых странах отсутствует процедура лицензирования, и достаточно зарегистрировать устав.

4. Аккредитация образовательных программ вуза. Уточнить, прошли ли образовательные программы вуза процедуру аккредитации. При наличии необходимо описание порядка ее прохождения. Укажите, возможно ли получить документ, подтверждающий аккредитацию, одновременно с лицензией на право осуществления образовательной деятельности.

5. Признание дипломов (Соглашение о взаимном признании образовательных документов между странами). На текущем этапе будет достигнуто решение по вопросу: действует ли соглашение с РФ о взаимном признании дипломов. В случае отсутствия соглашения, какие шаги необходимо предпринять для легализации образовательных документов.

Таким образом, направлениями развития отечественного образования станут государственные и частные инициативы, которые позволят оптимизировать и упростить бюрократические процедуры, поддержать инновации и использовать каналы связи с дружественными странами.

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3. Устав Образовательного Фонда «Талант и успех» [Электронный ресурс] // Официальный сайт Образовательного центра «Сириус»). - URL: <https://sochisirius.ru/o-siriuse/dokumenty>

4. Официальный сайт Сколковского института науки и технологий. Сколтех [Электронный ресурс] – URL: <https://new.skoltech.ru/>

5. Официальный сайт Coursera [Электронный ресурс] – URL: <https://www.coursera.org/>

6. Официальный сайт образовательной платформы Сферум [Электронный ресурс] – URL: <https://sferum.ru/?p=start>

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НАПРАВЛЕНИЯ ОРГАНИЗАЦИИ ДОПОЛНИТЕЛЬНЫХ ОТРАСЛЕЙ В ФЕРМЕРСКИХ ХОЗЯЙСТВАХ

Аннотация. В данной статье приведены условия процессов специализации в аграрном секторе и развития многопрофильных фермерских хозяйств в Узбекистан.

Ключевые слова: многопрофильное фермерское хозяйство, факторы сельскохозяйственной специализации, экономический потенциал, Узбекистан.

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DIRECTIONS FOR ORGANIZING ADDITIONAL BRANCHES IN FARMS

Abstract. The article tells about the specialization processes in the agriculture and development of multiple enterprise farms in Uzbekistan

Key words: multi-branch farm, factors of agricultural specialization, economic potential, Uzbekistan enterprises in Uzbekistan.

Основные требования к организации дополнительных отраслей в фермерских хозяйствах», такие как соблюдение действующего законодательства республики; обеспечение оптимальной экономической эффективности при использовании имеющихся в фермерских хозяйствах ресурсов; учет природно-климатических и сельскохозяйственных особенностей регионов; предусматриваемая организация деятельности дополнительных отраслей не должна наносить организационно-экономический и агротехнологический ущерб основной отрасли, являются актуальными.

рекомендованы организационные и экономические аспекты создания дополнительных отраслей в фермерских хозяйствах, приоритетные направления создания дополнительных отраслей в хозяйствах и направления государственной поддержки создания дополнительных отраслей с учетом общественных интересов.

Общеизвестно, что в сельскохозяйственном секторе деятельность отраслей животноводства и растениеводства требует формирования других отраслей по естественно-экономическим причинам. Например, с агро технологической и экономической стороны требуется, чтобы растениеводство было неотъемлемо связано с животноводством.

Формирование кормовой базы для животноводства и вопрос органических удобрений для растениеводства взаимно обуславливают друг друга. Это можно рассматривать как фактор, препятствующий глубокой специализации в сельском хозяйстве (рис. 1). Таким образом, если обобщить, сегодня организационные и экономические мероприятия, которые происходят под влиянием факторов, ограничивающих глубокую специализацию в производстве фермерских хозяйств, интерпретируются как многопрофильные фермерские хозяйства.



Рисунок 1. Экономические и технологические факторы, ограничивающие глубокую специализацию в сельском хозяйстве

По нашему мнению, для повышения финансовой устойчивости фермерских хозяйств, целесообразно организовать дополнительные отрасли в следующих двух направлениях (рис. 2).

– создание добавленной стоимости с приоритетом развития дополнительных отраслей, неотъемлемо связанных с основной отраслью производства в фермерском хозяйстве;

– создание добавленной стоимости в отраслях, не связанных с основной отраслью производства в фермерском хозяйстве.

Таким образом, из этих направлений видно, что организационные аспекты развития дополнительных отраслей в фермерских хозяйствах характеризуются большим количеством видов деятельности и простотой. Однако, наряду с этим для экономически устойчивой и эффективной деятельности хозяйств, необходимо учитывать экономическую эффективность организации деятельности дополнительных отраслей.

Выбор приоритетных, с точки зрения экономической эффективности, направлений дополнительных отраслей, органически связанных с основной отраслью фермерского хозяйства, определяет экономическую эффективность многопрофильной деятельности фермерских хозяйств. Так как фермерские хозяйства, которые организуют дополнительные отрасли во взаимосвязи с основной отраслью, будут иметь дешевую и стабильную сырьевую базу, и специалистов, знающих технологический процесс.

Для фермерских хозяйств создание дополнительной деятельности близкой к основной отрасли считается относительно экономически и социально эффективной. Но в настоящее время законом не установлены условия признания фермерского хозяйства в качестве многопрофильного. Таким образом, с законодательной стороны нужно решить вопрос введения в Государственный реестр фермерских хозяйств с дополнительной отраслью в качестве многопрофильных фермерских хозяйств.

Как отмечено, при организационно-экономическом и правовом стимулировании развития многопрофильной деятельности в фермерских хозяйствах целесообразно отдать предпочтение «Приоритетному направлению, связанному с основной отраслью».

Одновременно, развитие многопрофильной деятельности в фермерских хозяйствах с помощью специальных направлений государственных программ даст необходимый эффект.



Рисунок 2. Направления организации дополнительных отраслей в фермерских хозяйствах²⁷

Фермерские хозяйства имеют различный экономический потенциал, поскольку расположены на территориях, которые имеют различные особенности. В первую очередь, это связано с природно-климатическими условиями территории, которые оказывают сильное влияние на экономическую эффективность сельскохозяйственного производства.

Требуется дальнейшее расширение системы поставок оборудования, машин и механизмов, связанных с сельскохозяйственным производством, переработкой, хранением и упаковкой сельскохозяйственной продукции, в том числе поставки техники в лизинг, для фермерских хозяйств, налаживающих деятельность дополнительных отраслей.

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²⁷ Разработано автором.

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**ВОПРОСЫ СОВЕРШЕНСТВОВАНИЯ ОРГАНИЗАЦИИ
ДЕЯТЕЛЬНОСТИ МЕСТНЫХ КЕНГАШЕЙ НАРОДНЫХ
ДЕПУТАТОВ В РЕСПУБЛИКЕ УЗБЕКИСТАН И РЕСПУБЛИКЕ
КАРАКАЛПАКСТАН**

Аннотация. В статье анализируется деятельность местных представительных органов власти Республики Узбекистан и Республики Каракалпакстан, а также содержатся предложения по совершенствованию нормативно-правовых документов, регулирующих деятельность этих органов.

Ключевые слова: местные представительные органы власти, закон, полномочия, организация деятельности.

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**ISSUES OF IMPROVING THE ORGANIZATION OF ACTIVITIES OF
LOCAL KENGASHES OF PEOPLE'S DEPUTIES IN THE REPUBLIC
OF UZBEKISTAN AND THE REPUBLIC OF KARAKALPAKSTAN**

Abstract. The article analyzes the activities of local representative authorities of the Republic of Uzbekistan and the Republic of Karakalpakstan, and also contains proposals for improving the legal documents regulating the activities of these bodies.

Key words: local representative authorities, law, powers, organization of activities.

Происходящие в Узбекистане экономические и политические реформы кардинально меняют жизнь общества и государства. В рамках

новой узбекской государственности, а также в условиях формирования демократического правового государства в Узбекистане важное значение имеют вопросы укрепления и совершенствования конституционного принципа разделения властей и системы сдержек и противовесов между различными ветвями власти, в частности, между местными представительными и исполнительными органами государственной власти. Так, в Указе Президента Республики Узбекистан «Стратегия развития Нового Узбекистана на 2022-2026 г.г.» особо говорится о повышении роли Кенгашей народных депутатов в решении проблем в махаллях, усилении их ответственности в социально-экономическом развитии регионов, повышении уровня жизни населения, формировании и осуществлении контроля за местным бюджетом. В своем Президент Республики Узбекистан Ш.М.Мирзиёев указал на необходимость дальнейшего усиления роли и ответственности органов исполнительной и представительной власти на местах в государственном управлении, поставил задачу по усилению взаимодействия Сената с местными Кенгашами, а также оказания практической и методической помощи в их деятельности.

Ряд вопросов, связанных с работой местных органов власти, Президент страны поднял и в своем выступлении на первом заседании Сената Олий Мажлиса в январе 2020 года. В частности, исходя из международного опыта, Президент внес предложение о том, чтобы предоставить Кенгашам право вносить предложение о соответствии руководителей территориальных структур министерств и ведомств занимаемым должностям, что будет способствовать усилению контрольных функций местных Кенгашей.

Как известно полномочия и организация деятельности местных представительных органов регулировалась законодательством о местных Советах, принятым в 60-80е годы, рядом других законодательных актов, принятых как на общесоюзном (СССР), так и на республиканском (Республика Узбекистан) уровнях.

Начавшиеся под воздействием объективных социально-экономических процессов перемены в жизни Узбекистана выдвинули на первый план реформирование ее правовых основ, законодательной базы, приведения ее в соответствие с новой экономической ситуацией, возникшей в республике, превращения ее в эффективный инструмент укрепления государственности.

Профессор Хусанов А.Т., говоря о реформе прежней системы местных представительных органов власти, выделяет три этапа в ее осуществлении.

Первый этап охватывает период со второй половины 80-х годов по 1 сентября 1991 года. На этом этапе внесены изменения в порядок проведения выборов в представительные органы, приняты новые законы и на их основе

проведены вполне демократические выборы, в структуру представительных органов введен институт Председателя и Президиума.

На втором этапе с 1 сентября 1991 года по 8 декабря 1992 года в соответствии с Законом “Об основах государственной независимости Республики Узбекистан” в республике проведены мероприятия по внедрению в жизнь принципа разделения властей. 4 января 1992 года принят Закон “О реорганизации местных органов власти Республики Узбекистан”, который законодательно закрепил функционирование двух независимых органов, на практике осуществляющих местную власть: представительных и исполнительных органов.

Третий этап начинается с восьмого декабря 1992 года, принятия Конституции Республики Узбекистан. Особо следует отметить важность конституционного закрепления принципа разделения властей, призванного гарантировать деятельность законодательной, исполнительной и судебной властей.

Выделение исполнительных органов из состава представительных органов не понизило роль, а, напротив, обеспечило их независимость, положило конец вмешательству исполнительных органов в дела представительных органов. В результате чего появились представительные органы с четко определенными задачами и функциями. Определение в законодательстве их материальной и финансовой базы покончило с их хозяйственной зависимостью от исполнительных органов. Кроме того, местные Советы перестали отождествляться с органами общественного самоуправления. Теперь они выполняют только функции государственных органов, не решая задач органов самоуправления.

Еще одной особенностью реформы местных органов власти явилось то, что трехзвенная система местных представительных органов в Узбекистане была заменена двухзвенной. В соответствии с Конституцией Республики Узбекистан 1992 года и Законом «О государственной власти на местах» представительными местными органами Республики Узбекистан являются областные, районные и городские Кенгаши народных депутатов.

Законом Республики Узбекистан от 29 августа 2020 года внесены изменения в статью 99 и 102 Конституции Республики Узбекистан, в соответствии с которыми были образованы районные Кенгаши народных депутатов города Ташкента.

Если обратиться к анализу законодательства, регулирующего организацию и деятельность местных представительных органов власти, то, в первую очередь, это Конституция Республики Узбекистан 2023 года, закрепившая основы государственной власти на местах. В XXI главе Конституции нашли свое отражение нормы, определяющие, что Кенгаши народных депутатов в областях, районах, городах, являясь представительными органами власти на местах, решают отнесенные к их

компетенции вопросы исходя из интересов государства и граждан, вопросы, относящиеся к ведению местных органов власти.

Принятый на основе Конституции Закон Республики Узбекистан «О государственной власти на местах» от 2 сентября 1993 года предусматривает расширение и уточнение полномочий представительных органов власти и хакимов, распределение полномочий между Кенгашем и соответствующим хакимом, а также определяет основы взаимоотношений местных органов власти с территориальными управлениями министерств и ведомств.

В процессе формирования правового государства важная роль отводится повышению эффективности местных представительных органов – Кенгашей народных депутатов районов и городов. Избираемые населением административно-территориальных единиц, Кенгаши народных депутатов являются важным звеном в системе представительных органов государственной власти.

Местные представительные органы участвуют в разработке и утверждении программ социально-экономического развития территорий и осуществлении контроля над их реализацией органами исполнительной власти на соответствующей территории.

За годы независимости в результате реформ в Узбекистане сформировался и окреп частный сектор, была диверсифицирована экономика, гражданская активность населения обрела организационные рамки в формате политических партий, негосударственных и некоммерческих организаций (ННО). Так как потребители общественных услуг (население, предприниматели, институты гражданского общества) в ходе своей деятельности по большей части взаимодействуют с органами власти на местах, требуется более эффективное и качественное управление на локальном уровне. Это касается повышения качества разработки и утверждения Кенгашами нормативно-правовых актов и программ развития территорий.

На сегодняшний день одним из важнейших направлений развития Республики Узбекистан является повышение эффективности управления как на центральном, так и местном уровнях, одним из ключевых компонентов которого является поддержка Кенгашей народных депутатов для более эффективного осуществления ими контрольных, представительских и нормотворческих функций с привлечением институтов гражданского общества.

Контрольные полномочия городских и районных Кенгашей народных депутатов дополнены правами по заслушиванию отчетов соответствующих прокуроров, руководителей территориальных подразделений Министерства внутренних дел Республики Узбекистан, руководителей территориальных органов управления здравоохранением, районных (городских) медицинских объединений, центральных районных многопрофильных поликлиник, а

также информации начальников территориальных отделов юстиции районов (городов).

Согласно Конституции Республики Узбекистан 1992 года хакимы возглавляли на местах как исполнительные, так и представительные органы власти, что не способствовало в полной мере реализации принципа разделения полномочий этих органов. Поэтому важным является положение ст. 120 новой Конституции о том, что лицо, занимающее должность хокима области, района, города, не может одновременно занимать должность председателя Кенгаша народных депутатов.

Теперь, согласно ст. 120 Конституции Республики Узбекистан 2023 года, Кенгаш народных депутатов будет возглавлять председатель, избираемый в соответствии с законом из числа его депутатов. Причем, одно и то же лицо не может быть избрано председателем Кенгаша народных депутатов одной и той же области, района, города более двух сроков подряд.

Введение этих новых норм позволяет в полной мере реализовать на местном уровне разделение полномочий между местными органами власти.

На сегодняшний день есть ряд вопросов, требующих своего решения. Суть их связана с совершенствованием ряда положений законодательства о местном управлении, исходя из опыта зарубежных государств.

Так, в ст.2 Закона Республики Беларусь «О местном управлении и самоуправлении в Республике Беларусь» от 4 января 2010 г. № 108-З закрепляет понятие местного управления: «Местное управление – форма организации и деятельности местных исполнительных и распорядительных органов для решения вопросов местного значения исходя из общегосударственных интересов и интересов граждан».

Закон Республики Казахстан от 23 января 2001 года № 148-III «О местном государственном управлении и самоуправлении в Республике Казахстан» в п.8 ст.1 определяет местное государственное управление как «деятельность, осуществляемую местными представительными и исполнительными органами в целях проведения государственной политики на соответствующей территории, ее развития в пределах компетенции, определенной настоящим Законом и иными законодательными актами Республики Казахстан, а также являющимися ответственными за состояние дел на соответствующей территории».

Вместе с тем в Законе Республики Узбекистан «О государственной власти на местах» не содержится четкого понятия местной государственной власти. В связи с этим в законодательстве о местных органах власти следует определить, что государственная власть на местах состоит из представительных и исполнительных органов, осуществляющих свою деятельность в рамках полномочий, определенных Конституцией Республики Узбекистан, соответствующим Законом и другими законодательными актами Республики Узбекистан.

Наряду с введением должности Председателя Кенгаша народных депутатов целесообразно создать постоянно действующий секретариат Кенгаша, с передачей ему полномочий аппарата хокимията по организационному и материально-техническому обеспечению местного представительного органа. Данные шаги позволят повысить самостоятельность местных представительных органов государственной власти.

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ОСОБЕННОСТИ ПРЕДОСТАВЛЕНИЯ УСЛУГ В СФЕРЕ ТАМОЖЕННОГО ДЕЛА

Аннотация. В современной экономике, где процессы глобализации и интернационализации хозяйственной деятельности становятся все более интенсивными, возрастает значимость предоставления таможенных услуг. Изучение особенностей оказания услуг в области таможенного дела поможет лучше понять суть вопроса, оценить текущий уровень развития данного вида услуг в рамках страны и определить направления их улучшения.

Современная экономика, глобализация, таможенные услуги, уровень развития услуг в сфере таможенного дела, особенности предоставления таможенных услуг, направления совершенствования.

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FEATURES OF PROVIDING SERVICES IN THE FIELD OF CUSTOMS AFFAIRS

Abstract. In the modern economy, where the processes of globalization and internationalization of economic activity are becoming more intense, the importance of providing customs services is increasing. Studying the features of the provision of services in the field of customs will help to better understand the essence of the issue, assess the current level of development of this type of services within the country and determine areas for their improvement.

Modern economy, globalization, customs services, level of development of services in the field of customs, features of the provision of customs services, areas of improvement.

Сектор услуг является динамично развивающейся областью экономики, которая сопровождает экономические, социальные и производственные процессы, а также служит связующим звеном между различными отраслями, субъектами и личными взаимодействиями.

В современном мире успех общества определяется не только объемом ВВП, но и степенью развития сектора услуг, включая уровень занятости в сфере услуг и долю социальных благ, производимых в этом секторе.

Экономисты и исследователи выделили два подхода к определению понятия "услуга". Первый подход определяет услугу как специфическую форму труда, в то время как второй подход рассматривает услугу как результат труда, полезный эффект деятельности, что приводит к различным пониманиям термина "услуга".

Ученый И. Д. Котляров проанализировал отличительные черты услуг путем изучения определений этого понятия. Он выделил основные свойства услуги, такие как нематериальность (неосвязаемость), невозможность сохранения, неотделимость от поставщика и потребителя, а также непостоянство качества (вариабельность) [4].

Существует различие между государственным и частным секторами услуг. Государственные услуги представляют собой сервис, предоставляемый органами исполнительной власти, ведомствами и др. для населения, охватывая образование, здравоохранение, транспорт, а также различные юридические, таможенные, информационные услуги и другие. С другой стороны, частные услуги включают в себя банковские, страховые, транспортные, юридические, рекламные и другие виды услуг, предоставляемых частными организациями с целью получения прибыли. В частный сектор также входят некоммерческие компании, предоставляющие благотворительные, развлекательные, религиозные и образовательные услуги.

Аналогично выделяются государственные и частные таможенные услуги. Государственные таможенные услуги оказываются таможенными органами и направлены на содействие международной торговле, снижение транзакционных издержек, контроль за соблюдением законодательства и обеспечение экономической безопасности государства. Частные

таможенные услуги, в свою очередь, нацелены на получение прибыли и оказание содействия участникам внешнеэкономической деятельности, а также на снижение их издержек путем предоставления высококачественных услуг по таможенному оформлению.

Понятие "таможенная услуга" начало активно использоваться в научной литературе с 2004 года, когда вступил в силу Таможенный кодекс Российской Федерации. Однако национальные и международные законодательные акты в области таможенного дела до сих пор не содержат четкого определения этого понятия.

Это свидетельствует о том, что основная сложность в формулировании универсального определения "таможенной услуги" связана со спецификой таможенной деятельности и необходимостью охвата всех возможных случаев предоставления таких услуг. Более того, понятие "таможенная услуга" должно включать элементы как юриспруденции, так и экономической науки.

Путем анализа учебной и научной литературы, а также существующих практик предоставления таможенных услуг в странах-членах Евразийского экономического союза, можно сформулировать определения "таможенной услуги" и "государственной таможенной услуги" следующим образом:

- Таможенная услуга представляет собой комплекс действий по таможенному оформлению товаров (работ, услуг) в рамках внешнеэкономической деятельности, осуществляемый таможенными органами и сторонниками околотаможенной инфраструктуры.

Государственная таможенная услуга (далее – ГТУ) представляет собой деятельность таможенных органов, закрепленную законодательством и нормативно-правовыми актами, направленную на улучшение условий внешнеторговой деятельности для государства и ее участников.

Можно выделить следующие основные характеристики ГТУ:

1. ГТУ предоставляется таможенным органом любого уровня, адресатом услуги может быть конкретно указанное лицо в соответствующем регламенте.

2. ГТУ является адресной, так как обращение за услугой инициируется конкретным лицом (заявителем), которое может быть специально названо в административном регламенте, например, правообладателем товарного знака или его представителем.

3. В области таможенного дела ГТУ связана с осуществлением прав физлицами, а также юрлицами, выступающими как заявители.

4. При реализации такой услуги взаимодействие происходит между таможенным органом, осуществляющим услугу, и заявителем, причем это взаимодействие имеет административный характер.

5. Заявительский характер таможенной услуги проявляется в ее сильной добровольности, поскольку обращение в таможенный орган за услугой является свободным выбором лица.

6. Любая конкретная государственная услуга в области таможенного дела имеет определенный результат, который удовлетворяет потребности заявителя. Данный результат может заключаться в получении документа (например, квалификационного аттестата специалиста по таможенным операциям) или информации (например, при предоставлении государственной услуги по консультированию) [3].

Когда таможенная услуга предоставляется, таможенный орган выполняет определенный набор действий в соответствии с нормативными и правовыми актами. В рамках Единого таможенного пространства на территории Евразийского экономического союза, эти действия приводят к унификации через разработку общих процедур работы на уровне государств-членов ЕАЭС, называемых общими процессами. Общий процесс - это набор различных процедур и операций, определенных международным законодательством и законодательством стран-участниц Союза, которые имеют начало на территории одной страны-участницы Союза и прекращаются или подвергаются изменениям на территории другой [1].

Все ГТУ могут быть разделены на категории согласно таким критериям классифицирования:

1. Относительно предмета оказания услуги:

- общие (универсальные) таможенные услуги, такие как информирование и консультирование, которые помогают реализовать всю совокупность функций таможенных органов;

- специальные таможенные услуги, которые связаны с исполнением определенных функций таможенных органов, например, оформление предварительного решения по товарной классификации.

2. Исходя от получателя это могут быть услуги для:

- лиц, которые ведут свою деятельность в сфере таможенного дела;
- физлиц, намеревающихся обрести статус специалиста по таможенным операциям;
- правообладателей;
- других заинтересованных лиц.

3. Платные и бесплатные таможенные услуги. Некоторые услуги могут быть оказаны платно, например, то же предварительное решения касательно классификации товарной продукции. Чаще всего они предоставляются на безвозмездной основе.

4. По административной основе процедуры:

- услуги, предоставляемые в электронной форме;
- услуги, не предполагающие такой механизм.

Потребителем ГТУ могут быть физические и юридические лица, а также ИП [3].

Таким образом, таможенные услуги представляют собой значимый институт, который в настоящее время активно развивается и совершенствуется с целью удовлетворения потребностей участников таможенных отношений, протекции их интересов, прав и свобод, а также обеспечения основных функций таможенных органов в качестве исполнительных органов государства. Эффективные и качественные таможенные услуги способствуют повышению скорости таможенных процессов, снижению издержек для предпринимателей и конечных потребителей товаров, а также увеличению безопасности в сфере ВЭД, что способствует развитию бизнеса и торговли на территории Евразийского экономического союза.

Использованные источники:

1. Таможенный кодекс Евразийского экономического союза (ред. от 29.05.2019) (приложение № 1 к Договору о Таможенном кодексе Евразийского экономического союза).
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МАКТАБАГАЧА ТАЪЛИМДА ТАБИЙ РЕСУРСЛАРДАН ЭҲТИЁТКОРОНА ФойДАЛАНИШ Йўллари

Аннотация. Ушбу тезисда мактабгача таълим ёшидаги болаларда электр энергиясини тежаш бўйича дастлабки тушунчаларни шакллантиришнинг айрим масалалари хусусида сўз боради. Муаллиф болаларда шакланган кўникмаларнинг умри давомида ҳал қилувчи аҳамиятга эга бўлишини таъкидлайди.

Калит сўзлар: электр, мактабгача таълим, методика, тежамкорлик.

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WAYS OF CAREFUL USE OF NATURAL RESOURCES IN PRE- SCHOOL EDUCATION

Annotation. In this thesis, some issues of the formation of preliminary concepts for saving electricity in children of preschool age are discussed. The author notes that skills formed in children will be of decisive importance throughout their lives.

Keywords: electricity, preschool, methodology, thrift.

Мактабгача таълимда табиий ресурслардан эҳтиёткорона фойдаланиш кўникмаларини шакллантириш муҳим аҳамиятга молик масалалардандир. Биринчидан, болалар катталар каби электр энергиясининг тўлақонли истеъмоилчилари ҳисобланади. Иккинчидан эса электр энергиясини эҳтиёткорлик билан, тежаб-тергаб ишлатишга ўрганган бола умр бўйича на шундай ёндашувни сақлаб қолиш эҳтимоли юқоридир. Учинчидан эса, электр энергиясини физик хусусиятларини хавфсизлигини таъминлаш даражасида ўрганиш боаллар учун фойдадан ҳоли бўлмайди.

Қуйидаги каби казус ларни маълум бир методлар орқали болаларга тушунтириш имкониятлари мавжуд.

Энергетик кризислар ва нархларнинг ўзгариши кўпчилик одамларнинг электр энергиясидан тежаб фойдаланишига туртки бўлмоқда. Ушбу харажатларни камайтириш учун, энг аввало, уйимизда нима энг кўп электрни “еб қўйяпти” деган саволга аниқлик киритиш, керак бўлса, баъзи одатларимизни ўзгартиришга тўғри келади.

Франциянинг Schneider Electric энергия истеъмолини бошқариш компанияси мутахассислари уй хўжаликларида энг кўп энергия истеъмол қилувчи ускуналар рўйхатини тузиб чиқди. Ушбу рўйхатда иситиш ва совитиш жиҳозлари биринчи ўринни банд қилган – уларнинг ҳиссасига жами истеъмолнинг 50–70 фоизи тўғри келади.

“Кондиционер, чангюткич сингари катта жиҳозлар уй хўжалигида электр истеъмолининг катта қисмини олади. Бундай жиҳозларнинг электр сарфи жами истеъмолнинг 50 – 70 фоизини ташкил қилиши мумкин. Бу – жиҳознинг иситиш ёки совитиш мосламаси эканлигига боғлиқ. Иситиш жиҳозлари совитиш жиҳозларига кўра анча кўп энергия талаб қилади”, дейди компания инженери Андриус Перявичюс.

Унинг сўзларига кўра, сув иситиш мосламалари (бойлерлар) энг кўп энергия сарфловчи жиҳозлар рўйхатида иккинчи ўринда туради. Агар бойлерда иситиладиган сув ювиниш, идиш ювиш, кир ювишга ишлатилса, бу харажатлар ҳиссаси йиллик истеъмолнинг 12 фоизигача етиши мумкин. Электр сув иситкичнинг сарф кўрсаткичлари оила аъзолари сонига ҳамда уларнинг тежамкорлик маданиятига чамбарчас боғлиқ. Баъзи ҳолатларда у ойига 400 киловатт-соатгача етади.

Бундай ускуналарнинг истеъмолини фақатгина қатъий назорат орқали камайтириш мумкин. Масалан, уйда узоқ вақт бўлмаган пайтингиз “таътил” режимини ёқиб қўйиш мумкин. Шунингдек, сувдан ҳеч ким фойдаланмайдиган соатларда бойлерни ўчириб қўйса ҳам бўлади.

Ўртача олганда, кир ювиш машинаси йиллик истеъмолнинг 2–5 фоизини, идиш ювиш машинаси 2–3 фоизини, электр плита ва духовка 8 фоизини ташкил этади. Табиийки, ушбу электр жиҳозларнинг сарфи улардан қанчалар кўп фойдаланишимизга боғлиқ. Кир ва идиш ювиш машиналарини фақат тўлдирган ҳолда ишлатиш орқали энергия сарфини анчагина камайтириш мумкинлиги исботланган.

Компьютерлар, телевизорлар, гаджетлар ҳам бугунги кунда анча оммалашган ҳамда жами харажатларимизнинг тахминан 10 фоизини “еб қўяди”. “Ушбу ускуналар одатда уйдаги тармоқда уланган ҳолда қолдирилади ва ёқилмаган вақтда ҳам ток олади”, дейди А.Перявичюс.

Уйимизни ёритиш учун ўртача статистикага кўра, жами харажатларнинг тахминан 10–12 фоизи кетади. Агар ёруғлик диодли лампалар ўрнига қуйма лампалардан фойдаланилса, бу кўрсаткич бир неча баравар юқори бўлиши ҳам мумкин. Чироқ ҳақида гап кетганда, электрни тежашнинг энг оддий усули – ҳеч кимга керак бўлмаган хоналарда чироқни ёқик қолдирмасликдир.

Стандарт музлаткич йилига ўртача 150 киловатт-соат энергия истеъмол қилади. Бироқ мутахассисларнинг таъкидлашича, музлаткич хона девори ёки бурчагига ўта яқин қўйилса ва ҳаво айланиши яхши бўлмаса, жуда иссиқ хонада турса, энергия сарфи ошиб кетади. “Яна бир жиҳат – музлаткич 3/4 қисмга тўлдирилган ҳолатда самарали ишлайди. Шу сабабдан

унинг эскирган нарсалар билан тўлиб қолишига йўл қўймаслик керак”, дейди А.Перявичюс.

Хулоса ўрнида айтганда, уйда ҳамда офисда аксарият энергия тежамкор ечимларни тез ва осонлик билан рўёбга чиқариш мумкин. Бунинг учун алоҳида инвестиция ёки катта бир меҳнат талаб этилмайди. Аввало, ўз хонадонимизни (ёки офисимизни) вақт ажратиб аудитдан ўтказишимиз лозим бўлади. Ҳар ким бугунги истеъмол кўрсаткичидан қатъи назар, тежаш учун қандайдир ортиқча нарсани топади.

Бу ерда яна бир жиҳатни унутмаслик лозим. Фанда “Хулқ-атвор иқтисодиёти” деган назария бор (*унинг асосчиларидан бири бўлган Ричард Талер 2017 йилда Нобель мукофотига лойиқ кўрилган*). Ушбу назарияга кўра, одамлар баъзида ўз хулқ-атвориغا зид бўлган, иқтисодий иррационал ҳаракатлар қилади. Масалан, фитнес-клубга абонемент сотиб олади, аммо бормайди.

Энергия ҳамда сув ресурсларидан фойдаланишда тежамкор ва масъулиятли бўлиш, аввало, ҳеч бўлмаганда, ўз истеъмолини қатъий назорат қилиш кўникмаларини шакллантиришда айнан шу иқтисодий моделдан самарали фойдаланиш мумкин. Оддий мисол: сизнинг телефонингизга ҳар ой келадиган ойлик электр истеъмоли тўғрисидаги одатдаги қуруқ статистик маълумот билан бирга, ушбу хонадон бир ойда ўз маҳалласи, тумани ва республикадаги ўртача истеъмолдан кўпроқ/камроқ ишлатгани кўрсатиб берилса, бу маълумот ҳар қандай одамни ўйлашга, ўз истеъмолини “жиловлашига” жуда кучли туртки бўлади.

Юқоридаги казусдан кўришиб турибдики, электр энергиясини тежамкорлик билан ишлатишни болаларга тушунтириш имкониятлари мавжуд. Мисол учун, авваламбор мураккаб физик ҳодиса бўлган электр эрэнгиясини ҳақида маълумот бериш азрур бўлади. Бунда электр энергиясини мусбат ва манфий зарядлардан ҳосил бўлишини, унинг фойдали томонлари билан бирга нотўғри фойдаланиш оқибатида инсон ҳаётига нуқта қўйиши мумкинлигини кўргазмали қурол воситалари ёрдамида стимуляцион вазиятни уюштириш тушунтириш мумкин.

Шунингдек, электр энергияси товар экани, шу сабабли уни ишлаб чиқарилиши ва сотилиши, ҳар бир истеъмолчи уни сотиб олиши мумкинлигини тушунтириш зарур бўлади. Бунда бир киловатт соат энергияни бир соат ёниб турган кондиционер мисолида бир дона олма ёки песеньга қиёс қилиб кўрсатиш мумкин. Бу эса электрнинг кўринмагани билан маълум бир миқдордаги пул экани ва қимматли маҳсулотлигини намоён этади.

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АФОРИЗМЫ В ПРОИЗВЕДЕНИЯХ БРАТЬЕВ БОРИСА И АРКАДИЯ СТРУГАЦКИХ

Аннотация. Данная статья посвящена определению и анализу афоризмов в произведениях великих русских писателей-фантастов Бориса и Аркадия Стругацких. В статье раскрывается глубокий смысл афоризмов в произведениях «Пикник на обочине», «Гадкие лебеди», «Далёкая радуга» и других, а также определяется тематика приведенных афоризмов.

Ключевые слова: афоризм, краткое изречение, смысл, понятие, тема.

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APHORISMS IN THE WORKS OF THE BROTHERS BORIS AND ARKADY STRUGATSKY

Annotation. This article is devoted to the definition and analysis of aphorisms in the works of the great Russian science fiction writers Boris and Arkady Strugatsky. The article reveals the deep meaning of aphorisms in the works "Roadside Picnic", "Ugly Swans", "The ugly swans" and others. Also, the article determines the theme of the given aphorisms.

Key words: aphorism, short saying, meaning, concept, theme.

На сегодняшний день афоризмы приобретают широкую популярность не только в литературе, но и фильмографии и в социальных сетях. Афоризмы придают красочность не только в письменную, но и в устную речь²⁸.

²⁸ Бектурсынова А. М. Формирование речемыслительной культуры студентов в процессе работы над концептами "семья", "честь", "ум" на занятиях по русскому языку в колледжах Узбекистана //Лингвориторическая парадигма: теоретические и прикладные аспекты. – 2017. – №. 22-3. – С. 57-59.

Большинство людей уже в древние времена стремились передать свои мысли кратко и ясно в форме изречений и, таким образом, в речи людей и в письме начали появляться афоризмы. Поэтому слово «афоризм» происходит от греческого языка и означает «краткое изречение».

Говоря об афоризмах Л. И. Тимофеев и С. В. Тураев в «Словаре литературоведческих терминов» говорили, что «афоризм – это обобщенная, глубокая мысль определенного автора»²⁹.

Доктор филологических наук и профессор Т. Н. Федоренко в своей работе «Афористика» утверждает, что: «Афоризмами принято называть краткие, глубокие по содержанию и законченные в смысловом отношении суждения, принадлежащие определенному автору и заключенные в образную, легко запоминающуюся форму»³⁰.

Также стоит упомянуть и про великого русского писателя, этнографа и лексикографа В. И. Даля, который в толковом словаре определяет афоризм как отрывочное, но полное положение³¹.

Кроме этого, существует мнение о том, что афоризм не имеет единого общепринятого определения, которое указано в энциклопедии «Русский язык» под редакцией Ю. Н. Караулова³².

Несмотря на вышеупомянутые разные мнения учёных насчет понятия афоризма, ясен тот факт, что афоризмы были и продолжают быть популярными среди людей.

Наибольшую популярность афоризмы приобретают в художественных произведениях. В каждом художественном произведении афоризмы уникальны по-своему и напрямую выражают мысль автора. Далее рассмотрим афоризмы в произведениях братьев Бориса и Аркадия Стругацких, которые являются величайшими русскими фантастами XX века. Говоря об этих писателях, сразу вспоминаются строчки их романа «Пикник на обочине»: «*Счастье для всех, даром, и пусть никто не уйдет обиженным!*»³³. Эти слова прозвучали из уст Рэдрика Шухарта в порыве эмоциональной нагрузки, усталости и внутреннего конфликта героя, который морально не был готовым к встрече с Золотым шаром, исполняющий желания. Будучи храбрым и хладнокровным только за счет своей трудной профессией сталкера, перед шаром он осознаёт, насколько бессмысленно прожил свою жизнь и несмотря на то, что прошел через

29 Тимофеев Л.И., Тураев С.В. Словарь литературоведческих терминов. М., Изд-во: Просвещение. 1974.

30 Федоренко Н. Т., Сокольская Л. И. Афористика. М. Наука 1990 г.

31 Даль В.И. Толковый словарь живого великорусского языка. В четырех томах. Том 1.; изд-во: Русский язык-Медиа. 2006.

32 Русский язык: энциклопедия / [под ред. Ю. Н. Караулова]. - Репр. изд. - Москва: Большая Российская энциклопедия: Дрофа, 2007.

33 Стругацкий А.Н., Стругацкий Б.Н. Пикник на обочине. – Электронный источник. – Режим доступа: <https://www.strugatskie.com/wp-content/uploads/2022/12/1971-%D0%9F%D0%B8%D0%BA%D0%BD%D0%B8%D0%BA-%D0%BD%D0%B0-%D0%BE%D0%B1%D0%BE%D1%87%D0%B8%D0%BD%D0%B5-%D0%B1%D0%B5%D0%B7-%D0%B8%D0%BB%D0%BB..pdf>.

многих опасных ловушек и принёс в жертву своего товарища, чтобы дойти до Золотого шара с целью спасти свою дочь, он всё же хочет, чтобы у всех людей была возможность приобрести счастье. И, таким образом, эти слова, сказанные героем в качестве желания, являются некой попыткой создания формулы всеобщего счастья и блага, а не только личного. Герой понимает, что если человек думает только о себе, то в конце концов логика жизни приведет его к тому, что он станет угрозой для других.

В этом романе братьев Стругацких афоризмы великолепно передают основные темы произведения. Еще одним из ярких примеров является высказывание об индивидуальной свободе и ответственности: "*Человек свободен тогда, когда он, осознавая свою свободу, добровольно берет на себя ответственность за свой выбор*"³⁴. Этот афоризм становится не только философским акцентом, но и ключом к пониманию мира, созданного писателями.

Кроме того, немало интересных афоризмов, которые обращены на однообразность, слабость, жадность, равнодушие и ничтожество человечества. Например, в повести «Понедельник начинается в субботу» можно встретить следующие строчки: *Восемьдесят три процента всех дней в году начинаются одинаково: звенит будильник*³⁵. Если обратить внимание на анализ самой повести, то данными словами авторы затрагивают тему однообразности и безразличия, возникшие от переутомления (в повести Стругацкие ссылаются на многих ученых того времени, которые полностью посвятили свою жизнь науке). Также интересен следующий афоризм из этого же произведения: "*Я очень интересный человек: всё, что я говорю, старо, всё, о чём я думаю, банально, всё, что мне удалось сделать, сделано в позапрошлом веке*"³⁶.

Почти такого же содержания другие афоризмы из романа «Пикник на обочине» и высказывания из произведения «Гадкие лебеди» и «Хищные вещи века»: "*Иногда я спрашиваю себя: какого черта мы так крутимся? Чтобы заработать деньги? Но на кой черт нам деньги, если мы только и делаем, что крутимся?..*"³⁷; "*Деньги нужны для того, чтобы никогда о них не думать*"³⁸; "*Любить надо уметь. А вы не умеете. Вы только рассуждаете о любви. Вы не любите любить. Вы любите о ней*

34 Стругацкий А.Н., Стругацкий Б.Н. Пикник на обочине. – Электронный источник. – Режим доступа: <https://www.strugatskie.com/wp-content/uploads/2022/12/1971-%D0%9F%D0%B8%D0%BA%D0%BD%D0%B8%D0%BA-%D0%BD%D0%B0-%D0%BE%D0%B1%D0%BE%D1%87%D0%B8%D0%BD%D0%B5-%D0%B1%D0%B5%D0%B7-%D0%B8%D0%BB%D0%BB..pdf>.

35 Стругацкий А. Понедельник начинается в субботу. М. изд-во: Детская литература. 1965.

36 Там же.

37 Стругацкий А.Н., Стругацкий Б.Н. Пикник на обочине. – Электронный источник. – Режим доступа: <https://www.strugatskie.com/wp-content/uploads/2022/12/1971-%D0%9F%D0%B8%D0%BA%D0%BD%D0%B8%D0%BA-%D0%BD%D0%B0-%D0%BE%D0%B1%D0%BE%D1%87%D0%B8%D0%BD%D0%B5-%D0%B1%D0%B5%D0%B7-%D0%B8%D0%BB%D0%BB..pdf>.

38 Там же.

рассуждать”³⁹; “Будущее создается тобой, а не для тебя”⁴⁰; “Когда человек что-нибудь делает, он всегда делает это для себя. Может быть, и существуют на свете совершенные эгоисты, но уж совершенных альтруистов не бывает”⁴¹.

Данными изречениями авторы также поднимают вопрос о будущем, проблему любви, взаимоотношения людей и материального блага.

Подводя итоги, можем сказать, что афоризмы делают произведения художественной литературы более красочным, запоминающим и подробнее передают мысль автора, раскрывают тему и проблематику произведения, а анализ кратких изречений в произведениях русских писателей-фантастов Бориса и Аркадия Стругацких являются ярчайшими примерами такого явления. Кроме того, данный анализ показал, что афоризмы в произведениях братьев Стругацких касаются самых различных тем, как тема счастья, любви, безразличия и многих других, которые актуальны по сей день.

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41 Стругацкий А.Н., Стругацкий Б.Н. Хищные вещи века. – Электронный источник. – Режим доступа: <https://wysotsky.com/0009/709.htm>

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ДВОЙНЫЕ И ТРОЙНЫЕ ТОЧКИ СИСТЕМЫ ХЛОРАТ НАТРИЯ 4-АМИНО-1,2,4-ТРИАЗОЛ ВОДА

Аннотация. Исследование посвящено изучению структуры и свойств системы хлорат натрия - 4-амино-1,2,4-триазол - вода с учетом наличия двойных и тройных точек. В работе проведен анализ фазовых диаграмм, определены условия и температурные точки, в которых происходят фазовые переходы в данной системе. Особое внимание уделено взаимодействию компонентов системы и их влиянию на структуру кристаллической решетки. Экспериментальные данные, полученные с использованием различных методов анализа, обеспечивают более глубокое понимание характеристик данной системы и ее потенциальных применений в различных областях, таких как химия, материаловедение и физика. Результаты исследования предоставляют базу для дальнейших исследований и оптимизации процессов, связанных с использованием данной системы.

Ключевые слова: хлорат натрия, 4-амино-1,2,4-триазол, вода, двойные и тройные точки, фазовые диаграммы, структура кристаллической решетки, экспериментальные данные.

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DOUBLE AND TRIPLE POINTS OF SODIUM CHLORATE SYSTEM 4-AMINO-1,2,4-TRIAZOLE WATER

Abstract. The research is devoted to the study of structure and properties of the system sodium chlorate - 4-amino-1,2,4-triazole - water taking into account the presence of double and triple points. The analysis of phase diagrams has been carried out, conditions and temperature points in which phase transitions occur in this system have been determined. Special attention is paid to the interaction of the system components and their influence on the lattice structure. Experimental data obtained using different methods of analysis provide a deeper understanding of the characteristics of this system and its potential applications in various fields such as chemistry, materials science and physics. The results of

the study provide a basis for further research and optimisation of the processes involved in the use of this system.

Keywords: Sodium chlorate, 4-amino-1,2,4-triazole, Water, Double and triple points, Phase diagrams, Lattice structure, Experimental data.

Введение. Хлопководство – одна из ведущих отраслей народного хозяйства Республики Узбекистан, эффективность которой в значительной степени зависит от своевременной уборки урожая хлопка-сырца хлопкоуборочными машинами. Главными условиями эффективного применения дефолиантов являются: высокая дефолирующая активность, обеспечивающая опадение листьев до 80-90%; отсутствие отрицательного воздействия на урожай хлопка-сырца, на качество волокна и семена хлопчатника; экологическая безопасность, с точки зрения охраны окружающей среды; невысокая стоимость. На сегодняшний день существенно расширился ассортимент применяемых дефолиантов. Однако, существующий ассортимент дефолиантов не соответствует современным требованиям, предъявляемым сельским хозяйством и органами здравоохранения [1,2,3]. Ряд препаратов обладает повышенной токсичностью для теплокровных (мышьяка содержащие дефолианты: эндотал, грамоксан, бутифос, фолекс и др.) [3,4]. Хлораты натрия, магния, несмотря на малотоксичность, требуют высоких доз применения, что связано с большими транспортными затратами и опасностью загрязнения окружающей среды [3]. К тому же они обладают высушивающим (десикационными) свойствами. Поэтому хлораты могут в той или иной степени повреждать коробочки хлопчатника, вызывая появление ожогов на их поверхности. Этот нежелательный эффект приводит к снижению урожая хлопка-сырца и его качества [6-8].

Из вышеизложенного, очевидна необходимость поиска и разработка концентрированных по действующему веществу малотоксичных, высокоэффективных и мягкодействующих на растения дефолиантов, уменьшающих отрицательные последствия препаратов на урожайность хлопчатника, технологические показатели волокна и масличность семян. Одним из перспективных путей решения этих актуальных задач являются подбор и сочетание существующего ассортимента дефолиантов с наиболее доступными и эффективными синергистами и поверхностно-активными веществами (ПАВ). Роль ПАВ заключается в усилении смачивания кутикулы облегчении проникновения раствора через устьица и оболочки клеточки повышении действия дефолиантов на важные физиологические системы путем легкой ее денатурации [10]. Республика Узбекистан располагает достаточными запасами отходов масло-жировой промышленности, представляющие собой соапстоки-натриевые соли жирных кислот [11], которые могут быть использованы в качестве дешевого поверхностно-активного вещества. Перспективными, на наш взгляд,

являются синтез и применение препаратов на основе существующих хлоратсодержащих дефолиантов производными и аминотриазола. Присутствие последних в составе дефолиантов, предотвращает вторичное отрастание листьев хлопчатника после дефолиации, значительно повышает ее эффективность с одновременным устранением отрицательных воздействий препаратов на растения; предоставляется возможность снизить нормы расхода их активных компонентов, тем самым уменьшая жесткость действия препарата на хлопчатник [12, 13].

Методика. При выполнении исследования использовали хлорат и хлорид натрия, хлорид магния и кальция, марки «ч» м «чда», дополнительно очищение перекристаллизацией из водных растворов, 4-амино-1,2,4-триазол, полученной Дзержинским филиалом ГИАП. Шести водный хлорат магния синтезировали взаимодействием $MgCl_2 \cdot 6H_2O$ с хлоратом натрия, взятых в мольном соотношении 1:2, в ацетоновой среде.[14] В результате обменной реакции получен $Mg(ClO_3)_2 \cdot 6H_2O$, растворенный в ацетоне, который после отгонки растворителя под вакуумом выделяли в кристаллическом состоянии.

Хлорат кальция получали на основе обменной реакции плавленого хлористого кальция с хлоратом натрия в ацетоновой среде. Для количественного химического анализа были использованы следующие методы аналитической химии: содержание [15] хлорат-иона определяли объемно перманганатометрическим методом; кальций и магний определяли обменным комплексонометрическим методом натрий-методом пламенной фотометрии а хлор ион - по методу Мора элементный анализ на углерод, азот, водород проводили согласно методике.[16] Изучение фазовых равновесий физико-химических систем проводили визуально-политермическим методом.

Сущность визуально-политермического метода заключается в визуальном наблюдении за температурой появления первых кристаллов при равномерном [17] охлаждении или исчезновение последних кристаллов при медленном нагревании и непрерывном изоманиеване растворов. Прибором для определения растворимости служат пробирка, закрытая пробкой, стеклянная мешалка, а также термометр с ценой деления $0,1^\circ C$. Для равномерного охлаждения пробирку помещали в наружную пробирку-муфту, находящуюся в охлаждающей смеси.[18] Нагрев осуществляли также через муфту. Охлаждение проводится в дьюаре сосудах с жидким азотом. Визуально-политермический метод в качестве первого результата дает кривые растворимости, по совокупности которых устанавливаются узловые точки.

Результаты. Среди производных триазолов для дефолиации наибольший интерес представляет 4-амино-1,2,4-триазол, который предотвращает вторичное отрастание после дефолиации, т.к. обладает антиауксиновыми свойствами и усиливает действие активных компонентов

дефолиантов. В связи с этим, для характеристики поведения хлоратов магния, кальция, натрия и 4-амино-1,2,4-триазола при их совместном присутствии в широком температурном и концентрационном интервале, а также для обоснования процесса получения дефолиантов на их основе изучена растворимость в трех водных системах включающих исследуемые компоненты.[19] Гетерогенное равновесие в тройной системе хлорат натрия 4-амино-1,2,4-триазол вода изучено шестью внутренними разрезами, сведения о которых в литературе отсутствуют. С помощью политермы растворимости, бинарных систем и внутренних разрезов построена политермическая диаграмма растворимости этой систем и интервале температур 36,0 до 50⁰С, которая состоит из трех полей кристаллизации твердых фаз: льда, хлорат натрия 4-амино-1,2,4-триазол /рис.3.7/. эвтектическая точка системы соответствует 15,8% хлората натрия, 42,4% 4-амино-1,2,4-триазол и 41,8% воды при 36,0⁰С /таблица 1/. Как видно из приведенных данных, в изученном температурном и концентрационном интервале в системе не происходит образование на новые химические соединения, ни твердых растворов на основе исходных компонентов. Система простого эвтонического типа интервал температур -36,0 45,6⁰С отвечает совместной кристаллизации хлорат натрия 4-амино-1,2,4-триазолом из равновесного раствора. [20] Анализ политермической диаграмма растворимости показывает, что 4-амино-1,2,4-триазол оказывает значительное высаливающее действие на хлорат натрия, которое возрастает по мере увеличения температуры /таблица 2/. В то время как хлорат натрия практически не влияет на растворимость 4-амино-1,2,4-триазола. Поэтому состав эвтонического раствора системы с ростом температуры обогащается 4-амино-1,2,4-триазолом при одновременном снижении содержания хлората натрия.

Таблица 1.

Двойные и тройные точки системы хлорат натрия- 4-амино-1,2,4-триазол вода

Состав жидкой фазы			Температура кристаллизации °С	Твердая фаза
NaClO ₃	C ₂ H ₄ N ₄	H ₂ O		
-	54,0	46,0	-13,2	Лед + C ₂ H ₄ N ₄
10,4	47,0	46,3	-27,2	То же
115,8	42,4	41,8	-36,0	Лед + C ₂ H ₄ N ₄ + NaClO ₃
11,0	53,0	33,0	-9,2	C ₂ H ₄ N ₄ + NaClO ₃
7,0	74,8	18,2	45,8	C ₂ H ₄ N ₄ + NaClO ₃
21,6	31,2	37,2	-30,4	Лед + NaClO ₃
32,5	13,6	33,9	-22,9	То же
37,0	7,4	33,6	-20,4	То же
42,0	-	58,0	-18,0	То же

Таблица 2.

Влияние компонентов на взаимную растворимость в системе хлорат натрия- 4-амино-1,2,4-триазол вода

Температура °С	Понижение растворимости хлората натрия, %	Состав эвтонического раствора, масс. %		
		NaClO ₃	C ₂ H ₄ N ₄	H ₂ O
0	34,6	10,0	56,4	33,6
10	37,6	8,8	60,	30,6
20	41,8	8,0	64,1	27,9
30	43,8	7,2	68,0	24,8
40	46,4	6,6	72,0	21,4
50	48,2	6,8	76,4	16,8
60	50,0	7,2	80,1	12,7

Таким образом, исследовано поведение хлоратов натрия, кальция, магния с 4-амино-1,2,4-триазолом в соответствующих водных системах. Построена их политермическая диаграмма растворимости в широком температурном и концентрационном интервале. Выяснено, что в системах с участием хлоратов магния и кальция имеют место обменные между хлоратами и 4-амино-1,2,4-триазолом с образованием соединения идентичного состава C₂H₂N₄Mg C₂H₂N₄Ca для которых уставлено температурные и концентрационные пределы существования. Идентификацию полученных соединений проводили методами рентгенофазового и ИК-спектроскопического анализ. Система с включением хлората натрия-простого эвтонического типа. Наблюдается высаливающее действия 4-амино-1,2,4-триазола на хлорат натрия, которое возрастает с ростом температуры.

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МЕТОДИКА ОЦЕНКИ ЭФФЕКТИВНОСТИ УПРАВЛЕНИЯ МУНИЦИПАЛЬНОЙ СОБСТВЕННОСТИ

Аннотация: статья представляет собой исследование, посвященное разработке методики оценки эффективности управления муниципальной собственностью. Основной целью методики является определение эффективности использования муниципальной собственности с учетом целей, поставленных перед муниципалитетом, и достижения социально-экономических результатов.

Ключевые слова: муниципальная собственность, управление, эффективность, оценка, методика, анализ.

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METHODOLOGY FOR EVALUATING THE EFFECTIVENESS OF MUNICIPAL PROPERTY MANAGEMENT

Annotation. The article is a study devoted to the development of a methodology for evaluating the effectiveness of municipal property management. The main purpose of the methodology is to determine the effectiveness of the use of municipal property, taking into account the goals set for the municipality and the achievement of socio-economic results.

Keywords: municipal property, management, efficiency, assessment, methodology, analysis.

Управление муниципальной собственностью является важным аспектом развития городов и регионов. Обеспечение эффективного использования и управления муниципальным имуществом способствует повышению качества жизни граждан, развитию инфраструктуры и привлечению инвестиций. Однако, для достижения этих целей необходимо иметь систему оценки эффективности управления муниципальной собственностью, которая позволяет выявить проблемные области и определить пути их улучшения [1]

Методика оценки эффективности управления муниципальной собственностью включает в себя ряд ключевых аспектов, которые следует учитывать при ее разработке и реализации. Вот некоторые из них:

1. Определение целей и задач управления муниципальной собственностью. Цели и задачи управления муниципальным имуществом должны быть четко сформулированы и соответствовать стратегии развития города или региона. Например, целью может быть повышение доходности от аренды муниципального имущества или улучшение доступности граждан к качественным коммунальным услугам.

2. Установление ключевых показателей успеха (KPI). Показатели успеха служат для измерения эффективности управления муниципальной собственностью. Они могут включать такие показатели, как уровень использования муниципального имущества, доходность от аренды, удовлетворенность граждан предоставляемыми услугами и другие показатели, специфичные для конкретной ситуации.

3. Сбор и анализ данных. Для оценки эффективности управления муниципальной собственностью необходимо иметь систему сбора и анализа данных. Это включает в себя сбор информации о состоянии муниципальной собственности, ее использовании, доходах и расходах, а также уровне удовлетворенности граждан предоставляемыми услугами. Анализ этих данных помогает выявить проблемные области и определить причины их возникновения.

4. Сравнительный анализ и определение лучших практик. Сравнительный анализ с другими городами или регионами позволяет выявить лучшие практики в управлении муниципальной собственностью. Это может быть полезным для определения того, что можно улучшить в своей практике, а также для внедрения передовых подходов и методов.

5. Разработка и внедрение мероприятий по улучшению управления. Результаты оценки эффективности управления муниципальной собственностью используются для разработки конкретных мероприятий по улучшению управления. Такие мероприятия могут включать оптимизацию процессов, внедрение новых технологий, повышение квалификации сотрудников и другие меры, направленные на повышение эффективности управления муниципальным имуществом.

Применение методики оценки эффективности управления муниципальной собственностью имеет несколько преимуществ. Во-первых, она позволяет выявить слабые места в управлении и определить области для улучшения. Это позволяет городам и регионам сосредоточиться на важных аспектах и направлениях развития.

Во-вторых, оценка эффективности управления муниципальной собственностью способствует более четкой и прозрачной работе органов местного самоуправления. Это позволяет гражданам и предпринимателям видеть, как эффективно используется их собственность и какие меры принимаются для ее улучшения.

В-третьих, методика оценки эффективности управления муниципальной собственностью способствует достижению устойчивого

развития городов и регионов. Путем оптимизации управления и повышения эффективности использования муниципальной собственности достигается экономическая эффективность, социальное благосостояние и экологическая устойчивость.

Однако, для успешной реализации методики оценки эффективности управления муниципальной собственностью необходимо иметь не только адекватные инструменты и показатели, но и широкую поддержку со стороны всех заинтересованных сторон. Включение граждан, предпринимателей и других участников общества в процесс оценки и планирования позволяет создавать согласованные и эффективные решения, учитывающие интересы всех сторон.

6. Мониторинг и оценка результатов. Методика оценки эффективности управления муниципальной собственностью должна предусматривать регулярный мониторинг и оценку результатов внедренных мероприятий. Это позволяет контролировать достижение поставленных целей, выявлять отклонения и корректировать стратегию, если необходимо.

Применение методики оценки эффективности управления муниципальной собственностью имеет ряд преимуществ.

Во-первых, она помогает оптимизировать использование муниципальной собственности и повысить доходность от ее использования, что способствует развитию города или региона.

Во-вторых, она позволяет выявить и устранить проблемы в управлении муниципальной собственностью, повышая качество предоставляемых услуг и удовлетворенность граждан.

В-третьих, систематическая оценка эффективности управления муниципальной собственностью способствует повышению прозрачности и открытости процессов, что важно для общественного контроля и доверия граждан.

Однако, необходимо учитывать, что методика оценки эффективности управления муниципальной собственностью не является универсальной и должна быть адаптирована под конкретные условия каждого города или региона [2]

7. Вовлечение общественности. Оценка эффективности управления муниципальной собственностью должна учитывать мнение и интересы жителей города или региона. Вовлечение общественности в процесс принятия решений и оценки результатов позволяет создать более справедливую и гармоничную систему управления муниципальной собственностью. Это может быть осуществлено через публичные слушания, опросы и консультации с гражданами, создание экспертных и общественных советов и т.д.

8. Мониторинг и учет изменений во внешней среде. Управление муниципальной собственностью должно учитывать изменения во внешней среде, которые могут повлиять на ее эффективность. Это могут быть

изменения в законодательстве, экономической конъюнктуре, технологические инновации и другие факторы. Поэтому важно проводить регулярный мониторинг и анализ внешней среды, чтобы адаптировать стратегию управления муниципальной собственностью к изменяющимся условиям.

9. Постоянное совершенствование и обратная связь. Оценка эффективности управления муниципальной собственностью должна рассматриваться как непрерывный процесс, требующий постоянного совершенствования и корректировки. Полученные результаты и опыт должны обратно подаваться в систему управления, чтобы улучшить методики и стратегии. Также важно обеспечить обратную связь с гражданами, чтобы учесть их мнение и потребности при принятии решений.

10. Обучение и развитие кадров. Для эффективного управления муниципальной собственностью необходимы квалифицированные и компетентные сотрудники. Поэтому важно обеспечить систему обучения и развития кадров, которая позволит повысить их профессиональные навыки и знания в области управления муниципальной собственностью.

В заключение, методика оценки эффективности управления муниципальной собственностью является мощным инструментом для повышения качества управления и развития городов и регионов. Ее применение позволяет выявить проблемные области, определить пути их улучшения и достичь более эффективного использования муниципальной собственности.

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РЕАЛИЗАЦИЯ ТЕХНОЛОГИИ ОБРАБОТКИ ЧИСЛОВЫХ ДАННЫХ С ИСПОЛЬЗОВАНИЕМ РЕДАКТОРА ЭЛЕКТРОННОЙ ТАБЛИЦЫ MICROSOFT EXCEL

Аннотация: в статье рассмотрены методы реализации технологии обработки числовых данных с использованием редактора электронной таблицы Microsoft Excel.

Ключевые слова: Microsoft Excel, реализация, технология, обработка, числовые данные, редакторы, электронная таблица.

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IMPLEMENTATION OF NUMERICAL DATA PROCESSING TECHNOLOGY USING THE MICROSOFT EXCEL SPREAD SHEET EDITOR

Abstract: the article reviews methods for implementing technology for processing numerical data using the Microsoft Excel spreadsheet editor.

Key words: Microsoft Excel, implementation, technology, processing, numerical data, editors, spreadsheet.

Microsoft Excel (также иногда называется Microsoft Office Excel) — программа для работы с электронными таблицами, созданная корпорацией Microsoft для Microsoft Windows, Windows NT и Mac OS. Она предоставляет возможности экономико-статистических расчетов, графические инструменты и, за исключением Excel 2008 под Mac OS X, язык макропрограммирования VBA (Visual Basic для приложений). Microsoft Excel входит в состав Microsoft Office и на сегодняшний день Excel является одним из наиболее популярных приложений в мире.

Связанные данные

В нижней части экрана видны Ярлычки листов. Если щелкнуть на ярлычке левой клавишей мыши, то указанный лист становится активным и перемещается наверх. Щелчок правой кнопкой на ярлычке вызовет меню для таких действий с листом, как перемещение, удаление, переименование и т.д.

В левом нижнем углу окна рабочей книги находятся кнопки прокрутки, с помощью которых можно переходить от одного рабочего листа к другому. Щелкнув правой кнопкой мыши на кнопках прокрутки ярлычков, можно открыть контекстно зависимое меню для выбора нужного рабочего листа.

Расположение рабочих книг

Предположим, вы хотите видеть на экране сразу все открытые книги, Excel без труда выполнит ваше желание, причем вы сможете легко ориентироваться в своих книгах. С помощью команды Excel Окно Расположить можно расположить открытые рабочие книги на экране четырьмя способами.

* рядом - рабочие книги открываются в маленьких окнах, на которые делится весь экран "плиточным" способом;

* сверху вниз - открытые рабочие книги отображаются в окнах, имеющих вид горизонтальных полос,

* слева направо - открытые рабочие книги отображаются в окнах, имеющих вид вертикальных полос;

* каскадом - рабочие книги (каждая в своем окне) "выкладываются" на экране слоями.

Переходы между рабочими книгами

Независимо от того, решили ли вы расположить на экране все открытые рабочие книги или просто "уложили" их друг на друга в порядке открытия, вы можете легко переходить от одной книги к другой. В Excel предусмотрено несколько быстрых способов перехода к нужной книге. Для

этого можно использовать мышь, клавиши экстренного доступа или меню Excel Окно. Вот эти способы:

- * щелкните на видимой части окна рабочей книги;
- * нажмите клавиши <Ctrl+F6> для перехода из окна одной книги в окно другой.

- * откройте меню Excel Окно. В нижней его части содержится список открытых рабочих книг. Для перехода в нужную книгу просто щелкните по имени.

Копирование данных из одной рабочей книги в другую

С помощью команды Excel Копировать можно копировать данные из одной рабочей книги в другую. Например, вы открыли две рабочих книги одна из которых содержит квартальный бюджет, а другая - годовой. Для экономии времени было бы неплохо скопировать данные по первому кварталу из первой рабочей книги во вторую. При этом исходные данные в первой рабочей книге, не изменяя, появится копия этих данных.

Чтобы скопировать данные из одной рабочей книги в другую, откройте обе рабочие книги. Выделите данные в первой книге и щелкните на кнопке Копировать панели инструментов Стандартная переключиться в другую книгу, используйте любой из перечисленных выше методов. Например, согласно одному из них, выберите из меню Окно имя второй рабочей книги. Перейдите в нужный рабочий лист и выделите ячейку, в которую предполагаете вставить данные. Щелкните на кнопке Вставить панели инструментов Стандартная. Excel моментально скопирует данные во вторую рабочую книгу.

Перенос данных между рабочими книгами

Эта процедура аналогична копированию данных. Отличие заключается в использовании другой кнопки. Выделите данные в первой рабочей книге и щелкните на кнопке Вырезать панели инструментов Стандартная, чтобы извлечь данные. Перейдя в другую рабочую книгу, выделите нужную ячейку и щелкните на кнопке Вставить панели инструментов Стандартная. В результате Excel удалит данные из первой рабочей книги и вставит их во вторую.

Существует быстрый способ переноса данных рабочего листа (листов) между рабочими книгами. Он состоит в использовании метода "перетащить и опустить". Сначала откройте книги, задействованные в операции переноса данных. Выберите из меню Excel команду Окно/Расположить. В открывшемся диалоговом окне Расположение окон выберите вариант рядом и щелкните на кнопке ОК. Вы должны видеть хотя бы небольшую часть окна каждой рабочей книги. Выделите ярлычок листа (листов), который вы хотите скопировать. Поместите указатель мыши поверх выделенного ярлычка листа, щелкните и, не отпуская кнопку мыши, перетащите ярлычок в окно другой рабочей книги. Когда вы отпустите кнопку мыши, лист будет "прописан" в новой (для него) рабочей книге.

Создание связей между рабочими листами и рабочими книгами.

Excel позволяет использовать в таблице данные с других листов и из других таблиц. Связывание - это процесс динамического обновления данных в рабочем листе на основании данных другого источника (рабочего листа или рабочей книги). Связанные данные отражают любые изменения, вносимые в исходные данные. Связывание выполняется посредством специальных формул, которые содержат так называемые внешние ссылки. Внешняя ссылка может ссылаться на ячейку из другого рабочего листа той же рабочей книги или на ячейку любого другого рабочего листа любой другой рабочей книги. Например, связи между двумя листами достигается за счёт введения в один лист формулы связи со ссылкой на ячейку в другом листе. Excel позволяет создавать связи с другими рабочими листами и другими рабочими книгами трех типов:

- * ссылка на другой рабочий лист в формуле связывания с использованием ссылки на лист;

- * ссылка на несколько рабочих листов в формуле связывания с использованием трехмерной ссылки,

- * ссылка на другую рабочую книгу в формуле связывания. Формула связывания вводится в ячейку, в которой нужно получить результат.

Использование в формуле связывания ссылки на другой рабочий лист

При работе с большим количеством данных и создании многочисленных рабочих листов для хранения этих данных возникают ситуации, когда формула на одном рабочем листе использует данные из другого рабочего листа. Такие формулы весьма полезны, поскольку избавляют вас от необходимости хранить избыточные данные на многих рабочих листах.

При связывании рабочих книг используется ряд терминов, которые вам следует знать. Рабочая книга, содержащая формулу связывания, называется зависимой рабочей книгой, а рабочая книга, содержащая связываемые данные - исходной рабочей книгой.

Чтобы сослаться на ячейку в другом рабочем листе, поставьте восклицательный знак между именем листа и именем ячейки. Синтаксис для этого типа формул выглядит следующим образом: =ЛИСТ!Ячейка. Если ваш лист имеет имя, то вместо обозначения лист используйте имя этого листа. Например, Отчет!B5.

Если имя содержит пробелы (например, Бюджет 99), то при создании ссылок на другие листы это имя необходимо заключать в одинарные кавычки.

Связывание нескольких рабочих листов

Часто встречаются ситуации, когда формула должна ссылаться на диапазон ячеек, включающий два или даже больше листов в рабочей книге. Обычно это происходит, когда создаются идентичные рабочие листы для распределения бюджета за разные периоды времени, для сведений о работе

различных бригад или для сведений о продажах в различных регионах. У вас также могут быть разные рабочие листы, но их итоговые значения специально содержатся в ячейках с идентичными адресами. И все эти итоговые значения можно затем свести воедино для получения общего итога в одной формуле, содержащей ссылку на все эти листы и адреса ячеек.

В таких случаях Excel ссылается на диапазоны ячеек с помощью трехмерных ссылок. Трехмерная ссылка устанавливается путем включения диапазона листов (с указанием начального и конечного листа) и соответствующего диапазона ячеек. Например, формула, использующая трехмерную ссылку, которая включает листы от Лист1 до Лист5 и ячейки A4:A8, может иметь следующий вид: =SUM(ЛИСТ1:ЛИСТ5!A4:A8).

Трехмерные ссылки можно включить в формулу и другим способом. Для этого достаточно щелкнуть на рабочем листе, который нужно включить в формулу. Но сначала начните формулу в ячейке, где хотите получить результат. Когда придет черед до использования трехмерной ссылки, щелкните на ярлычке первого листа, подлежащего включению в ссылку, затем нажмите (и не отпускайте) клавишу <Shift> и щелкните на ярлычке последнего листа, подлежащего включению в ссылку. После этого выделит нужные ячейки. Завершив построение формулы, нажмите клавишу <Enter>.

Связывание рабочих книг

При связывании рабочих книг используется ряд терминов, которые вам следует знать. Рабочая книга, содержащая формулу связывания, называется зависимой рабочей книгой, а рабочая книга, содержащая связываемые данные - исходной рабочей книгой. Связь между двумя файлами достигается за счет введения в один файл формулы связи со ссылкой на ячейку в другом файле, файл, который получает данные из другого, называется файлом назначения, а файл, который предоставляет данные, -- файлом-источником. Как только связь устанавливается. Excel копирует величину из ячейки в файле-источнике в ячейку файла назначения. Величина в ячейке назначения автоматически обновляется. При ссылке на ячейку, содержащуюся в другой рабочей книге, используется следующий синтаксис: [Книга]Лист!Ячейка. Вводя формулу связывания для ссылки на ссылку из другой рабочей книги, используйте имя этой книги, заключенное в квадратные скобки, за которыми без пробелов должно следовать имя рабочего листа, затем восклицательный знак (!), а после него - адрес ячейки (ячеек). Например 'C:\Petrov\[Журнал1.xls]Литература'!L3.

Обновление связей

Работая с несколькими рабочими книгами и формулам связывания, необходимо знать, как эти связи обновляются. Будут ли результаты формул обновляться автоматически, если изменить данные в ячейках, на которые есть ссылки только в том случае, если открыты обе рабочие книги.

Если данные в исходной рабочей книге изменяются в тот момент, когда зависимая книга (которая содержит формулу связывания) закрыта, то

связанные данные не обновляются немедленно. Открывая зависимую рабочую книгу следующий раз, Excel запросит от вас подтверждение на обновление данных. Чтобы обновить все связанные данные в рабочей книге, выберите ответ Да. Если у вас есть связи, которые обновляются вручную, или вы хотите сами обновить связи, выберите ответ Нет.

Для удаления листа выберите команду Удалить из контекстно-зависимого меню для ярлычков. Для удаления сразу нескольких рабочих листов предварительно выделите их при нажатой клавише Ctrl.

Проверьте:

знаете ли вы, что такое: рабочая книга Excel; рабочий лист; правила записи формул для связи рабочих листов; · умеете ли вы: вставлять рабочий лист; удалять; переименовывать; перемещать; копировать; открывать окна; закрывать; упорядочивать; осуществлять связь между листами одной и разных рабочих книг.

Сортировка списка

Вы можете отсортировать список в алфавитном, числовом или хронологическом порядке не более чем по трем полям. Для каждого столбца можно задать возрастающий и убывающий порядок сортировки.

Возрастающий порядок сортировки:

- Числа будут отсортированы в порядке от наименьшего отрицательного до наибольшего положительного числа.

- Значения даты и времени будут отсортированы в порядке от наиболее раннего до наиболее позднего значения.

- Текст будет отсортирован по алфавиту. При этом сначала будут расположены заданные в качестве текста числовые значения.

- При сортировке в возрастающем порядке логических значений сначала будет отображено значение ЛОЖЬ, а затем – значение ИСТИНА.

- Значения ошибки будут отсортированы в том порядке, в котором они были обнаружены (с точки зрения сортировки все они равны).

- Пустые ячейки будут отображены в конце отсортированного списка.

Убывающий порядок сортировки:

В случае убывающего порядка сортировки Excel сортирует записи в обратном описанному выше порядке. Только пустые ячейки по-прежнему будут отображены в конце списка.

Вместо возрастающего и убывающего порядка сортировки Вы можете применять также пользовательский порядок сортировки, определяемый заданным пользовательским списком.

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ДИАГНОСТИКА И ТЕРАПИЯ ПСИХИЧЕСКИХ РАССТРОЙСТВ У БОЛЬНЫХ С АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИЕЙ

Резюме. Артериальная гипертензия (АГ) - состояние, при котором систолическое АД составляет 140 мм рт.ст. и более и/или диастолическое АД 90 мм рт.ст. и более при том условии, что эти значения получены в результате как минимум трёх измерений, произведённых в различное время в условиях спокойной обстановки, а больной в этот день не принимал ЛС, изменяющих АД.

Ключевые слова: артериальная гипертензия, психоэмоциональная нагрузка.

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DIAGNOSIS AND THERAPY OF MENTAL DISORDERS IN PATIENTS WITH ARTERIAL HYPERTENSION

Resume. Arterial hypertension (AH) is a condition in which systolic blood pressure is 140 mmHg or more and/or diastolic blood pressure is 90 mmHg or more, provided that these values are obtained as a result of at least three measurements made at different times in a calm environment, and the patient on this day, I did not take drugs that change HELL.

Key words: arterial hypertension, psychoemotional stress.

Актуальность. Артериальная гипертензия - заболевание, которое развивается постепенно. Перешагнув рубеж 60 лет каждый третий человек страдает от данного заболевания. Данная статья посвящена осложнениям гипертонической болезни - когнитивным и психоэмоциональным расстройствам [4,7].

Артериальная гипертензия — одно из самых распространённых заболеваний сердечно-сосудистой системы. Установлено, что артериальной гипертонией страдают 20—30 % взрослого населения. С возрастом распространённость болезни увеличивается и достигает 50—65 % у лиц старше 65 лет.

Гипертензию с полным на то основанием называют "бичом" XXI века. Это одно из самых распространённых в мире человеческих хронических

недугов, с которым после 40 лет сталкивается каждый 10-й, после 50 лет – каждый 5-й, а после 60 лет – каждый третий человек.

Известно, что 90 – 95% больных, страдающих артериальной гипертензией как в пожилом, так и в молодом возрасте, болеют гипертонической болезнью («эссенциальной гипертонией»), а остальные – это больные, страдающие симптоматической гипертонией. Рост уровня заболеваемости гипертонической болезнью любого человека в позднем возрасте обусловлен формированием в процессе естественного старения многочисленных факторов риска болезни. В результате «поломки» регуляции артериального давления у человека в старшем возрасте происходят уже на этапе воздействия «безаварийных» для молодого организма факторов, а возникающая гипертензия легко стабилизируется и начинает прогрессировать [2,6].

Одним из важных осложнений гипертонической болезни являются когнитивные и психоэмоциональные расстройства. Связь между гипертонией и риском развития сосудистой деменции, а также необходимость стойкого снижения артериального давления для рациональной профилактики когнитивных нарушений не вызывают сомнений. При нейропсихологическом тестировании у больных с гипертонией отмечаются худшие показатели когнитивных функций, чем у обследованных с нормальным артериальным давлением.

Гериатрические пациенты, страдающие артериальной гипертензией, как правило, имеют умеренные и выраженные когнитивные нарушения. Причем отмечается ярко выраженная тенденция в нарастании степени выраженности когнитивных нарушений по мере прогрессирования патологии [1,8].

Гериатрические пациенты, страдающие гипертонической болезнью, как правило, имеют такие выраженные психоэмоциональные расстройства, причем из них чаще наблюдается депрессия, которая, как правило, имеет легкой и умеренную форму, а, следовательно, мы наблюдаем взаимосвязь между наличием депрессии и артериальной гипертензией [3,5].

Причем, контроль над гипертонической болезнью, напрямую зависит от информированности пациентов о своем заболевании. У пациентов с высоким уровнем контроля над гипертонией, осложнения встречаются редко, со средним уровнем контроля - часто и с низким уровнем контроля над гипертонией — в 100% случаев [6].

Таким образом, для профилактики когнитивных и психоэмоциональных расстройств у геронтов с артериальной гипертензией, а, следовательно, и для улучшения качества жизни, необходимо улучшить информированность геронтов с гипертонией о своем заболевании, более широко внедрять в гериатрическую практику анкеты по самоконтролю пациента с гипертонической болезнью, поддерживать уровень артериального давления на оптимальных цифрах, путем проведения

адекватной гипотензивной терапии (β -адреноблокаторов, диуретиков и ингибиторов АПФ), проводить профилактику когнитивных нарушений (тренировка памяти, курсовое лечение ноотропными средствами: танакан).

Цель исследования: изучить клинические особенности течения ЦВБ, в т. ч. психоэмоциональные расстройства, и эффективность анксиолитической терапии у больных с АГ на амбулаторном приеме, получающих гипотензивную терапию.

Материал и методы исследования. Под наблюдением находилось 100 человек с АГ в возрасте 35–65 лет (мужчин — 59, женщин — 91). Длительность АГ составляла в среднем $12,0 \pm 3,6$ года. У 33 больных (22,0%) была диагностирована I степень АГ, у 93 (42,0%) — II степень, у 34 (36,0%) — III степень.

Результаты исследования. При неврологическом осмотре выявленные синдромы соответствовали критериям постановки диагноза хронической цереброваскулярной недостаточности, клиническим ядром которых были когнитивные и психоэмоциональные расстройства, что обусловлено единством патогенетических факторов. КР являются одним из проявлений поражения головного мозга как органа-мишени при АГ.

При I стадии ХИМ, которая была диагностирована у 105 (70,0%) пациентов, выявлялась рассеянная неврологическая симптоматика в виде нарушения конвергенции, легкой асимметрии носогубных складок, девиации языка, анизорефлексии. У пациентов отмечались легкие КР, которые носили субъективный характер в виде нарушения концентрации внимания, трудности переключения с одного вида деятельности на другой, рассеянности. По результатам тестирования с применением шкалы тревожности Спилбергера — Ханина и шкалы тревоги и депрессии Гамильтона выявлялся астенический синдром, для которого было характерно сочетание астенической симптоматики с выраженной психической истощаемостью, явлениями раздражительности, слабости, гиперестезией, поверхностным сном. Больные жаловались на головную боль, головокружение, непереносимость громких звуков, яркого света, быструю утомляемость при незначительной физической и умственной нагрузке. Наблюдалась смена настроения, которая часто зависела от различных внешних обстоятельств и колебания АД. У 15 больных астенические симптомы имели преходящий характер, отмечались преимущественно астено-вегетативные реакции.

При II стадии ХИМ, которая была диагностирована у 45 (30,0%) пациентов, отмечалось нарастание неврологической симптоматики с формированием неврологических синдромов. Характерны были умеренные КР в виде ухудшения мыслительной продукции, волевой активности, трудоспособности, профессиональной памяти, повышения вязкости мышления, сужения круга интересов, снижения критики и изменения личности. При длительной АГ отмечалось усиление астенической

симптоматики, формировались стойкие астено-ипохондрическое, астено-тревожное, тревожно-фобическое состояния. Пациенты жаловались на пониженное настроение с тревогой, предчувствием беды, смутным ожиданием того, что может случиться что-то плохое, были раздражительны, слезливы. Отмечались разнообразные неприятные телесные ощущения, алгии.

В развитии психоэмоциональных расстройств у исследуемых больных ведущим фактором был соматогенный — АГ и развивающиеся на этом фоне осложнения. Реакция личности на болезнь определяла психологическое состояние больного и зависела от преморбидных особенностей, уровня интеллекта и знания больного о своем заболевании. Черты личности определяли разнообразие и структуру психопатологической феноменологии. Диапазон симптоматики колебался от легкой, не нарушающей жизнедеятельность больных, до выраженной, с невозможностью выполнять привычные функции, существенно нарушающей социально-трудовую адаптацию.

У 60 наблюдаемых нами пациентов, несмотря на получаемую гипотензивную терапию, отмечалась повышенная краткосрочная «внутривизитная» вариабельность АД. При тестировании выявлялись тревога, фобии, выраженные вегетативные расстройства в виде сердцебиения, повышенной потливости, гиперемии лица, диспноэ. У больных отмечались подавленное настроение с дисфорическим оттенком, плаксивость, затрудненное засыпание. Наблюдались жалобы с тревожными опасениями за здоровье, фобическими эпизодами. Тревожные расстройства проявлялись даже во внешнем облике, мимике, движениях. Отмечалось «астеническое мышление» с некоторой его замедленностью, трудностями при концентрации и сосредоточении внимания, снижением памяти, способности к волевому усилию. Сон был поверхностным, тревожным, чутким, зачастую сопровождался тягостными, устрашающими сновидениями.

Больным с тревожными расстройствами и повышенной вариабельностью АД был проведен курс 4-недельной анксиолитической фармакотерапии: 1-я группа из 30 человек принимала тофизопам в дозе 50 мг 2 р/сут, 2-я группа из 30 пациентов — антитела к мозгоспецифическому белку S-100 в Р-А форме (Тенотен) по 1 таблетке 3 р/сут. Тофизопам относится к группе производных бензодиазепина, оказывает анксиолитическое действие, не сопровождается седативным, миорелаксирующим, противосудорожным эффектом. Однако в отдельных случаях, согласно инструкции, могут отмечаться головная боль, бессонница, повышенная раздражительность, психомоторное возбуждение, спутанность сознания, снижение аппетита, запор, метеоризм, тошнота, сухость во рту, кожный зуд, экзантема, напряжение мышц, боль в мышцах, угнетение дыхания. Сравнительная оценка двух препаратов была обусловлена тем, что несмотря на

эффективность бензодиазепиновых транквилизаторов, их назначение кардиологическим пациентам не всегда показано, что связано с неблагоприятным влиянием на гемодинамические показатели, взаимодействием с гипотензивными средствами. Соответственно, терапевтические мероприятия применительно к больным с АГ требуют особенно тщательного наблюдения, большое внимание обращается на их переносимость и безопасность.

Антитела к мозгоспецифическому белку S-100 в Р-А форме (Тенотен) относятся к группе Р-А препаратов, которые обладают особыми свойствами. Тенотен производится по инновационным технологиям, в процессе которых используется технологическая обработка разведений исходного вещества, приводящая к высвобождению особой фармакологической активности, названной релиз-активностью. Технологически обработанные разведения антител (АТ) влияют как на молекулы антител, так и на антигены, к которым вырабатываются данные антитела. Установлено, что действие Р-А АТ к белку S-100 сходно с действием классического бензодиазепинового транквилизатора диазепама. Р-А АТ S-100 стимулируют 5-НТ1А, 5-НТ2А, 5-НТ2В и ингибируют 5-НТ2С рецепторы. Р-А АТ S-100 влияют на взаимодействие специфического лиганда с σ 1-рецептором, ГАМК-рецептором и на взаимодействие специфического лиганда с NMDA-рецептором глицинового сайта. Патоморфологическое исследование зоны повреждения показало отчетливое нейропротекторное действие Р-А АТ S-100. Благодаря комплексному действию препарат является анксиолитиком нового поколения, который обладает широким спектром действия: противотревожным, антидепрессивным, вегетостабилизирующим, стресспротекторным. Он не вызывает побочных эффектов и сочетается с базовой гипотензивной терапией. Установлено, что существует связь между тревожными, депрессивными невротическими расстройствами и мозгоспецифическим белком S-100, который экспрессируется и секретируется клетками микроглии и астроцитами. Препарат модулирует активность белка S-100 и оказывает позитивное действие, препятствует развитию невротических и неврозоподобных состояний. Большим преимуществом является то, что препарат не вызывает заторможенности, дневной седации, мышечной релаксации, зависимости и синдрома отмены. Противотревожное действие обоих препаратов проявлялось на 7–10-й день терапии — снижались раздражительность, страхи и тревожные опасения. В обеих группах по шкале тревоги Гамильтона отмечалось достоверное снижение общего балла у большинства пациентов уже к 8-му дню терапии, достигнув своего минимума к концу 4-й нед. наблюдения (рис. 1). Однако при назначении тофизопама у 3 человек (10%) отмечалась головная боль, у 6 (20%) — колебание АД, при назначении Тенотена нежелательных явлений выявлено не было.

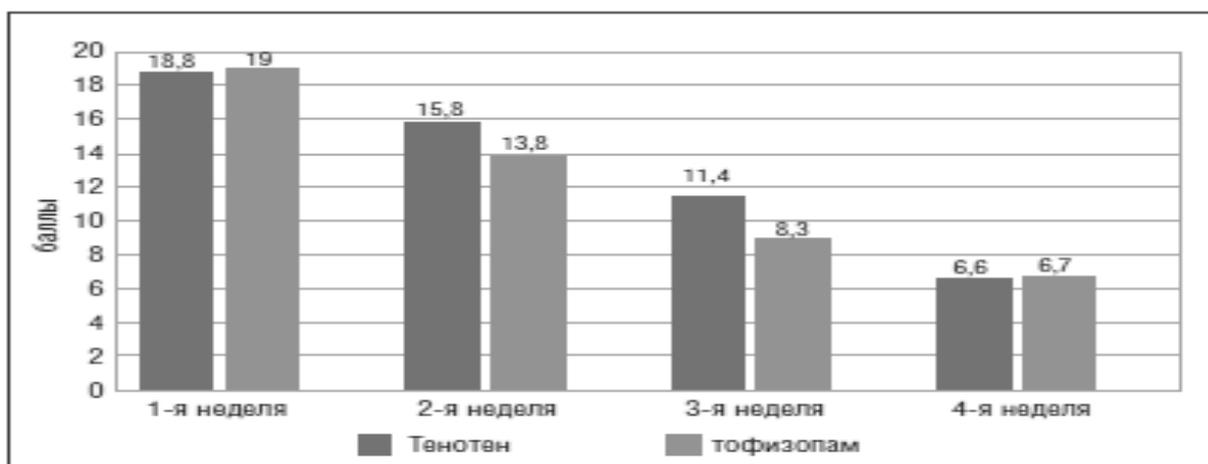


Рис. 1. Динамика среднего балла по подшкале тревоги HARS на фоне терапии Тенотеном (n=30) и тофизопамом (n=30)

В процессе лечения по шкале Спилберга — Ханина был отмечен регресс показателей личностной и реактивной тревожности в виде редукции суммарного балла с 34,1 до 29,6.

Вывод. Таким образом, терапия психоэмоциональных расстройств у больных АГ вызывает известные трудности и требует большой осторожности. Целями лечения являются стабилизация АД и состояния в целом, замедление процесса прогрессирования ЦВБ и улучшение качества жизни. При назначении лечения следует учитывать целый комплекс факторов.

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ЛЕЧЕНИЕ И ПРОФИЛАКТИКА АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИИ СОВРЕМЕННЫМИ МЕТОДАМИ

Резюме. Современные подходы к лечению больных артериальной гипертонией, предлагаемые практическим врачам, основаны на результатах международных научных многоцентровых рандомизированных исследований, их метаанализе, а также на рекомендациях научных обществ.

Ключевые слова: артериальная гипертония, ингибиторы ангиотензинпревращающего фермента, диуретики, блокаторы рецепторов к ангиотензину, блокаторы кальциевых каналов

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TREATMENT AND PREVENTION OF ARTERIAL HYPERTENSION BY MODERN METHODS

Resume. Modern approaches to the treatment of primary arterial hypertension are considered based on the results of multicenter randomized studies, their meta-analysis, and recommendations of scientific societies.

Key words: arterial hypertension, ACE inhibitors, diuretics, angiotensin receptor blockers, calcium channel blockers.

Актуальность. Несмотря на достигнутые успехи в лечении артериальной гипертонии (АГ), адекватный контроль артериального давления (АД) в популяции далек от идеального [2,5]. В лекции дается характеристика четырех степеней риска сердечно-сосудистых осложнений, вызванных АГ [1,3]. Подробно рассмотрены современные стандарты медикаментозной и немедикаментозной гипотензивной терапии. Приведены целевые уровни АД, которые рекомендуется достигнуть при лечении больных АГ, в соответствии с существующими международными рекомендациями. Разбираются показания к использованию рациональной комбинированной антигипертензивной терапии.

Цель исследования. Целью антигипертензивной терапии является достижение целевого АД. Основной целью лечения больного АГ является максимальное снижение общего сердечно-сосудистого риска. Для

достижения этой цели необходима коррекция всех модифицируемых факторов риска, лечение ассоциированных клинических состояний, а также лечение собственно синдрома АГ, то есть антигипертензивная терапия.

Материал и методы исследования. В исследование были включены 80 больных ГБ II-III стадии, 2-3 степени АГ в возрасте от 40 до 60 лет, не достигшие целевого уровня АД на фоне приема двух АГП в течение 6 месяцев в максимальных терапевтических дозах в сочетании с тремя и более факторами сердечно-сосудистого риска и 20 условно здоровых лиц (группа контроля) для уточнения нормативов изучаемых показателей. Все пациенты подписали информированное добровольное согласие на участие в исследовании.

Результаты исследования. Из исследования исключались больные с симптоматической АГ, перенесенным острым инфарктом миокарда или инсультом (менее 6 месяцев), застойной сердечной недостаточностью, тяжёлыми стойкими нарушениями ритма и проводимости, тяжёлой сопутствующей соматической, неврологической и онкологической патологией.

У включенных в исследование больных выявлены выраженные нарушения суточного профиля артериального давления, множественное поражение органов-мишеней, дисфункция эндотелия, дисметаболические изменения, затрудняющие адекватный контроль над артериальным давлением и позволяющие включить данную категорию больных в разряд больных с «трудно контролируемой артериальной гипертензией». Выявленные корреляционные связи между основными показателями метаболического профиля, периферической гемодинамики, функции эндотелия, структурно-функциональными показателями левого желудочка констатируют взаимосвязь и взаимозависимость патогенетических механизмов, лежащих в основе трудно контролируемой артериальной гипертензией.

Длительный прием кандесартана в сочетании с гидрохлортиазидом и лерканидипином способствует достижению целевого уровня артериального давления у 88% больных, с преимущественной положительной динамикой для среднедневных показателей и вариабельности артериального давления, а терапия моксонидином в сочетании с гидрохлортиазидом и лерканидипином - у 82% больных, с достижением нормативных значений для средненочных показателей АД и индекса временной гипертонической нагрузки.

Достоверное уменьшение массы миокарда левого желудочка достигается к третьему месяцу терапии на фоне терапии кандесартаном с гидрохлортиазидом и лерканидипином и к 6-му месяцу - на фоне терапии моксонидином с гидрохлортиазидом и лерканидипином. Улучшение диастолической функции отмечается с 3-го месяца терапии при лечении обеими комбинациями. Терапия кандесартаном в сочетании с

гидрохлортиазидом и лерканидипином видоизменяет концентрическую гипертрофию миокарда левого желудочка в эксцентрическую у 13,5% больных.

Трехкомпонентные антигипертензивные схемы лечения артериальной гипертензией с включением лерканидипина оказывают корригирующее действие на нарушенную церебральную, почечную гемодинамику, функцию эндотелия уже на ранних этапах лечения - через 3 месяца, однако более выраженная положительная динамика отмечена при его комбинации с кандесартаном и гидрохлортиазидом при длительной терапии.

Корригирующее действие на нарушенный липидный профиль оказывают обе трехкомпонентные схемы антигипертензивной терапии, гиперурикемия устраняется через 3 месяца на фоне терапии кандесартаном в сочетании с гидрохлортиазидом и лерканидипином, а постпрандиальная гликемия — на терапии с включением моксонидина.

Вывод. Таким образом, основные изменения рекомендации по диагностике и лечению АГ 2018 г выглядят следующим образом:

Новые целевые значения АД, менее консервативное лечение (очень) пожилых людей;

Изменение схем рациональной комбинированной фармакотерапии;

Необходимость выявления низкой приверженности и применение комплекса мер, направленных на её повышение.

Вместе с тем разрабатываются новые методы диагностики и лечения метаболических нарушений, которые выявляются на ранних этапах или предшествуют повышению АД. В настоящее время показано, что такие группы лекарственных средств, как иАПФ, БРА, БМКК, селективные агонисты имидазолиновых рецепторов, имеют преимущества у больных с метаболическим синдромом в качестве средств лечения и профилактики развития сердечно-сосудистых осложнений.

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ИСПОЛЬЗОВАНИЕ СЛОВАРЯ В КЛАССЕ

Аннотация. Аннотация. В этой статье объясняется важность словарного запаса и словарных тетрадей для учащихся. Обсуждается роль использования словарной тетради на уроке и важность опыта изучения языка.

Ключевые слова. словарь, пояснения, транскрипция, лексика, семантика, наглядность.

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USING DICTIONARY NOTEBOOK IN CLASS

Annotation. Annotation. In this article that is explained the importance of vocabulary and vocabulary notebooks for learners. And the role of using a vocabulary notebook in class is discussed importance language learning experience.

Key words. Dictionary, explanation, transcription, vocabulary, semantics, visually.

Словарный запас — это одна из частей языка, которую учителя английского языка должны преподавать как иностранный. Помимо грамматики, произношения и правописания, это одна из важных вещей в изучении английского языка. Изучение языка требует овладения многими аспектами этого языка, включая его грамматику, стиль письма, синтаксис, прагматику, чтение и композиционную риторику, культуру правописания, но наиболее важным аспектом является словарный запас (Folse, 2004, стр.

1). Затем словарный запас может помочь людям овладеть четырьмя языковыми навыками, такими как чтение, письмо, аудирование и разговорная речь. В английском языке есть четыре компонента языковых навыков, которые охватывают аудирование, говорение, чтение и письмо, которые учащиеся должны изучать глубоко и соответствующим образом. Эти четыре компетенции не могут быть изолированы, поскольку они интегрированы. С другой стороны, словарный запас является важным дополнительным навыком, который учащиеся должны освоить. Расширение словарного запаса положительно влияет на нашу языковую компетентность. Это также может улучшить нашу способность строить наш язык в целом. Изучение словарных единиц играет жизненно важную роль в развитии всех языковых навыков английского как второго языка (ESL) и английского как иностранного (EFL) (Алкахтани, 2015, стр. 22). Проще говоря, изучение словарного запаса облегчит нам освоение четырех языковых компетенций. Изучение словарного запаса важно для поддержания овладения навыками английского языка, как описано выше. В словарном запасе есть два вида терминов: служебные слова и содержательные слова. Функциональные слова — это малозначительные термины, которые играют важную роль по отношению к другим терминам. Примеры: is, at, for, by и т. д. Второй — слова содержания. Содержательные слова — это слова, которые описывают вещи, людей, события и т. д. Примерами являются существительные, глаголы, прилагательные и 2 наречия. Кроме того, словарный запас делится на два вида в зависимости от того, как студенты используют словарный запас.

Мы используем словарный блокнот, создавая в классе разные разделы или категории для разных типов слов или тем. Когда вы встречаете новые слова во время уроков, записывайте их в тетрадь вместе с их определениями, синонимами и примерами предложений, чтобы лучше понять и запомнить их. Вы также можете добавить любые примечания или мнемоники, которые помогут вам легче запоминать слова. Регулярно просматривайте свой словарный запас, чтобы закрепить знания и эффективно расширить свой словарный запас. Кроме того, вы можете использовать карточки или тесты, чтобы проверить свои знания выученных слов. Этот метод поможет вам улучшить свои языковые навыки и сохранить новый словарный запас.

В частности, роль использования словарного блокнота на уроке заключается в том, чтобы улучшить ваш опыт изучения языка, предоставляя структурированный и организованный способ записи и повторения новых слов. Активно взаимодействуя со словами, записывая их, определяя их и используя в предложениях, вы с большей вероятностью запомните и поймете словарный запас. Словарный блокнот служит персонализированным справочным инструментом, который позволяет вам отслеживать ваш прогресс, определять области для улучшения и расширять свои языковые навыки. Это также поможет вам практиковать и закреплять

выученные слова, что приведет к лучшему запоминанию и беглости языка. В конечном счете, словарный блокнот играет решающую роль в поддержке вашего пути к изучению языка и содействию эффективному общению.

К моменту начала работы со словарной тетрадью шестиклассники уже получили некоторую языковую подготовку и потенциально способны работать со словарем самостоятельно. Однако учителю необходимо специально выделять время на уроке для того, чтобы объяснить и показать на конкретных примерах, как вести словарную тетрадь. На этом же уроке должно быть выделено время для самостоятельной практики учащихся. В дальнейшем по мере необходимости и в ходе учебного процесса в данном классе учитель дает дополнительные пояснения по работе со словарем и ведению словарной тетради.

В тетрадях-словарях по немецкому, французскому и испанскому языкам лист должен быть разделен на две части, а в тетрадях-словарях по английскому языку - на три неравные части. В левой части листа делается запись на иностранном языке, а правая часть используется для перевода этой записи на русский (или родной) язык. Кроме того, в средней колонке (обычно меньшего размера) в словарных тетрадях английского языка пишется транскрипция слова. Транскрипционная запись новых слов производится в полном объеме с обязательной расстановкой ударений. В словарных тетрадях недопустимо делать какие-либо интонационные обозначения. Слово может сопровождаться примером его употребления, взятым из данного текста.

Осваиваемая лексика заносится в тетрадь-словарь в порядке ознакомления с ней. Даты, названия тем, разделов и т.п. не указаны. Полный перевод иноязычных записей на русский (или родной) язык обязателен во всех случаях. Использование зарисовок, вырезок из текстов, наклеивание картинок и т.п. для семантизации иноязычных записей не допускается, так как это не дает положительного воспитательного эффекта: на поиск и обработку материала уходит много времени, что связано с порчей печатных изданий; Кроме того, такого рода «наглядность» зачастую оказывается примитивной, отвлекает от целенаправленной работы и не всегда точно передает требуемый смысл, а потому методически нецелесообразна. Следовательно, ведение тетради-словаря осуществляется только посредством устных (и транскрипционных) записей.

Учитель проверяет словарную тетрадь лобно, 1-2 раза в месяц. Исправления и уточнения записей в словаре тетради производятся непосредственно преподавателем, и учащиеся не проводят специальной работы над ошибками. За ведение словарной тетради оценки не выставляются. По завершении проверки словарной тетради преподаватель ставит дату проверки и свою подпись в правом (крайнем) столбце сразу после последней записи, сделанной студентом.

Подводя итоги, учащиеся выполняют письменную работу в тетрадях всех видов синей пастой (или тушью). Учитель проверяет и вносит исправления красной пастой (или тушью).

При выставлении оценок за письменную учебную работу и контрольные задания преподаватель должен руководствоваться соответствующими стандартами выставления оценок.

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ИНТЕГРАЦИЯ ИСПОЛЬЗОВАНИЯ ПРОГРАММЫ MS EXCEL ДЛЯ ОБУЧЕНИЯ ТЕМЕ КВАДРАТНЫХ УРАВНЕНИЙ

Аннотация: в статье рассмотрена интеграция использования программы MS EXCEL для обучения теме квадратных уравнений.

Ключевые слова: интеграция, программа MS Excel, квадратное уравнение.

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INTEGRATION OF USING MS EXCEL PROGRAM FOR TEACHING THE TOPIC OF QUADRATIC EQUATIONS

Abstract: the article discusses the integration of using the MS Excel program for teaching the topic of quadratic equations.

Key words: integration, MS Excel program, quadratic equation.

Запустим программу Microsoft Office Excel. Я пользуюсь 2007 версией. Для начала объединим ячейки A1:A5 и запишем в них формулу квадратного уравнения в виде $ax^2+bx+c=0$. Далее нам нужно возвести x в квадрат, для этого нужно сделать цифру 2 надстрочным интервалом. Выделим двойку и нажмем правой кнопкой мыши.

Получим формулу вида $ax^2+bx+c=0$

В ячейке A2 введем текстовое значение a=, в ячейке A3 b= и в ячейке A4 c= соответственно. Эти значения будут вводиться с клавиатуры в следующих ячейках (B2,B3,B4)

Введем текст для значений, которые будут считаться. В ячейке C2 d=, C3 $x_1=$ C4 $x_2=$. Подстрочный интервал для x сделаем аналогично надстрочному интервалу в x².

Перейдем к вводу формул для решения

Дискриминант квадратного трехчлена равен b^2-4ac

В ячейку D2 введем соответствующую формулу для возведения числа во вторую степень:

Квадратное уравнение имеет два корня, в случае если дискриминант больше нуля. В ячейку C3 введем формулу для x_1 .

Для расчета x_2 введем похожую формулу, но со знаком плюс

Соответственно при введенных значениях a,b,c сначала считается дискриминант, если его значения меньше нуля выводится сообщение «Корней нет», иначе получаем значения x_1 и x_2 .

Защита листа в Excel

Нам нужно защитить лист, на котором мы производили расчеты. Без защиты нужно оставить ячейки, в которые можно вводить значения a,b,c, то есть ячейки B2 B3 B4. Для этого выделим данный диапазон и нажмем в меню «Формат ячеек», перейдем во вкладку «Защита», нажмем «Защитить лист» и уберем флажок с позиции «Защищаемая ячейка». Нажмем кнопку ОК, подтвердив внесенные изменения.

Этот диапазон ячеек будет не защищен при защите листа. Выполним защиту листа, для этого перейдем на вкладку «Рецензирование» пункт «Защита листа». Пароль наберем 1234. Нажмем ОК.

Теперь мы сможем изменять значения ячеек B2,B3,B4. При попытке изменения других ячеек мы получим сообщение следующего содержания: «Ячейка или диаграмма защищена от изменений. А также совет по снятию защиты».

Так же вас может заинтересовать материал как закрепить область в Экселе.

Как решить квадратное уравнение в экселе?

Чтобы решать любое квадратное уравнение в программе эксель, необходимо сначала подготовить универсальную форму, а потом подставлять нужные значения и получать решения. И давайте рассмотрим инструкцию, как это сделать.

	A	B	C	D
1	a	b	c	
2				
3				
4	Дискриминант			
5	X ₁			
6	X ₂			
7				

Первый шаг. Квадратное уравнение представляется собой следующие уравнение: $a \cdot x^2 + b \cdot x + c = 0$. Поэтому создадим форму, чтобы можно было вводить коэффициенты: a, b, c. А также формы в которых будет выводиться дискриминант.

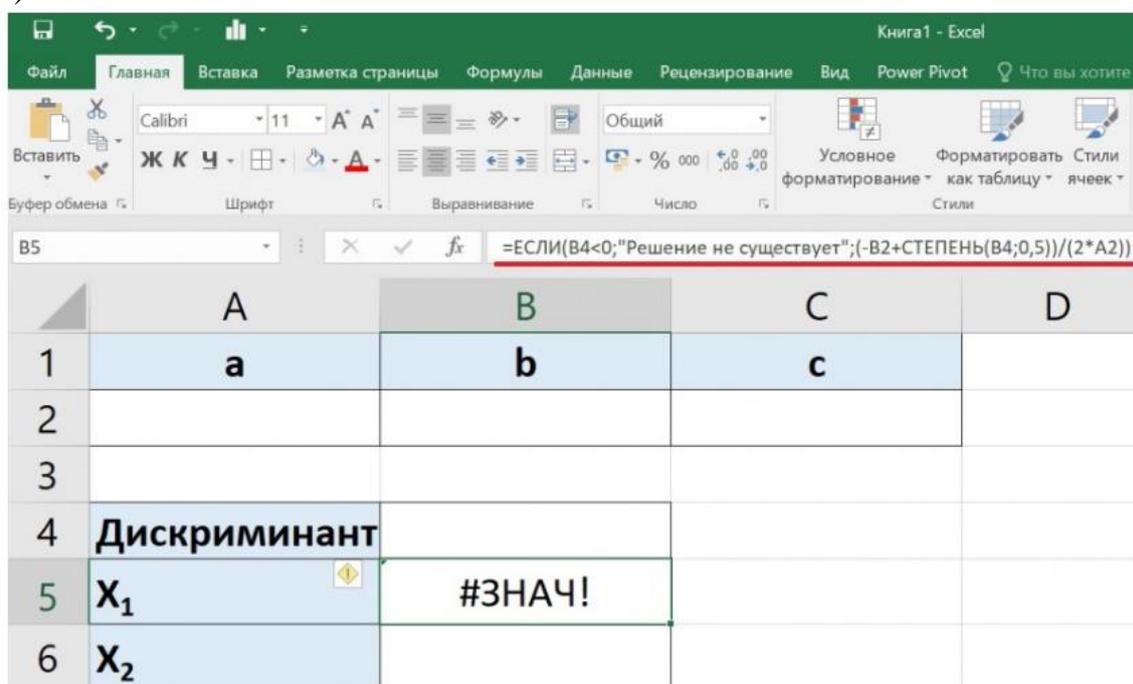
Второй шаг. Теперь нужно прописать формулы, которые будут решать квадратное уравнение. Начнем с дискриминант, он по правилам математики равен $b^2 - 4 \cdot a \cdot c$. Поэтому в ячейке «B4» пишем формулу: `=СТЕПЕНЬ(B2;2)-4*A2*C2`, где b^2 – это `СТЕПЕНЬ(B2;2)`, а – это `A2`, c – это `C2`.

	A	B	C	D
1	a	b	c	
2				
3				
4	Дискриминант	0		
5	X ₁			
6	X ₂			

Третий шаг. Чтобы, когда поля были пустые у коэффициентов a, b, c, дискриминант не считался, добавил проверку на условия и перепишем формулу в ячейке «B4» на =ЕСЛИ(A2+B2+C2=0;»»;СТЕПЕНЬ(B2;2)-4*A2*C2). Т.е. проверяем, что если поля пустые, то выходи пустота.

	A	B	C	D
1	a	b	c	
2				
3				
4	Дискриминант			
5	X ₁			
6	X ₂			

Четвертый шаг. Теперь найдем первый корень, при этом нужно учесть тот факт, что если дискриминант меньше нуля, то решения у уравнения не существует. Поэтому в ячейке «B5» пишем формулу =ЕСЛИ(B4 < 0,5)/2a.



Пятый шаг. Чтобы убрать ошибку #ЗНАЧ!, заключим формулу из четвертого шага в функцию ЕСЛИОШИБКА и напишем формулу: =ЕСЛИОШИБКА(ЕСЛИ(B4 < 2*x+1=0.

	A	B	C	D
1	a	b	c	
2	1	2	1	
3				
4	Дискриминант	0		
5	x ₁	-1		
6	x ₂	Второго корня нет		
7				

Квадратное уравнение. Excel

Для решения квадратного уравнения необходимо знать формулу и алгоритм нахождения квадратов уравнения

Шаг 1. Организация таблицы

	A	B	C	D	E	F	G
1							
2		$ax^2 + bx + c = 0$					
3		a	b	c			
4		-4	-5	-8			
5							
6		$-4x^2 - 5x - 8 = 0$					
7							
8							
9							
10							

На первом этапе мы организуем таблицу для ввода данных коэффициентов a, b и c.

- a называют первым или старшим коэффициентом,
- b называют вторым или коэффициентом при x,
- c называют свободным членом.

Шаг 2. Проверка равенства Дискриминанта.

Для того, чтобы вычислить корни уравнения второй степени, необходимо определить значение Дискриминанта.

Формула дискриминанта

Вычисление корней уравнения второй степени происходит по формулам при условии величины Дискриминанта

Условие	$D > 0$	$D = 0$	$D = 4ac - b^2$	$x_1 = x_2 = -b / (2a)$
---------	---------	---------	-----------------	-------------------------

сцепить X fx `=ЕСЛИ(C4*C4-4*B4*D4>0;">";ЕСЛИ(C4*C4-4*B4*D4=0;"=";"<"))`

	A	B	C	D	E	F	G	H	I	J
1										
2		$ax^2 + bx + c = 0$					$D = b^2 - 4ac$			
3		a	b	c	<code>=ЕСЛИ(C4*C4-4*B4*D4>0;">";ЕСЛИ(C4*C4-4*B4*D4=0;"=";"<"))</code>					
4		-4	5	9						
5										
6		$-4x^2 + 5x + 9 = 0$								
7										
8										
9										
10										

Шаг 3. Вычисляем корни уравнения.

После определения значения Дискриминанта используем выше приведенные формулы для нахождения корней.

СЦЕПИТЬ															
=ЕСЛИ(G3=">";(-C4-КОРЕНЬ(C4^2-4*B4*D4))/(2*B4);ЕСЛИ(G3="=";-C4/2*B4;"Нет корня"))															
1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
2															
3															
4															
5															
6															
7															
8															
9															

Находим второй корень. Формула будет отличаться только в одном знаке.

СЦЕПИТЬ															
=ЕСЛИ(G3=">";(-C4+КОРЕНЬ(C4^2-4*B4*D4))/(2*B4);ЕСЛИ(G3="=";-C4/2*B4;"Нет корня"))															
1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
2															
3															
4															
5															
6															
7															
8															
9															

Итог: с помощью Excel можем создать единожды таблицу и формулы для решения квадратного уравнения (уравнения второй степени) и быстро их решать.

Чтобы решать любое квадратное уравнение в программе эксель, необходимо сначала подготовить универсальную форму, а потом подставлять нужные значения и получать решения. И давайте рассмотрим инструкцию, как это сделать.

Первый шаг. Квадратное уравнение представляется собой следующие уравнение: $a \cdot x^2 + b \cdot x + c = 0$. Поэтому создадим форму, чтобы можно было вводить коэффициенты: a, b, c. А также формы в которых будет выводиться дискриминант.

	A	B	C	D
1	a	b	c	
2				
3				
4	Дискриминант			
5	X ₁			
6	X ₂			
7				

Второй шаг. Теперь нужно прописать формулы, которые будут решать квадратное уравнение. Начнем с дискриминант, он по правилам математики равен $b^2 - 4 * a * c$. Поэтому в ячейке «B4» пишем формулу: `=СТЕПЕНЬ(B2;2)-4*A2*C2`, где b^2 – это `СТЕПЕНЬ(B2;2)`, а – это `A2`, c – это `C2`.

	A	B	C	D
1	a	b	c	
2				
3				
4	Дискриминант	0		
5	X ₁			
6	X ₂			

Третий шаг. Чтобы, когда поля были пустые у коэффициентов a, b, c, дискриминант не считался, добавил проверку на условия и перепишем

формулу в ячейке «B4» на =ЕСЛИ(A2+B2+C2=0;"";СТЕПЕНЬ(B2;2)-4*A2*C2). Т.е. проверяем, что если поля пустые, то выходи пустота.

	A	B	C
1	a	b	c
2			
3			
4	Дискриминант		
5	X ₁		
6	X ₂		

Четвертый шаг. Теперь найдем первый корень, при этом нужно учесть тот факт, что если дискриминант меньше нуля, то решения у уравнения не существует. Поэтому в ячейке «B5» пишем формулу =ЕСЛИ(B4<0;"Решение не существует";(-B2+СТЕПЕНЬ(B4;0,5))/(2*A2)), где B4<0 проверяем дискриминант меньше нуля, если меньше, то выводится надпись «Решение не существует», а если больше или равен нулю, то считается первый корень по формуле $(-b^2+D^{0,5})/2a$.

	A	B	C	D
1	a	b	c	
2				
3				
4	Дискриминант			
5	X ₁	#ЗНАЧ!		
6	X ₂			

Пятый шаг. Чтобы убрать ошибку #ЗНАЧ!, заключим формулу из четвертого шага в функцию ЕСЛИОШИБКА и напишем формулу: =ЕСЛИОШИБКА(ЕСЛИ(B4<0;"Решение не существует";(-B2+СТЕПЕНЬ(B4;0,5))/(2*A2));"").

	A	B	C	D	E
1	a	b	c		
2					
3					
4	Дискриминант				
5	X ₁				
6	X ₂				

Шестой шаг. Теперь посчитаем второй корень, с учетом того, что если дискриминант равен нулю, то корень один, а если меньше нуля, то решение не существует, также добавим функцию ЕСЛИОШИБКА и напишем формулу в ячейке «B6»: =ЕСЛИОШИБКА(ЕСЛИ(B4<0;"Решение не

существует";ЕСЛИ(В4=0;"Второго корня нет";(-В2-СТЕПЕНЬ(В4;0,5))/(2*А2));""))

	A	B	C	D	E	F	G
1	a	b	c				
2							
3							
4	Дискриминант						
5	X ₁						
6	X ₂						
7							

Седьмой шаг. Можно проверить работу уравнения, решив уравнение $x^2+2*x+1=0$.

	A	B	C	D
1	a	b	c	
2	1	2	1	
3				
4	Дискриминант	0		
5	X ₁	-1		
6	X ₂	Второго корня нет		
7				

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КЛИНИЧЕСКАЯ ЭФФЕКТИВНОСТЬ ЛАЗЕРНОЙ ТЕРАПИИ У ЖЕНЩИН ЭКССУДАТИВНОЙ ФОРМЫ ПСОРИАЗА

Аннотация. Проблема эксудативной формы псориаза приобретает все большее значение в современной медицине. Рост заболеваемости в последнее десятилетие. Хроническое, с частыми рецидивами, течение, недостаточная эффективность существующих методов лечения и профилактики сегодня ставят это заболевания в ряд наиболее актуальных проблем медицины. Важную роль в регуляции иммунобиологических и аллергических процессов играют нейроэндокринные механизмы, в том числе и гипофизарно - гонадная система, посредством которой реализуются многие защитно-приспособительные механизмы в условиях действия на организм различных аллергенов.

Ключевые слова: Экссудативная форма псориаза, лазерная терапия, лютеинизирующий гормон, фолликулостимулирующий гормон, эстрадиол.

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CLINICAL EFFECTIVENESS OF LASER THERAPY IN WOMEN WITH EXUDATIVE FORM OF PSORIASIS

Annotation. The problem of the exudative form of psoriasis is becoming increasingly important in modern medicine. Increasing incidence in the last decade. Chronic course with frequent relapses, insufficient effectiveness of existing methods of treatment and prevention today place this disease among the most pressing problems of medicine. An important role in the regulation of immunobiological and allergic processes is played by neuroendocrine mechanisms, including the pituitary-gonadal system, through which many protective and adaptive mechanisms are realized under the influence of various allergens on the body.

Keyword: Exudativa form psoriasis, laser therapy, luteinizing hormone, follicle – stimulating hormone, estradiolum.

Введение

Проблема эксудативной формы псориаза приобретает все большее значение в современной медицине. Рост заболеваемости в последнее десятилетие. Хроническое, с частыми рецидивами, течение, недостаточная эффективность существующих методов лечения и профилактики сегодня ставят это заболевание в ряд наиболее актуальных проблем медицины. В связи с этим понятен большой интерес, который проявляется к не медикаментозным методам терапии [1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 16, 18]. Одним из таких методов лечения является – Лазерная терапия (ЛТ).

Важную роль в регуляции иммунобиологических и аллергических процессов играют нейроэндокринные механизмы, в том числе и гипофизарно - гонадная система, посредством которой реализуются многие защитно-приспособительные механизмы в условиях действия на организм различных аллергенов. В современной литературе практически отсутствуют сведения о состоянии репродуктивной эндокринной системы при эксудативной форме псориаза у женщин, хотя связь заболевания с функциональным состоянием желез внутренней секреции не вызывает сомнений [9, 10]. Эта связь подтверждается как зависимостью течения заболевания от функционального состояния гипофизарно-яичниковой системы (пубертатный возраст, менструации, беременность, роды и пр.).

Учитывая недостаточную эффективность многих современных методов лечения эксудативной формы псориаза, актуальным является изыскание новых, патогенетически направленные методы терапии этого

заболевания. Лазерная терапия, в основе лечебного действия которой лежат нейрорефлекторные механизмы, оказывает нормализующее влияние на центральную нервную систему и её вегетативное звено, на аллергические и иммунологические процессы [14, 17], однако работ об использовании этого метода у больных экссудативной формы псориаза мало.

Цель исследования - является изучение функционального состояния гипофизарно-яичниковой системы на фоне лазерной терапии у больных экссудативной формы псориаза.

Материалы и методы исследования. В разработку было включено 39 больных экссудативной формы псориаза, в возрасте от 20 до 50 лет. О функциональном состоянии гипофизарно-яичниковой системы судили по содержанию в плазме крови в обеих фазах менструального цикла гипофизарных гормонов - лютеинизирующий гормон (ЛГ), фолликулостимулирующий гормон (ФСГ), а также половых стероидных гормонов эстрадиола.

Определение содержания гонадотропных и женских половых стероидных гормонов – ФСГ, ЛГ и эстрадиола в плазме крови проводили иммунологическим методом количественного определения гормонов - одним из наиболее чувствительных, специфических и универсальных. Чувствительность этого метода позволяет определить содержание гонадотропинов до 0,2 нг/мл. Этот метод предложен в 1960 г. R.S.Valow, S.A.Berson.

Задачей лазерной терапии при лечении вульгарной формы псориаза реализуется следующее направление: уменьшение возбудимости чувствительных рецепторов в зоне поражения, активация регенераторных и противовоспалительных процессов, устранение явлений эндогенной интоксикации, восстановление иммунной активности.

В план лечебных мероприятий входит воздействие непосредственно на область поражения, облучение зон сегментарной иннервации в соответствии с локализацией патологического очага. Зоны сегментарной иннервации отдельных частей тела облучение области печени, легких в проекции полей Кренига (область верхушек легких). Режимы облучения лечебных зон при лечении вульгарной формы псориаза проекционных зон почек. Процедуры лазерной терапии проводили аппаратом - «МИЛТА – Ф - 01» (рис. 1).



Рис. № 1.

Проведение процедуры лазерной терапии больным экссудативной формы псориаза представлены в таблице № 1.

Проведение процедуры лазерной терапии больным экссудативной формы псориаза

Таблица № 1.

Зона облучения	Частота, Гц	Мощность светодиодов, Вт	Экспозиция, мин.
Проекция почек	600	30-50	2-4
Позвоночник, область сегментарной иннервации	150	30-50	2-4
Верхушки легких	150	30-50	2-4

Параметры воздействия: частота 150 - 600 Гц, мощность светодиодов 30-5

0 Вт, экспозиция на каждую зону – от 2 до 4 минут минуты, на курс – 10 - 15 процедур (одна процедура в день в первой половине дня).

Дополнительно больные экссудативной формы псориаза получали: витаминотерапию группы «В» (В-1, В-6, В-12), антигистаминные и мочегонные препараты, наружно – крем DIS - KREM. Мазь наносилась на пораженную поверхность 2 раз в день на протяжении всего периода проведения ЛТ.

Результаты их обсуждения.

В процессе комплексного лечения с использованием лазерной терапии уже после 6 - 8 процедур отмечалось купирование прогрессирования процесса, рассасывание папулезных элементов, а также отмечалось уменьшение зуда кожи. После 10-15 процедуры комплексного лечения с использованием лазерной терапии отмечалось полное купирование прогрессирования процесса, регресс папулезных высыпаний, практически прекратился зуд кожи.

В период настоящего обследования все больные экссудативной формы псориаза в динамике находились под наблюдением врача -

гинеколога. Несмотря на выявленную зависимость течения экссудативной формы псориаза от функционального состояния репродуктивной системы лишь у 12 (28,5%) женщин при клиническом обследовании была обнаружена дисфункция яичников.

Для более объективной оценки функционального состояния гипофизарно-яичниковой системы при экссудативной форме псориаза, мы сочли необходимым отдельно проанализировать результаты содержания в крови гонадотропных и половых гормонов у 12 больных с клиническими проявлениями дисфункции яичников. В таблице 1 - 3 приведены результаты определения в плазме крови в обеих фазах менструального цикла ЛГ, ФСГ и эстрадиола у 30 женщин, страдающих экссудативной формы псориаза и у 12 больных экссудативной формы псориаза с клиническими проявлениями дисфункции яичников в зависимости от периода заболевания.

1. Лютеинизирующий гормон гипофиза (ЛГ). У всех больных в период обострения заболевания концентрация лютеинизирующего гормона гипофиза в плазме крови была достоверно снижена как в фолликулиновой ($P < 0,05$), так и в лютеиновой ($P < 0,05$) фазе менструального цикла (таблица № 2). Степень снижения уровня ЛГ в плазме крови в обеих фазах менструального цикла у всех больных экссудативной формы псориаза была примерно одинаковой.

Таблица № 2.

**Концентрация лютеинизирующего гормона гипофиза (нМЕ/мл)
в плазме крови у больных экссудативной формы псориаза ($M \pm m$)**

Больные	Фаза менструального цикла			
	Фолликулиновая		Лютеиновая	
	обострение	ремиссия	обострение	ремиссия
Экссудативная форма псориаза	$5,8 \pm 0,60$ $P < 0,001$	$9,9 \pm 0,43$ $P < 0,001$	$5,6 \pm 0,36$ $P < 0,01$	$8,2 \pm 0,61$ $P < 0,01$
Норма	$16,0 \pm 0,22$		$12,8 \pm 0,48$	

Примечание: P- достоверность различий между показателями периода обострения и ремиссии вульгарной формы псориаза.

2. Фолликулостимулирующий гормон гипофиза (ФСГ).

Концентрация ФСГ в фолликулиновой фазе менструального цикла при обострении экссудативной формы псориаза у всех больных достоверно не отличалось от нормы. В период ремиссии наблюдалось увеличение концентрации ФСГ ($P < 0,05$) по отношению к периоду обострения, однако его количество не выходило за пределы нормальных значений. В лютеиновой фазе уровень ФСГ в период обострения экссудативной формы псориаза достоверно превышал норму, а в период ремиссии его концентрация ещё более возрастала ($P < 0,001$). При этом существенной разницы в содержании ФСГ у больных обнаружено не было (таблица № 3).

Таблица № 3.

**Концентрация фолликулостимулирующего гормона (нМЕ/мл)
в плазме крови у больных экссудативной формы псориаза (M±m)**

Больные	Фаза менструального цикла			
	Фолликулиновая		Лютеиновая	
	Обострение	Ремиссия	Обострение	ремиссия
Экссудативная форма псориаза	18,0±0,70 P<0,05	21,8±0,69 P<0,05	11,3±0,71 P>0,05	13,07±0,97 P>0,05
Норма	14,3±0,29		7,5±0,63	

Примечание: P- достоверность различий между показателями периода обострения и ремиссии вульгарной формы псориаза.

3. Эстрадиол. Содержание эстрадиола в плазме крови у всех больных экссудативной формы псориаза была значительно снижена в обеих фазах менструального цикла. Наибольшая степень его снижения отмечалось при обострении заболевания. При этом наименьшее содержание эстрадиола - в фолликулиновой и лютеиновой фазах - наблюдалось у женщин с сопутствующей дисфункцией яичников. В период ремиссии заболевания у всех больных недостоверно возростала концентрация эстрадиола по сравнению с данными в период обострения (таблица № 4).

Таблица № 4.

**Концентрация эстрадиола (нмоль/л) в плазме крови у больных
экссудативной формы псориаза (M±m)**

Больные	Фаза менструального цикла			
	Фолликуловая		Лютеиновая	
	обострение	ремиссия	обострение	Ремиссия
Экссудативной форма псориаза	6,4±0,09 P<0,05	8,4±0,23 P<0,05	9,2±0,54 P<0,05	7,6±0,67 P<0,05
Норма	0,32±0,001		0.62±0,02	

Примечание: P- достоверность различий между показателями периода обострения и ремиссии экссудативной формы псориаза.

Вывод. В результате проведенных исследований было выявлено, что у всех больных в период обострения экссудативной формы псориаза фолликулиновая фаза менструального цикла характеризуется низким содержанием в крови ЛГ, эстрадиола, лютеиновая - низкой концентрацией ЛГ. В период ремиссии заболевания у всех больных в фолликулиновой фазе менструального цикла сохранялась выраженная гипострогения.

Полученные данные свидетельствуют о наличии у больных экссудативной формы псориаза дисфункции гипофизарно-яичниковой системы, проявляющиеся недостаточностью фолликулярного аппарата яичников, а также лютеиновой их недостаточностью. В обеих фазах

менструального цикла отмечена недостаточность регулярных механизмах стероидогенеза.

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МЕТОДЫ ИСПОЛЬЗОВАНИЯ СОВРЕМЕННЫХ ИКТ ПРИ ВЫЧИСЛЕНИИ ФУНКЦИИ ПАРАБОЛЫ И ГИПЕРБОЛЫ

Аннотация: в статье рассмотрены методы использования современных ИКТ при вычислении функции параболы и гиперболы.

Ключевые слова: методы, использование, современные, ИКТ, вычисление, функция, парабола, гипербола.

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METHODS OF USING MODERN ICT IN CALCULATING PARABOLA AND HYPERBOLA FUNCTIONS

Abstract: the article discusses methods of using modern ICT in calculating the function of a parabola and a hyperbola.

Key words: methods, use, modern, ICT, calculation, function, parabola, hyperbola.

При разумном использовании трудно переоценить значимость ИКТ для образовательно – воспитательного процесса. ИКТ уже давно стало реальностью современного урока. Не могу не согласиться с теми, кто скажет что создание и использование мультимедийных презентаций – это уже вчерашний день. Стремительно развивающаяся наука в области информатизации уже предлагает учителю использовать на уроке возможности интерактивной доски, просматривать видео-уроки, проводить и демонстрировать опыты в виртуальных лабораториях, использовать интернет-ресурсы на уроках он-лайн. Но увы, материально –техническое оснащение образовательных организаций может резко отличаться даже в пределах одного города. Тем не менее, это не должно стать поводом для «застоя» в саморазвитии. Можно и нужно находить новый потенциал в давно известных вещах. Поэтому речь сегодня пойдет обо всем нам уже давно известной мультимедийной презентации

Опыт показывает, что понятие функции для восприятия учащимися является достаточно сложным, т.к. требует достижения высокой степени абстракции. Именно поэтому при изучении понятия функции на первый план выступает наглядность как один из самых известных и интуитивно понятных принципов обучения.

В данной связи было бы неправильным при обучении математики не воспользоваться теми возможностями, которые предоставляет современное общество и научно-технический прогресс. Речь идет об электронных средствах обучения, эффективность применения которых трудно переоценить. Применение указанных средств – отнюдь не дань моде. Они позволяют выйти на новый уровень обучения, открывают ранее недоступные возможности, как для учителя, так и для учащегося.

В качестве примера хочется привести использование на уроках алгебры графической программы **AdvancedGrapher**.

Эта программа предназначена для построения и обработки графиков. При очень малом размере программа имеет огромное количество функций и возможностей. И самое главное: программа очень проста в использовании. Ею очень быстро может овладеть не только учитель, но и любой школьник в самый короткий срок. Программа доступна для скачивания в интернете бесплатно, имеет русскоязычный интерфейс.

Чаще всего эта программа используется именно при изучении тем функционально-графической линии курса алгебры. С помощью **AdvancedGrapher** у учителя появляется возможность ставить перед учащимися задания различного плана:

- задания, направленные на обучение навыкам анализа изображения, его интерпретации, сравнения, обобщения;
- задания, направленные на формирование новых зрительных образов и их связей;

- задания, направленные на развитие умения перекодировать зрительную информацию в вербальную, символьную и обратно;

- задания, направленные на развитие навыков оперирования наглядными образами (составление задач, использование зрительных ассоциаций, решение исследовательских задач).

Приведем несколько примеров использования программы **AdvancedGrapher** на уроках математики.

Простейшие преобразования графиков функций

В 8 классе на физико-математическом отделении учащимися изучается тема «Простейшие преобразования графиков (параллельные переносы вдоль координатных осей)». Аналогичный урок проводится в 9 общеобразовательном классе: «Графики функций $y = ax^2 + n$ и $y = a(x - m)^2$ ».

Воспитательная цель этих уроков – развитие у учащихся визуального мышления, навыков аналогии и обобщения. Дидактическая цель – создание устойчивых зрительных образов и ассоциаций, позволяющих учащимся в дальнейшем решать задачи без использования компьютера.

Занятие проводится в компьютерном классе. Для предварительного знакомства с программой **AdvancedGrapher** учащимся достаточно 10-15 минут. Условно занятие можно разделить на две части. Первая часть – работа за компьютером. При помощи большого количества построенных графиков учащиеся сопоставляют их расположение, проводят аналогии и делают обобщение. Вторая часть урока – за партами. Учащиеся используют полученные зрительные ассоциации и обобщения при решении заданий различного уровня сложности. В качестве примера можно предложить следующую систему заданий для учащихся:

Задание 1.

1.1. Постройте с помощью программы **AdvancedGrapher** графики функций (в одной системе координат различными цветами):

а) $y = 2x^2$; б) $y = 2x^2 + 3$; в) $y = 2x^2 - 1$

1.2. Опишите взаимное расположение графиков функций:

- в заданиях а) и б);

- в заданиях а) и в). Почему они так расположены?

1.3. Задайте формулой функцию, график которой может быть получен сдвигом графика функции $y = 2x^2$

- вдоль оси ординат на 5 единичных отрезков вверх;

- вдоль оси ординат на 1 единичный отрезок вниз.

1.4. Проверьте свой ответ, построив графики этих функций.

1.5. Сделайте вывод: как построить график функции вида $y = ax^2 + n$?

Задание 2.

2.1. Постройте с помощью программы **AdvancedGrapher** графики функций (в одной системе координат различными цветами):

а) $y = -3x^2$; б) $y = -3(x - 2)^2$; в) $y = -3(x + 4)^2$

2.2. Опишите взаимное расположение графиков функций:

- в заданиях а) и б);
- в заданиях а) и в). Почему они так расположены?

2.3. Задайте формулой функцию, график которой может быть получен сдвигом графика функции $y = -3x^2$

- вдоль оси абсцисс на 5 единичных отрезков вправо;
- вдоль оси абсцисс на 1 единичный отрезок влево.

2.4. Проверьте свой ответ, построив графики этих функций.

2.5. Сделайте вывод: как построить график функции вида $y = a(x - m)^2$

?

Задание 3.

3.1. Постройте с помощью программы **AdvancedGrapher** графики функций (в одной системе координат различными цветами):

а) $y = 0.5x^2$; б) $y = 0.5(x + 2)^2 - 1$;

3.2. Опишите взаимное расположение графиков функций.

3.3. Задайте формулой функцию, график которой может быть получен сдвигом графика функции $y = 3x^2$ на 6 единиц вправо вдоль оси абсцисс и на 2 единицы вверх вдоль оси ординат.

3.4. Проверьте свой ответ, построив графики этих функций.

3.5. Сделайте вывод: как построить график функции вида $y = a(x - m)^2 + n$?

Проектная деятельность учащихся

Эстетический потенциал школьной математики в большой мере проявляется в так называемых заданиях на координатной плоскости, практикуемых главным образом в шестых классах. Такие задания чаще всего формулируются так: «Построй точки по заданным координатам, соедини их отрезками подходящим образом, и ты получишь фигуру, изображающую...», или так: «На координатной плоскости дано изображение... Найди координаты узловых точек изображенной фигуры». Подобные задания всегда вызывают у учащихся огромный интерес и неподдельный восторг при успешном выполнении поставленной задачи. Подобную работу можно продолжить и перенести в старшие классы при изучении тем функционально-графической линии курса алгебры.

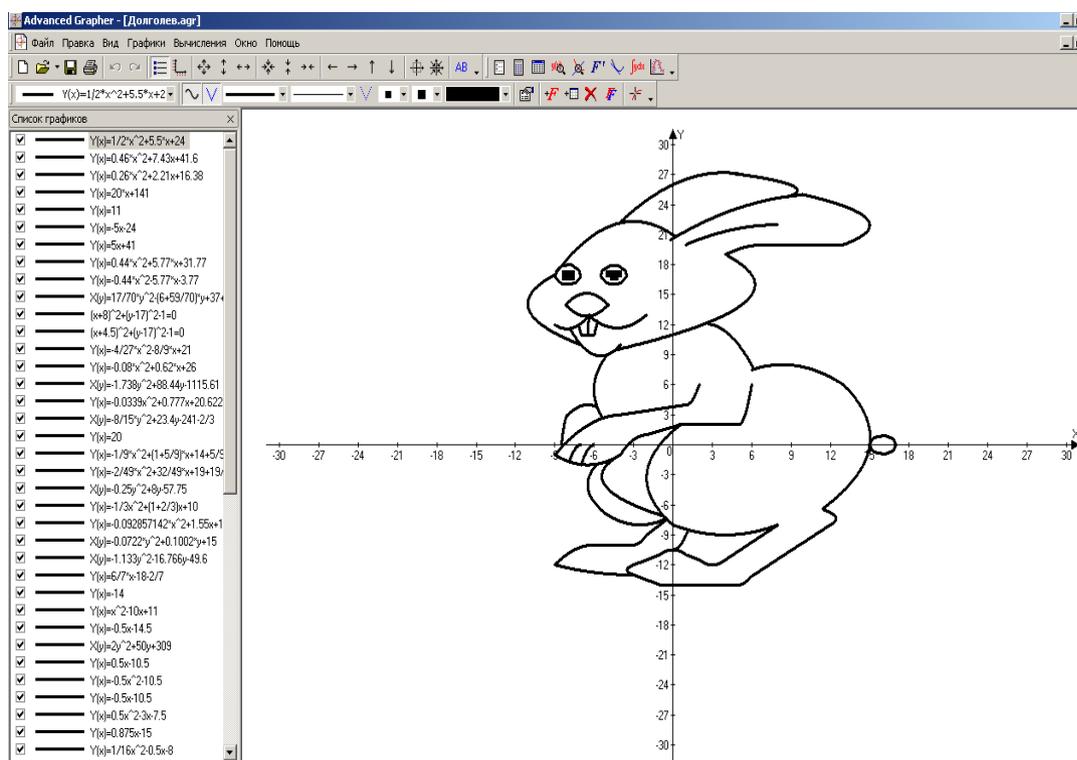
На уроке обобщения и систематизации знаний учащимся предлагается построить в одной системе координат графики функций. Обязательно озвучивается фамилия и имя автора задания (обычно это ученик 9 класса прошлого года обучения). Если задание выполнено верно, учащийся получает тот или иной законченный рисунок. Работа вызывает у подавляющего большинства учащихся огромный интерес и желание самостоятельно создать свой рисунок с помощью графиков функции (уравнений). В ходе выполнения такой работы учащиеся неизбежно углубляют свои знания по теме, оттачивают умения перекодировать

зрительную информацию в вербальную, символьную и обратно, изучают свойства функций, обращаются к учебникам старших классов, энциклопедиям, справочникам и пр. И, нужно сказать, создают трудоемкие и изумительные по красоте работы.

Вашему вниманию предлагается одна из творческих работ учащихся 9 класса физико-математического отделения ТОТЛ:

Долголев Филипп (9-в класс, 2010-2011 уч. г.)

1) $y = 0.5x^2 + 5.5x + 24$	где $x = [-7.84; -4]$	33) $y = 0.5x^2 - 10.5$	где $x = [1; 2]$
2) $y = 0.46x^2 + 7.43x + 41.6$	где $x = [-9; -6.35]$	34) $y = -0.5x^2 - 3x - 7.5$	где $x = [2; 4]$
3) $y = 0.26x^2 + 2.21x + 16.38$	где $x = [-6.35; -2]$	35) $y = 0.875x^2 - 15$	где $x = [4; 8]$
4) $y = 20x - 141$	где $x = [-6.5; -6.4]$	36) $y = \frac{1}{16}x^2 - 0.5x - 8$	где $x = [0; 8]$
5) $y = 11$	где $x = [-7; -6]$	37) $x = 0.091269y^2 + 0.6051587y - 1$	где $y = [-8; 2]$
6) $y = -5x - 24$	где $x = [-7; 2; -7]$	38) $y = 2$	где $x = [0; 5]$
7) $y = 5x + 41$	где $x = [-6; -5.73]$	39) $y = 4x^2 - 40x + 102$	где $x = [5; 6]$
8) $y = 0.44x^2 + 5.77x + 31.77$	где $x = [-8; 2; -4.9]$	40) $y = 2x^2 - 4x + 6$	где $x = [1; 2]$
9) $y = -0.44x^2 - 5.77x - 3.77$	где $x = [-8; 2; -4.9]$	41) $y = 0.2x + 3.8$	где $x = [-4; 1]$
10) $x = -\frac{27}{70}y^2 - 6\frac{22}{70}y + 37\frac{2}{7}$	где $y = [10; 17.03]$	42) $y = -0.15x^2 - 1.15x + 0.8$	где $x = [-9; -4]$
11) $(x+8)^2 + (y-17)^2 - 1 = 0$	где $x = [-4; 5]$	43) $y = 0.16x^2 + 2.08x + 4.76$	где $x = [-9; -4]$
12) $(x+4.5)^2 + (y-17)^2 - 1 = 0$	где $y = [24.8; 27.1]$	44) $y = 0.4x - 1.8$	где $x = [-2; 0.5]$
13) $y = -0.08x^2 + 0.62x + 26$	где $x = [-24; 10.1]$	45) $y = -0.5x^2 - 2x - 1$	где $y = [-4; -2]$
14) $x = -1.738y^2 + 88.44y - 1115.61$	где $y = [20; 25.05]$	46) $x = \frac{1}{12}y^2 - \frac{11}{12}y - 3.5$	где $x = [2; 8; 9]$
15) $y = -0.0339x^2 + 0.62x + 20.622$	где $x = [7; 13]$	47) $y = -0.4444x^2 - 5.7777x - 14.7777$	где $x = [-8; -5.8]$
16) $x = -\frac{8}{15}y^2 + 23.4y - 241\frac{2}{3}$	где $x = [4; 7]$	48) $y = -12x^2 - 192x - 765$	где $x = [-8; 5; -8]$
17) $y = 20$	где $x = [1; 8]$	49) $x = 0.298989y^2 + 1.88686y - 2.4424$	где $y = [-7; 1; -1.5]$
18) $y = -\frac{5}{9}x^2 + 1\frac{5}{9}x + 14\frac{5}{9}$	где $y = [9; 5; 18; 92]$	50) $y = 0.16x^2 + 0.8x - 7$	где $y = [-5; -0.5]$
19) $y = -\frac{1}{49}x^2 + \frac{23}{49}x + 19\frac{12}{49}$	где $x = [2; 7; 6; 2]$	51) $x = 0.1666y^2 + 1.333y - 3.8333$	где $y = [-7; -2]$
20) $x = -\frac{1}{4}y^2 + 8y - 57\frac{3}{4}$	где $x = [6; 13]$	52) $(x+8)^2 + (y-17)^2 - 0.3 < 0$	где $x = [-2; -0.5]$
21) $y = -\frac{1}{2}x^2 + 1\frac{1}{2}x + 10$	где $y = [-6; 35; 6]$	53) $(x+4.5)^2 + (y-17)^2 - 0.3 < 0$	где $x = [-3; -2]$
22) $y = -0.092857142x^2 + 1.55x + 1.542857$	где $y = [-8; -6.45]$	54) $y = x - 7$	где $x = [-9; -4]$
23) $y = -0.072y^2 + 0.1002y + 15$	где $x = [6; 12]$	55) $y = x^2 + 6x - 1$	где $x = [-6; -3]$
24) $x = -1.133y^2 - 16.766y - 49.6$	где $x = [-1; 5]$	57) $y = -\frac{3}{2}x^2 - 2\frac{3}{2}x - 18$	где $x = [-9; -6]$
25) $y = \frac{2}{3}x - 18\frac{2}{3}$	где $x = [-1; 5]$	58) $y = \frac{1}{2}x^2 + \frac{1}{2}x - 12.75$	где $x = [-9; -3]$
26) $y = -14$	где $x = [5; 5; 9]$	59) $y = \frac{1}{5}5x^2 - 10.5$	где $x = [0; 1; 15]$
27) $y = x^2 - 10x + 11$	где $x = [-3; -1]$	60) $y = -2x^2 - 28x - 98$	где $x = [-7; 9; -7]$
28) $y = -0.5x - 14.5$	где $x = [-13; -12]$	61) $y = -2x^2 - 24x - 72$	где $x = [-7; -6]$
29) $y = -0.5x - 14.5$	где $x = [-3; -1]$	62) $(x-16)^2 + y^2 - 1 = 0$	где $x = [-9; 0; 2]$
30) $x = 2y^2 + 50y + 309$	где $x = [-3; -1]$	63) $y = -\frac{1}{25}x^2 - \frac{8}{5}x + 21$	
31) $y = 0.5x - 10.5$	где $x = [-1; 1]$		
32) $y = -0.5x^2 - 10.5$			



Производная и ее применение

Экзаменационные работы итоговой аттестации учащихся 11 классов содержат большое количество заданий, в которых требуется по графику

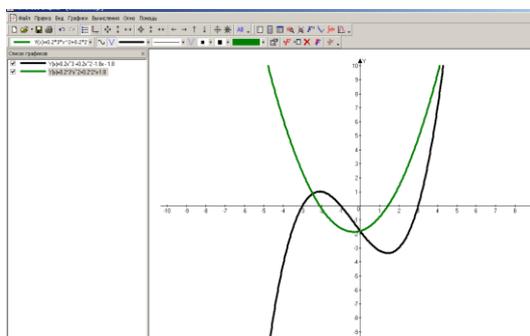
производной $y' = f(x)$ исследовать на монотонность функцию $y = f(x)$, указать ее точки экстремума, а также по графику функции $y = f(x)$ определить знак производной $y' = f(x)$.

С помощью программы **AdvancedGrapher** можно с учащимися отработать упражнения подобного рода, так как программа позволяет, зная график функции, построить график ее производной. Учитель может сам задать функции, а может предложить учащимся провести исследовательскую работу, по выполнению которой учащиеся самостоятельно установят связи между графиком функции и графиком производной. Например, можно предложить учащимся следующее упражнение:

- 1) Постройте график функции $y = 0,2x^3 + 0,2x^2 - 1,8x - 1,8$
- 2) Постройте график производной функции $y = 0,2x^3 + 0,2x^2 - 1,8x - 1,8$

По графику:

- 3) Определите точки экстремума функции
- 4) Определите нули производной
- 5) Определите промежутки возрастания (убывания) функции
- 6) Определите промежутки знакопостоянства производной
- 7) Проверь себя с помощью кнопки «Исследование функции»
- 8) Существует ли связь между графиком функции и графиком ее производной?



Предложенные примеры демонстрируют, как применение **AdvancedGrapher** позволяет давать иллюстрацию важнейших понятий, причем делать это наглядно и быстро. Учебный материал, поддержанный компьютерной программой, позволяет сконцентрировать внимание учащихся, повысить их интерес к изучаемой теме, согласовать темп процесса обучения с индивидуально-психическими особенностями каждого отдельного школьника.

При этом учитель имеет уникальную возможность интенсифицировать процесс обучения, сделать его более наглядным и динамичным.

Мультимедийные презентации можно использовать для всех типов уроков и на любом этапе урока. Бесспорно, учителю презентации значительно облегчают работу. Ведь так легко все задания выложить на слайды, не надо искать (рисовать, писать) и где-то хранить наглядность, карточки, таблицы, кассеты, рассчитывать место на доске, чтобы уместить задания и при этом оставить место для письменной работы учащихся. Весь материал можно поместить на маленьком электронном носителе. При этом

можно привлечь внимание детей спецэффектами, показать то, что невозможно принести в класс, организовать интерактивную игру. Но, к сожалению, часто презентации полностью отдается роль учителя в уроке. На экран выносятся даже то, что можно сказать и так – стихи для организационного момента, слова приветствия и прощания. Чтобы презентация, как учебный материал, действительно привлекала внимания и возбуждала интерес к предмету, ее необходимо четко продумать. Цели, задачи, результат ее использования, этапы, изобразительные средства, оформление, звуковой ряд, интерактивность – все должно быть направлено на решение задач урока, а не на развлечение детей. Презентация нужна тогда, когда только с ее помощью ребенок может увидеть то, чего не может увидеть и ощутить лично, на практике.

На мой взгляд, наиболее эффективное использование презентаций возможно на уроках при изучении тем, которые учащиеся всегда воспринимают с большим трудом – функции; построении графиков функций.

Функциональная линия – это одна из ведущих линий в школьной математике, знакомство с ней начинается в 5 классе, а заканчивается в 11 классе. В основной школе происходит изучение таких понятий, как функция, область определения функции, способы задания функции, график функции, возрастание и убывание функции, сохранение знака на промежутке, наибольшее и наименьшее значение функции, чётная и нечётная функции.

В результате изучения курса математики учащиеся должны понимать, что функции – это математическая модель, позволяющая описывать и изучать разнообразные зависимости между реальными величинами. Что конкретные темы функций (прямая и обратная пропорциональности, линейная, квадратная функции) описывают большое разнообразие реальных зависимостей.

Понятие функции – это довольно сложное понятие. Поэтому успешно овладеть им учащиеся могут только в результате длительного накопления конкретных представлений и фактов. Здесь как раз на помощь учителю приходит использование мультимедийных презентаций, как одно из средств обучения, возможно примитивное, но вместе с тем обладающий широким диапазоном выразительных, художественных и технических возможностей.

Изучение функций начинается с 7 класса. Ребята знакомятся с линейной функцией, ее графиком и свойствами. Для иллюстрирования зависимости расположения графика линейной функции на координатной плоскости от величин K и B нам бы пришлось потратить неоправданно много времени урока, в то время как с помощью презентации, можно это сделать за 10 -15 минут.

Основная тема 8 класса – квадратичная функция, моделирующая равноускоренные процессы. Преимуществом использования мультимедиа

презентаций на таких уроках является в первую очередь колоссальная экономия времени на уроке. Вслед за определением квадратичной функции и зависимости «степени крутизны» параболы от коэффициента K параболы, на слайдах появляются задания на распознавание квадратичной функции. Затем идет поэтапное построение графиков и исследование свойств функции. Такой способ подачи информации на уроке способствует лучшему пониманию и запоминанию учебного материала учащимися.

Все вышесказанные преимущества будут относиться и к построению и исследованию графиков всех других функций, изучаемых в школьном курсе.

На своем личном опыте я убедилась в целесообразности и эффективности использования мультимедийных презентаций при изучении темы «Построение графиков функций с помощью параллельного переноса»

Уделить время и внимание построению графиков кусочно-заданных функций очень важно, так как во многих случаях именно кусочные функции являются математическими моделями реальных ситуаций. Кроме этого задания на построение графиков кусочно – заданных функций часто встречаются на итоговых экзаменах, а отдельно не изучаются. Использование презентаций позволит сэкономить время на уроке и наглядно продемонстрировать специфику и алгоритм построения графиков таких функций.

За годы работы в нашей школе моими коллегами и мной накоплен большой объем дидактического материала для каждого класса в электронном виде по теме «Графики функций». Для каждой параллели классов подобраны устные упражнения, демонстрационный материал, самостоятельные и контрольные работы, подборка практических задач для подготовки учеников, материалы для внеурочной деятельности. Не буду лукавить, конечно же, большую часть нашего банка дидактических материалов по данной теме составляют материалы, взятые из сети Интернет. Использование в моей работе и в работе некоторых моих коллег проектной технологии дало возможность в последнее время пополнение дидактических материалов активно осуществлять за счет авторских работ наших учеников.

Так при изучении темы «Квадратичная функция», я предложила ребятам 8 классов разбиться на группы. Каждая группа получила индивидуальное задание (проект): создать мультимедийную презентацию построения графика некоторой функции.

Самые удачные проекты скоро пополнят нашу копилку «Графиков функций» и возможно в следующем учебном году будут доработаны и представлены на школьной научно – практической конференции.

Поскольку нам уже не интересно пользоваться материалами, предоставленными в сети Интернет и мы все больше склоняемся к созданию собственных мультимедийных презентаций, то совсем недавно (на

заседании нашего школьного методического объединения, в которое кроме учителей математики входят еще и учителя информатики) возникла идея о создании интегрированного предпрофильного курса «Функции. Построение графиков функций». Надеюсь, что наша идея будет воплощена в жизнь. Думаю, что к воплощению этой идеи обязательно будут причастны не только учителя, но и наши творческие ученики.

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РАЗДЕЛЕНИЕ УРОКОВ НА МОДУЛИ ПРИ ОРГАНИЗАЦИИ УЧЕБНЫХ ЗАНЯТИЙ

Аннотация. Освоение уроков путем разделения их на модули – эффективный способ обучения при организации учебных занятий. Этот метод разбивает большие и сложные уроки на более мелкие, более удобные для понимания части, помогая учащимся лучше понять и запомнить материал.

Ключевые слова: знания, учителя, студенты, педагогика, инновации, заинтересовать, логика, учебники.

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DIVIDING LESSONS INTO MODULES WHEN ORGANIZING CLASSES

Abstract. Mastering lessons by dividing them into modules is an effective way of teaching when organizing training sessions. This method breaks large, complex lessons into smaller, easier-to-understand parts, helping students better understand and remember the material.

Keyword: knowledge, Teachers, Students, pedagogical, innovation, Interest, logical, textbooks.

Организация уроков с использованием модулей позволяет обеспечить поэтапный подход к обучению, где каждый модуль представляет собой отдельный шаг в изучении определенной темы или задачи. Студенты проходят каждый модуль последовательно, постепенно повышая свои навыки и квалификацию.

Разделение уроков на модули также имеет свои преимущества для преподавателя. С его помощью можно легче планировать уроки, корректировать их для поэтапного обучения и обеспечивать структурированный курс обучения. Кроме того, модульная структура помогает студентам и преподавателям оценивать свой прогресс и определять, какие дальнейшие исследования или практика необходимы.

Модульная технология позволяет на высоком уровне удовлетворить государственные требования, создав возможность выбора организации занятий, форм и типов обучения. В этом случае студенты получают возможность работать самостоятельно по предлагаемым индивидуальным программам обучения в комфортном темпе. При разработке модуля очень важно, чтобы его содержимое было представлено в удобной и наглядной форме.

Обучение проектированию по модульным принципам

Нет	Шаги	Действия
1.	Определение проблемы урока.	Анализ темы урока, определение программных задач и целей.
2.	Формируем цели.	Определение общих целей. Определение индивидуальных целей
3.	Установка начальных условий и требований.	Установление базовых начальных минимальных уровней, необходимых для прохождения курса в программе.
4.	Структура и классификация содержания урока.	Отбирать, анализировать и систематизировать содержание урока, определяя темы и устанавливая логическую последовательность их изучения.
5.	Выбор стратегии самостоятельного обучения	Выбор целей и инструментов урока, создание базовой системы.
6.	Выбор инструментов и стратегий оценки урока.	Определение критериев оценки. Выбор инструментов оценки.

Основные понятия о модулях.

Модуль. Понятие, которое представляет собой структурные части, составляющие педагогическую технологию.

Большой модуль. Это отрасль науки, темы которой тесно связаны друг с другом.

Средний модуль. Темы в большом модуле.

Небольшой модуль. Раздел темы посвященный конкретному вопросу.

Модульное обучение. Это организация обучения на основе образовательных программ, организованных по модулям. Модуль охватывает содержание урока на трех уровнях: полном, сокращенном и углубленном. Программные материалы могут предоставляться одновременно во всех возможных кодах: картинках, тестах, символах и словах.

Эффективно использовать технологию разделения обучения на модули. Потому что при обучении путем разделения на модули можно будет преподавать тему обучения через полную, сокращенную и углубленную классификацию. Переход на модульное обучение направлен на обеспечение непрерывности обучения, индивидуализацию обучения, создание достаточных условий для самостоятельного усвоения учебного материала, достижения овладения предметом. Созданы условия для того, чтобы

студенты могли учиться в соответствии со своими способностями. На основе анализа рабочей учебной программы определяется группа предметов, то есть вся учебная программа рассматривается как совокупность отдельных макромодулей.

На первом этапе. Предметы учебной программы разделены на макромодули.

На втором этапе. Срок обучения будет сокращен.

На третьем этапе. Обеспечивается корреляция между учебными планами предметов, включенных в макромодуль.

На четвёртом этапе. Построен модуль Фэннинга.

На пятом этапе. Будут разработаны материалы для учебных и выставочных пособий модуля.

На шестом этапе. Технология обучения построена на основе принципов модульного обучения.

На седьмом этапе. График обучения составляется с учетом количества изучаемых предметов.

Модуль может включать 2-3 лекции, практические занятия и лабораторные работы. Для контроля знаний студентов по каждому модулю подготовлены тесты, задания для индивидуальной и самостоятельной работы, раздаточные материалы, список литературы, рабочая программа. Каждый модуль дополнен тестами. Если отмечена тема, рассматриваемая в текущем модуле, будет проверен входной контроль для следующего модуля. Студенты переходят от одного модуля к другому по мере освоения учебного материала. Практические и лабораторные занятия модуля организуются вместе с лекциями.

Этапы создания проекта и действия, которые необходимо выполнить. Разделение обучения на большие и средние модули по содержанию и размеру и постановка целей больших модулей.

1. Определение тем и целей средних модулей в рамках более крупного модуля.

2. Создание набора навыков в виде глаголов, которые будут сформированы в конце достижения целей.

3. Определение и определение времени достижения подмодулей среднего модуля.

4. Определите ключевые понятия и просмотрите вопросы в модулях.

5. Установление критериев оценки.

6. вида, типа и педагогических методов и приемов, используемых в среднем модуле.

7. информационных технологий, наглядных пособий и дидактических материалов, используемых в модуле, и определение областей их применения.

8. Напишите текст модуля, описывающий содержание среднего модуля и ход обучения.

Подготовка материалов по модулю. Тесты для контроля знаний учащихся, задания для самостоятельной работы, учебно-методические раздаточные материалы, список учебной и научной литературы, рабочий учебный план.

Преимущества модульной системы. Обеспечение непрерывности преподавания между дисциплинами, модулями внутри дисциплин, установление методически обоснованной совместимости типов занятий внутри каждого модуля и между ними, адаптируемости модульной структуры дисциплины, регулярного и эффективного контроля усвоения знаний обучающимися, в результате сжатия информации, ускорение обучения, от эффективного использования аудиторных часов и оптимизации структуры учебного времени, часов, отведенных на лекционные, практические занятия, индивидуальную и самостоятельную работу.

Выберите содержимое модульной системы критерии И. Комплексное изложение основных компонентов заданий; отбор более нужных, перспективных персонажей в образовании; обеспечить, чтобы учащиеся соответствовали своим способностям в зависимости от их возраста и интересов; соответствовать времени, отведенному на обучение, указанному в учебной программе; учет зарубежного и республиканского опыта формирования контента; обеспечение соблюдения материально-технического и методического обеспечения образовательных учреждений и т.д.

Таким образом, использование модульной структуры при организации учебных занятий помогает учиться более эффективно и осознанно. Такой подход позволяет учащимся получить глубокие знания и навыки, а также помогает преподавателям более эффективно управлять образованием.

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ДИФФЕРЕНЦИРОВАННЫЙ ПОДХОД К ОСВОЕНИЮ УРОКОВ В ПРОЦЕССЕ ОРГАНИЗАЦИИ УЧЕБНЫХ ЗАНЯТИЙ

Аннотация. В этом случае лучше обратить внимание на следующие факторы: резкое увеличение объема информации, которую учащиеся должны усвоить на занятии. В этой ситуации для сохранения и повышения эффективности образования необходимо предоставлять информацию, более отвечающую потребностям каждого учащегося.

Ключевые слова: дифференцированный, знания, студенты, педагогика, инновации, заинтересовать, логический, учебник.

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DIFFERENTIATED APPROACH TO LEARNING LESSONS IN THE PROCESS OF ORGANIZING CLASSES

Abstract. In this case, it is better to pay attention to the following factors: a sharp increase in the amount of information that students must learn in class. In this situation, to maintain and improve the effectiveness of education, it is necessary to provide information that is more responsive to the needs of each student.

Keyword: differentiated, knowledge, students, pedagogical, innovation, interest, logical, textbooks.

В связи с тем, что на одном уроке невозможно подойти к каждому ученику отдельно, необходимо разделить учащихся на группы по классификационному признаку. Увеличение разницы между уровнями знаний учащихся. Сегодняшний прогресс науки, техники и техники находит разное восприятие у разных студентов.

Например, если задание, данное для выполнения на компьютере одной группе, основано на знаниях и умениях, сформированных одной группой учащихся, то остальные группы будут иметь лишь предварительное представление о компьютерной технике. В этой ситуации необходимо работать с каждой группой студентов отдельно; возрастающая специализация профессий, которые должны освоить студенты,

фундаментальные инновации, происходящие во всех областях, в свою очередь, приводят к разветвлению и специализации профессий, отвечающих их потребностям. Уникальность этого процесса заключается в том, что специализации, возникающие в одной и той же профессии, требуют существенно разных знаний и навыков. По этой причине необходимо дифференцировать обучение студентов, чтобы повысить эффективность процесса их подготовки к будущей профессиональной деятельности.

Виды классификации.

Первый тип. Студенты делятся на две группы: 1. Группа, состоящая из свободных ассимиляторов. 2. Группа, состоящая из средних и хороших ассимиляторов.

Второй тип. Студенты делятся на две группы. 1. Группа талантливых людей в группе. 2. Группа, состоящая из студентов среднего и свободного обучения.

Третий тип. Количество групп, образуемых обучающимися, может быть три, четыре или пять в зависимости от их способностей, определяемых на основании диагностики.

Четвертый тип. Она направлена на индивидуальную работу со студентами, при которой педагог проводит занятия с каждым из них по индивидуальному плану.

В педагогической теории и практике большинство специалистов считают, что при дифференцированном обучении целесообразно разделить учащихся на три группы, состоящие из групп свободных, средних и хорошо обучающихся. В этом типе стратификации студентов можно разделить на лучших, хороших, средних, плохих и очень плохих учеников.

Отличительные аспекты дифференцированных уроков. Классифицированные занятия проводятся в соответствии с учебной программой и ее требованиями. Основное внимание уделяется углубленному освоению основ науки. Исходя из характера дифференцированного урока, учебное заведение или определенная групповая комната оборудуется, обеспечивается учебными средствами, учебно-методическими комплексами, придается большое значение адекватности учебников, пособий или разработок.

Учебное заведение, работающее в соответствии с учебной программой, заполняется студентами, отобранными исходя из требований. В образовательное учреждение, работающее на базе урока, по специально разработанным критериям привлекаются специалисты, имеющие глубокое владение педагогическим мастерством, специализацией и психологическими знаниями, имеющие опыт работы. Количество времени, отведенное на организацию занятия, отведено для углубленного освоения основ специальности. Считается целесообразным организовать урок нетрадиционными способами.

На уроке основное внимание уделяется работе с отстающими учениками. Отсутствие знаний и навыков может быть причиной неспособности их освоить. Прежде всего необходимо определить эту причину, часто такие причины могут быть: студент не умеет самостоятельно работать над материалом, его интерес к учебе угасает из-за неуверенности в своих силах, он слишком занят другими делами, болезнью, ленью и т. д. После этого принимаются меры, которые помогут студентам преодолеть эти причины.

В работе с малоуспевающими учащимися используются задания, внеклассные консультации, групповая и внеклассная поддержка. В этом случае учащиеся, не достигшие образовательных целей, разделяются на отдельные группы, а для освоения образовательных целей, не освоенных в полной мере, организуются дополнительные занятия и самостоятельное обучение.

После постановки образовательной цели кратко описывается, каким должно быть содержание предмета для реализации этой цели, то есть содержание теоретической и практической подготовки.

В процессе организации учебной деятельности дифференцированный подход к освоению уроков предполагает индивидуальную и групповую адресность обучения в зависимости от различных потребностей и способностей учащихся.

К ключевым принципам дифференциации классной деятельности можно отнести:

1. Разнообразные методы обучения: использование разнообразных подходов, стратегий и методов для удовлетворения индивидуальных потребностей и стилей обучения учащихся.

2. Индивидуальные задания. Назначая задания каждому учащемуся в соответствии с его уровнем навыков и способностей, каждый учащийся может прогрессировать в своем собственном темпе.

3. Гибкая группировка: формирование групп учащихся со схожими интересами и способностями позволяет работать с ними в более узких рамках и обеспечивает более точную адаптацию задания.

4. Индивидуальная консультация. Найдите время, чтобы проконсультироваться со студентами индивидуально, чтобы ответить на вопросы, разъяснить материал или помочь им понять сложные темы.

5. Используйте разнообразные материалы и ресурсы: предоставьте разнообразные материалы, книги, журналы, видео и интерактивные онлайн-ресурсы для дальнейшего изучения и углубленного изучения темы.

Дифференцированный подход к организации урока помогает удовлетворить потребности и интересы каждого ученика, создает более комфортную и распределенную среду обучения. Это помогает лучше понять и усвоить материал, повышает мотивацию и активность учащихся, а также

позволяет развивать их индивидуальные способности и творческие способности.

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ФОРМА И СОДЕРЖАНИЕ ОРГАНИЗАЦИИ САМОСТОЯТЕЛЬНОГО ОБРАЗОВАНИЯ НА ПОДГОТОВОЧНЫХ ЗАНЯТИЯХ

Аннотация. Развивать интерес учащихся к различным предметам; формирование умения применять теоретические знания на практике; развитие самостоятельного мышления, творческих способностей; расширение мировоззрения; развитие практических навыков и компетенций; знакомство с формами и методами современных образовательных технологий; ориентация на профессию, техническую, проектную и научно-исследовательскую работу.

Ключевые слова: знания, форма, степень, педагогика, инновация, усвоение, логика, учебник.

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FORM AND CONTENT OF INDEPENDENT EDUCATION IN PREPARATION LESSONS

Abstract. To develop students' interest in various subjects; developing the ability to apply theoretical knowledge in practice; development of independent thinking and creative abilities; expansion of worldview; development of practical skills and competencies; familiarization with the forms and methods of modern educational technologies; orientation towards profession, technical, design and research work.

Keyword: knowledge, form, degree, pedagogical, innovation, assimilation, logical, textbooks.

Системный подход к организации всех форм самостоятельного образования на основе передовых образовательных технологий. координация и интеграция всех его этапов; строгий контроль за качеством исполнения; создание и совершенствование механизма контроля.

По цели самостоятельного обучения (приобретение новых знаний, их закрепление, повышение творческой активности, формирование

практических навыков и квалификации и т.п.); точное определение задач, которые необходимо выполнить; учащиеся в достаточной степени осведомлены об алгоритме выполнения заданий и методах современных образовательных технологий; правильное определение совета и других видов помощи (дача указаний и указаний, объяснение содержания и сущности предмета, ознакомление со способами выполнения заданий, совместного решения проблемных ситуаций и т. д.); четкое определение формы расчета и критериев оценки; четко определяя время, форму и виды супервизий (практические, семинарские, лабораторные занятия, специально отведенное время для консультации или супервизии, текст лекции или доклада, выполненные задания, домашняя тетрадь, супервизии, демонстрационное оборудование, творческие работы, разъяснение характер выполняемой работы (предоставление, изложение в письменной форме и т.п.) необходимо для выполнения требований.

Виды самостоятельного образования. Повторение и практика. В ходе повторения и обучения педагог повторяет полученные на уроке знания, анализирует, обобщает, думает, запоминает, развивает навыки и компетенции для выполнения практических задач.

Самостоятельное приобретение новых знаний. При самостоятельном усвоении новых знаний учащийся приобретает навыки поиска источников информации, работы над ними, обобщения, связного изложения мыслей, осваивает приемы и методы самостоятельного обучения.

Занимаюсь творческой работой. При выполнении заданий творческого характера студент приобретает навыки выявления и анализа проблемных ситуаций, принятия самостоятельных решений, учится творчески подходить к решению задач, готовить наглядные пособия, знакомиться со способами решения задач научного описания, требующих исследования.

Формы самостоятельного образования. Изучение научных глав и тем. Он целесообразен для студентов-первокурсников, у которых еще нет навыков самостоятельного обучения, а его результаты проверяются посредством заполненного отчета, индивидуального задания, семинара и т.п. **Освоение части лекций на раздаточных материалах.** При этом педагог большое внимание уделяет изложению основного материала. К каждой лекции готовятся раздаточные материалы. Данная форма самостоятельного обучения подходит студентам старших курсов, изучающим общие и специальные предметы. Результаты этих работ проверяются на соответствующих этапах контроля.

Работа с автоматизированными системами обучения и контроля. Оно проводится в рамках подготовки к лекциям, лабораторным работам или практическим занятиям и распространяется на студентов всех уровней. **Специальная, научная литература работа над научными разделами и**

темами. Они важны для студентов всех уровней при выполнении расчетно-графических заданий, рефератов, курсовых проектов, выпускных квалификационных работ. Ее результаты проверяются на соответствующих этапах рейтингового контроля.

Изучение новых техник и технологий. Они важны для проведения квалификационных практик, участия в научных исследованиях, выполнения производственных заказов. Результаты будут проверены после получения отчетов. **Углубленное изучение предмета или тем, связанных с исследованием студента.** Подходит для студентов всех уровней. Самостоятельная учебная деятельность с использованием активного метода обучения. (интерактивные методы, дискуссия, конференция, семинар и т.п.) готовятся по актуальным проблемам науки, техники и техники.

При организации самостоятельного обучения студентов с учетом особенностей предмета, уровня владения и способностей используются следующие формы: самостоятельное освоение некоторых теоретических тем с помощью дополнительной литературы; подготовка информации (реферата) по заданной теме; семинарские и практические занятия, подготовка к лабораторным работам; Выполнение исчисления-графика, курсовой работы (проекта); подготовка квалификационной диссертации; поиск решений существующих проблем на практике; создание макетов, моделей, образцов и т.п.; подготовка научных статей, тезисов конференций и т.д. к.

Обязанности руководителя независимого образования:

- создание рабочего плана и программы, подходящих для всех форм самостоятельного обучения и обеспечение утверждения на заседании кафедры;
- обеспечение своевременного участия студентов в самостоятельной образовательной деятельности;
- оказание практической помощи и консультаций обучающимся во время самостоятельного обучения, предоставление направлений; контроль за ходом самостоятельного обучения;
- при выборе экзаменационных вопросов, задач, примеров ориентироваться на то, чтобы ответы на них были только в тексте, тем самым сокращая время, затрачиваемое студентом на поиск ответов;
- учет возраста и индивидуальных особенностей учащихся при обучении выполнению заданий;
- обращать внимание на ошибки, которые студенты допускают чаще всего в каждой работе, и устранять их;
- внесение изменений в программу самостоятельного учебного плана по согласованию с кафедрой;

- обеспечение студентов самостоятельными учебными дневниками; решение всех проблем, возникающих при организации и проведении самостоятельного образования;

- организация обсуждения и оценки отчетов студентов по самостоятельному обучению на кафедре;

- представить общий отчет о самостоятельном обучении и таблицу оценок заместителю руководителя по воспитательной работе.

Требования к независимому руководителю образования:

- современные технологии организации самостоятельного обучения студентов и на что они направлены;

- внесение изменений в самостоятельные учебные задания, их анализ, обобщение и сравнение;

- подбор учебных материалов, содержащих новые технические и технологические достижения;

- предоставление образцов из дополнительных учебников и учебных пособий;

- максимально разделить самостоятельный учебный материал на отдельные части;

- учитывать все проявления элементов самостоятельного обучения в деятельности;

- быстрое усиление положительной реакции (контроль-коррекция); достичь высокого уровня мастерства путем многократного повторения (действий);

- иметь четкое представление о возможностях современных педагогических технологий, интерактивных методов повышения эффективности самостоятельного образования;

- важные аспекты педагогической технологии, принципиально отличающиеся от традиционных методов самостоятельного обучения уточнением целей самостоятельного обучения;

- Содержание таксономии Блума и ее практическая помощь учителю;

- определить, какой категории образовательных целей соответствуют элементы самостоятельного учебного материала;

- общий метод уточнения целей самостоятельного обучения, выражая их глаголами, означающими действия по достижению конкретных результатов;

- определить, что знают студенты в когнитивной (познавательной), аффективной (эмоциональной), психомоторной (двигательной) областях после выполнения каждого самостоятельного задания;

- виды тестов, формы, преимущества и недостатки, способы создания тестовых заданий.

Задачи учащихся в самостоятельном обучении:

- своевременное посещение самостоятельных тренингов и строгое соблюдение сроков;

- полное соблюдение внутреннего распорядка, техники безопасности и трудовой дисциплины по месту самостоятельного обучения;
- регулярно заполнять отдельный дневник о самостоятельном обучении;
- выполнять задания и указания руководителя; сбор, анализ, сравнение и обобщение необходимых ресурсов для самостоятельных учебных задач;
- выполнение самостоятельного плана работ и подготовка письменного отчета на основе собранных данных; представить отчет в письменном виде в отдел вместе с письменным заключением (отзывом) руководителя в установленный срок и по результатам пройти проверку;
- составление схем и чертежей в самостоятельной работе;
- группировка и обоснование проблемы с помощью источников по характеристике материала;
- понимание последовательности некоторых ситуаций и событий;
- самостоятельно и точно отвечать на вопросы учителя;
- сравнивать различия между ранее изученной и новой информацией;
- определение связи между событием и доказательствами; извлечение первичной, вторичной и вторичной информации по теме;
- изучить материал на основе поиска дополнительных материалов, относящихся к теме, выделить главное, сделать вывод;
- поиск вопросов, связанных с информацией в других дисциплинах, и поиск их решения;
- создавать самостоятельные новые задачи и выражения, используя теоремы и правила;
- обоснование их различий и сходств путем сравнения нескольких событий;
- работа над исправлением и устранением ошибок; написать реферат, лекцию, курсовую работу и т.п.;
- самооценка и т.д.

Делаю доклад о самостоятельном образовании. Где было организовано и проводилось независимое образование? Кто является независимым лидером в сфере образования? Чем помог лидер? Результаты самостоятельного образования, предложения и пожелания по организации будущего самостоятельного образования.

Материалы отчета о результатах самостоятельного обучения оформляются четко и аккуратно на стандартном листе бумаги формата А4, в компьютерном или рукописном виде. В отчете таблица, схема, картинка, диаграмма и т. д., к ним принадлежит комментарий и анализы собственный. Напротив найти нуждаться _ Отчет занимает 10-15 страниц и должен быть сдан в ведомство в установленный срок. Доклад будет представлен защите при наличии положительного отзыва назначенного кафедрой руководителя.

Отчет должен содержать информацию о конкретных задачах, выполняемых обучающимся в процессе самостоятельного обучения,

методах и методах их реализации, полученных результатах, показателях, результатах самостоятельного обучения и т.п. Материалы должны быть помещены в специальный альбом или белую папку в хронологическом порядке, хорошо оборудованы, а сверху четко написано имя студента, этап, когда и где проводилась самостоятельная работа, а также научный руководитель.

Неравномерность подачи материалов самостоятельного обучения (неправильно заполненный, неутвержденный дневник, план работы, неверный отчет, неполнота материала, несвоевременная сдача и т.п.) окажет негативное влияние на общую оценку. Студент, не выполнивший самостоятельные учебные задания, получивший неудовлетворительную оценку своей работы или неудовлетворительную оценку на защите доклада, будет направлен на повторное выполнение этих заданий за свой счет во время каникул.

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МОНИТОРИНГ И ОЦЕНКА УРОВНЯ ЗНАНИЙ СТУДЕНТОВ ВО ВРЕМЯ УЧЕБНЫХ ЗАНЯТИЙ

Аннотация. Оценка знаний студентов положительно влияет на их мотивацию, профессиональный рост и развитие. Существуют текущие, промежуточные и итоговые виды оценивания, причем текущая оценка проводится периодически в течение учебного года. Это формы оценивания, используемые студентом. Он не охватывает всю деятельность, а направлен на оценку отдельных направлений. Итоговая оценка направлена на оценку степени удовлетворения профессиональных требований с точки зрения компетентности и качества профессиональной деятельности. Оценка осуществляется по широкому спектру разработанных и утвержденных критериев, охватывающих деятельность педагога.

Ключевые слова: усвоение, знания, форма, степень, педагогика, инновация, заинтересованность, логика, учебник.

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MONITORING AND EVALUATING STUDENTS' KNOWLEDGE LEVEL DURING STUDIES

Abstract: Assessing students' knowledge has a positive effect on their motivation, professional growth and development. There are ongoing, midterm and summative assessments, with ongoing assessments occurring periodically throughout the school year. These are the forms of assessment used by the student. It does not cover all activities, but is aimed at assessing individual areas. The final assessment is aimed at assessing the degree to which professional requirements are met in terms of competence and quality of professional activity. The assessment is carried out according to a wide range of developed and approved criteria covering the activities of the teacher.

Keyword: assimilation, knowledge, form, degree, pedagogical, innovation, Interest, logical, textbooks.

Рейтинговые шкалы. Градационный метод. Предусмотрена шкала оценок, включающая простую пятибалльную шкалу от отличного (5) до

неудовлетворительного (2). Другой тип бальной шкалы оценки показателя знаний всегда равен 5; 4 с некоторыми исключениями; 3-в основном; 2-часто не наблюдается; 1 также можно использовать в редких случаях. Использование таких простых шкал дает оценщику широкий выбор возможностей, но могут возникнуть ошибки. Окончательный балл можно получить путем сложения баллов по всем показателям.

Способ регулирования статуса. Направлен на установление отношений «лучше-хуже», «больше-меньше» между оцениваемыми. Это позволяет быстро сравнивать тех, кого оценивают по тому или иному показателю. Для этого на карточке записываются имена оцениваемых студентов, а эксперты сортируют карточки по уровню выраженности рекомендации.

Интервью, метод оценки. Он предполагает взаимодействие педагога с оцениваемыми студентами, при этом обсуждаются и оцениваются результаты предыдущего семестра. Это не только позволяет оценить уровень усвоения, развития учеником знаний, но и помогает в обучении. Для повышения эффективности беседы педагогу следует заранее назначить дату и выделить для нее время (не менее одного часа), сообщить об этом обучающимся; провести собеседование в подходящем месте; проинтервьюируйте их, прежде чем обсуждать результаты; начните разговор с позитивных моментов; при даче отрицательной оценки действовать на основании конкретных доказательств, а не общего мнения; подчеркнуть свою готовность помочь ученикам преодолеть их недостатки; следует закончить разговор в позитивном тоне.

Метод отслеживания. Один из старейших методов оценки, при котором процесс обучения учащегося не может быть строго измерен, участие в уроке и его анализ дают информацию о его основной деятельности. Наблюдение может быть неформальным, ознакомительным, внеплановым, формальным, основанным на заполнении отчета и вынесении заключения по результатам оценки. Эффективность метода будет высокой, если будут понятны критерии целей мониторинга и форма регистрации результатов. Метод наблюдения несколько ограничен, он не позволяет оценить, как студент выполняет задание, оценивает учебные материалы, какой метод используется.

Соответствие требованиям программы и возможностям обучающегося во время наблюдения за тренировочным занятием, времени, отведенного на решение учебной задачи; структура урока; связи этапов и задач учебной деятельности с учебной задачей урока; завершить урок, решить задачу урока; разумному распределению времени учебных занятий; содержание, формы и методы обучения; целесообразность выбранных форм и методов работы студентов при выполнении поставленной задачи; к результатам обучения; необходимо придерживаться полноты решения учебной задачи по сравнению с запланированной.

Круговая или 360-градусная оценка. Она направлена на оценку студентов со стороны педагога, заведующего кафедрой. Используемые методы оценки могут быть разными (все оценщики заполняют одну и ту же форму оценки, для каждой категории разрабатывается отдельная форма).

Самооценка. Оказывает психологическую поддержку студенту для приобретения опыта и регулярного совершенствования своих знаний. Сочетание самооценки с другими методами оценки укрепляет уверенность. Например, самооценка окончательного результата обычно проводится за одну-две недели до окончательной оценки. Это позволяет не только сосредоточить внимание на наиболее важных сторонах деятельности студента, но и критически и честно взглянуть на нее.

Студенческое портфолио. В некоторых системах оценивания оно используется для сбора информации, которую невозможно получить при наблюдении за уроками и другими видами деятельности, но которая необходима для суммирующей оценки успеваемости. В этом случае студент может собрать самостоятельные работы, тесты и задания и представить их экспертам в рамках текущего и итогового оценивания.

Основными принципами эффективной организации оценки знаний студентов являются: развитие (процесс оценки и того, является ли результат знаний удовлетворительным, хорошим или плохим, независимо от этого, чтобы хорошо подготовить их); относиться с уважением; демократия (разработка критериев и содержания оценки, согласование сроков и совместное обсуждение результатов).

Учет умений и знаний студента имеет большое значение при контроле и оценке знаний. Прежде всего необходимо определить, какие знания и навыки студенты должны приобрести у педагога. При этом должны учитываться не только знания и умения учащихся, но и оценка общего развития.

Решение задач: даны пять задач различной сложности. На решение отведено 90 минут. Правильно решенная задача оценивается в 16 баллов. Максимум 80 баллов.

Критерии оценки решения задач учащимися

Нет	Критерии оценки	Мяч
1	Если учащиеся полностью раскрывают смысл явлений и законов, решают задачи, используя основные понятия и законы, правильно рисуют схемы, правильно выводят величины и их единицы.	16
2	Если учащиеся полностью объясняют значение явлений и законов, правильно решают задачу, используя основные понятия и законы, правильно выводят единицы величин, допускают небольшую ошибку в рисунке.	14
3	Если учащиеся полностью раскроют смысл явлений и законов, если правильно решат задачу, используя основные понятия, законы, если правильно нарисован рисунок, если допущена ошибка в образовании и написании единиц величин.	12

4	Если учащиеся полностью раскрывают смысл явлений и законов, правильно решают задачи, используя основные понятия, законы, допускают ошибки при рисовании и создании и написании единиц величин.	10
5	Если он полностью раскрывает смысл явлений и законов, если правильно решает задачу, используя основные понятия, законы, если допущена ошибка в составлении схемы, написании величин и не вызывает единства величин.	8
6	Если учащиеся полностью раскрывают смысл явлений и законов, если они допускают ошибки при решении задач с использованием основных понятий, законов, если неправильно нарисован рисунок, если они допускают ошибки в указании величин, если они не доказывают единство величин при все.	6
7	Если учащиеся полностью раскрывают смысл явлений и законов, если допущена ошибка в составлении формулы задачи с использованием основных понятий, законов, если они допустили ошибку в составлении схемы, допустили ошибку в определении величин, если они вообще не генерируют единицы количества.	4
8	Если учащиеся полностью раскрывают смысл явлений и законов, если они допускают ошибку при составлении и вычислении формулы задачи с использованием основных понятий, законов, если они вообще не рисуют схему, если допущена ошибка в определении величин, если они вообще не создают единицы величин.	2
9	Если работа вообще не ведется.	0

Лабораторная работа. Он направлен на проверку способности студента применять теоретические знания на практике. При этом учащимся предлагается один эксперимент, включающий в себя величины и расчеты. Необходимое оборудование для каждой лабораторной работы должно быть подготовлено заранее. Использование инструментов учащихся в лабораторной работе. выполнение работы должно осуществляться под контролем руководителя. На выполнение лабораторной работы им дается 40 минут. Приобретенные знания оцениваются максимум в 20 баллов.

Оценка лабораторной работы критерии

Нет	Критерии оценки	Мяч
1	Если эксперимент и измерительная работа выполняются в соответствующей последовательности в соответствии с технической безопасностью, может самостоятельно пользоваться необходимым оборудованием, умеет правильно рассчитывать абсолютные и относительные погрешности результатов эксперимента, правильно делает вывод на основании таблицы, если рисунок обязателен, он нарисован правильно.	20
2	Если опытно-измерительные работы выполняются в соответствующей последовательности, соблюдая безопасность оборудования, если он может самостоятельно пользоваться необходимым оборудованием и правильно сделать вывод на основании таблицы, если чертеж необходим и он составлен правильно, если имеются частичные погрешности расчета абсолютных и относительных погрешностей результатов эксперимента.	18

3	Если опытно-измерительная работа проведена в соответствующей последовательности в соответствии с технической безопасностью, может ли он самостоятельно пользоваться необходимым оборудованием, правильно ли он делает вывод, если чертеж необходим и он составлен правильно, если есть ошибки при расчете абсолютных и относительных погрешностей результатов эксперимента и заполнении таблицы.	16
4	Если опыты и измерения проводятся в соответствующей последовательности, соблюдая техническую безопасность, может пользоваться необходимым оборудованием самостоятельно, если чертеж необходим и он составлен правильно, если он допустит ошибку при получении результатов лабораторной работы и заключения нарисовано не правильно.	14
5	Если опыты и измерения проводятся в соответствующей последовательности, соблюдая техническую безопасность, может пользоваться необходимым оборудованием самостоятельно, если чертеж необходим и он составлен правильно, если результаты и выводы лабораторной работы оформлены неправильно.	12
6	Если опыты и измерения проводятся в правильной последовательности, соблюдая техническую безопасность, если необходимое оборудование невозможно использовать самостоятельно, результаты лабораторной работы неверны, а заключение совершенно неверно.	10
7	Если он проведет эксперимент, но техническая безопасность не будет соблюдена вообще, если он не сможет самостоятельно использовать необходимое оборудование, если результаты лабораторной работы будут признаны неправильными и не будет сделано заключение.	8
8	Если он допустит ошибки при проведении эксперимента, не соблюдает техническую безопасность в целом, не сможет самостоятельно использовать необходимое оборудование, если результаты неверны.	6
9	Если он выбирает необходимое оборудование для проведения лабораторной работы, допускает ошибку при проведении эксперимента, но совсем не выполняет расчеты.	4
10	Если он не может выбрать необходимое оборудование для проведения лабораторной работы и проведения эксперимента.	2
11	Если он вообще не сможет выполнить эту работу.	0

Такой подход к оценке эффективности формирования профессиональных навыков обучающегося заключается в определении показателей и критериев успеваемости; определение инструментов и методов оценки; процесс оценки; предполагает подведение итогов и интерпретацию результатов. В целом по направлению достижения поставленных целей оценка эффективности формирования своих знаний и профессиональных навыков представляет собой самооценку.

Формы самооценки. Долзарб. Он оценивает себя таким, каким представляет себя в данный момент. **Ретроспектива** Оценивает и представляет себя на основе результатов своей первоначальной деятельности. **Идеально.** Он оценивает себя таким, каким хочет себя

представить. **Рефлексивный.** С его точки зрения, он оценивает себя так, как оценивают окружающие его коллеги.

Самооценка дает студенту возможность проанализировать то, что он узнал. Самооценка оказывает большое влияние на развитие профессиональных способностей, стремление к цели. При оценке необходимо выделить показатели следующих качеств студента, имеющих профессиональное значение: креативность, мышление, интерес к научно-исследовательской работе, склонность к инновациям, освоение передового опыта, формирование потребности в совершенствовании педагогического мастерства. Определив показатели успеваемости обучающихся, можно определить те знания и навыки, которые рассматриваются как критерии оценки и должны быть приобретены.

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СОВРЕМЕННЫЕ ОРГАНИЗАЦИОННЫЕ ПРОБЛЕМЫ СИСТЕМЫ МЕДИЦИНСКОГО ОБЕСПЕЧЕНИЯ ВОЙСК

Аннотация. Статья посвящена исследованию современных организационных проблем системы медицинского обеспечения войск. Рассматриваются различные позиции учёных относительно выделения актуальных направлений совершенствования организации медицинского обеспечения войск на основе применения передовых медико-организационных технологий, в том числе, в аспекте эвакуационных мер, хирургической помощи на фоне увеличения частоты минно-взрывных ранений в современных вооружённых конфликтах.

Ключевые слова: медицинское обеспечение войск, военно-медицинская служба, раненные военнослужащие, боевые травмы, медико-организационные технологии, эвакуация, хирургическая помощь, минно-взрывные ранения, современные вооружённые конфликты.

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MODERN ORGANIZATIONAL PROBLEMS OF THE SYSTEM OF MEDICAL SUPPORT FOR TROOPS

Abstract. The article is devoted to the study of modern organizational problems in the system of medical support for troops. Various positions of scientists are considered regarding the identification of current areas for improving the organization of medical support for troops based on the use of advanced medical and organizational technologies, including in the aspect of evacuation measures, surgical care against the backdrop of an increase in the frequency of mine-explosive injuries in modern armed conflicts.

Key words: medical support for troops, military medical service, wounded military personnel, combat injuries, medical and organizational technologies, evacuation, surgical care, mine blast wounds, modern armed conflicts.

Анализ состояния военно-медицинских служб различных стран мира, а также подходов к организации и оказанию медицинской помощи военнослужащим, в том числе хирургической помощи при минно-взрывных

ранениях показывает, что армии многих стран придерживаются нескольких теоретико-методологических моделей организации систем медицинского обеспечения вооруженных сил. При этом наблюдается большое разнообразие методов, механизмов, техник, применяемых в различных военно-медицинских службах для обеспечения их эффективного функционирования. Вместе с тем, на процесс совершенствования организации военно-медицинских служб вооруженных сил в каждом конкретном государстве имеет влияние довольно широкий диапазон факторов, включая макроэкономические условия, социально-политическую среду, сочетание экономических, социальных, демографических и др. условий.⁴² В связи с этим, полагается целесообразным рассмотреть различные позиции относительно организационных проблем систем медицинского обеспечения войск с учётом современных вооруженных конфликтов. Так, А.Е. Бакай, О.Г. Шекера, В.В. Стеблюк, Г.Д. Киржнер и др. опираясь на анализ литературных источников и результатов фундаментальных научных исследований, отдельных стратегий и наработок государств членов и партнеров Североатлантического альянса (НАТО, Организация Североатлантического договора) по организации медицинского обеспечения войск констатируют, что данные вопросы имеют широкий круг обсуждения и несомненно высокое практическое значение в современных условиях различных стран мира. Деятельность военно-медицинской системы для поддержания на должном уровне здоровья личного состава вооружённых сил рассматривается как важный фактор обеспечения безопасности стран Североатлантического альянса. Исходя из этого, главной миссией военно-медицинской службы вступает интегрированный, структурно и функционально связанный, укомплектованный квалифицированным персоналом и всеми необходимыми средствами орган, созданный командованием в интересах здравоохранения личного состава и повышения боеспособности войск. Обеспечение необходимого уровня медицинской готовности достигается профессиональным отбором лиц с исходной медицинской пригодностью к определенному виду военной службы, специальным тренингом, внедрением достижений науки и техники в практику военного здравоохранения. Создание интегрированной военно-медицинской системы – это более тесное взаимодействие медицинских служб всех видов вооруженных сил, повышение рентабельности и качества медицинской помощи, оказываемой по принципам последовательности и преемственности, начиная от театра

⁴²Востриков А.Л., Романова Л.Н. Теоретические основы и направления совершенствования медицинского обеспечения ВС РФ. // Вестник НИЦ ВА РВСН Учредители: Военная академия ракетных войск стратегического назначения им. Петра Великого. - 2022. - №.4. - С.85-89.; Востриков А.Л., Шарипова Т.Л. Направления и способы совершенствования медицинского обеспечения войск. // Вестник НИЦ ВА РВСН Учредители: Военная академия ракетных войск стратегического назначения им. Петра Великого. - №.4. - С. 90-98.; Сидорчук С.Н. Организационно-правовые аспекты функционирования территориальной системы медицинского обеспечения войск (сил). // Военное право. - №5. - 2009.- С. 68.

боевых действий до медицинских центров, от оказания первой помощи до комплексного мониторинга состояния здоровья и боевой готовности, от амбулаторного приема военнослужащего до высококвалифицированных медицинских услуг всем контингентам. Формирование здорового образа жизни военнослужащих, условия военного труда, сложный и напряженный характер современных вооружённых конфликтов предъявляют военнослужащему повышенные требования, которые могут быть выполнены при условии полного его физического и психического здоровья и социального благосостояния, достижение которых возможно лишь при концентрации усилий медицинской службы и командования.

На сегодняшний день минно-взрывные ранения остаются довольно актуальной проблемой, обусловленной спецификой современных военных конфликтов, а также особенностями развития средств индивидуальной защиты военнослужащих. Основываясь на вышеизложенное, совершенствование организационной структуры медицинского обеспечения войск предполагает создание структуры военно-медицинской системы, которая бы значительно больше соответствовала современным задачам, создание системы непрерывного и адекватного медицинского снабжения на базе новых ресурсов и передовых технологий. Разрабатываются усовершенствованные альтернативные аналитические модели для принятия организационных решений, расчета потребностей в кадрах и их рационального использования, потребности в медицинских учреждениях, их табельном оснащении, регулярном медицинском снабжении, автоматизации диагностического и лечебного процессов и т.п.⁴³

И.А. Авдей, Ю.А. Соколов, А.А. Москаленко, С.Н. Васильева, П.Д. Денисов и др. проанализировав современный опыт организации лечебно-эвакуационных мероприятий проводимых в ходе боевых действий Вооружённых Сил Российской Федерации в Украине пришли к выводам, что действия войск с обеих противоборствующих сторон характеризуются решительностью, высокой маневренностью и напряженностью, динамической обстановкой, активностью как в воздушном пространстве, так и на земле, на широком фронте, на большую глубину и в высоком темпе. В современных военных конфликтах, в частности в ходе специальной военной операции на деятельность системы медицинского обеспечения войск существенно влияет возможность одномоментного возникновения масштабных санитарных потерь военнослужащих как по всей глубине построения боевого порядка войск, так и в тылу (центре) страны. Активное,

43 Бакай А.Е. Платформа Украина - НАТО как механизм реформирования системы медицинского обеспечения в чрезвычайных ситуациях. // Инвестиции: практика и опыт. - 2018. - №16. - С.127-132.; Шекера О.Г., Стеблюк В.В., Киржнер Г.Д. Система медицинского обеспечения Объединенных Вооруженных Сил НАТО. // Здоровье общества. - 2014. - №3. - С. 105-108.; Шекера О.Г. Медицинское обеспечение Вооруженных сил НАТО. // Health of Society. - 2022. - №. 2. - С. 34-45.

круглосуточное применение средств радиоэлектронной борьбы создают значительные препятствия в должной организации системы медицинского обеспечения войск, реализации необходимого и своевременного снабжения, а также оперативной эвакуации раненых военнослужащих. Современная военно-медицинская практика свидетельствует, что по механизму ранения на первое место выходят минно-взрывные и осколочные ранения, что связано с широким использованием противоборствующими сторонами осколочно-фугасных боеприпасов и минных заграждений. Ведущими локализациями повреждений являются голова и конечности, что может являться свидетельством применения личным составом войск все более эффективных средств защиты головы и торса. Из опыта боевых действий в Украине и имеющихся на сегодняшний день сведений авторы выделяют, что медицинское обеспечение группировок войск Российской Федерации в ходе военной специальной операции в Украине организовано силами и средствами военных медицинских частей и подразделений соединений и воинских частей в штатах мирного времени. Эвакуация раненых и заболевших из медицинского пункта батальона осуществляется в основном по принципу «от себя» в передовые медицинские группы медицинских отрядов (специального назначения) военных клинических госпиталей, как правило сразу после оказания первичной медицинской помощи. Лечение пациентов в передовых медицинских группах медицинских отрядов не проводится, а осуществляется их дальнейшая эвакуация на этапы оказания высокотехнологичной медицинской помощи. Сроки госпитализации пациентов в передовые медицинские группы медицинских отрядов, как правило, не превышают одних суток, в исключительных случаях - до трех суток. Следует отметить, что первичная медицинская документация с целью экономии времени на первичных этапах медицинской эвакуации не оформляется. Эвакуация раненых с переднего края осуществляется преимущественно бронированным санитарным транспортом. Для эвакуации раненых помимо санитарного транспорта используют весь транспорт, движущийся в попутном направлении.⁴⁴

По мнениям В.Я. Белого, А.В. Верба, В.А. Жаховского, опыт происходящих современных вооруженных конфликтов на Украине позволяет выделить ряд серьезных проблем в состоянии общей организации медицинского обеспечения регулярной армии, которые негативно влияют на своевременность и качество оказания медицинской помощи раненым, их эвакуацию, а также лечения в целом. В частности, полагается целесообразным выделить: недостаточность современных индивидуальных

44 Авдей И.А., Соколов Ю.А. Организация лечебно-эвакуационных мероприятий по опыту Специальной военной операции в Украине. // Военная и экстремальная медицина: перспективы развития и проблемы преподавания. - 2023. - С. 5-7.; Москаленко А.А. Особенности современной минно-взрывной травмы. // Теоретические и практические аспекты современной медицины. - 2023. - С. 252-253.; Васильева С.Н., Денисов П.Д. и др. Модель оценки поражения живой силы в средствах индивидуальной бронезащиты. // Вопросы оборонной техники. - 2022. - №6. - С. 76-84.

средств медицинского защиты у военнослужащих и соответствующего медицинского имущества; недостаточное количество эвакуационных средств, в том числе защищенных, в медицинских подразделениях воинских частей и соединений; моральное и физическое устаревание комплектно-табельного оснащения медицинской службы. На состояние медицинского обеспечения влияет характер боевых действий, тактика воинских подразделений, которые действуют преимущественно рассредоточено, на отдельных направлениях. Формируются небольшие по численности подразделения с разнообразным подчинением, без привязки к каким-либо штатам (блокпосты, маневренные группы, ротные, батальонные и специальные тактические группы и т.д.). Особенностью происходящих вооруженных конфликтов стало широкое использование ракетно-артиллерийских систем, минно-взрывных заграждений и пр. В связи с этим в структуре санитарных потерь преобладают осколочные ранения, комбинированные травмы, а также минно-взрывные ранения. По анатомической локализации преобладают ранения конечностей, значительно увеличилось количество ранений и травм головы, преимущественно за счет минно-взрывной травмы. Наблюдается относительно небольшое количество ранений в грудь и живот, что объясняется применением средств индивидуальной защиты. В то же время такие ранения относятся к тяжелейшим и в структуре причин смерти и на госпитальном этапе занимают ведущее место.⁴⁵

Р. Каточ, С. Раджагопалан полагают, что организация лечения военных ран — это прежде всего искусство, истоки которого идут из древности, постоянно совершенствуются и адаптируются с учетом усовершенствований в стратегиях ведения войны, оружейных технологий, транспортировки и хирургических методах борьбы с повреждениями. На протяжении всей истории от болезней погибало больше солдат, чем от боевых ранений, а неправильные представления относительно наилучшего времени и способа лечения травм часто приносили больше вреда, чем пользы. Начиная с XIX века, смертность от военных ранений неуклонно снижалась по мере того, как хирурги разрабатывали системы быстрой транспортировки раненых с поля боя в прифронтовые госпитали. На протяжении всей современной войны медицинское обеспечение войск было неоднократно реорганизовано с учетом требований времени и потребностей раненых. Хотя доступные сегодня инструменты и навыки более совершенны, чем те, которыми обладали медицинские службы прошлых

45 Белый В.Я., Верб А.В., Жаховский В.А. Эволюция взглядов и развитие системы лечебно-эвакуационного обеспечения войск. // Сборник научных трудов НАМН Украины Медицинское обеспечение антитеррористической операции: научно-организационные и медико-социальные аспекты. - К. - 2016. - С. 60-76.

столетий, миссия остается той же – постоянное совершенствование медицинского обеспечения войск.⁴⁶

Таким образом, исходя из вышеизложенного полагается целесообразным заключить, что исследование организационных вопросов систем медицинского обеспечения войск вступает одной из актуальных социально-экономических проблем, уровень научной разработки которой, на сегодняшний день, не соответствует современному развитию медицинской науки, а также практики, и требует комплексных научных исследований по повышению ее качественных параметров. Кроме того, учитывая мировые тенденции развития медицинских служб, опыт современных военных конфликтов, любая система медицинского обеспечения войск нуждается в совершенствовании на постоянной основе с применением передовых медико-организационных технологий, которые повысят качество и эффективность оказания медицинской помощи военнослужащим. При этом проблемность исследования настоящей тематики обусловлена прежде всего тем, что медицинское обеспечение войск в современных условиях относится к довольно сложной социально-экономической системе, которой свойственны динамичность, технологичность, информационность, коммуникативность, самоорганизация, постоянное развитие и обновление.

Военно-медицинская практика современных военных конфликтов показывает, что совершенства системы медицинского обеспечения войск должны проводиться с учётом общей структуры боевой травмы, в которой наблюдается устойчивый рост количества минно-взрывных ранений. Это обуславливается, с одной стороны, широким применением осколочно-фугасных боеприпасов, минных заграждений, боевых дронов и т.д., а с другой - особенностями развития средств индивидуальной защиты военнослужащих (преимущественно голова и торс). Кроме того, активное развитие и применение современных видов вооружения в ходе боевых действий, динамика условий военных конфликтов, изменяет требования к эвакуационным мерам, хирургической помощи, из-за увеличения тяжести минно-взрывных ранений, которые могут приводить к довольно длительному и осложненному течению травматической, раневой болезни, а также летальным исходам.

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МЕТОДИКА ИЗУЧЕНИЯ ВЛИЯНИЯ ЗАМАЧИВАНИЯ И ВЫЩЕЛАЧИВАНИЯ НА СВОЙСТВА ЗАСОЛЕННЫХ ГРУНТОВ

Аннотация. Статья посвящена изучению свободного набухания глинистых и суглинистых грунтов на основании КАЭС. Для определения прочностных характеристик исследуемых грунтов применялись одноплоскостные режущие устройства, имеющие фиксированную плоскость поперечного сечения системы Гидропроекта. В статье анализируются характерные особенности деформации в результате увлажнения лессовидных грунтов, залегающих под фундаментами зданий. В статье исследуются деформации насыщения и усадки свободными водами, а также методика определения прочности грунтов. Используются следующие методы: метод прямого среза, метод проникновения лабораторного конуса и метод прямого толчка при движении. Основания КАЭС были изучены с помощью методов фильтрации и диффузионной промывки грунтов. Целью исследования являются методика определения характеристик засоленных грунтов. При определении характеристики засоленных грунтов различается от незасоленных грунтов. По этой статье изложены методы определения характеристик засоленных грунтов.

Ключевые слова: набухание, осажжение, усадка, влажность, степень насыщения водой, пластическая прочность, коэффициент пористости,

консолидация, проникновение, сдвиг, ползучесть, промывка, плотность, влажность.

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METHODOLOGY FOR STUDYING THE INFLUENCE OF SOAKING AND LEACHING ON THE PROPERTIES OF SALINE SOILS

Abstract. The article is devoted to the study of free swelling of clay and loamy soils on the basis of the KNPP. To determine the strength characteristics of the studied soils, single-plane cutting devices with a fixed cross-sectional plane of the Hidroproekt system were used. The article analyzes the characteristic features of deformation as a result of moistening of loess-like soils lying under the foundations of buildings. The article examines saturation deformations and shrinkage by free water, as well as methods for determining the strength of soils. The methods used are the straight cut method, the laboratory cone penetration method, and the direct push method. The foundations of the KNPP were studied using methods of filtration and diffusion washing of soils. The purpose of the study is to determine the characteristics of saline soils. When determining the characteristics of saline soils, they differ from non-saline soils. This article outlines methods for determining the characteristics of saline soils.

Key words: swelling, sedimentation, shrinkage, humidity, degree of saturation with water, plastic strength, porosity coefficient, consolidation, penetration, shear, creep, leaching, density, humidity.

Введение. При проведении инженерно-геологических исследований

для целей строительства на территориях распространения засоленных грунтов следует определить:

- распределение солей по площади и глубине;
- наличие легко-, средне- и труднорастворимых солей;
- химический состав грунтовых и поверхностных вод;
- наличие суффозионных воронок и провалов и др.

Кроме того, необходимо изучить изменение свойств грунтов на исследуемом участке при водонасыщении и выщелачивании, а также учесть местный опыт строительства и эксплуатации сооружений различного назначения.

Основная часть. Для определения деформационных и прочностных характеристик засоленных грунтов с помощью этой методики необходимо определять плотность грунта, дисперсный, микро агрегатный и солевой состав, проницаемость грунтов, относительные значения просадочности и суффозионной сжимаемости, удельное сцепление и угол внутреннего трения в состоянии естественной плотности-влажности, при водонасыщении и выщелачивании.

Величину просадочности и суффозионной сжимаемости засоленных глинистых и просадочных грунтов необходимо определять с учетом степени водонасыщения и выщелоченности грунта, исходя из скоростей выщелачивания и времени эксплуатации сооружения.

Компрессионные испытания засоленных глинистых и просадочных грунтов проводятся с целью получения расчетных характеристик их сжимаемости – коэффициента сжимаемости и модуля общей деформации в интервалах заданных нагрузок, а также для определения величины давления набухания засоленных грунтов.

Свободное набухание глинистых и суглинистых грунтов основания КАЭС проводились в приборе ПНГ по ГОСТ 23143-80.

Увлажнение проводилось дистиллированной водой по схеме капиллярного смачивания с последующим заливом воды сверху. Испытание на набухание продолжалось 8-23 сут. При критерии стабилизации 0,01 мм/сут. За критерий разделения грунтов по набуханию принята величина относительного набухания 4%. В грунте до и после опыта по набуханию были проведены следующие определения: набухаемость, влажность и прирост влажности, плотность, степень водонасыщения, пластическая прочность [1].

Методика исследований. Усадка глинистых и суглинистых грунтов проводилась по методике ГОСТ 23143-80. При исследованиях на усадку испытывали грунты ненарушенной структуры, естественной влажности и плотности, после свободного набухания в приборе ПНГ и после компрессионного уплотнения под нагрузкой 0,8 МПа.

Усадка глинистых грунтов характеризовалась пределом усадки (W_u), плотностью грунта на пределе усадки, коэффициентом пористости (I_u) на

пределе усадки, величиной линейной усадки образца по диаметру, величиной линейной усадки образца по высоте и величиной объемной усадки.

Величины W_u и I_u характеризуют ту минимальную влажность и плотность, которые может приобрести данный грунт в результате усадки. Предел усадки W_u определяется путем расчета по формуле:

$$W_2 = \left(\frac{1}{\rho_{\text{дсух}}} - \frac{1}{\rho_s} \right) \rho W,$$

Для получения прочностных характеристик исследуемых грунтов были использованы одноплоскостные срезные приборы с фиксируемой плоскостью среза системы Гидропроекта.

Экспериментальные исследования прочности грунтов выполнялись в соответствии с ГОСТ 12248-78. В зависимости от физического состояния грунта применялись методы консолидированного и неконсолидированного (быстрого) среза образцов:

– методом быстрого среза испытывались образцы естественного сложения и влажности без предварительного их уплотнения. Величины нормального давления, при котором производился срез, выбирались с учетом веса грунтовой толщи и сооружения. После передачи нормальной нагрузки сразу приводился в действие механизм для создания касательной нагрузки и срез производился не более чем за 2 мин с момента приложения нормальной нагрузки;

– методом консолидированного среза испытывались образцы естественного сложения и влажности, предварительно уплотненные нагрузками, соответствующими нагрузками, при которых производился срез образцов. Перед испытанием образец помещался в уплотнитель. Нормальное давление передавалось на образец грунта последовательно ступенями 0,05 МПа, при этом каждый раз образец выдерживался под данной нагрузкой до условной стабилизации вертикальных деформаций (0,2 мм/сут). Затем образец переносился в срезную коробку, на него передавалось сразу в одну ступень нормальное давление, соответствующее нагрузке уплотнения, и приводился в действие механизм для создания касательной нагрузки. Касательные нагрузки передавались ступенями, величина которых определялась величиной нормального давления и составляла 5% от нее. Каждая ступень выдерживалась до условной стабилизации деформаций (0,01 мм/мин). Опыт заканчивался при достижении суммарной деформации 5 мм или при срезе образца.

Для оценки влияния процессов уплотнения, водонасыщения и выщелачивания на показатели прочности исследуемых грунтов методами консолидированного и быстрого среза были выполнены испытания предварительно уплотненных, водонасыщенных и выщелоченных образцов.

По характеру предварительной подготовки глинистых грунтов были

выбраны следующие схемы испытаний:

– консолидированный срез образцов, предварительно уплотненных одной и той же заданной нагрузкой с сохранением естественной природной влажности, но срезанных при различных нагрузках;

– консолидированный срез образцов предварительно уплотненных ($P_y = 0,0; 0,02 \text{ МПа}$ и σ), затем водонасыщенных (выдержанных в уплотнителе под водой в течение 5-15 сут до стабилизации деформации 0,1 мм/сут), на срезанных при различных нагрузках. Замачивание образцов производилось дистиллированной водой. Затем вода удалялась из ванны уплотнителя и образец переносился в срезную коробку;

– консолидированный срез образцов предварительно водонасыщенных, затем уплотненных одной и той же заданной нагрузкой ($P_y = 0,3 \text{ МПа}$), но срезанных при различных нагрузках;

– срез образцов, предварительно уплотненных одной и той же заданной нагрузкой ($P_y = 0,0; 0,15; 0,2; 0,3 \text{ МПа}$ и σ), и выщелоченных в течение 1-1,5 мес.

В процессе подготовки одновременно в замер деформаций проводился замер солей, выносимых при фильтровании дистиллированной воды через образец. Для этого был использован солемер конструкции ПНИИС. Определение сопротивления грунтов срезу производилось методами консолидированного и быстрого (неконсолидированного) среза.

Для характеристики зон ослабления в массиве грунта и определения остаточной прочности грунтов после каждого испытания образцов (I схема) проводились повторные сдвиги тех же самых образцов по подготовленной поверхности среза (II схема) и дополнительно увлажненной подготовленной поверхности среза (III схема).

По результатам проведенных опытов строились графики $\Delta\lambda = f(T)$ и $T = f(\sigma)$ и определялись параметры прочности C и ϕ

При проведении срезных испытаний для образцов естественного сложения и природной влажности, а также для предварительно подготовленных (уплотненных, водонасыщенных и выщелоченных) образцов были определены физические характеристики: влажность, плотность, пластичность, гранулометрический состав, а также влажность грунта из зоны среза образца.

Выбранный комплекс методов предварительной подготовки образцов и их испытаний позволяет в максимальной степени учесть влияние процессов уплотнения, водонасыщения и выщелачивания на показатели прочности исследуемых грунтов.

Для получения сравнительной характеристики прочности грунтов был использован метод пенетрации лабораторным конусом с углом заострения конического индентора 30° .

Пенетрационные испытания проводились по схеме постепенного (ступенчатого) нагружения конуса возрастающими нагрузками с

одновременной регистрацией глубины его погружения (с точностью 0,1 мм). Испытания проводились не менее чем в 3-4 точках образца. Количество ступеней нагружения, величина которых определяется состоянием грунта, для каждого испытания принималась не менее 4-5.

Прочность рассчитывалась по формуле:

$$P_m = \frac{K_L}{h_m^2},$$

где P – сила, действующая на конус, Н;

h_m – наибольшая глубина погружения конуса при каждой ступени нагружения, мм;

K_L – константа конуса с углом заострения 30° , приближенно равная 1.

Испытывались образцы естественного сложения и влажности, заданной плотности, водонасыщенные и выщелоченные ($P_y = 0,0$; σ).

Проводилось также определение прочности грунта зоны среза после проведения сдвиговых испытаний.

Определение изменения прочности грунта лабораторным конусом по заданным схемам позволяет проанализировать влияние нарушения структурных связей на прочностные и деформационные характеристики исследуемых грунтов.

В практике строительства наблюдаются довольно частные случаи медленных деформаций сооружений. Это обусловлено тем, что грунты при длительном воздействии напряжений способны изменять свое напряженно-деформированное состояние и прочность. Исследования реологических свойств глинистых грунтов показывают, что при постоянно действующих напряжениях прочность грунтов, обладающих необратимыми структурными связями, снижается в процессе ползучести.

В соответствии с физико-технической теорией ползучести Маслова Н.Н. скорость деформации ползучести на поверхности грунтовой толщи выражается следующим уравнением:

$$dU = \frac{T - T_{lim}}{r_t} dz,$$

где: U – скорость сдвиговой деформации, см/с;

T – действующее касательное напряжение, МПа;

r_t – коэффициент динамической вязкости, Па с, $\eta_t = f(t)$

z – глубина рассматриваемого слоя грунта, см;

T_{lim} – порог ползучести, Мпа; $T_{lim} = P_z \cdot \text{tg} \cdot \varphi_w \cdot C_s$

P_z – вертикальное давление на глубине z , МПа;

$\text{tg} \varphi_w$ – тангенс угла внутреннего трения;

C_s – структурное сцепление, МПа.

Знак (-) в выражении отвечает обратному соотношению значений скорости деформаций (U) и глубины (z) рассматриваемого слоя грунта.

Для составления прогноза ползучести необходимо знание следующих параметров: порога ползучести T_{lim} ; предела прочности $T_{пр}$, коэффициента

динамической вязкости η_t и его изменения во времени; критической деформации разрушения $\lambda_{кр}$ и периода времени от начала опыта до момента разрушения образца $T_{кр}$. Порог ползучести (по Н.Н.Маслову) представляет касательное напряжение, при котором и выше которого деформации ползучести, имевшие до этого практически пренебрегаемый характер, резко возрастают. Ориентировочно порог ползучести может быть определен из выражения

$$T = \sigma g \varphi + C_c,$$

хотя для более точного определения его следует проводить эксперимент.

Коэффициент динамической вязкости грунтов характеризует интенсивность процесса ползучести, В стадии неустановившейся ползучести коэффициент динамической вязкости является величиной переменной. Его можно вычислить на любой момент времени t по формуле

$$\eta_t = \frac{T - T_{lim}}{U} d,$$

где d - высота перекашиваемого образца, см.

На стадии установившейся ползучести вычисляется коэффициент вязкости установившейся ползучести по формуле

$$\eta_t = \frac{T_{kr} - T_{lim}}{U} d,$$

Где: $T_{кр}$ касательное напряжение, при котором интенсивность ползучести непрерывно возрастает, что отвечает началу стадий прогрессирующей ползучести.

Изучение ползучести представляет значительные трудности для изыскателей и проектировщиков, так как до настоящего времени нет достаточно разработанной методики определения параметров ползучести и нет специальных приборов и оборудования.

Параметры реологических свойств грунтов, получаемых экспериментально, зависят от методов испытаний и приборов. В лабораторных условиях для определения параметров ползучести применяются методы одноосного и трехосного сжатия, одноплоскостного, многоплоскостного и кольцевого сдвига, кручения «шариковой пробы» и др.

Проведенные ПНИИСом в течение ряда лет методические исследования позволили выбрать и рекомендовать для практического использования при инженерных изысканиях метод лабораторного определения параметров ползучести, разработанный Н.Н.Масловым.

Согласно методике Н.Н.Маслова и З.М.Карауловой испытания на ползучесть выполняются в срезных приборах системы Гидропроекта, но с небольшим конструктивным изменением, позволяющим создавать большой (13 мм) зазор между верхней и нижней обоймами прибора.

Подготовка образца к испытаниям выполняется в соответствии с ГОСТ 12248-78, для предотвращения высыхания образца в процессе опыта

его заключают в тонкую (не более 0,25 мм) резиновую оболочку, плотно прилегающую к образцу, но не создающую бокового давления на него. Для предотвращения сжатия или расширения образца и выдавливания грунта из зазора необходимо на образец в зоне зазора одеть несколько тонких пластмассовых и металлических колец.

На подготовленный образец передается вертикальная нагрузка, при которой образец выдерживается до условной стабилизации вертикальных деформаций. Вертикальная нагрузка на образец должна вызывать дополнительное уплотнение образца в процессе испытаний.

В течение всего опыта скорость деформации среза (U) сохраняется постоянной путем непрерывного увеличения срезающего усилия до наступления незатухающей ползучести (рис. 1, кривая 1). Срезающее усилие, необходимо для поддержания заданной скорости деформации постоянной, прикладывается к образцу ступенями, величина которых подбирается эмпирическим в зависимости от свойств грунта и выбранной скорости деформирования. Диапазон задаваемых скоростей от $a \cdot 10^{-8}$ до $a \cdot 10^{-5}$ см/с. По мере нарастания срезающего усилия, регистрируется рост абсолютной деформации сдвига. Зависимость деформации сдвига (λ) от времени (t) до момента среза образца имеет линейный характер (рис. 1, кривая 2).

Начиная с некоторого момента времени, для поддержания постоянной скорости деформирования образца, величину t почти не приходится увеличивать. Предполагается, что в этот период грунт начинает «ползти» при более или менее постоянном значении срезающего напряжения. При достижении критического значения напряжения (предела прочности $T_{кр}$) происходит срез образца. По результатам опытов строятся кривые роста срезающего напряжения и роста деформации во времени. Графоаналитическим путем определяется порог ползучести, предел прочности, критическая деформация ползучести, время от, начала опыта до разрушения образца и вычисляется коэффициент вязкости на прямолинейном отрезке реологической кривой, соответствующем незатухающей ползучести.

По результатам длительных (медленных) испытаний серии однородных образцов при различных вертикальных нагрузках строятся графики зависимости $T_{кр} = f(\sigma)$ и определяются параметры длительной прочности грунтов: C и ϕ

Параметры ползучести глинистых грунтов изменяются в широком диапазоне в зависимости от внутренних (состава, состояния, структурных связей грунта) и внешних (условий обводнения, уплотнения, выщелачивания и др. факторов). В связи с этим, определение параметров ползучести грунта проводилось на монолитных образцах с естественной структурой и влажностью; на образцах, предварительно уплотненных ($P_1 = 0,0; 0,2$ МПа) и выщелоченных. Для оценки остаточной длительной

прочности были проведены повторные испытания тех же образцов по подготовленной (увлажненной) поверхности среза (I и III схема).

Образец графического оформления результатов испытаний грунта в условиях одноплоскостного среза.

Графики 1. $T=f(t)$

2. $\lambda=f(t)$

Выбранный комплекс методом определения прочностных и деформационных свойств глинистых грунтов дает возможность определить степень изменения физико-механических свойств грунтов при постоянно действующих напряжениях, выщелачивания грунта и выявить влияние состава, состояния и структуры грунта, а также методов и условий проведения опытов.

Изменение химического состава глинистых грунтов под действием их контакта [3] с фильтрующей через них жидкостью приводит к нарушению исходной структуры грунта, что неизбежно влечет за собой изменение физико-механических свойств, а следовательно, и качества грунта как основания.

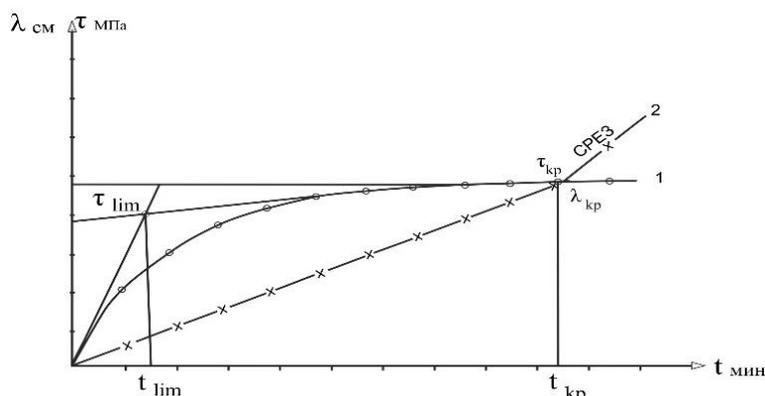


Рис. 1. Комплекс методом определения прочностных и деформационных свойств глинистых грунтов. Масштаб графиков принимают:

для T (по оси ординат) 10 мм – 0,02 МПа; для λ (по оси ординат) 10 мм – 0,1 см; для t (по оси абсцисс) 10 мм – 10 (50) мин

В связи с хозяйственной деятельностью человека степень засоленности грунтов и почв может как увеличиваться, так и уменьшаться. В настоящих исследованиях рассматривался второй случай. В результате потери пресных техногенных вод в процессе эксплуатации сооружения КАЭС и, следовательно, подтопления территории неизбежно изменение минерализации грунтовых вод и солевого комплекса грунтов.

Основанием КАЭС служат глины и суглинки с небольшим коэффициентом фильтрации (до $n \cdot 10^{-4}$ м/сут.), трещиноватые в зоне аэрации. Массоперенос в таких условиях осуществляется как путем фильтраций, так и путем диффузионного влага- и масса переноса. В этом контексте собственно процесс выщелачивания глинистых грунтов исследовался по

двум схемам:

- фильтрационное выщелачивание;
- диффузионное выщелачивание.

В первом случае моделировалось движение жидкости по наиболее ослабленным зонам грунта (трещинная фильтрация) и по макропорам.

Во втором - воспроизводился контакт блока грунта с движущейся жидкостью по его периметру (поверхности), что имеет место при движении фильтрата по трещинам, в то время как массоперенос в блоке грунта осуществляется диффузионными и осмотическими процессами.

Следует отметить в обеих схемах, очевидно, имеют место как перетекание жидкости через образец, так и ее диффузионное движение [4, 7]. При фильтрации воды через образец глинистого грунта неизбежно наличие более проницаемых зон и некоторых объемов грунта, где масса перенос происходит за счет диффузии.

При движении жидкости вдоль поверхности образца возможно перетекание через объем грунта. Однако в обоих случаях преимуществом является моделируемый фактор: в первом - вынос солей фильтрационном потоке; во втором - диффузионным масса переносом.

Исходя из поставленной задачи и результатов предыдущих исследований, методическая часть эксперимента основывалась на следующих положениях:

1. В процессе взаимодействия грунта с дистиллированной водой происходит изменение его строения вследствие уменьшения количества водорастворимых солей.

2. Изменение структуры грунта при выщелачивании приводит к снижению прочности и возрастанию деформируемости (дополнительной суффозионной осадке).

3. Изменение состава и объема солевого комплекса в грунте может оказывать влияние на воднофизические свойства грунтов [5, 6, 7], в частности, изменяются микро агрегатный состав, параметры пластичности, липкости, набухания и проч.

В результате эксперимент был построен следующим образом:

Для исходного грунта в естественном сложении определялись параметры плотности (ρ ; ρ_0 ; ρ_5), влажности (w), сдвиговой и пластической прочности (C ; ϕ ; P_m), а также исследовался его состав: гранулометрический, микроагрегатный, химический (состав легкорастворимых солей, гипса, кальцита), минеральный. Кроме того, проводилось дополнительное исследование микроструктур глинистых грунтов.

После всестороннего изучения исходного грунта он подвергался диффузионному, либо фильтрационному выщелачиванию.

Диффузионное выщелачивание глинистых грунтов проводилось в диффузионной установке ДУ, схеме которой представлена на *рис. 2*. ДУ оснащена 4 камерами (2) (*рис. 3*), установленными на станине (1). В камеры

помещались образцы грунта, к которым через рычажное устройство (8-12) прикладывалась уплотняющая нагрузка. Устройство камеры позволяет осуществлять контакт движущейся воды с верхней торцевой поверхностью образца с последующим сбором контактирующей жидкости (31) (рис. 3). Вода, просачивающаяся через образец, попадает в нижний канал (35), откуда также может быть отобрана.

Процедура эксперимента по диффузионному выщелачиванию глинистых грунтов под нагрузками заключалась в следующем. Образцы исходного грунта помещались в четыре камеры и уплотнялись под нагрузками $R_{уп} = 0,1; 0,2; 0,3$ и $0,4$ Мпа.

При выщелачивании грунтов величину максимального нормального давления принимали с учетом суммы проектного и природного давления. Передача нормального давления на породу, помещённую в камени, производилась до начала пуска воды, т.е. до начала замачивания образца. Нормальное давление при предварительном уплотнении передавалось на образец последовательно ступенями согласно ГОСТу «Грунты. Методы лабораторного определения сжимаемости».

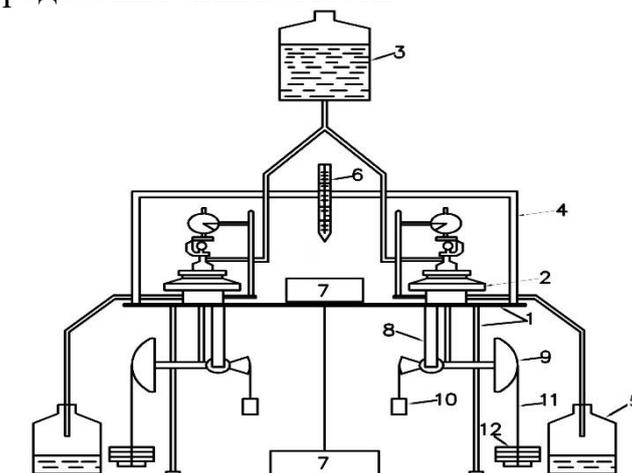


Рис. 2. Схема диффузионной установки (ДУ): 1 – станина; 2 – камера; 3 – резервуар – дозатор; 4 – съёмный кожух; 5 – сборник – стакан; 6 – термометр; 7 – нагревательный элемент; 8 – рамка рычажно-силового устройства; 9 – рычаг; 10 – противовес; 11 – подвеска; 12 – разновес гирь

После стабилизации осадки образцы заливались дистиллированной водой и фиксировалась деформация набухания или дополнительного уплотнения и уже после этого проводилось выщелачивание грунта.

Выщелачивание грунта осуществлялось дистиллированной водой. Постоянный безнапорный расход воды, проходящей по торцевой поверхности образца, не превышал $0,5$ л/сут, что достигалось при помощи капилляров, подающих воду в камеру. В процессе эксперимента фиксировался объём воды, прошедший через камеру, и дополнительная осадка образца. Помимо этого, определялась величина плотного остатка

контактирующей жидкости, что позволяло рассчитывать валовой объём солей, вынесенных из грунта.

Опыт по выщелачиванию грунтов в установке считался законченным, если показания индикаторов меняются не более чем на 0,01 мм в течение 6 суток. (1).

После завершения эксперимента образец грунта извлекался из камеры и опробовался по той же схеме, что и исходный грунт.

Таким образом, результатом проведения процедуры выщелачивания грунтов явилась оценка изменения состава (микроагрегатного, химического), структуры, воднофизических свойств (W , P , Ps , n ; W_f ; W_p ; J_p), физико-механических свойств (C ; ϕ ; P_m ; сжимаемость) в связи с диффузионным выносом определенного объёма солей из грунта (степени выщелачивания β) при его контакте с дистиллированной водой.

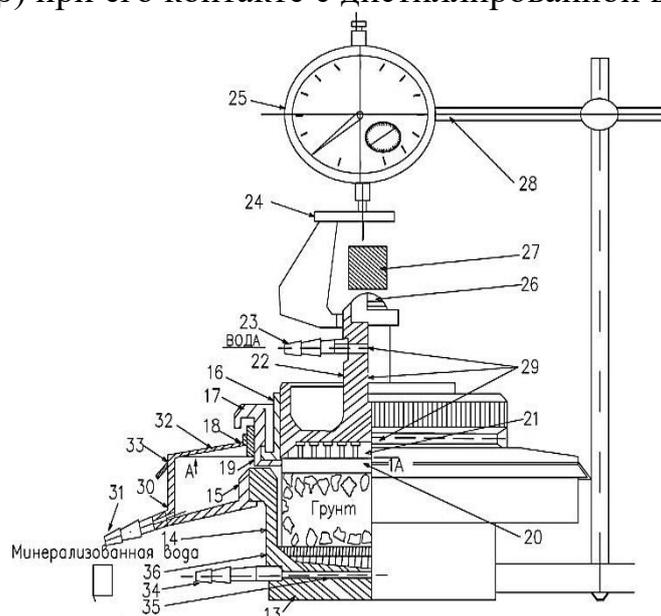


Рис. 3. Камера для изучения процессов диффузионного выщелачивания:
 13 – корпус; 14 – грунтоносное кольцо; 15 – прокладка; 16 – направляющее кольцо; 17 – обойма на резьбе; 18 – отверстия в кольце; 19 – отверстия в корпусе; 20 – пористая пластинка; 21 – перфорированная пластинка; 22 – поршень; 23 – штуцер; 24 – опорная площадка; 25 – индикатор; 26 – шарик силового нагружения; 27 – траверса силовой рамки; 28 – арматура для крепления индикатора; 29 – каналы для подачи воды; 30 – водоприёмник; 31 – трубка; 32 – пластиковая пленка; 33 – уплотнитель; 34 – штуцер; 35 – канал; 36 – нижняя перфорированная пластинка

Фильтрационное выщелачивание глинистых грунтов реализовывалась в приборе Ф-ИМ по схеме восходящего потока (рис. 4). Предварительно опробованный по вышеописанной схеме образец естественного сложения помещался в прибор. Для ликвидации при стенной фильтрации боковые поверхности образца обрабатывались по методике, предложенной Петрухином В.П. Образец вырезался меньшим относительно

кольца прибора Ф-1М ($S = 50 \text{ см}^2$) диаметром. На его боковые поверхности наносился тонкий слой пластичного клея, а зазор между кольцом и образцом заливался парафином. Такая обработка позволяет считать, что движение жидкости происходит исключительно через объём грунта.

Фильтрационное выщелачивание проводилось без дополнительного обжатия грунта, под арретиром, т.е. грунт в процессе эксперимента находился в условиях постоянства объёма.

Фильтрация воды осуществлялась под действием высоких градиентов напора (до $J = 100$), создаваемого столбом воды. При этом предельное его значение устанавливалось не одновременно, а постепенно, ступенями ($J = 10, 30, 60, 100$). Для определения количества выщелоченных солей в течение опыта отбирался инфильтрат, фиксировался его объём и минерализация. По окончании испытаний грунт опробовался по общей схеме.

Результатом проведения эксперимента [6, 7, 8] по фильтрационному выщелачиванию грунтов, как и в случае диффузионного выщелачивания, явился анализ его влияния на изменения водно-физических и физико-механических свойств исследуемых грунтов.

Для ускорения процесса фильтрации жидкости через образец была применена иная схема эксперимента. Согласно ей градиент напора создавался путем вакуумирования (рис. 5).

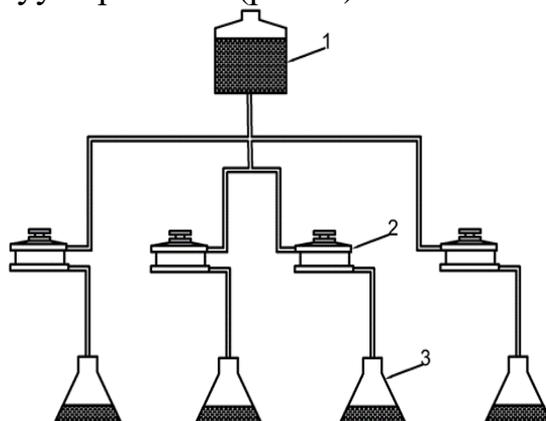


Рис. 4. Схема фильтрационной установки: 1 – резервуар – дозатор; 2 – одометр; Φ - 1м; 3 – сборная ёмкость.

Образцы вырезались с помощью режущих колец ($S = 40 \text{ см}^2$) в последствии извлекались из них. На их торцевые поверхности устанавливались бумажные фильтры и перфорированные штампы, вместе с которыми образец покрывался резиновой оболочкой [7].

Вся конструкция помещалась в ёмкость с дистиллированной водой, а через верхний штамп к грунту прикладывалось отрицательное давление, жидкость, проходящая через образец под действием разности атмосферного и создаваемого вакуумным насосом давления, собиралась в ёмкости, что позволяло фиксировать ее объём и определять минерализацию.

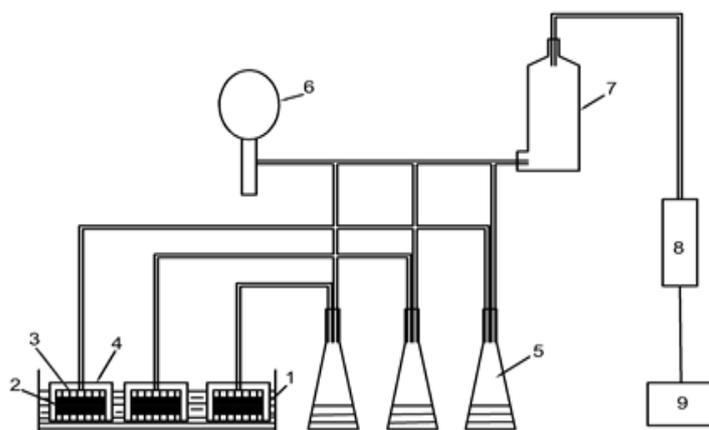


Рис. 5. Схема вакуумно-фильтрационной установки: 1 – резервуар с дистиллированной водой; 2 – образец грунта; 3 – перфорированный штамп; 4 – резиновая оболочка; 5 – сборная ёмкость; 6 – электроконтактный вакуумный манометр; 7 – ресивер; 8 – вакуумный насос; 9 – реле

Выводы. При таком способе создания фильтрационного напора градиент фильтрации мог достигать 650. Его величина варьировала в зависимости от высоты образца и устойчивости его к механической суффозии. Градиент создавался ступенями либо до J_{\max} , либо до $J \leq J_{\text{суфф}}$.

Выбор метода предварительной подготовки грунта и режим испытаний зависят от физического состояния грунта и от его взаимодействия с водой и сооружением. Предварительная подготовка засоленных просадочных грунтов должна моделировать условия работы грунта с сооружением и пресной водой, вызывающей процессы выщелачивания солей из грунта.

При определении механических характеристик по вышеуказанным схемам до и после опытов на компрессию и сдвиг определялись: влажность, плотность, гранулометрический и микроагрегатный составы, емкость обмена, состав обменной катионов, солевой состав и др.

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ЗНАЧЕНИЕ КРУЖКОВ В ОБУЧЕНИИ РУССКОМУ ЯЗЫКУ УЧАЩИХСЯ ДОШКОЛЬНОГО ОБРАЗОВАНИЯ

Аннотация. В статье говорится об организации и проведении кружковых занятий русского языка для студентов дошкольного образования, а также о значении кружка для студентов.

Ключевые слова: Кружок, коммуникативный, дидактический, диалог, информация, грамматические правила, навык, умение, самостоятельное мышление, творческое мышление, технология, говорение, аудирование, чтение, письмо, дошкольное образование, специальность.

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THE IMPORTANCE OF CIRCLES IN TEACHING RUSSIAN LANGUAGE TO PRESCHOOL STUDENTS

Abstract. The article talks about the organization and conduct of Russian language club classes for preschool students, as well as the importance of the language club for students.

Key words: language club, communicative, didactic, dialogue, information, grammatical rules, skill, ability, independent thinking, creative thinking, technology, speaking, listening, reading, writing, preschool education, specialty.

Кружок – это добровольное объединение студентов, интересующихся определенной областью знаний и желающих заниматься практической деятельностью. Работа Кружка заключается в приобретении студентами важного, ценностного, индивидуального опыта деятельности, выбранной добровольно, исходя из их интересов. Помогают студентам в профессиональном самоопределении, знания, полученные на основном компоненте, помогают осознать сильные стороны. Проведение групповых занятий интерактивными методами еще больше повысит качество образования. Студент должен иметь возможность свободно мыслить во время обучения и иметь возможность открыто продемонстрировать свои творческие способности. В кружке необходимо создать условия, чтобы студент осмысленно проводил свободное время после занятия. Кружковые

занятия позволяют студенту работать над собой, иметь возможность заниматься интересующим его направлением, получать дополнительные знания. В ходе обучения, наряду с обучением, студенты обмениваются друг с другом творческим опытом. Формируются будущие молодые специалисты, которые ищут одно направление. Это позволяет учащимся свободно выбирать кружки самостоятельно, участвовать в нескольких кружках одновременно, менять кружок по интересам. Это послужит отправной точкой для выбора студентами профессии в будущем. В связи с этим особенно важна организация кружков по изучению иностранного языка. Сюда входит организация кружков по изучению русского языка. Основная цель обучения русскому языку в кружках - дать возможность учащимся свободно общаться на русском языке и развивать речевые навыки. Эта цель является развитие коммуникативной и социальной культуры путем обучения студентов русскому языку, развитие отношений взаимозависимости. Также большое значение для студента имеет создание психолого-дидактической среды во время учебных занятий.

Задачи кружков должны быть следующими:

Развитие теоретических знаний учащихся, развитие талантов учащихся как средства общения на русском языке, приобретение дополнительной информации о русскоязычной стране, развитие речевых навыков учащихся, развитие устной речи учащихся путем обучения правилам грамматики, совершенствование творческих способностей учащихся. Для дальнейшего развития самостоятельного мышления учащихся. Воспитывать в духе уважения к образу жизни людей, изучающих язык. Повышать интерес учащихся к образованию путем прохождения тем, связанных со специализацией. Воспитание в духе идей толерантности.

Сегодня изучение русского языка стало необходимостью времени. После обретения нашей страной независимости спрос на изучение русского языка скорее увеличился, чем снизился. В настоящее время создано много условий для изучения русского языка. Одним из таких условий является обучение русскому языку посредством организации групп. Изучение русского языка также важно для учащихся дошкольного образования. Важно выражать на русском языке знания, полученные на узбекском языке по профильным предметам. Язык – богатство общества, реализует взаимодействие членов общества, собирает знания обо всех существующих событиях. В результате использования инновационных технологий при изучении русского языка повышается интерес учащихся к общественной деятельности. Становится легче освоить изучающиеся темы. В эпоху передовых технологий необходимо изучать и преподавать русский язык в совершенстве, так, чтобы он был понятен каждому, используя эти средства.

Глубоко изучить его можно, участвуя в кружках. В кружках русского языка «Детский сад», «Воспитательница детского сада», «Что такое дошкольное образование», «Учитель дошкольного образования»,

«Дошкольная педагогика», «Подготовка к школе в детском саду». «Отношения с родителями и детьми». Эффективно проводить уроки по таким темам, как «Что читать и рассказывать детям дошкольного возраста». Важно также сравнить изложение грамматических правил и изложение этих правил в русском и узбекском языках.

Также необходимо развивать и совершенствовать речевые навыки при прохождении вышеперечисленных тем. Необходимо развивать навыки и умения, учащихся путем организации и совершенствования простых диалогов. Будут развиваться речевые навыки. Преподаватель будет контролировать произношение учащихся на русском языке. Учащиеся будут говорить по теме индивидуально. Затем тема будет закрепляться посредством вопросов и ответов, диалога, уделяя особое внимание слушанию и пониманию требований в кружках. Важно слушать и понимать речь учителя и одноклассников. Также важно слушать и понимать тексты, относящиеся к теме, и различную информацию с помощью технических средств. При прослушивании и понимании не обращайтесь слишком много внимания на некоторые незнакомые слова в информации. Важно идти от простоты к сложности при передаче тем учащимся на основе технических средств понимания на слух. Прежде всего необходимо использовать короткие тексты. Поскольку учащимся легче слушать и понимать. Затем они переходят к большим темам. Эти темы - "Что такое дошкольное образование" "Учитель дошкольного" В этих групповых занятиях необходимо уделять особое внимание навыкам чтения учащихся. Прежде всего, учащийся должен овладеть техникой чтения, то есть усвоенными правилами - фонетическими, орфографическими правилами необходимо обращать внимание на ударение в словах. Необходимо знать логические и фразовые ударения предложения. Также необходимо знать содержание текста при чтении. Учащиеся должны обращать внимание на высокие и низкий тон при чтении. Важную роль при чтении играет высокий и низкий тон. В развитии навыков письма следует реализовать следующее: выполнение лексико-грамматических упражнений, письменные ответы на вопросы, написание текстов, написание диктантов и т.д. Учащиеся должны совершенствовать свои навыки письма, прежде всего, необходимо хорошо знать правила грамматики, освоить правила правописания русского языка. Например, тема «Моя профессия».

Подводя итоги можно сказать что, преподавание иностранных языков в кружках, особенно преподавание и изучение русского языка важно для студентов. Прежде всего, студенты добровольно участвуют в кружках. Если он захочет делать это по своей воле, он добьется многого. Поэтому студент, изучающий русский язык, может решать творческие и сложные задачи. Студенты сравнивают систему дошкольного образования изучаемой страны с системой дошкольного образования нашей республики, обращают внимание на положительные стороны между ними. В то же время интерес к

своей профессии начинает развиваться дальше. Изучающие русский язык имеют возможность лучше понять свою собственную культуру и культуру других стран, открывая множество различных карьерных возможностей. Они понимают, что изучение русского языка – это конкурентный инструмент выбора карьеры в сегодняшнем и завтрашнем мире.

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ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ОБУЧЕНИЯ В СРЕДЕ ЭЛЕКТРОННОГО ОБУЧЕНИЯ

Аннотация. В данной научной статье рассматривается эффективность организации самообразования в контексте электронной образовательной медиасреды. С появлением цифровых технологий образовательные парадигмы претерпели значительные изменения, породив новые возможности для самостоятельного обучения. В статье исследуется влияние электронных образовательных медиа на результаты самообразования, уделяется внимание преимуществам, проблемам и лучшим практикам, связанным с этим меняющимся образовательным ландшафтом.

Ключевые слова: самообразование, самостоятельное обучение, медиаресурсы, электронная образовательная медиасреда.

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INCREASING LEARNING EFFECTIVENESS IN AN E-LEARNING ENVIRONMENT

Abstract. This scientific article examines the effectiveness of organizing self-education in the context of an electronic educational media environment. With the advent of digital technologies, educational paradigms have undergone significant changes, giving rise to new opportunities for self-directed learning. The article explores the impact of electronic educational media on self-education outcomes, focusing on the benefits, challenges and best practices associated with this changing educational landscape.

Key words: self-education, independent learning, media resources, electronic educational media environment.

Введение

Роль электронных средств обучения: Интеграция электронных средств обучения в учебный процесс открыла новые возможности для самообразования. В этом разделе рассматриваются различные формы электронных образовательных средств, включая онлайн-курсы,

интерактивные мультимедийные средства, электронные книги и образовательные приложения, а также изучается их влияние на опыт самообразования.

Преимущества самообразования в электронной среде: В этом разделе анализируются преимущества организации самообразования в электронной образовательной среде. Среди них - гибкость расписания, персонализация учебного процесса, доступ к огромному количеству ресурсов и развитие навыков цифровой грамотности.

Проблемы и барьеры: несмотря на преимущества, самообразование в электронной среде сопряжено с проблемами и препятствиями. В этом разделе рассматриваются такие проблемы, как информационная перегрузка, отсутствие мотивации, технологические барьеры и возможность социальной изоляции. Понимание и решение этих проблем имеет решающее значение для оптимизации эффективности самостоятельного обучения.

Анализ литературы по теме (Обзор литературы)

Значительный вклад Н.А. Рубакин внес в развитие теории самообразования. В его трудах разработаны теоретические основы самообразования и методы самостоятельного усвоения знаний. Он считает, что «высшей формой образования является самообразование». [1]

Доктор педагогических наук Н.А.Муслимов подчеркивает, что самостоятельное образование (авто дидактика) означает организацию, сообразной субъективным целям учебного процесса, самостоятельной и автономной деятельности по усвоению знаний, развитию представлений, формированию понятий, навыков и умений. [2]

Методология исследования: В процессе исследования используются такие методы, как учебно-научные ресурсы по национальной программе подготовки кадров, анализ концептуальных идей в ДТС, исследование взглядов, анализ и синтез, педагогическое наблюдение, ретроспективный анализ, интервью, моделирование, проведение опросов, мониторинг, интервью, тестирование, педагогический эксперимент-тестирование, аналитический обзор, математико-статистический анализ.

Анализ и результаты (Analysis and results)

Сегодня, быстрый темп развития в современном мире требует от каждого человека постоянно совершенствовать свои знания и умения, заниматься непрерывно самообразованием. Непрерывное самообразования это, изучение в любое время и в любом месте, на протяжении всей жизни.

Уровень развития общества, информационная перегрузка, структурная изменения в экономике, жизненный опыт в целом свидетельствуют о том, что для подготовки молодежи педагогам недостаточно просто вести занятия традиционными методами⁴⁷. [4]

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В самообразовании студент сам определяет, что будет изучать, когда и в каком девайсе, занимается самообразованием и опираясь на самостоятельно усвоенный материал практикуется, решает сложные задачи, в этом направлении будет искать нестандартный подход. При нахождении нового пути решения задач самостоятельно, материал усваивается лучше. Однако, как верно отмечает Н.А. Рубакин, “Самому добиваться образования — это и значит заниматься самообразованием... А все, что делаешь и чего добиваешься самолично, по своей воле и желанию, — это залезает в голову всего крепче...”

Поэтому сегодня, проблема самообразования является наиболее актуальной психолого-педагогической проблемой.

Роль электронных средств обучения

Интеграция электронных средств обучения в учебный процесс открыла новые возможности для самообразования. В этом разделе рассматриваются различные формы электронных образовательных средств, включая онлайн-курсы, интерактивные мультимедийные средства, электронные книги и образовательные приложения, а также изучается их влияние на опыт самообразования.

В настоящее время существует множество способов организации самостоятельного обучения в высших учебных заведениях, и в связи с технологическим развитием образования как одного из последних инновационных методов набирает популярность метод организации самостоятельного обучения студентов в среде электронных образовательных медиа.

Самостоятельное обучение в электронных образовательных медиа среде включают в себя множество интерактивных элементов (медиа ресурсов), которые вовлекают студентов в отличие от аудиторных лекций. Частые тесты и интерактивные задачи позволяют определить, уровень освоенности материала, а учебный контент такие как, медиа ресурсы повышают уровень активного участия и интерес студентов в обучении.

Этот современный метод самостоятельного обучения студентов высших учебных заведений развивает их интеллектуальные и профессиональные способности, способности критического и креативного мышления, а также формирует у студентов медийно – информационные и цифровые компетентности.

Проведения самообразования, в специально организованной электронно- образовательной медиа среде и использование медиа ресурсов в образовательном процессе предоставляет нам такие ряд полезных возможностей:

- организация процесса самообразования в любое время и в любом месте независимо от границ времени и пространства;
- интерактивное общение между студентами (учениками) и педагога;
- индивидуализировать учебный процесс;
- освоение учебного материала простым и удобным способом с учетом индивидуального темпа и особенностей восприятия канала информации;
- делая процесс обучения интересным и увлекательным для учащихся, добиться их активного участия и независимость в процессе обучения.
- повысить эффективность обучения.

Поэтому, внедрение медиа ресурсов и информационных медиа технологий в учебный процесс, одним словом, проведения самообразования в электронное образовательное медиа среде сегодня становится одной из важнейших задач.[3]

Выводы и предложения (заключение/рекомендации)

Будущие направления и выводы: В заключение в данной статье обобщены основные выводы и рассмотрены потенциальные будущие направления для повышения эффективности организации самообразования в электронной образовательной медиасреде. Признавая преимущества, решая проблемы и внедряя эффективные педагогические стратегии, преподаватели и учащиеся могут максимально использовать преимущества самостоятельного обучения в цифровую эпоху. Продолжение исследований и инноваций в этой области будет способствовать дальнейшему развитию образования во все более цифровом мире.

В заключение отметим, что создания специально организованное электронное образовательное медиа среда делает процесс обучения более доступным и эффективным.

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ЗНАЧЕНИЕ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ ТЕХНОЛОГИЙ В ОБРАЗОВАТЕЛЬНОМ ПРОЦЕССЕ

Аннотация. В данной научной статье рассматривается ключевая роль информационных и коммуникационных технологий (ИКТ) в современном образовательном процессе. С быстрым развитием технологий ИКТ стали неотъемлемой частью методик преподавания и обучения. В данной статье рассматривается многогранный вклад ИКТ в образование, изучается их влияние на педагогику, вовлеченность студентов и общую эффективность учебной среды.

Ключевые слова: цифровые технологии, мультимедиа, электронный учебный ресурс, электронный учебник, инструкция, мультимедийные инструменты, справочники и словари, гипертекст, электронные тесты.

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THE IMPORTANCE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE EDUCATIONAL PROCESS

Abstract. This scientific article examines the key role of information and communication technologies (ICT) in the modern educational process. With the rapid development of technology, ICT has become an integral part of teaching and learning practices. This article examines the multifaceted contributions of ICT to education, examining its impact on pedagogy, student engagement, and the overall effectiveness of the learning environment.

Key words: digital technologies, multimedia, electronic educational resource, electronic textbook, instructions, multimedia tools, reference books and dictionaries, hypertext, electronic tests.

Введение

Введение создает основу для исследовательской работы, подчеркивая преобразующее воздействие информационных и коммуникационных технологий на современное образование. В нем представлены ключевые задачи исследования с акцентом на роль и эффективность ИКТ в образовательном процессе.

Эволюция информационно-коммуникационных технологий в образовании: В этом разделе представлен исторический обзор интеграции ИКТ в образование. В нем рассматривается эволюция технологий, начиная с ранних вычислительных устройств и заканчивая современной эрой передовых цифровых инструментов и платформ, выделяются основные этапы применения ИКТ в преподавании и обучении.

Анализ литературы по теме (Обзор литературы)

Значительный вклад Костяев Андрей Евгеньевич внес в развитие теории самообразования. В его трудах разработаны теоретические основы самообразования и методы самостоятельного усвоения знаний. Он считает, что «высшей формой образования является самообразование». [1]

Доктор педагогических наук М.Е. Вайндорф-Сисоева подчеркивает, что самостоятельное образование (авто дидактика) означает организацию, сообразной субъективным целям учебного процесса, самостоятельной и автономной деятельности по усвоению знаний, развитию представлений, формированию понятий, навыков и умений. [2]

Методология исследования: В процессе исследования используются такие методы, как учебно-научные ресурсы по национальной программе подготовки кадров, анализ концептуальных идей в ДТС, исследование взглядов, анализ и синтез, педагогическое наблюдение, ретроспективный анализ, интервью, моделирование, проведение опросов, мониторинг, интервью, тестирование, педагогический эксперимент-тестирование, аналитический обзор, математико-статистический анализ.

Анализ и результаты (Analysis and results)

Педагогическое влияние ИКТ: ИКТ изменили педагогические подходы, предоставив преподавателям новые возможности для совершенствования методов обучения. В этом разделе рассматривается, как ИКТ поддерживают различные стратегии преподавания, включая совместное обучение, "перевернутые" классы и персонализированное обучение. Рассматривается роль цифровых инструментов в развитии критического мышления и навыков решения проблем.

Информационные технологии являются основным фактором, влияющих на развитие общества. Вот почему мы должны приобретать цифровые знания и современные информационные технологии, чтобы добиться развития. Это позволит нам выбрать кратчайший путь. Ведь сегодня в мире информационные технологии проникают глубоко во все сферы.

Уровень развития общества, информационная перегрузка, структурная изменения в экономике, жизненный опыт в целом свидетельствуют о том, что для подготовки молодежи педагогам недостаточно просто вести занятия традиционными методами⁴⁸. [5]

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Важным направлением развития современного общества является информатизация образования. В последние годы обучение с помощью информационных технологий получило название информатизации, использование которой повышает положительную мотивацию учащихся к обучению, активизирует познавательную деятельность, развивает мышление и творческие способности ребенка. [1].

В современных учебных и воспитательных учреждениях значительно расширяется арсенал средств обучения, повседневно применяемых учителем и воспитателем в учебно-воспитательной работе. Педагогический принцип наглядности обучения требует постоянного совершенствования средств обучения, соответствующих уровню развития науки и техники. Повышение качества преподавания тесно связано с коренным улучшением методов обучения, что в свою очередь зависит и от применения учителем и воспитателем широкого комплекса технических средств обучения. [2].

Быстрые темпы развития в современном мире ставят перед педагогикой требования не отставать от тенденций.[3]

Использование информационных технологий в образовании для улучшения знаний и навыков учащихся требует разработки новых методов, дидактик и методологий. В условиях сегодняшнего перехода к рыночной экономике развитие нашего общества требует внедрения во всех сферах новых технологий, включая новые информационные и коммуникационные технологии. В частности, повсеместное внедрение мультимедийных и веб-технологий, серьезное изучение технологии создания и обработки графических изображений, анимации и видеороликов с помощью компьютеров детских садов, школ, профессиональных колледжей и академических лицеев, высшее образование требует компьютерной грамотности от обучающихся и преподавателей учреждений.

Использование информационных технологий на всех уровнях системы образования создает ежедневный спрос на информатизацию образования, что, в свою очередь, требует от выпускников овладения навыками комфортной работы в новой информационной среде. [4].

Следует отметить, что использование ИКТ в системе образования имеет как экономические, так и социальные преимущества. Поэтому одним из актуальных задач сегодняшнего дня является усовершенствование теоретические, методологические и другие аспекты в соответствии с требованиями времени.

Использование информационных технологий помогает студентам развивать подход, основанный на навыках, развивать свои способности, что позволяет им стать квалифицированными профессиональными личностями в образовательных учреждениях. Как упоминалось выше, продажа и покупка необходимых знаний означает, что они стали товаром. Это связано

с тем, что постоянное обновление знаний и их применение сотрудниками является ключом к социально-экономическому развитию. В результате популяризации этого процесса развитие зрелых профессионалов будет играть важную роль в появлении университетов в производственных и рыночных отношениях.

Профессиональное развитие педагогов: По мере развития ИКТ педагогам требуется постоянное повышение квалификации для эффективного использования технологий. В этом разделе рассматривается важность программ подготовки учителей, семинаров и совместных платформ для повышения цифровой грамотности педагогов и их умения внедрять ИКТ в свою педагогическую практику.

Проблемы и этические аспекты: Несмотря на то что ИКТ дают множество преимуществ, они также связаны с проблемами и этическими соображениями. В этом разделе рассматриваются такие вопросы, как цифровое равенство, проблемы конфиденциальности и возможность того, что технологии могут усугубить неравенство в образовании. Обсуждаются стратегии решения этих проблем.

Будущие тенденции и последствия: Прогнозирование будущих тенденций имеет решающее значение для понимания траектории развития ИКТ в образовании. В этом разделе рассматриваются новые технологии, включая искусственный интеллект, дополненную реальность и иммерсионный опыт обучения, а также обсуждаются их потенциальные последствия для будущего образования.

Выводы и предложения (заключение/рекомендации)

В заключение этой научной статьи мы обобщили основные выводы и подчеркнули центральную роль информационных и коммуникационных технологий в формировании образовательного процесса. Понимая многогранный вклад ИКТ, педагоги, политики и заинтересованные стороны могут принимать взвешенные решения, чтобы использовать весь потенциал технологий для развития образования в XXI веке.

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ОСНОВНЫЕ ПРОБЛЕМЫ РАЗВИТИЯ ПРОФЕССИОНАЛЬНО- ПЕДАГОГИЧЕСКОЙ КОМПЕТЕНТНОСТИ ПЕДАГОГОВ

Аннотация. В данной научной статье рассматриваются проблемы, связанные с реализацией идеи развития профессиональных педагогических компетенций учителя в условиях инновационного сотрудничества. По мере развития системы образования в соответствии с требованиями XXI века важность повышения компетентности учителей приобретает первостепенное значение. В статье рассматриваются ключевые проблемы, препятствующие успешной реализации инициатив по профессиональному развитию и подходов к сотрудничеству в развитии инновационной педагогической практики.

Ключевые слова: Профессиональная готовность, компетентность, инновации в образовании, сотрудничества, наука, производства и образование.

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MAIN PROBLEMS OF DEVELOPMENT OF PROFESSIONAL AND PEDAGOGICAL COMPETENCE OF TEACHERS

Abstract. This scientific article examines the problems associated with the implementation of the idea of developing professional pedagogical competencies of a teacher in the conditions of innovative cooperation. As the education system evolves to meet the demands of the 21st century, the importance of improving the competence of teachers becomes paramount. This article examines key issues that impede the successful implementation of professional development initiatives and collaborative approaches to the development of innovative teaching practice.

Key words: Professional readiness, competence, innovation in education, cooperation, science, production and education.

Введение

Введение задает контекст исследования, подчеркивая важнейшую роль профессиональных педагогических компетенций в обеспечении эффективной практики преподавания. В нем представлена центральная идея

инновационного сотрудничества как средства повышения этих компетенций и обозначены основные задачи исследования.

Концепция профессиональных педагогических компетенций: В этом разделе представлен всеобъемлющий обзор профессиональных педагогических компетенций, подчеркивающий многогранность навыков и знаний, необходимых педагогам для успешной работы в современном образовательном пространстве. Подчеркивается роль непрерывного профессионального развития в развитии этих компетенций.

Анализ литературы по теме (Обзор литературы)

В работах Д.Р. Шукурова и других изучались проблемы развития обучения в общеобразовательных учреждениях, разработки и реализации образовательных программ и учебников и другой учебно-методической литературы на основе предметного подхода. [1]

В научно - исследовательской работе Х.А. Умаров были определены возможности использования ЭВМ при проведении лабораторных работ, а также разработана методическая система проведения лабораторных работ с использованием ЭВМ, учебно-методическое обеспечение, программы для ЭВМ, а из них образовательные учреждения метод предложено использование в образовательном процессе [2].

Методология исследования: В процессе исследования используются такие методы, как учебно-научные ресурсы по национальной программе подготовки кадров, анализ концептуальных идей в ДТС, исследование взглядов, анализ и синтез, педагогическое наблюдение, ретроспективный анализ, интервью, моделирование, проведение опросов, мониторинг, интервью, тестирование, педагогический эксперимент-тестирование, аналитический обзор, математико-статистический анализ.

Анализ и результаты (Analysis and results)

Инновационное сотрудничество подразумевает совместные подходы и партнерские отношения, направленные на внедрение новых и эффективных методик обучения. В этом разделе рассматривается концепция инновационного сотрудничества, подчеркивается его потенциал для создания динамичной и адаптивной среды обучения. Обсуждается взаимосвязь между инновационным сотрудничеством и развитием компетенций преподавателей.

Уровень развития общества, информационная перегрузка, структурная изменения в экономике, жизненный опыт в целом свидетельствуют о том, что для подготовки молодежи педагогам недостаточно просто вести занятия традиционными методами⁴⁹. [4]

49 J.E. Rustamov Features and current status of the teaching of the subject "information technology in the field of services" in higher educational institutions, International Scientific Journal: Theoretical & Applied Science, p-ISSN: 2308-4944, Year: 2020 Issue: 01 Volume: 81, <http://www.t-science.org/axivDOI/2020/01-81/PDF/01-81-21.pdf>, <https://dx.doi.org/10.15863/TAS.2020.01.81.21>; Impact Factor: 6.63, 112-116 bet

Качество подготовки студентов педагогического направления к профессиональной педагогической деятельности зависит от многих факторов: качества учебной программы; качество научно-педагогического потенциала педагогических вузов, вовлеченных в образовательный процесс; качество студентов (включая качество абитуриентов); качество средств учебного процесса (материально-техническая, экспериментальная база; учебно-методическое обеспечение; используемые аудитории; предоставляемые знания и др.); качество образовательных технологий и так далее.

Развитие профессиональной педагогической подготовки будущих учителей требует подготовки учебных материалов, направленных на создание потенциальной возможности для целевого формирования профессиональной педагогической подготовки студентов, и требует использования организационных форм, методов и приемов, влияющих на максимально активное овладение всеми составляющими учебного процесса, развитие творческих способностей, самостоятельное получение новых знаний. Систематическое усовершенствование содержанияготавливаемых учебных материалов должно осуществляться с использованием следующих методов: систематический анализ, моделирование, синтез, делегирование и прогнозирование фиксированных и переменных компонентов учебных материалов.

Такой подход позволяет профессиональную подготовку превратить в активную и целенаправленную деятельность, в этом процессе переобрабатывается имеющаяся и ново полученные информации, отделяются внешние случайные, второстепенные элементы от основных, отражается суть изучаемых ситуаций, выявляются логические связи между ними.

Как отмечал известный психолог-ученый К.К. Платонов, профессиональная подготовка специалиста – это субъективное состояние человека, то есть он считает себя способным и готовым к соответствующей профессиональной деятельности. [1]

Можно сказать, что профессиональная подготовка – это процесс усвоения, направленный на ускорение приобретения студентами знаний, навыков и компетенций, необходимых для выполнения определенной работы или группы работ для того, чтобы они могли работать в определенной сфере деятельности.

Иногда понятие профессиональной подготовки определяют понятием профессиональной компетентности, которое в общем смысле представляет собой формирование профессиональной готовности, устойчивую направленность на выполнение рабочих задач. Профессиональная компетентность – это не только результат, но и цель профессионального обучения, которое осуществляется через определенную систематизацию содержания профессионально-педагогического образования и имеет четыре компонента.

Как сказал Аристотель: «Ум состоит не из только в знаниях, но и в умении применять знания на практике». Несмотря на то, что это идея появилась давно, она недавно активно используется в современной педагогике.... До недавнего времени уровень подготовки выпускника рассматривался как наличие определенных знаний, умений и навыков, а в новых условиях этот взгляд понимается как сформированность у студентов определенных общепрофессиональных и профессиональных компетенций. Таким образом, профессионально-педагогическое образование студента рассматривается как целостный системный процесс только тогда, когда реализуется умение формировать целостный алгоритм выполнения нетиповой задачи с использованием элементов приобретенных на сегодняшний день знаний и умений для решения типовых задач педагогической деятельности. Отсюда можно сделать вывод, что готовность – это способность формировать элементы знаний и умений, приобретенных в данный момент для решения типовых задач, в виде целостного алгоритма выполнения нетиповой задачи. [2, с. 3537]

Рассматривая компетентность учителя как фактор его готовности, мы определили ее как готовность и способность к профессионально-педагогической деятельности. Подобное определение позволяет интерпретировать понятия «профессиональная педагогическая готовность» и «профессиональная педагогическая компетентность» как синонимы.

Анализ исследований, проведенных зарубежными и отечественными исследователями по вопросам подготовки будущих учителей, позволяет сделать следующий вывод: «готовность – это способность специалиста находить оптимальные решения различных ситуаций, которые могут возникнуть в его профессиональной деятельности, и профессионально выполнять любые функциональные задачи». [3, с. 258]

Несмотря на то, что в рассмотренных научно-исследовательских работах вопрос развития профессиональной педагогической готовности будущих учителей на основе инновационных способов сотрудничества не раз рассматривался как научная проблема, упускается из виду необходимость научных исследований по отношению изучение вопроса разработки научно обоснованного системного подхода. Поэтому перед нами стоит задача создать особую модель, которая обеспечит формирование у будущих учителей профессиональной педагогической компетентности на основе инновационного сотрудничества.

Предвидя будущие тенденции, в этом разделе обсуждаются возможные направления развития профессионального развития и инновационного сотрудничества в образовании. Даются рекомендации для политиков, образовательных учреждений и педагогов, направленные на формирование культуры непрерывного совершенствования и сотрудничества.

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РАЗДЕЛЕНИЕ КОМПЬЮТЕРНЫХ СЕТЕЙ, ВИДЫ, ЭТАПЫ РАЗВИТИЯ И ЗНАЧЕНИЕ

Аннотация: данная статья исследует разнообразие компьютерных сетей, описывая их виды, этапы развития и значение в современном мире. Начиная с обзора основных типов сетей, таких как ЛВС, МАН, ГЛОБАЛЬНАЯ и другие, автор раскрывает их ключевые характеристики и области применения. Далее рассматриваются этапы исторического развития компьютерных сетей, начиная с ARPANET и заканчивая современными технологиями, такими как VPN и Интернет вещей. В заключение подчеркивается значимость компьютерных сетей в современном мире, как основы для обмена информацией, развития технологий и обеспечения коммуникаций.

Ключевые слова: компьютерные сети, виды сетей, развитие компьютерных сетей, ЛВС, МАН, ГЛОБАЛЬНАЯ сеть, VPN, Интернет вещей, история компьютерных сетей, значимость компьютерных сетей.

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DIVISION OF COMPUTER NETWORKS, TYPES, STAGES OF DEVELOPMENT AND IMPORTANCE

Abstract: this article explores the diversity of computer networks, describing their types, stages of development and importance in the modern world. Starting with an overview of the main types of networks, such as LAN, MAN, GLOBAL and others, the author reveals their key characteristics and areas of application. Next, the stages of historical development of computer networks are considered, starting with ARPANET and ending with modern technologies such as VPN and Internet of Things. Finally, the significance of computer networks in the modern world is emphasized as a basis for information exchange, technology development and communication support.

Keywords: computer networks, types of networks, development of computer networks, LAN, MAN, GLOBAL network, VPN, Internet of Things, history of computer networks, significance of computer networks.

Компьютерные сети – это средства связи и обмена данными между компьютерами. Они играют основополагающую роль в современном мире,

позволяя пользователям обмениваться информацией, работать с общими ресурсами и предоставлять доступ к Интернету. Развитие компьютерных сетей связано, прежде всего, с развитием двух крупных областей техники — вычислений и связи. Первые попытки добиться многопользовательских вычислительных возможностей заключались в загрузке на главный компьютер (главный компьютер) нескольких пакетов данных, которые необходимо было предварительно загрузить и обработать. Первоначальное развитие этой технологии произошло в 1950-х годах, когда компьютеры представляли собой громоздкие и громоздкие устройства, обрабатывавшие данные в течение очень долгого времени. В то время комфорт пользователя занимал одно из последних мест в разработке, а основной упор делался на увеличение мощности. Следующим прообразом компьютерных сетей стало создание отдельных терминалов, имевших собственные полноценные устройства ввода-вывода и работающих напрямую с одним общим компьютером. Самому пользователю работать с этим устройством было гораздо удобнее — он не замечал, что мощность компьютера параллельно использовали несколько других людей. В этот момент стали появляться первые сети, принцип их работы заключался лишь в простом физическом удалении терминалов на определенные расстояния. По мере того, как стали доступны более компактные компьютеры, что произошло в 1970-х годах, все больше и больше предприятий могли позволить себе их установку, поэтому необходимость полагаться на ту или иную форму связи возросла, и стало проще подключать компьютеры к сети. Для тех, кто современен, необходимость создания компьютерных сетей стала паудо. История компьютерных сетей началась в середине 20 века. В 1960-х годах военные США разработали сеть межведомственной связи под названием ARPANET. Эта сеть стала фундаментальным элементом развития Интернета.

В 1970-х годах стали популярными сетевые протоколы связи, такие как TCP/IP. Они стали стандартом обмена информацией и обеспечивают надежную и безопасную передачу. В 1980-х годах были созданы первые локальные сети (ЛВС), которые позволили одновременно подключать несколько компьютеров. В основном их использовали в офисах и учебных заведениях для обмена файлами и отправки сообщений. В 1990-е годы в результате развития технологий и снижения цен на компьютеры компьютерные сети становятся все более популярными. Развитие беспроводных технологий позволило использовать беспроводные сети (Wi-Fi), которые широко используются в домашних и офисных сетях. С появлением Интернета в 1990-х годах появились глобальные компьютерные сети, позволяющие пользователям получать доступ к информации со всего мира. Интернет стал важным средством коммуникации и основой современных коммуникационных технологий.

Краткая история развития компьютерных сетей:

- 1950-1960 годы – первые попытки интеграции базового компьютера с терминалами.

- 1969 год – Развитие ARPANET и использование телефонных сетей для передачи данных.

- 1970-1974 годы – появление мини-компьютеров и внедрение локальных сетей с ручной настройкой.

- В 1974 году IBM выпустила SNA, первую стандартизированную сетевую архитектуру, а также стандарт X.25.

- 1980-1985 годы стали расцветом персональных компьютеров, расцветом Интернета в наше время. Загрузитесь из стека TCP/IP на всех узлах. Наличие стандартных технологий для протоколов локальной сети Ethernet, FDDI, Token Ring.

- 1986-1987 годы – начало коммерциализации Интернета.

- 1991 – Опубликован веб-протокол и первые интернет-звонки.

- Развитие Интернета и популяризация компьютеров в 1995-2000 годах.

- 2000-2010 годы – использование беспроводных сетей, снижающее стоимость передачи данных в несколько тысяч раз.

Популярность компьютерных сетей началась в 1960-х годах. В этот период в США и СССР был разработан ряд протоколов, позволяющих компьютерам соединяться друг с другом. Одним из таких протоколов был ARPANET (Сеть Агентства перспективных исследовательских проектов), запущенный в 1969 году Агентством перспективных исследовательских проектов Министерства обороны США.

ARPANET была первой широко распространенной компьютерной сетью, которая позволяла нескольким компьютерам обмениваться информацией. Изначально сеть использовалась только в научных и военных целях, но со временем она расширилась и стала доступна всем пользователям. Помимо ARPANET, в 1970 году был разработан и представлен Ethernet, который стал основой компьютерных сетей. Ethernet стал очень популярным и широко используется до сих пор. В 1980-х годах были разработаны и внедрены такие протоколы, как TCP/IP (Протокол управления передачей/Интернет-протокол), которые стали стандартом передачи данных в компьютерных сетях. В настоящее время компьютерные сети широко используются во всех сферах деятельности: от сетей УУ и сетей локальных офисов до глобальной сети Интернет. Они позволяют пользователям обмениваться информацией, проводить видеоконференции, работать над общими проектами и т. д.

Виды компьютерных сетей:

1. Персональная сеть (PAN) – это простая система классификации, объединяющая персональные компьютеры и периферийные устройства. PAN включает в себя устройства, такие как ноутбуки, смартфоны, музыкальное оборудование, NAS-серверы, игровые приставки, наушники,

камеры и другие. PAN делятся на проводные (PAN) и беспроводные (WPAN), которые могут подключать до 8 абонентов и работать в радиусе до 30 метров.

2. Локальная сеть (LAN) – один из основных и наиболее популярных на сегодняшний день типов классификации существующих компьютерных сетей. LAN соединяет множество абонентов и может поддерживать скорость обмена до 10 000 Мбит/с. К локальной сети относятся корпоративные и частные объекты, где компьютеры, серверное оборудование и периферийные устройства обмениваются информацией, загружают программное обеспечение и выполняют другие задачи.

3. Кампусная сеть (CAN) объединяет несколько локальных сетей в одну систему. CAN используется для построения информационной инфраструктуры комплекса зданий, включающего образовательные и медицинские учреждения, офисные помещения и другие объекты. Связь осуществляется с помощью оптоволоконного кабеля или беспроводных антенн E-Band или WiMAX.

MAN – региональная сеть. Региональная компьютерная сеть объединяет локальные сети на уровне города или близлежащих населенных пунктов в единую систему. Эта классификация очень проста. Расстояние между устройствами в сети MAN может составлять несколько десятков километров, при этом качество связи между ними должно поддерживаться на высоком уровне. Для этого используются высокопроизводительные маршрутизаторы и оптоволоконный кабель. Беспроводная сеть WMAN основана на технологии WiMAX. Она используется для управления радиостанциями и телевизионными каналами. Также в среде WMAN устанавливаются точки доступа Wi-Fi Hotspot, которые раздают интернет желающим на улицах, в кафе, общественных барах и коворкингах. Охватывает общегородскую информационную инфраструктуру.

WAN – глобальная сеть. Глобальная сеть (WAN) соединяет бесконечное количество узлов и устройств в разных регионах, странах и континентах. Из этого описания становится ясно, что подключение Ethernet не может быть использовано для этой инфраструктуры. Поэтому в этом проводе используются такие технологические решения, как ATM, PDH, SDH, IP/MPLS, SONET. В системах этого типа используется более сложное сетевое оборудование и протоколы, чем в локальной сети. Это необходимо для стабильной работы глобальной инфраструктуры. Глобальные сети принадлежат определенным компаниям. Интернет-провайдеры арендуют у них услуги для подключения конечных пользователей к Интернету.

GAN — это глобальная сеть. Самый известный пример глобальной сети – Интернет. Однако этот тип классификации также включает в себя собственные GAN, принадлежащие отдельным глобальным компаниям. Они позволяют объединить локальные сети и компьютеры в разных регионах и странах в глобальную информационную инфраструктуру.

Существует множество каналов для строительства, включая подводные кабели, оптоволоконные кабели и искусственные спутники.

VPN — это виртуальная частная сеть. VPN (Virtual Private Network) — одна из базовых технологий защиты данных, анонимности в Интернете и доступа к заблокированным ресурсам. Технология обеспечивает виртуальный канал связи, устанавливаемый между сервером и клиентом при посредничестве промежуточного серверного узла. VPN работает на основе любой из описанных выше физических и компьютерных сетей. Подключение через VPN позволяет установить зашифрованное соединение и обновить последний IP-адрес пользователя.

BAN - сеть тела. Это наиболее конкретный тип классификации компьютерных сетей. BAN объединяет имплантированные и внешние интеллектуальные носимые устройства в комплексную систему. Сюда могут входить пульсометры, кардиостимуляторы, тонометры и другие устройства. Основная задача сети этого типа — обеспечить стабильную и согласованную работу всех подключенных устройств, поддерживающих контроль среды обитания человека.

Сегодня компьютерные сети играют фундаментальную роль во всех сферах жизни: от компьютерных игр и развлечений до бизнеса и научных исследований. Они обеспечивают быструю и надежную связь между компьютерами и позволяют получить доступ к общим ресурсам и сервисам. Кроме того, компьютерные сети стали основой развития таких технологий, как облачные вычисления, Интернет вещей и блокчейн. Они предоставляют инфраструктуру, необходимую для работы этих технологий и работы с клиентами. Таким образом, компьютерные сети стали неотъемлемой частью современного мира и сыграли фундаментальную роль в обмене информацией и общении. Их создание и развитие повлияло на все сферы жизни и стало основой современных технологий и коммуникационных решений.

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ЗАРУБЕЖНЫЙ ОПЫТ РАЗВИТИЯ ЭКОТУРИЗМА

Аннотация. На современном этапе развития индустрии туризма особое значение приобретают экологические направления туристской деятельности. В статье предпринята попытка систематизировать опыт развития и управления экологическим туризмом в странах-лидерах направления.

Ключевые слова: экологический туризм, виды экологического туризма, особенности экотуризма, мировые практики управления экологическим туризмом.

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FOREIGN EXPERIENCE IN ECOTOURISM DEVELOPMENT

Abstract. At the present stage of development of the tourism industry, environmental areas of tourist activity are of particular importance. The article attempts to systematize the experience of the development and management of eco-tourism in the leading countries of the direction.

Keywords: ecotourism, types of ecotourism, features of ecotourism, world practices of ecotourism management.

Термин «экологический туризм» всё чаще встречается в нашей жизни, особенно в постпандемийный период. Этот вид туризма базируется на принципах экологичного отношения к окружающей среде. Существует несколько подходов к определению «экотуризма». В данном исследовании за основу берется следующее:

Экотуризм (англ. ecotourism) — это туризм, в котором совершаются путешествия в места относительно нетронутой природы, с целью получить представление о природных и культурно-этнографических особенностях данной местности, который не нарушает при этом целостности экосистем и создает такие экономические условия, при которых охрана природы и природных ресурсов становится выгодной для местного населения.

Первое определение экологического туризма было предложено мексиканским экономистом-экологом Гектором Цебаллосом-Ласкурейном

в 1980 г. Экологический туризм по определению этого автора, - это сочетание путешествия с экологически чутким отношением к природе, позволяющим объединить радость знакомства и изучение образцов флоры и фауны с возможностью способствовать их защите.

После появления первого определения экологического туризма различными авторами и организациями проявляющими заинтересованность в развитии этого вида деятельности, было предложено множество новых вариантов. Приведем несколько примеров.

Определение принятое Всемирной Туристской Организацией (ВТО), гласит: «Экотуризм включает все формы природного туризма, при которых основной мотивацией туристов является наблюдение и приобщение к природе».

Всемирный Фонд Дикой Природы предлагает свое определение: «Экотуризм -это природный туризм, способствующий охране природы».

Экотуристское общество рассматривает экологический туризм, как «целенаправленные путешествия в природные территории с целью более глубокого понимания местной культуры и природной среды, которые не нарушают целостность экосистем, делают охрану природных ресурсов выгодной для местных жителей».

К основным видам экологического туризма можно отнести:

- Пешеходный туризм
- Путешествия на велосипедах
- Туры по внутренним водоемам
- Морские путешествия
- Спелеотуризм
- Спортивная охота

Возникновение и развитие экологического туризма тесно связано с историей выделения природных территорий, особо привлекательных с эстетической и рекреационной точек зрения, с разработкой их нормативов их использования и охраны.

Национальные парки являются природоохранными, эколого-просветительскими и научно-исследовательскими учреждениями, территории (акватории) которых включают в себя природные комплексы и объекты, имеющие особую экологическую, историческую и эстетическую ценность, и предназначены для использования в природоохранных, просветительских, научных и культурных целях и для регулируемого туризма.

В последнее время, в связи с широким внедрением международной концепции устойчивого развития, роль экологически устойчивого туризма все более возрастает.

Общество экотуризма(The Ecotourism Society): "Экотуризм - это ответственное путешествие в природные территории, которое содействует охране природы и улучшает благосостояние местного населения".

Всемирный Фонд дикой природы (ВОО): "экотуризм - туризм, включающий путешествия в места с относительно нетронутой природой, с целью получить представление о природных и культурно-этнографических особенностях данной местности, который не нарушает при этом целостности экосистем и создает такие экономические условия, при которых охрана природы и природных ресурсов становится выгодной для местного населения".

На основании этих определений выделяются следующие отличительные особенности экотуризма, которые сформулированы как набор принципов:

- 1) стимулирование и удовлетворение желания общаться с природой;
- 2) путешествие в природу, причем главное содержание таких путешествий - знакомство с живой природой, а также с местными обычаями и культурой;
- 3) предотвращение негативного воздействия на природу и культуру;
- 4) сведение к минимуму негативных последствий экологического и социально-культурного характера, поддержание экологической устойчивости среды;
- 5) содействие охране природы и местной социо-культурной среды;
- 6) содействие охране природы и природных ресурсов;
- 7) экологическое образование и просвещение;
- 8) участие местных жителей и получение ими доходов от туристической деятельности, что создает для них экономические стимулы к охране природы;
- 9) экономическая эффективность и обеспечение социально-экономического развития территорий;
- 10) содействие устойчивому развитию посещаемых регионов.

Устойчивость в туризме подразумевает положительный общий баланс экологических, социально-культурных и экономических воздействий туризма, а также положительное воздействие посетителей друг на друга. Таким образом, те виды туристической деятельности, которые имеют наиболее высокий суммарный положительный эффект с точки зрения экологии, экономики и социального развития, являются более устойчивыми.

Устойчивый туризм - это туризм, который подразумевает неограниченно долгое поддержание ресурсов, на которых базируется. Понятие устойчивого туризма используется и в более широком контексте: "все типы туризма, основанные как на природных, так и искусственных ресурсах, которые вносят вклад в устойчивое развитие".

В качестве примера принципов устойчивого туризма (в дополнение и расширение к обозначенным ранее) можно привести принципы, принятые Шведским Агентством по защите окружающей среды:

- неистощительное, устойчивое использование природных ресурсов;

- сокращение избыточного потребления и отходов;
- обеспечение сохранения природного, социального и культурного разнообразия;
- тщательное планирование, комплексный подход, интеграция экотуризма в планы регионального развития;
- поддержка местных экономик;
- участие местного населения в развитии туризма и разделение ими финансовых и других преимуществ от этой деятельности;
- консультирование заинтересованных лиц и общественности;
- обучение персонала;
- ответственный маркетинг туризма.

В целом, для развития экотуризма в последние годы характерны несколько тенденций. С одной стороны, экотуризм становится все более разнообразным, постоянно возникают его новые виды. С другой, возрастает его интеграция с иными отраслями туристической индустрии. Приверженцы классически-природоохранного экотуризма в его узкой трактовке, обеспокоенные возросшим негативным влиянием значительных потоков экотуристов, призывают к выходу экотуризма за пределы охраняемых территорий, на пространство культурных ландшафтов; в свою очередь, в массовых видах "курортного" или "экскурсионного" туризма появляются элементы туризма экологического, например, кратковременные посещения национальных парков и других природных территорий.

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НЕКОТОРЫЕ ИНТЕРАКТИВНЫЕ МЕТОДЫ, ИСПОЛЬЗУЕМЫЕ В ОБРАЗОВАТЕЛЬНОМ ПРОЦЕССЕ

Аннотация: Интерактивные методы, используемые в образовательном процессе, являются эффективным средством привлечения внимания и активного участия студентов. Они позволяют студентам не только получать знания, но и применять их на практике, развивать критическое мышление и навыки решения проблем.

Ключевые слова: знания, учителя, студенты, педагогика, инновация, интерес, логика, учебник.

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SOME INTERACTIVE METHODS USED IN THE EDUCATIONAL PROCESS

Abstract. Interactive methods used in the educational process are an effective means of attracting the attention and active participation of students. They allow students not only to gain knowledge, but also to apply it in practice, develop critical thinking and problem-solving skills.

Keyword: knowledge, Teachers, Students, pedagogical, innovation, Interest, logical, textbooks.

Одним из самых популярных интерактивных методов является работа в группе. Учащиеся делятся на небольшие группы и вместе работают над решением проблемы или проекта. Это позволяет развивать коммуникативные навыки, делиться опытом и идеями, а также поощрять взаимодействие и сотрудничество.

Еще один интерактивный метод – игровая деятельность. Игры можно использовать для закрепления материала, проверки знаний или развития определенных навыков. Они создают атмосферу веселья и активности, способствующую лучшему усвоению учебного материала.

В образовательном процессе также активно используются интерактивные презентации и вебинары. Это позволяет студентам не только

слушать лекции, но и активно общаться с преподавателем, задавать вопросы, обсуждать тему и даже делать собственные презентации.

Кроме того, существуют и другие интерактивные методы, такие как ролевые игры, дебаты, эксперименты и т. д. Все они направлены на то, чтобы сделать образование более активным, интересным и эффективным.

В образовательном процессе используются различные интерактивные методы, которые активно вовлекают учащихся в процесс обучения, помогают им лучше усвоить материал и развить базовые компетенции. Некоторые из этих методов:

Работайте в малых группах. С целью активизации учащихся внимание уделяется изучению учебного материала или решению поставленной задачи путем разделения их на небольшие группы. При использовании метода у ученика появится возможность работать в малых группах, активно участвовать в уроке, брать на себя роль лидера, учиться друг у друга, ценить разные точки зрения. Время выбрано. Потому что педагог может привлечь и оценить всех учеников одновременно.

Дискуссия за круглым столом. Это метод обучения, при котором студенты выражают свое мнение по заданной проблеме или вопросу за круглым столом. Столы и стулья следует расставить по кругу. Это помогает каждому ученику установить зрительный контакт друг с другом. Существуют устная и письменная формы обсуждения за круглым столом. В устной дискуссии педагог знакомит с темой и просит учащихся высказать свое мнение по этому вопросу. Это помогает учащимся мыслить самостоятельно и развивать культуру речи. Структура метода дискуссии за круглым столом следующая: вводятся условия проведения дискуссии; раздаются конверты и листы ответов; вопросы пишутся в конвертах; конверт передается стоящему рядом с ним ученику; записываются ответы на вопросы; оценивается и анализируется. С помощью этого метода учащиеся могут кратко и ясно выразить свои знания по заданной теме.

Технический диктант – некоторые слова, формулы и идеи технического текста диктуются (или проигрываются на диктофоне). Учащиеся находят и записывают ответы на каждый пропуск. Технический диктант рекомендуется по всем предметам.

Рецензия – это положительная или отрицательная оценка прочитанного текста. При написании рецензии необходимо обратить внимание на следующее: лицо, прочитавшее текст рецензии, должно иметь изложение своего личного мнения о нем; текст рецензии должен отражать аспекты личного опыта прочитавшего его студента и быть объективным; Рецензия является первым шагом в общении с автором. Портфолио – бывает нескольких видов, причем портфолио в учебном процессе ведется для каждого студента по определенному предмету в течение курса, семестра. В нем обобщены виды оценивания обучающегося: текущие, промежуточные

и самостоятельные задания, а также присвоенные им баллы изменения во времени.

Вставляя. Вкладыш (Interactive Nothing System For Эффективное чтение и мышление) – используется для самостоятельного чтения и усвоения учебного материала. Его содержание заключается в сопоставлении начала каждой строки текста с ранее приобретенными знаниями и опытом в процессе чтения и отображении результата путем размещения специальных символов в левом краю страницы. Он служит для определения владения учащимися определенными понятиями по предмету и формирования навыков аналитического подхода к тексту. Делается это следующим образом: формируются небольшие группы и называют их. Каждой группе предлагается высказать две идеи по теме. Учащиеся по очереди высказывают свое мнение. Высказанные идеи записываются на доске. Затем педагог раздает группам текст, объясняющий суть новой темы. После ознакомления с текстом группы определяют, насколько текст и высказанные ими идеи соответствуют друг другу. Члены группы выражают свое личное мнение и суммируется количество специальных символов. Лидеры настроены решительно. Лидеры знакомят команду с результатами работы группы. Мнения групп суммируются и делается окончательный вывод. При применении этого метода учащиеся организуют следующие виды деятельности: 1. При сравнении текста с мнениями, высказанными группами: 2. При изучении результатов работы групп после доклада руководителей: Метод помогает учащимся сформировать умения и навыки. логического мышления, работы над личными ошибками.

Стадион Кейс. Кейс – это описание конкретной проблемной ситуации, возникающей на производстве. Кейс-метод – это метод анализа и решения производственных вопросов на занятиях, при котором учащимся предлагается задуматься над реальной жизненной ситуацией, причем изложение этой ситуации выражает не только практический вопрос, но и учебный материал, который необходимо обдумать. освоить в процессе решения задачи. В процессе применения кейс-метода, чтобы научить студентов анализировать ситуацию, ситуацию можно описывать в следующем порядке: проблемная (содержание проблемы создается таким образом, что требует выделения комплекса проблемных ситуаций и выбирается по их видам и способам решения); систематический (определение описаний и задач по составу ситуаций); причинно-следственные (определение причин, вызвавших ситуацию); рекомендательное письмо (с определением причин, вызвавших сложившуюся ситуацию); программно-целевой (разработка программы мероприятий по текущим ситуациям); диагностический (диагностирование содержания деятельности в ситуации, ее моделирование).

Кластер. Кластерный метод помогает создать среду, в которой студенты могут свободно и открыто думать о факультативных проблемах и

свободно выражать свое личное мнение. Для этого необходимо выявить структуру, позволяющую задуматься о связях между различными идеями. Кластерный метод считается формой беспредметного мышления. Он служит для обеспечения равномерности деятельности мышления до полного усвоения учащимися определенной темы. Метод можно использовать со студентами индивидуально или в группах. Это создает возможность обобщить выдвинутые идеи и найти связи между ними. При использовании кластерного метода необходимо соблюдать следующие условия: записать то, что вы думаете; просто записывать свои мысли, не задумываясь об их качестве; игнорировать орфографию и другие аспекты вашего письма; не прекращайте писать, пока не истечет указанное время; если вы не можете в течение определенного периода придумать идею, то начните рисовать что-нибудь на бумаге, продолжайте это действие до тех пор, пока не родится новая идея; стараться выдвинуть как можно больше новых идей в рамках определенной концепции и показать взаимосвязь между идеями; качество совокупности идей и не ограничение проявления связей между ними.

Синквейн. Используется для полного понимания изучаемого материала. Синквейн – уникальное пятистрочное нерифмованное стихотворение на французском языке, в котором распространяется информация об изучаемом понятии (событии, событии, теме), выраженная словом, с, в разных вариантах и с разных точек зрения. Правило составления синквейна следующее: в первой строке предмет (задача) обозначается одним словом, обычно существительным? (Кто что?). Во второй строке пишутся два прилагательных, относящиеся к предмету. (Как? Как?). В третьей строке действие внутри предмета (значение функции-задачи) выражается тремя словами (глаголами). В четвертой строке напишите идею из четырех слов по теме. В последней строке пишется одно слово (синоним), повторяющее суть темы и имеющее сходное значение.

Ведь использование интерактивных методов позволяет создать образовательную среду, побуждающую учащихся к самостоятельной деятельности, развивающую их творческие способности и способности, а также помогающую лучше понимать и запоминать учебный материал.

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ИСПОЛЬЗОВАНИЕ МНОЖЕСТВА И ОПЕРАЦИЙ НАД НИМИ С ИСПОЛЬЗОВАНИЕМ СОВРЕМЕННЫХ ИКТ

Аннотация. В статье рассмотрена одна из интереснейших тем в курсе математики и информатики – теория множеств. Изучение элементов теории множеств способствует развитию логического мышления детей в любом возрасте.

Ключевые слова: методика обучения информатике, теория множеств, элементы множеств, диаграмма Эйлера-Венна.

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USING SET AND OPERATIONS ON THEM USING MODERN ICT

Annotation. The article discusses one of the most interesting topics in the course of mathematics and computer science - set theory. Studying the elements

of set theory contributes to the development of logical thinking in children at any age.

Key words: methodology for teaching computer science, set theory, elements of sets, Euler-Venn diagram.

На сегодняшний день в качестве одного из планируемых предметных результатов изучения курса информатики в основной школе, согласно действующей версии примерной основной образовательной программы основного общего образования, является умение «определять количество элементов во множествах, полученных из двух или трех базовых множеств с помощью операций объединения, пересечения и дополнения», достигаемое в процессе изучения следующего содержания: «Множество. Определение количества элементов во множествах, полученных из двух или трех базовых множеств с помощью операций объединения, пересечения и дополнения». Кроме того, элементы теории множеств включены в государственную итоговую аттестацию по информатике. Поэтому необходимо уделить внимание изучению теории множеств в школьном курсе информатики. Из вышеуказанного следует актуальность выбранной темы.

Множество – это совокупность объектов, объединенных некоторыми общими признаками. Примерами множеств могут служить: множество целых чисел, множество букв русского алфавита, множество всех жителей Оренбурга и т.п. Для наглядного изображения множеств часто используют диаграммы Эйлера-Венна, названные в честь авторов Леонарда Эйлера и Джона Венна.

Множества, содержащие конечное число элементов, называют конечными множествами. Примером такого множества может являться множество студентов физикоматематического факультета. Количество элементов в конечном множестве A называется мощностью этого множества.

Проанализируем основные учебно-методические комплекты (далее УМК), используемые в обучении, на предмет изучения элементов теории множеств в основной школе.

В учебнике по информатике для 8 класса данная тема представлена в главе 1 «Математические основы информатики» в §1.3 «Элементы теории множеств и комбинаторики» перед изучением элементов алгебры логики. Основные понятия, рассматриваемые на уроке: множество, подмножество, объединение множеств, пересечение множеств, дополнение. Весь материал разбивается на три пункта: «Множество», «Операции над множествами», «Правила суммы и произведения»

В первом пункте вводится понятие «множество», выделены 2 способа задания множеств: перечисление всех его элементов и словесное описание. Здесь же рассматриваются и круги Эйлера. Далее автор знакомит

обучающихся с понятиями элемента множества, подмножества, пустого множества, универсального множества. Для операций над множествами даны чёткие определения и их наглядное изображение с помощью кругов Эйлера. Также автор вводит понятие мощности множества. В конце параграфа зафиксированы основные определения, изученные на уроке.

После изложения материала к параграфу имеются вопросы и задания. В рабочей тетради этого же автора также можно найти задания по данной теме.

Материал всего параграфа сопровождается достаточным количеством примеров. При представлении материала автор использует наглядность. Тема изложена доступным языком.

После изложения материала к параграфу имеются вопросы и задания. В рабочей тетради этого же автора задания по данной теме отсутствуют.

При представлении материала используется наглядность (круги Эйлера). Тема изложена доступным языком.

Понятие «множество» вводится в первом пункте. Для конечных, бесконечных и пустых множеств автор не даёт чёткого определения, они описываются через количество элементов, содержащихся в них. Второй пункт посвящён диаграммам Эйлера-Венна. Операции над множествами вводятся с помощью этих диаграмм. Далее автор показывает, как вычислить количество элементов множества в тех или иных случаях. В последнем пункте рассматриваются задачи, решаемые с помощью множеств. А именно задачи, связанные с запросами для поисковых систем. В конце параграфа даются краткие выводы.

После изложения материала предлагается выполнить задание: зафиксировать в тетради интеллект-карту этого параграфа. В рабочей тетради этого же автора также можно найти задания по данной теме.

Материал всего параграфа сопровождается достаточным количеством примеров. При представлении материала автор использует наглядность. Тема изложена доступным языком.

Таким образом, можно сделать вывод о том, что тема, связанная с теорией множеств, наиболее удачно раскрывается в учебниках Босовой Л.Л. и Полякова К. Ю. Однако во всех трёх УМК отсутствуют задачи с занимательным содержанием. Задания, предлагаемые авторами, скорее носят «тренировочный» характер. Для развития обучающихся нужно ставить нестандартные задачи «практического» характера, способ решения которых они не знают. Отсюда возникает необходимость в разработке системы таких задач, которые позволят освоить обучающимся теорию множеств не на поверхностном, а на более глубоком уровне.

Система задач по теме «Элементы теории множеств» будет включать:

- 1) задачи на понятие множества, элемента множества;
- 2) задачи на операции над множествами;
- 3) задачи на запросы в поисковых системах;

4) задачи, решаемые с помощью диаграмм Эйлера-Венна.

Задания на понятие множества, элемента множества:

1) Путем перечисления всех элементов задайте:

а) множество букв в слове «информатика»;

б) множество всех цифр, которые используются для записи чисел в шестеричной системе счисления;

в) множество нечётных двухзначных чисел, кратных семи.

2) Определите количество элементов в следующих множествах:

а) множество героев сказки «Колобок»;

б) множество решений уравнения: $(x-3)(x+4)(x-2)=0$.

3) В данном множестве все элементы, кроме одного, обладают некоторым свойством. Опишите это свойство и найдите элемент, не обладающий им.

а) {зеленый, фиолетовый, голубой, длинный, красный};

б) {2; 18; 12; 13; 54};

в) {Paint; GIMP; Word; AdobePhotoshop}.

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ПЕДАГОГИЧЕСКОЕ И ПСИХОЛОГИЧЕСКОЕ ОПИСАНИЕ РАЗВИТИЯ РЕЧЕВОЙ ДЕЯТЕЛЬНОСТИ У ДЕТЕЙ 6-7 ЛЕТ

Аннотация. Дошкольный возраст – это период активного освоения ребенком разговорной речи, период становления и развития всех сторон речи – фонетической, лексической, грамматической. Речь имеет особое значение в психическом развитии ребенка. Проблема речевого развития является одной из наиболее актуальных проблем. Развитие речи связано с формированием как личности, так и всех психических процессов. Полное знание родного языка в дошкольном детстве является необходимым условием решения задач умственного, эстетического и нравственного воспитания детей. Поэтому определение направлений и условий развития речи детей является одной из важнейших педагогических задач.

Ключевые слова: этиология, периферическая, центральная, органическая, функциональная, нервная деятельность, головной мозг, речь, причина, анатомия, физиология, речь, классификация, неврология, нарушение речи

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PEDAGOGICAL AND PSYCHOLOGICAL DESCRIPTION OF THE DEVELOPMENT OF SPEECH ACTIVITY IN CHILDREN 6-7 YEARS OLD

Abstract. Preschool age is a period of active development of spoken language by a child, a period of formation and development of all aspects of speech - phonetic, lexical, grammatical. Speech is of particular importance in the mental development of a child. The problem of speech development is one of the most pressing problems. The development of speech is associated with the formation of both personality and all mental processes. Full knowledge of the native language in preschool childhood is a necessary condition for solving the problems of mental, aesthetic and moral education of children. Therefore, determining the directions and conditions for the development of children's speech is one of the most important pedagogical tasks.

Keywords: etiology, peripheral, central, organic, functional, nervous activity, brain, speech, cause, anatomy, physiology, speech, classification, neurology, speech disorder

Организация дошкольного образования является первым и наиболее ответственным звеном общей системы народного образования. Овладение родным языком – одно из важнейших приобретений ребенка дошкольного возраста. Дети дошкольного возраста особенно чувствительны к овладению речью. Поэтому процесс речевого развития рассматривается как общая основа воспитания и обучения детей в современном дошкольном образовании. Овладение речью — одна из самых сложных и загадочных проблем детской психологии и педагогики. Остается непонятным, как маленький ребенок, не умеющий ни на чем концентрироваться, плохо владеющий мыслительными операциями, всего за 1-2 года практически овладел такой сложной знаковой системой, как язык. Речь как исторически сложившаяся форма общения развивается в дошкольном детстве. Путь, пройденный ребенком в первые годы жизни, поистине славен. Ребенок использует речь для выражения своих мыслей, чувств, т.е. воздействие на окружающую среду. Речь маленького ребенка формируется в общении с окружающими его взрослыми и в организации дошкольного воспитания и речевой деятельности. В процессе общения проявляется его познавательная и предметная активность. Овладение речью восстанавливает психику малыша, позволяет ему более осознанно и произвольно воспринимать события. К.Д.Ушинский говорил, что материнское слово есть основа всякого интеллектуального развития и сокровище всякого знания. Своевременное и правильное овладение ребенком речью является важнейшим условием полноценного психического развития и одним из направлений педагогической работы организации дошкольного образования. Если не будет развитой речи, не будет настоящего общения, не будет настоящих успехов в обучении. Дошкольный возраст – это период активного овладения ребенком речевым языком, всеми сторонами речи – фонетической, лексической, грамматической. формирование и развитие. Полное знание родного языка в дошкольном детстве является необходимым условием решения задач умственного, эстетического и нравственного воспитания детей в наиболее чувствительный период развития. Чем раньше начнется обучение родному языку, тем свободнее ребенок будет им пользоваться в дальнейшем. Расширяется диапазон общения дошкольников. Дети становятся самостоятельными, выходят за рамки узких семейных связей и начинают общаться с более широким кругом людей, особенно со сверстниками. Расширение сферы общения требует от ребенка полного освоения средств общения, основным из которых является речь. Усложнение деятельности ребенка предъявляет также высокие требования к развитию речи. Развитие речи – сложный, творческий процесс, поэтому

детям наверняка необходимо рано хорошо освоить родной язык, правильно и красиво говорить. Поэтому, как только мы научим ребенка правильно говорить (согласно его возрастным особенностям), он будет чувствовать себя свободно в коллективе. Речевое развитие – это целенаправленная и последовательная педагогическая работа, включающая использование арсенала специальных педагогических методов и собственных речевых упражнений ребенка. При работе с детьми дошкольного возраста используются следующие средства развития речи детей: общение взрослых с детьми, культурно-языковая среда, обучение родной речи и языку на уроке, различные виды искусства (изобразительное искусство, музыка, театр), художественная литература. В процессе ознакомления с литературной литературой развитие речи занимает большое место в общей системе работы с детьми. Художественная литература – важнейший источник и средство развития всех сторон детской речи, уникальное воспитательное средство. Помогает почувствовать красоту родного языка, развивает образность речи. Развитие речи идет по нескольким направлениям: совершенствуется ее практическое использование в общении с другими людьми, и одновременно речь становится основой для реконструкции умственной деятельности. процессы, инструменты мышления. Это и определяет актуальность данной темы. Овладение языком является важным условием психического развития, поскольку в онтогенезе содержание приобретенного исторического опыта ребенка обобщается и отражается в форме речи и, прежде всего, в значениях слов. Своевременное развитие словарного запаса является одним из важных факторов подготовки к школе. Дети с плохим словарным запасом испытывают большие трудности в обучении, потому что они не могут найти нужные слова, чтобы выразить свои мысли. Учителя отмечают, что ученики с богатым словарным запасом лучше решают арифметические задачи, легче осваивают навыки чтения и грамматики, более активны в умственной работе на уроке. Особенности развития детского словаря тщательно изучены в физиологии, психологии и психолингвистике. В развитии словарного запаса дошкольников выделяют две стороны: количественный рост словарного запаса и его качественное развитие, т. е. овладение значениями слов. Дошкольный возраст – период быстрого обогащения словарного запаса. Его рост зависит от условий жизни и воспитания, поэтому сведения о словах дошкольников одного возраста в литературе сильно различаются. В дошкольном возрасте имеются все условия для успешного освоения фонетической стороны русского языка. К ним относятся соответствующее развитие коры головного мозга в целом, фонематического восприятия речи, речевого двигательного аппарата. Способствуют овладению звуковым содержанием речи и такие особенности, как высокая пластичность нервной системы ребенка, повышенная подражательность, особая склонность к звуковой стороне языка, любовь детей к звукам речи – дети дошкольного

возраста.. По мнению многих ученых, дошкольный возраст является наиболее подходящим для окончательного формирования всех звуков родного языка. Несовершенство произношения старших дошкольников не характерно: при правильной организации работы дети к этому времени могут освоить произношение всех звуков. Произношение голоса улучшается, но у некоторых детей еще не до конца сформированы трудно артикулируемые звуки (хрипы и р). Развитие этих звуков происходит медленнее, даже при целенаправленном систематическом обучении, поскольку навык неправильного произношения становится более укоренившимся. Однако у старших дошкольников появляется способность к самоконтролю, осознание несовершенства своей речи и, соответственно, потребность приобретать знания и учиться. Поэтому образовательная деятельность становится более серьезной. Психологи утверждают, что в последовательной речи отчетливо видна тесная связь детской речи с психическим воспитанием. Ребенок учится думать, научившись говорить, но речь он совершенствует, научившись думать.

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О СОСТАВЛЕНИИ И МЕТОДАХ РЕШЕНИЯ ДИФФЕРЕНЦИАЛЬНЫХ УРАВНЕНИЙ ПРИ РЕШЕНИИ ПРАКТИЧЕСКИХ ЗАДАЧ

Аннотация: В данной статье исследуются некоторые практические вопросы, связанные с применением обыкновенных дифференциальных уравнений. При решении практических задач физики и технических наук условие задачи, а также способы создания и решения дифференциальных уравнений с использованием математической связи между переменными величинами и их суммами задаются путем решения задач.

Ключевые слова: дифференциальное уравнение, задача, переменная величина, пропорциональность, общее решение, частное решение, интеграл, начальное условие, скорость, время.

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ON THE DEVELOPMENT AND METHODS OF SOLVING DIFFERENTIAL EQUATIONS WHEN SOLVING PRACTICAL PROBLEMS

Abstract. This article examines some practical issues related to the use of ordinary differential equations. When solving practical problems in physics and technical sciences, the condition of the problem, as well as methods for creating and solving differential equations using the mathematical relationship between variables and their sums, are specified by solving problems.

Keywords: differential equation, problem, variable, proportionality, general solution, particular solution, integral, initial condition, speed, time.

Решение практических задач в физике, технике, естественных науках, биологии и других областях часто состоит из их математической модели – создания и решения дифференциальных уравнений. Составление дифферен-

циальных уравнений с использованием условия задачи означает определение математической связи между переменными величинами и их произведениями. Однако построить дифференциальные уравнения не всегда легко. Для этого необходимо хорошо знать и понимать элементарные законы той области науки, к которой относится рассматриваемый вопрос.

Невозможно показать общую схему дифференциальных уравнений. Исходя из условий рассматриваемой задачи, при решении практических задач различного содержания в результате создания дифференциальных уравнений приходим к одному из следующих трех типов уравнений:

1. Дифференциальные уравнения, содержащие дифференциалы;
2. Дифференциальные уравнения с производными;
3. Простейшие интегральные уравнения, которые затем заменяются дифференциальными уравнениями;

Задача 1. Когда ветер входит в лес, его скорость немного снижается из-за сопротивления деревьев. Убыль на бесконечно малом пути пропорциональна скорости в начале пути и его длине. Если скорость ветра при входе в лес равна $v_0 = 12 \text{ м/с}$, найти скорость ветра при входе в лес 150 м.

Пусть скорость ветра будет $v_1 = 11,8 \text{ м/с}$ при входе в лес на $s = 1 \text{ м}$.

Решение. В начале леса скорость ветра на расстоянии s равна v , уменьшение скорости на расстоянии ds равно $-dv$ (убывающий процесс). Это уменьшение пропорционально v . Дифференциальное уравнение для этой задачи будет иметь следующий вид: $-dv = kvds$ или $\frac{dv}{v} = -kds$. Интег-

Интегрируя это уравнение, получаем общее решение:

$$v = Ce^{-ks}.$$

Используя $s = 0$, находим неизвестное $C = v_0$. Следовательно, имеем частное решение вида: $v = v_0 e^{-ks}$.

Для нахождения коэффициента пропорциональности k воспользуемся условиями $s = 1 \text{ м}$, $v = v_1 = 11,8 \text{ м/с}$, $v_0 = 12 \text{ м/с}$, и получим:

$$e^{-k} = \frac{v_1}{v_0} = \frac{11,8}{12} = 0,983. \text{ Подставляя это значение в } v = Ce^{-ks} \text{ имеем}$$

следующее: $v = 12 \cdot (0,983)^{150} = 12 \cdot 0,0776 \approx 0,93 \text{ м/с}$.

Таким образом, при входе ветра в лес на высоте 150 м его скорость равна 0,93 м/сек.

Задача 2. Ракету запускают вверх с начальной скоростью $v_0 = 100 \text{ м/с}$. Сопротивление воздуха придает ракете отрицательное ускорение $-kv^2$ и замедляет ее движение (где v - мгновенная скорость ракеты, k - коэффициент пропорциональности). Найдите время, за которое ракета достигнет наивысшей точки.

Решение. Условно мы рассматриваем движение ракеты как движение материальной точки. В этом случае общее ускорение ракеты будет равно

$$w = -g - kv^2.$$

Здесь g – ускорение свободного падения, k – коэффициент пропорциональности. Но поскольку ускорение $w = \frac{dv}{dt}$, то запишем приведенное выше дифференциальное уравнение в следующем виде:

$$\frac{dv}{dt} = -(g + kv^2).$$

Мы создаем это уравнение путем разделения переменных в дифференциальном уравнении $\frac{dv}{g + kv^2} = -dt$.

Для интегрирования этого дифференциального уравнения сделаем следующую замену

$$\frac{d\left(\sqrt{\frac{k}{g}}v\right)}{\sqrt{\frac{k}{g}\left(1+\left(v\sqrt{\frac{k}{g}}\right)^2\right)}} = -gdt \quad \text{или} \quad \sqrt{\frac{g}{k}} \frac{d\left(\sqrt{\frac{k}{g}}v\right)}{1+\left(v\sqrt{\frac{k}{g}}\right)^2} = -gdt.$$

Интегрируя это уравнение, получаем следующее общее решение

$$\operatorname{arctg}\sqrt{\frac{k}{g}}v = -\sqrt{gk}t + C$$

Из начального условия $v = v_0 = 100$ м/с при $t = 0$ получим

$$C = \operatorname{arctg}100\sqrt{\frac{k}{g}}.$$

В результате формируется следующее частное решение:

$$\operatorname{arctg}\sqrt{\frac{k}{g}}v - \operatorname{arctg}100\sqrt{\frac{k}{g}} = -\sqrt{gk}t.$$

Известно, что при $t = T$, $v = 0$, $g = 10$ м/с². Подставив эти значения в приведенное выше уравнение, запишем следующее выражение.

$$T = \frac{\operatorname{arctg}100\sqrt{\frac{k}{g}}}{\sqrt{gk}} = \frac{\operatorname{arctg}(31,62\sqrt{k})}{3,162\sqrt{k}}.$$

Итак, за время, представленное этой формулой, ракета достигает высшей точки.

В заключение можно сказать, что решение практических задач, связанных с применением дифференциальных уравнений, требует большей

изобретательности, тщательного анализа и понимания рассматриваемого процесса. Конечно, повысить навыки и квалификацию на более высокий уровень можно только в результате решения множества задач и примеров. Признавая оригинальность изученных выше задач, уместно подчеркнуть, что такие задачи можно решить, сведя их к простым дифференциальным уравнениям. В работах [1-17] рассмотрены различные задачи и изучены методы их решения.

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О МЕТОДАХ РЕШЕНИЯ НЕЛИНЕЙНЫХ СИСТЕМ УРАВНЕНИЙ

Аннотация. В статье рассматриваются нелинейные системы уравнений, методы их решения и проанализированы решения систем в примерах. Рассматриваемые задачи могут послужить первым шагом на пути перехода от решения упражнений и задач в учебниках к решению сложных задач.

Ключевые слова: уравнение, системы уравнений, нелинейные системы, метод подстановки, метод разложения, решение.

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ABOUT METHODS FOR SOLVING NONLINEAR SYSTEMS OF EQUATIONS

Abstract. The article discusses nonlinear systems of equations, methods for solving them, and analyzes the solutions of the systems in examples. The problems under consideration can serve as the first step towards the transition from solving exercises and problems in school textbooks to solving complex problems.

Keywords: Equation, systems of equations, nonlinear systems, substitution method, expansion method, solution.

В процессе общего среднего образования ведущее значение, в воспитании подрастающего поколения кадром с широким кругозором, имеют глубокие математические знания. Очень полезно организовать занятие с учениками с математическими способностями на уроках математики, в классной и внеклассной деятельности. Поскольку математика является логической наукой, она укрепляет логическое мышление детей раннего возраста, быстро развивает их ум, создает основу для легкого освоения физики, техники и других предметов.

Одной из наиболее эффективных форм внеклассной и внешкольной деятельности в школе являются научные кружки, которые играют важную роль в развитии детей, а возможности, возникающие в этом процессе, оказывают развивающее влияние на учащихся. Именно в это время проявляется самостоятельное мышление и творчество детей, хотя эти творческие способности очень малы, в дальнейшем их интерес к науке будет расти. Одна из целей математического кружка – научить учащихся мыслить самостоятельно.

В данной статье рассмотрены задачи, которые могут послужить первым шагом на пути перехода от решения упражнений и задач в школьных учебниках к решению сложных задач.

В отличие от линейных уравнений нелинейные уравнения могут быть определены не при всех значениях входящих в них переменных. Например, уравнение $\lg(x^2 + y) = 2$ определено при $x^2 + y > 0$, а уравнение $\frac{x}{y} = 2$ определено при $y \neq 0$. При решении систем нелинейных уравнений рассмотрим следующие методы решения: метод подстановки, метод разложения одного уравнения системы на линейные множители, метод введения новых переменных и графический метод решения. Изучаем применения каждого метода решением систем в примерах.

Основная часть:

I. Метод подстановки. Если в процессе решения уравнения область его определения расширяется, то полученные решения обязательно нуждается проверке.

Пример-1. Решить систему уравнений:
$$\begin{cases} x^2 + 3xy + 2y^2 = 42 \\ (x-5)(y+4) = 0 \end{cases}$$

Решение.
$$\begin{cases} x^2 + 3xy + 2y^2 = 42 \\ (x-5)(y+4) = 0 \end{cases} \Rightarrow$$

$$\Rightarrow \left[\begin{cases} x^2 + 3xy + 2y^2 = 42 \\ x - 5 = 0 \end{cases} \right] \Rightarrow \left[\begin{cases} 25 + 15y + 2y^2 = 42 \\ x = 5 \end{cases} \right] \Rightarrow \left[\begin{cases} x = 5 \\ y = 1 \end{cases} \right] \text{ или } \left[\begin{cases} x = 6 + \sqrt{46} \\ y = -4 \end{cases} \right] \\ \Rightarrow \left[\begin{cases} x^2 + 3xy + 2y^2 = 42 \\ y + 4 = 0 \end{cases} \right] \Rightarrow \left[\begin{cases} x^2 - 12x + 32 = 42 \\ y = -4 \end{cases} \right] \Rightarrow \left[\begin{cases} x = 5 \\ y = -\frac{17}{2} \end{cases} \right] \text{ или } \left[\begin{cases} x = 6 - \sqrt{46} \\ y = -4 \end{cases} \right]$$

Получим решения $(5; 1), (5; -\frac{17}{2}), (6 + \sqrt{46}; -4), (6 - \sqrt{46}; -4)$.

II. Решение нелинейных систем уравнений методом разложения одного из них на линейные множители.

В этом методе путем равносильных преобразований исходная система проводится к виду

$$\begin{cases} (ax+by)(cx+dy) = 0 \\ f(x,y) = 0 \end{cases} \Leftrightarrow \begin{cases} \begin{cases} ax+by = 0 \\ f(x,y) = 0 \end{cases} \\ \begin{cases} cx+dy = 0 \\ f(x,y) = 0 \end{cases} \end{cases}.$$

И, решение полученных систем далее можно производить методом подстановки.

Пример-2. Решить систему уравнений: $\begin{cases} x^2 - 2xy - 3y^2 = 0 \\ x^2 - xy - 2x - 3y = 6 \end{cases}.$

Решение. Рассматривая первое уравнение системы как квадратное относительно переменной x с коэффициентами $1, -2y, -3y^2$, имеем

$$x = y \pm \sqrt{y^2 + 3y^2} = y \pm 2y \text{ или } x^2 - 2xy - 3y^2 = (x-3y)(x+y). \text{ Тогда}$$

$$\begin{aligned} \begin{cases} (x-3y)(x+y) = 0 \\ x^2 - xy - 2x - 3y = 6 \end{cases} &\Rightarrow \begin{cases} \begin{cases} x-3y = 0 \\ x^2 - xy - 2x - 3y = 6 \end{cases} \\ \begin{cases} x+y = 0 \\ x^2 - xy - 2x - 3y = 6 \end{cases} \end{cases} \Rightarrow \begin{cases} \begin{cases} x = 3y \\ 2y^2 - 3y - 2 = 0 \end{cases} \\ \begin{cases} x = -y \\ 2y^2 - y - 6 = 0 \end{cases} \end{cases} \\ &\Rightarrow \begin{cases} \begin{cases} x = -\frac{3}{2} \\ y = -\frac{1}{2} \end{cases} \text{ или } \begin{cases} x = -2 \\ y = 2 \end{cases} \\ \begin{cases} x = 6 \\ y = 2 \end{cases} \end{cases} \end{aligned}$$

Таким образом найденные пары $(x;y)$ являются решениями данной нелинейной системы уравнений.

III. Метод сведения к квадратному уравнению.

Системы уравнений вида $\begin{cases} f(x) + \varphi(y) = a \\ f(x) \cdot \varphi(y) = b \end{cases}$ и приводящимися к ним

решаются путем сведения к квадратному уравнению. Обозначая $f(x) = z_1$ и $\varphi(y) = z_2$, по теореме Виета имеем:

$$z^2 - az + b = 0. \text{ Откуда } \begin{cases} f(x) = z_1 \\ \varphi(y) = z_2 \end{cases} \text{ или } \begin{cases} f(x) = z_2 \\ \varphi(y) = z_1 \end{cases} \text{ где } z_1 \text{ и } z_2 \text{ корни}$$

квадратного уравнения.

Пример-3. Решить систему уравнений: $\begin{cases} y + \lg x = 1 \\ x^y = 0,01 \end{cases}.$

Решение. $\begin{cases} y + \lg x = 1 \\ x^y = 0,01 \end{cases} \Rightarrow \begin{cases} y + \lg x = 1 \\ y \lg x = \lg 0,01 \end{cases} \Rightarrow \begin{cases} y + \lg x = 1 \\ y \lg x = -2 \end{cases}.$ Составляем

квадратное уравнение $z^2 - z - 2 = 0$. Его корни $z_1 = -1$ и $z_2 = 2$. Тогда

$$\begin{cases} y + \lg x = 1 \\ y \lg x = -2 \end{cases} \Rightarrow \begin{cases} \lg x = -1 \\ y = 2 \\ \lg x = 2 \\ y = -1 \end{cases} \Rightarrow \begin{cases} x = 0,1 \\ y = 2 \\ x = 100 \\ y = -1 \end{cases}.$$

IV. Метод введения новых переменных.

Метод введения новых переменных при решении нелинейных систем уравнений позволяет замены переменных в исходных системах свести их к системам, методы решения которых рассмотрены в вышеизложенных методах.

Пример -4. Решить систему уравнений:

$$\begin{cases} \sqrt[4]{x+y} - \sqrt[4]{x-y} = 2 \\ \sqrt{x+y} - \sqrt{x-y} = 8 \end{cases}.$$

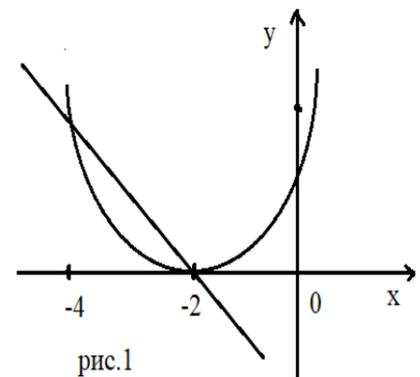
Решение. Обозначим $\sqrt[4]{x+y} = u$, а $\sqrt[4]{x-y} = v$.

Тогда данная система примет вид:

$$\begin{cases} u - v = 2 \\ u^2 - v^2 = 8 \end{cases} \Rightarrow \begin{cases} u - v = 2 \\ u + v = 4 \end{cases} \Rightarrow \begin{cases} u = 3 \\ v = 1 \end{cases}.$$

Возвращаясь к переменным x и y , получим:

$$\begin{cases} \sqrt[4]{x+y} = 3 \\ \sqrt[4]{x-y} = 1 \end{cases} \Rightarrow \begin{cases} x+y = 81 \\ x-y = 1 \end{cases} \Rightarrow \begin{cases} x = 41 \\ y = 40 \end{cases}.$$



V. Графический метод решения.

Графический метод решения системы двух уравнений с двумя переменными $\begin{cases} f(x; y) = 0 \\ \varphi(x; y) = 0 \end{cases}$ состоит в отыскании координат точек пересечения графиков уравнений $f(x; y) = 0$ и $\varphi(x; y) = 0$.

Пример-5. Решить систему уравнений. $\begin{cases} y - x^2 = 4x + 4 \\ 2x + y = -4 \end{cases}.$

Решение. На координатной плоскости изображаем параболу $y = x^2 + 4x + 4$ и прямую $y = -2x + 4$. (рис.1.). Точки пересечения параболы $y = (x+2)^2$ и прямой $y = -2x + 4$ $A(-4; 4)$ и $B(-2; 0)$. И, решение данной системы: $(-4; 4)$ и $(-2; 0)$.

Заключение. В этой работе мы рассмотрели вопрос о решении систем нелинейных уравнений. Даны информации об основных методах решения этих систем. Причем для каждого метода приведены типичные примеры с решениями. Изложенные выше понятия и примеры с решениями можно использовать при проведении математических кружков для учащихся, которые являются готовым материалом. В работах [1-19] рассмотрены различные задачи и изучены методы их решения. Заниматься математикой – это значит решать задачи. Для этого необходимо уникальное

мышление, умение мыслить самостоятельно. И, основная цель математических кружков – научить учащихся мыслить самостоятельно.

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МЕТОДИКА ОБУЧЕНИЯ ЯЗЫКУ В КОНТЕКСТЕ СОВРЕМЕННОГО КОМПЬЮТЕРНОГО ОБУЧЕНИЯ

Аннотация. Использование компьютеров в обучении и сверхурочной работе является эффективным способом повышения мотивации и индивидуализации обучения. Интеграция обычного урока с компьютером позволяет учителю переложить часть своей работы на компьютер, при этом процесс обучения становится более интересным и насыщенным. Компьютер не заменяет учителя, а лишь дополняет его. Использование компьютерных технологий делает урок более увлекательным и позволяет сделать осознанный выбор оптимального обучения.

Ключевые слова: компьютерные технологии, иностранный язык, компьютерная программа, воздействие, принципы, структура, методы обучения, опыт.

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LANGUAGE TEACHING METHODOLOGY IN THE CONTEXT OF MODERN COMPUTER BASED LEARNING

Abstract. The use of computers in teaching and overtime work is an effective way to improve motivation and individualization of instruction. Integration of usual lesson with a computer allows the teacher to shift part of their work on the computer, while the learning process becomes more interesting and intense. The computer does not replace the teacher, but only complements it. The use of computer technology makes the lesson more exciting and allows to make an informed choice for best training.

Key words: computer technologies, foreign language, computer program, affects, principles, structure, teaching methods, experience.

Анализ материалов, обсуждаемых на международных научных конференциях, показывает, что целью образования являются не просто знания и умения, но и определенные качества личности. Постиндустриальное общество заинтересовано в способности принимать решения, адаптироваться к меняющимся условиям жизни, действовать самостоятельно и т. д.

Однако, по мнению Е.С. Полат, являющийся автором исследований по обучению иностранным языкам, в том числе методом проектов, «решение этих задач было достаточно затруднено из-за отсутствия реальных условий для их осуществления, учитывая традиционный подход к образованию, ориентированный на классно-урочные занятия. система» [16; 13]. Она полагает, что основная задача школы состоит не в содержании образования, а в использовании новых технологий обучения.

Возьмем понятие «проецирование» (лат. «projectus» — брошенный вперед). Говоря об этом, следует обратить внимание на то, что это не новое слово в педагогической теории. Это определение появилось в конце 70-х годов в контексте новой программы, предложенной Королевским колледжем искусств Великобритании.

Опираясь на понятия проектирования и технологии обучения, Полат рассматривает методологию проектов как комплекс познавательных, проблемных, творческих методов, которые развивают воображение и одновременно формируют личность учащихся [16; 67].

Сейчас у нас компьютерная эра. А функцию проектов выполняют многие программы и одна из них — Microsoft Power Point. Это инновационное устройство вобрало в себя лучший опыт прошлого и нечто совершенно новое и эффективное из нашего настоящего. Конечно, появление новых технологий в процессе обучения всегда волнительно. Они добавляют новые аспекты классу и стимулируют учащихся к более высокому уровню мотивации и достижений.

Анализ экспериментальных исследований в этой области свидетельствует о том, что нам нужен такой учебный материал, который мог бы учитывать все особенности и проблемы, с которыми мы сталкиваемся в процессе обучения. Многие авторы (Кэрл А. Поуп, Джеффри Н. Голуб) считают Power Point инструментом, способным стимулировать изучение иностранных языков, и рассматривают его как ключ к росту достижений учащихся.

Дж. Буш критикует эту точку зрения. Он говорит: «Независимо от крутых переходов, эффектов лазерных букв и яркого фона, презентация PowerPoint, передающая информацию, мало чем отличается от лекции на классной доске и прослушивания». Однако мы не можем с ним согласиться. Дело в том, что понимание грамматических и лексических единиц иностранного языка часто вызывает определенные трудности у изучающих его учеников.

Многие методисты предполагали, что сначала дети усваивают не связь между знаком и значением, а изучают связь слова и предмета. Это происходит автоматически благодаря нашему условному рефлексу, а также простому контакту двух раздражителей.

Каждая презентация представляет собой рабочую тетрадь с учебным материалом по определенной теме. Самое большое преимущество этой

программы состоит в том, что преподаватель может частично использовать подготовленную презентацию целиком. Это зависит от учителя и целей урока.

Данная технология позволяет успешно сочетать различные формы организации образовательного процесса. Это способствует лучшему взаимодействию между учениками, а также роль учителя занимает другую позицию. Вместо руководителя он становится равноправным партнером и советчиком, всегда готовым помочь в освоении иностранного языка.

Широкое использование иллюстраций и Flash-анимации в презентациях данной программы позволяет достаточно легко и понятно изложить всю лексику урока. Большим преимуществом этого средства является то, что нам не нужно переводить все слова на английский язык. Иностранные слова ассоциируются с картинками и надолго остаются в памяти.

Этап наложения новых слов начинается на отдельном слайде. Каждая единица словарного запаса фонетически обрабатывается с помощью волновых файлов. Он позволяет повторять сложные лексические единицы столько раз, сколько вам необходимо.

Благодаря этой программе графика слова формируется сразу с его звуковым образом. Такие способы ввода новой лексики учитывают индивидуальность каждого ученика – как обладателя слуховой памяти, так и тех, у кого память зрительная.

После этого раскрывается значение каждой лексической единицы и приводятся примеры ее употребления в виде словосочетаний и предложений. Это будет этап объяснения и использования изученного материала на практике. В презентациях такого рода мы используем наиболее популярный способ семантизации лексики – демонстрацию картинки в том случае, когда мы имеем дело со словами, обозначающими конкретные предметы.

Многочисленное воспроизведение учебных ситуаций и интерактивное использование изобразительных методов позволяют реализовать принцип лучшего усвоения знаний. Использование мультимедийных технологий способствует повышению мотивации, снижению плохих оценок и лучшему знанию иностранных языков.

Нельзя не упомянуть о техническом преимуществе прослушивания с помощью Power Point, которое позволяет преподавателю повторять материал столько, сколько ему необходимо, без потери времени, поскольку аудиофайл всегда готов к воспроизведению, а вы этого не делаете. Нужно перематывать ленту снова и снова. Кроме того, учитель не обязан записывать все записи на доске. Вся подготовка к прослушиванию и необходимый материал умещаются на одном слайде в виде кнопок управления, разнообразных эффектов анимации и сопровождающего звука.

Информация, представленная в виде презентации Power Point, расширяет возможности обычных учебников за счет звука, видео и анимации. При работе с компьютером учащиеся используют слух и зрение, что позволяет увеличить не только объем воспринимаемой информации, но и качество памяти.

Современные педагогические технологии, такие как обучение в сотрудничестве, метод проектов, использование новых информационных технологий, Интернет-ресурсов, помогают реализовать личностно-ориентированный подход в обучении, поддерживают индивидуализацию и дифференциацию обучения в расчете на способности студентов, уровень их довузовской подготовки, склонности.

Такое сотрудничество предполагает управление шестью методически важными призывами ученика, такими как личностный контекст деятельности, личный опыт, желание, интерес, сфера склонностей, эмоционально-восприимательная сфера, мировоззрение, статус ученика в группе. Все это побуждает учеников учиться.

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ФИЛОСОФСКИЕ И ПЕДАГОГИЧЕСКИЕ АСПЕКТЫ ПРЕПОДАВАНИЯ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ В СИСТЕМЕ ВЫСШЕГО ОБРАЗОВАНИЯ

Аннотация. В данной статье исследуются философско-педагогические аспекты преподавания информационных технологий (ИТ) в системе высшего образования. В нем анализируются философские основы, лежащие в основе ИТ-образования, такие как развитие критического мышления, содействие инновациям и подготовка студентов к миру, основанному на технологиях. Затем в статье рассматриваются различные педагогические подходы к эффективному ИТ-образованию, включая личностно-ориентированное обучение, проблемное обучение и совместное обучение. Кроме того, в нем обсуждаются проблемы и возможности, связанные с интеграцией этих подходов в учебную программу.

Ключевые слова: информационные технологии, критическое мышление, высшее образование, философия образования, педагогика, инновации, разработка учебных программ.

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PHILOSOPHICAL AND PEDAGOGICAL ASPECTS OF TEACHING INFORMATION TECHNOLOGY IN THE HIGHER EDUCATION SYSTEM

Abstract. This article explores the philosophical and pedagogical aspects of teaching Information Technology (IT) in the higher education system. It analyzes the philosophical underpinnings that guide IT education, such as promoting critical thinking, fostering innovation, and preparing students for a technology-driven world. The article then examines various pedagogical approaches for effective IT education, including student-centered learning, problem-based learning, and collaborative learning. Additionally, it discusses the challenges and opportunities associated with integrating these approaches into the curriculum.

Key words: Information Technology, Higher Education, Philosophy of Education, Pedagogy, Critical Thinking, Innovation, Curriculum Design.

Введение. Информационные технологии (ИТ) стали неотъемлемой частью нашей жизни, произведя революцию в общении, доступе к информации и различных аспектах жизни общества. Следовательно, оснащение студентов необходимыми ИТ-навыками и знаниями имеет решающее значение для их академических успехов и будущей карьеры. Однако эффективное преподавание информационных технологий в системе высшего образования требует тщательного рассмотрения как философских, так и педагогических аспектов.

1.1. Философские основы: Философия образования играет значительную роль в формировании целей и подходов ИТ-образования. Вот некоторые ключевые философские аспекты, которые следует учитывать:

✓ Критическое мышление. ИТ-образование должно дать учащимся возможность критически мыслить, эффективно анализировать информацию и творчески решать проблемы. Это соответствует философии развития разносторонних людей, способных адаптироваться к быстро меняющемуся технологическому ландшафту.

✓ Инновации. Содействие инновациям является еще одним важным аспектом. ИТ-образование должно побуждать студентов исследовать новые технологические возможности, бросать вызов существующим парадигмам и разрабатывать инновационные решения проблем реального мира. Это согласуется с философской идеей подготовки студентов к активному участию в будущем, формируемом технологиями.

✓ Социальная ответственность: ИТ-образование также должно прививать учащимся чувство социальной ответственности. Они должны осознавать этические последствия использования технологий, потенциальные предубеждения в алгоритмах и важность использования технологий для положительного социального воздействия. Это согласуется с философской целью развития ответственных и этичных людей, которые вносят вклад в лучшее общество.

2. Педагогические подходы. Эффективное ИТ-образование требует использования ряда педагогических подходов, которые учитывают различные стили обучения и способствуют активному участию. Вот некоторые известные подходы:

❖ Обучение, ориентированное на учащихся. Этот подход смещает акцент с лекций, ориентированных на преподавателя, на деятельность под руководством учащихся, побуждая учащихся брать на себя ответственность за свое обучение. Это согласуется с философской идеей развития критического мышления и независимого обучения.

❖ Проблемно-ориентированное обучение. Этот подход знакомит учащихся с реальными или смоделированными проблемами, которые они должны решить, используя свои знания и навыки в области ИТ. Это соответствует философской цели подготовки студентов к применению своих знаний для решения практических задач.

❖ Совместное обучение: этот подход побуждает учащихся работать вместе в группах для выполнения задач и обучения друг у друга. Это согласуется с философской целью развития навыков общения, командной работы и сотрудничества, необходимых для успеха в современном мире.

3. Проблемы и возможности. Интеграция этих педагогических подходов в учебную программу представляет собой как проблемы, так и возможности:

Проблемы:

➤ Развитие профессорско-преподавательского состава: Оснащение преподавателей необходимыми навыками и знаниями для эффективного внедрения этих подходов требует постоянного профессионального развития и поддержки.

➤ Разработка учебной программы. Разработка учебной программы, которая сочетает в себе теоретические знания, практические навыки и философские соображения, требует тщательного планирования и сотрудничества.

➤ Оценка и оценка. Оценка результатов обучения студентов в сфере ИТ-образования выходит за рамки традиционных экзаменов и требует использования разнообразных методов оценки.

Возможности:

✓ Заинтересованное обучение: эти подходы могут способствовать созданию более увлекательной и интерактивной среды обучения, способствуя активному участию и более глубокому пониманию.

✓ Реальное применение. Сосредоточив внимание на решении проблем и практическом применении, ИТ-образование может подготовить студентов к требованиям рабочей силы и вооружить их навыками, соответствующими реальным сценариям.

✓ Обучение на протяжении всей жизни: эти подходы могут воспитать любовь к обучению и вооружить учащихся навыками и мышлением, необходимыми для непрерывного обучения и адаптации в динамичной технологической среде.

Заключение: Эффективное преподавание информационных технологий в системе высшего образования требует вдумчивого рассмотрения как философских, так и педагогических аспектов. Основывая учебную программу на философских взглядах, которые способствуют критическому мышлению, инновациям и социальной ответственности, а также используя разнообразные педагогические подходы, преподаватели могут дать учащимся возможность стать всесторонне развитыми людьми, готовыми ориентироваться в постоянно развивающемся мире технологий и вносить значимый вклад в жизнь общества.

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ПОЛИВ В ГЕОТЕРМАЛЬНЫХ ТЕПЛИЦАХ

Аннотация. Обеспечение растений водой является одним из наиболее важных факторов. Оно в значительной степени определяет физиологометаболические процессы формирования урожая и общего развития растений.

Обеспеченность растений водой зависит от поглощения воды, влияющих на эти процессы. Для правильного регулирования водного режима растений необходимо знать, какие факторы на него влияют или какие нарушения жизнедеятельности растений вызывают нехватку влаги. Исходя из этого можно сказать, какие величины могут быть использованы для управления процессами полива и увлажнения.

Ключевые слова. Фактор, урожай, теплица, вода, полив, влажность почвы, температура, транспирация томата, влажность воздуха, водный.

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SPRAYING IN GEOTHERMAL GREENHOUSES

Annotation. Obespecherie plants with water is one of the most important factors. It largely determines the physiological and metabolic processes of crop formation and general development of plants.

The availability of water depends on water absorption, influencing these processes. For correct regulation of water regime of plants it is necessary to know what factors influence on it or what disturbances of activity of plants cause shortage of moisture. On this basis it is possible to tell, what values can be used for management of processes of watering and moistening.

Key words: crop factor, greenhouse, water, watering, soil moisture, temperature, tomato transpiring, air humidity, water mode.

Введение. Обеспечение растений водой является одним из наиболее важных факторов. Оно в значительной степени определяет физиологометаболические процессы формирования урожая и общего развития растений [5,6]. Поэтому оптимальное водоснабжение является предпосылкой получения стабильных и высоких урожаев. Для обеспечения

регулирования водного режима растений в зависимости от факторов роста необходимо автоматизированное управление [1,2].

Для управления и регулирования водоснабжения растений известны и эксплуатируются различные устройства для автоматического управления дождеванием. Эти устройства работают на количественной или повременной основе без учета таких параметров управления, как влажность почвы и факторы микроклимата. Сроки и продолжительность полива при этом определяются эмперически и включение дождевальной установки осуществляется вручную. Этот способ дождевания приводит к тому, что очень часто нормы полива бывают слишком низкими или высокими, что не отвечает требованиям растений [3].

Методы исследований. Для управления водным режимом необходимо иметь соответствующие датчики и знать соответствующие требованиям растений параметры, определяющие сроки и нормы полива.

Увеличение эффективности системы водоснабжения возможно путем сочетания полива и внесения растворимых удобрений [4,5]. Для этого необходимо равномерное распределение раствора в растительном ценозе, зависящее от качества системы дождевания. В комбинации с дождеванием можно автоматизировать также и внесение растворов минеральных удобрений.

Обеспеченность растений водой зависит от поглощения воды, влияющих на эти процессы. Для правильного регулирования водного режима растений необходимо знать, какие факторы на него влияют или какие нарушения жизнедеятельности растений вызывают нехватку влаги. Исходя из этого можно сказать, какие величины могут быть использованы для управления процессами полива и увлажнения.

Факторы окружающей среды влияющие на водопоглощение и транспирацию, а тем самым и на водный режим растений, а также способы управления этими величинами.

Транспирация растений зависит от микроклимата в теплице, поглощения воды растениями, от влажности почвы и факторов, влияющих на нее.

Поглощение воды корневой системой и испарение ее листьями должны быть в равновесии, что определяется водными потенциалами воздуха, растения и почвы. Из-за того, что разность потенциалов между почвой и растением меньше, чем между растением и воздухом, движение воды направлено от корней к листьям, где вода в виде пара выделяется в воздух.

Водный потенциал воздуха зависит от дефицита насыщения, водный потенциал почвы – от ее влажности, а водный потенциал растения создается разницей между осмотическим давлением клеточного сока и тургором клетки (потенциалом давления).

Результаты исследований. Транспирация зависит главным образом от дефицита насыщения воздуха внутри и над растительным ценозом и поступающей радиации. Другие климатические факторы также влияют на транспирацию, например движение воздуха, влажность почвы.

Дефицит насыщения воздуха зависит от температуры и относительной влажности воздуха и является разницей между максимальным насыщением воздуха водяными парами и конкретным содержанием водяных паров в воздухе. Чем выше дефицит насыщения воздуха водяными парами, тем больше способность воздуха поглощать воду для уменьшения дефицита давления паров воздуха. Дефицит насыщения увеличивается с повышением температуры и уменьшением относительной влажности воздуха. Так как дефицит давления паров воздуха, как правило, больше нуля (относительная влажность воздуха меньше 100%), растения через листья отдают воду в воздух. При повышении температуры и уменьшении относительной влажности воздуха повышается дефицит насыщения воздуха и транспирация увеличивается. Если расход воды от транспирации больше, чем поступление ее через корневую систему растения, появляются колебания оводненности, которые могут привести к увяданию и гибели растения.

Влияние интенсивности освещения температуры, относительной влажности воздуха на транспирацию томата показано.

Для предупреждения недостатка воды нужно оптимизировать климатические условия в теплице, чтобы не допустить увядания растений. Предельное значение ниже которого наступает увядание растений, соответствует транспирации 8 г H₂O на 1000 см² листовой поверхности в час.

В теплицах в связи с изменением интенсивности лучистого потока в течение дня изменяется температура и относительная влажность воздуха (дефицит насыщения воздуха), поэтому растение должно приспособить к этим изменениям свой водный обмен. В отдельные периоды может внезапно устанавливаться высокий дефицит насыщения воздуха водяными парами. Чтобы предупредить отрицательное действие складывающихся условий на растение, необходимо применить кратковременное увлажнение и принять меры для оптимизации водного режима.

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**ОПИСАНИЕ ТЕХНОЛОГИЧЕСКОГО ПРОЦЕССА,
ПРОИЗВОДСТВА N,N1-ГЕКСАМЕТИЛЕН БИС-
[(ДИБЕНЗИЛАМИНО) МОЧЕВИНЫ] И ЛАБОРАТОРНЫЙ МЕТОД
ПОЛУЧЕНИЯ N,N1-ДИХЛОР-N,N1-ГЕКСАМЕТИЛЕН БИС-
[(ДИБЕНЗИЛАМИНО) МОЧЕВИН]**

Аннотация. Цель – разработка и описание технологического процесса производства N,N1-гексаметилен бис-[(дибензиламино)мочевины], и лабораторного метода синтеза N,N1-дихлор-гексаметилен бис-[(дибензиламино)мочевин]. Способ осуществления: создание технологической линии включающей: весы, реактор, азотную рамку, емкости, мерники, Нутч-фильтры, сборник продукта, сушилку, перегонный куб, конденсатор, смотровой фонарь, ловушку.

Ключевые слова: N,N1-гексаметилен бис-[(дибензиламино)мочевина], N,N1-дихлор-гексаметилен бис-[(дибензиламино)мочевина], технологический процесс, лабораторный синтез.

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**DESCRIPTION OF THE TECHNOLOGICAL PROCESS,
PRODUCTION OF N,N1-HEXAMETHYLENE BIS-
[(DIBENZYLAMINO) UREA] AND LABORATORY METHOD FOR
OBTAINING N,N1-DICHLORO-N,N1-HEXAMETHYLENE BIS-
[(DIBENZYLAMINO) UREA]**

Abstract. Objective - the development and production process description N,N1- bis- hexamethylene [(dibenzylamino)-urea], and laboratory synthesis method N,N1- dichloro - hexamethylene - bis [(dibenzylamino)-urea]. Method of implementation: creating production line consisting of scales, reactor, nitric frame, tanks, measuring tanks, suction filter, a collection of product, dryer, alembic, a condenser, an observation lantern trap.

Keywords: N, N1- bis- hexamethylene [(dibenzylamino) urea], N, N1-dichloro - hexamethylene - bis [(dibenzylamino) urea], process, laboratory synthesis.

В данной статье рассказывается о получении лабораторных и промышленных способах N,N¹-дихлор-N,N¹-гексаметилен бис-[(добензиламино) мочевины], входящих в состав производных бис-мочевин, как биостимулятора роста растений.

Задачей является предлагаемой статьи изыскание новых доступных производных гексаметилен бис- мочевины, которые по сравнению с известными соединениями обладают более высокой активностью [1,2].

Сегодня в сельском хозяйстве производные мочевины используются в качестве гербицида, пестицида, фунгицида, дефолианта и биоудобрений. В органическом синтезе на основе мочевины с другими реагентами получены труднодоступные гетероциклические соединения (барбиталы, фенобарбитал, мединал и др.) Этот список может быть продолжен, так широко область использования производных мочевины, бис-мочевин и полимочевин.

N,N'-гексаметилен бис-[(добензиламино) мочевины] (ХЮХ-2) представляет собой бесцветный порошок с температурой плавления 224 – 225⁰С. Растворяется во многих органических растворителях: ДМФА, ДМСО, ДМАЦ, НСООН, нитробензоле, диоксане и т.д.

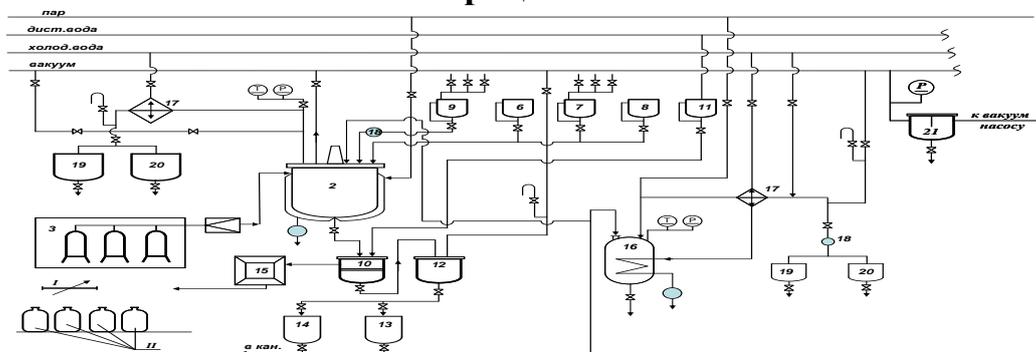
Изложение технологического процесса:

Раствор добензиламина готовится в реакторе Р-2. Для этого из мерника М-6 самотеком загружают 3,6719 кг (3,5788 л) добензиламина и 10,2516 кг (10,5982 л) диметилформамида (ДМФА) из мерника М-7, все это перемешивают в течение 20 – 25 минут до полного растворения добензиламина в диметилформамиде.

Перед началом работы все оборудование и коммуникации установки промывают водой и при необходимости продувают азотом. Азот подают из азотной рамки АР-3 через понижающий редуктор. Загрузка компонентов в мерник происходит из емкости Е 4,5 вакуумом, создаваемым вакуум-насосом. Приготовление раствора и получение ХЮХ-2 осуществляется в реакторе Р-2, снабжённом конденсатором, паровой рубашкой для обогрева и мешалкой для перемешивания. В реактор Р-2 с приготовленным раствором добензиламина в ДМФА загружают 3,35551 кг (4,6412 л) катализатора триэтиламина самотеком из мерника М-8 и при интенсивном перемешивании из мерника М-9 медленно через смотровой фонарь загружают 1,5843 кг (1,5139 л) гексаметилендиизоцианата. Реакция протекает при температуре 25 – 35⁰С подачей пара в рубашку реактора. Продолжительность реакции - 4 часа. Затем мешалку реактора останавливают, охлаждают продукты реакции затем и отстаивают. Далее передают на фильтрацию и промывку. Продукты реакции фильтруют на

нутч-филтре НФ-10, который состоит из НФ-10 и сборника 12. Фильтровальную бумагу замачивают с водой и покрывают фильтр. Затем из реактора продукты реакции пропускают через фильтр. Фильтрат собирают на фильтре в сборнике 12 поз сб. 13. Осадок на фильтре промывают дистиллированной водой, которую подают из мерника М-11 самотеком. Дистиллированную воду можно подогреть до 30 – 35⁰С для ускорения фильтрации. Промытый осадок поступает на сушку. Сушку осадка ХЮХ-2 проводят в сушильном шкафу СШ-15 при температуре 100 – 110⁰С в течение 2 – 3 часов. Фильтрат из сборника Сб-13 загружают в реактор Р-2, состоящей из смеси диметилформаида и триэтиламина, далее вакуумом забирают в перегонный куб ПК-16, снабженный змеевиком для обогрева, и доводят до кипения. Пары отводят в конденсатор 17. Фракции дистиллята поступают через смотровой фонарь в отдельные сборники (Сб-19 и Сб-20). Первая фракция - катализатор триэтиламин перегоняется при температуре 89,5⁰С. После отгона триэтиламина смесь охлаждают. Создается вакуум в перегонном кубе. При остаточном давлении 35 мм. рт. ст. диметилформаид отгоняется при температуре 76⁰С. По окончании операции остаток сливают из куба, после чего в него вновь загружают разделяемую смесь. Промывные воды с содержанием следов триэтиламина собирают в сборнике Сб-14 и выбрасывают в канализацию. Эту же операцию можно проводить и в реакторе Р-2.

Схема технологического процесса



1-весы; 2-реактор; 3-азотная рамка; 4,5-емкости; 6,7,8,9-мерник для гексан-1,6-диизоцианата, дибензиламина, диметилформаида, триэтиламина; 10-Нутч-филтър; 11-дистиллированная вода; 12,13,14,19,20-сборники; 15-сушилка, 16-перегонный куб; 17-конденсатор; 18-смотревый фонарь; 21-ловушка

Рис.1. Принципиальная технологическая схема производства N,N¹-гексаметилен бис-[(дибензиламино) мочевины]

N,N'-гексаметилен бис-[(дибензиламино) мочевины] (ХЮХ-2) представляет собой бесцветный порошок с температурой плавления 224 – 225⁰С. Растворяется во многих органических растворителях: ДМФА, ДМСО, ДМАЦ, НСООН, нитробензоле, диоксане и т.д [3].

соединений позволяет получать конечные продукты с высоким выходом, безопасным путем.

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ИЗУЧЕНИЕ ТЕМЫ ФУНКЦИИ И ИХ ГРАФИКА С ИСПОЛЬЗОВАНИЕМ СОВРЕМЕННОГО ИКТ

Аннотация: в статье говорится о изучение темы функции и их графика с использованием современного ИКТ.

Ключевые слова: ИКТ, тема, функция, графика, современный.

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STUDYING THE TOPIC OF FUNCTIONS AND THEIR GRAPHICS USING MODERN ICT

Abstract: the article talks about studying the topic of functions and their graphs using modern ICT.

Key words: ICT, theme, function, graphics, modern.

При разумном использовании трудно переоценить значимость ИКТ для образовательно – воспитательного процесса. ИКТ уже давно стало реальностью современного урока. Не могу не согласиться с теми, кто скажет что создание и использование мультимедийных презентаций – это уже вчерашний день. Стремительно развивающаяся наука в области информатизации уже предлагает учителю использовать на уроке возможности интерактивной доски, просматривать видео уроки, проводить и демонстрировать опыты в виртуальных лабораториях, использовать интернет-ресурсы на уроках онлайн. Но увы, материально –техническое оснащение образовательных организаций может резко отличаться даже в пределах одного города. Тем не менее, это не должно стать поводом для «застоя» в саморазвитии. Можно и нужно находить новый потенциал в давно известных вещах. Поэтому речь сегодня пойдет обо всем нам уже давно известной мультимедийной презентации.

Мультимедийные презентации можно использовать для всех типов уроков и на любом этапе урока. Бесспорно, учителю презентации значительно облегчают работу. Ведь так легко все задания выложить на слайды, не надо искать (рисовать, писать) и где-то хранить наглядность, карточки, таблицы, кассеты, рассчитывать место на доске, чтобы уместить задания и при этом оставить место для письменной работы учащихся. Весь материал можно поместить на маленьком электронном носителе. При этом можно привлечь внимание детей спецэффектами, показать то, что невозможно принести в класс, организовать интерактивную игру. Но, к сожалению, часто презентации полностью отдается роль учителя в уроке. На экран выносятся даже то, что можно сказать и так – стихи для организационного момента, слова приветствия и прощания. Чтобы презентация, как учебный материал, действительно привлекала внимания и возбуждала интерес к предмету, ее необходимо четко продумать. Цели, задачи, результат ее использования, этапы, изобразительные средства, оформление, звуковой ряд, интерактивность – все должно быть направлено на решение задач урока, а не на развлечение детей. Презентация нужна тогда, когда только с ее помощью ребенок может увидеть то, чего не может увидеть и ощутить лично, на практике.

На мой взгляд, наиболее эффективное использование презентаций возможно на уроках при изучении тем, которые учащиеся всегда воспринимают с большим трудом – функции; построении графиков функций.

Функциональная линия – это одна из ведущих линий в школьной математике, знакомство с ней начинается в 5 классе, а заканчивается в 11 классе. В основной школе происходит изучение таких понятий, как функция, область определения функции, способы задания функции, график функции, возрастание и убывание функции, сохранение знака на

промежутке, наибольшее и наименьшее значение функции, чётная и нечётная функции.

В результате изучения курса математики учащиеся должны понимать, что функции – это математическая модель, позволяющая описывать и изучать разнообразные зависимости между реальными величинами. Что конкретные темы функций (прямая и обратная пропорциональности, линейная, квадратная функции) описывают большое разнообразие реальных зависимостей.

Изучение функций начинается с 7 класса. Ребята знакомятся с линейной функцией, ее графиком и свойствами. Для иллюстрирования зависимости расположения графика линейной функции на координатной плоскости от величин K и B нам бы пришлось потратить неоправданно много времени урока, в то время как с помощью презентации, можно это сделать за 10 -15 минут.

Основная тема 8 класса – квадратичная функция, моделирующая равноускоренные процессы. Преимуществом использования мультимедиа презентаций на таких уроках является в первую очередь колоссальная экономия времени на уроке. Вслед за определением квадратичной функции и зависимости «степени крутизны» параболы от коэффициента K параболы, на слайдах появляются задания на распознавание квадратичной функции. Затем идет поэтапное построение графиков и исследование свойств функции. Такой способ подачи информации на уроке способствует лучшему пониманию и запоминанию учебного материала учащимися.

Все вышесказанные преимущества будут относиться и к построению и исследованию графиков всех других функций, изучаемых в школьном курсе.

На своем личном опыте я убедилась в целесообразности и эффективности использования мультимедийных презентаций при изучении темы «Построение графиков функций с помощью параллельного переноса»

Уделить время и внимание построению графиков кусочно-заданных функций очень важно, продемонстрировать специфику и алгоритм построения графиков таких функций.

За годы работы в нашей школе моими коллегами и мной накоплен большой объем дидактического материала для каждого класса в электронном виде по теме «Графики функций». Для каждой параллели классов подобраны устные упражнения, демонстрационный материал, самостоятельные и контрольные работы, подборка практических задач для подготовки учеников, материалы для внеурочной деятельности. Не буду лукавить, конечно же, большую часть нашего банка дидактических материалов по данной теме составляют материалы, взятые из сети Интернет. Использование в моей работе и в работе некоторых моих коллег проектной технологии дало возможность в последнее время пополнение

дидактических материалов активно осуществлять за счет авторских работ наших учеников.

Так при изучении темы «Квадратичная функция», я предложила ребятам 8 классов разбиться на группы. Каждая группа получила индивидуальное задание (проект): создать мультимедийную презентацию построения графика некоторой функции.

Самые удачные проекты скоро пополнят нашу копилку «Графиков функций» и возможно в следующем учебном году будут доработаны и представлены на школьной научно – практической конференции.

Поскольку нам уже не интересно пользоваться материалами, предоставленными в сети Интернет и мы все больше склоняемся к созданию собственных мультимедийных презентаций, то совсем недавно (на заседании нашего школьного методического объединения, в которое кроме учителей математики входят еще и учителя информатики) возникла идея о создании интегрированного предпрофильного курса «Функции. Построение графиков функций». Надеюсь, что наша идея будет воплощена в жизнь. Думаю, что к воплощению этой идеи обязательно будут причастны не только учителя, но и наши творческие ученики.

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СОВРЕМЕННЫЕ ТРЕБОВАНИЯ К ПРЕПОДАВАНИЮ НАУКИ В ВУЗАХ

Аннотация. Реформы, реализуемые в социально-экономической, политической, духовной и культурной сферах в нашей республике, требуют коренного обновления и развития системы образования и подготовки кадров. Поэтому, развивая систему образования на уровне современных требований и на основе накопленного опыта, воспитание подрастающего молодого поколения вполне зрелых и высокоморальных людей, активно участвующих в жизни общества, является одним из главных приоритетов нашей страны. наша страна.

Ключевые слова: знания, учителя, студенты, педагогика, инновация, интерес, логика, учебник.

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MODERN REQUIREMENTS FOR TEACHING SCIENCE IN UNIVERSITIES

Abstract. Reforms being implemented in the socio-economic, political, spiritual and cultural spheres in our republic require a radical renewal and development of the education and training system. Therefore, developing the education system at the level of modern requirements and on the basis of accumulated experience, educating the younger generation of fully mature and highly moral people actively participating in the life of society is one of the main priorities of our country. our country.

Keyword: knowledge, Teachers, Students, pedagogical, innovation, Interest, logical, textbooks.

Закон Республики Узбекистан «Об образовании», «Национальная программа подготовки кадров» являются документами исторического значения, формирующими теоретическую и практическую основу для реализации реформ в области развития образования и подготовки высококвалифицированных специалистов в сфере образования нашей страны, и определение перспектив дальнейшего развития образования в будущем. Следует отметить, что в этих документах особое внимание уделяется воспитанию молодежи, которая является будущим нашей страны, проявлению имеющихся у нее талантов и способностей, а также определяются основы, принципы и этапы реформирования системы образования нашей страны. Эти исторические документы, проникнутые идеями национальной независимости, успешно реализуются. В результате открылся широкий путь для изучения системы образования развитых стран. В свою очередь, зарубежные эксперты изучают реформы, происходящие в системе образования нашей страны, и дают им положительную оценку. Такие взаимодействия, в свою очередь, требуют от системы образования нашей страны анализа передовых педагогических технологий развитых стран с точки зрения наших национальных ценностей и внедрения их в образовательный процесс. Ведь такая практическая работа – один из главных признаков интеграции системы образования нашей страны с мировыми стандартами образования. Поэтому в образовательном процессе следует ориентироваться на преподавание предметов на основе педагогических технологий.

Список учебников и учебных пособий, рекомендации по темам преподавания естественных наук, введение и основная часть, практические занятия и эксперименты. Исходя из требований государственных образовательных стандартов, возможно предоставление чертежей, курсовых работ и проектов, а также их тем и направлений по отдельным предметам. Должны быть четко указаны часы, отведенные на темы, дидактические и технические средства, используемые по темам, виды контроля знаний по темам и разделам, а также соответствующие методические рекомендации.

При преподавании предметов необходимо следовать принципам новейших достижений науки, техники, техники, введенной в республике системы непрерывного образования, обеспечивать преемственность и преемственность между видами образования, особенно по предметам, преподаваемым непрерывно. в высшем образовании - логическая последовательность тем, переход от простого к сложному, от частного к общему. Необходимо уделять внимание организации самостоятельного учебно-педагогического процесса студентов на основе педагогических технологий, а не повторять одно и то же толкование тем. Цель предмета, на основе стандарта сетевого образования, поясняется, какова основная цель преподавания данного предмета. Исходя из цели, наглядно показано, какие

навыки и знания будут развиваться у учащихся в ходе преподавания данного предмета.

Требования к преподаванию предметов:

Историчность. Отражая особенности истории и развития науки. Знакомство с жизнью и деятельностью ученых и исторических деятелей, внесших большой вклад в науку.

Современность. Предоставление знаний в соответствии с современным уровнем науки.

Гуманитаризм. Придерживаясь принципов человечности, щедрости и добра.

Международный стандарт. Сравнение с эквивалентными учебными программами на практике как минимум в двух развитых зарубежных странах с разными системами образования.

Конкурентоспособность. Достижения в существующих или разрабатываемых эквивалентных учебных программах в развивающихся странах.

Национальность. Глубоко и научно обоснованно описать вклад ученых и исторических деятелей, живших или работавших в Средней Азии, писавших на узбекском языке, в развитие науки.

Последовательность. Систематическая, логическая альтернатива науке и соответствие соответствующим научным программам высшего образования.

Привлекательность. Заинтересовать и развить интерес учащихся к науке, использовать простой и сложный стиль повествования.

Практичность. Придерживаясь методологии, соединяющей науку с жизнью, теорию с практикой.

Инновации. Открытость к инновациям, новым педагогическим технологиям, инновациям в сфере образования на основе требований собственной стратегии развития Узбекистана и Национальной программы.

Структура науки:

1. Название предмета.
2. Цель и задачи науки.
3. Содержание науки.
4. План тем.
5. Средства обучения, методы, виды и формы.
6. Система оценки.
7. Использованная литература.

Определены содержание, объем и последовательность освоения знаний, умений и компетенций по предметам.

Навык. Исходя из сути своего предмета и в соответствии с отраслевыми стандартами, педагог пишет, исходя из формирования умений и знаний учащихся по данному предмету.

Знание. Студенты должны обладать вышеуказанными навыками и знаниями после окончания предмета.

Современные требования к преподаванию предметов в высших учебных заведениях включают в себя следующие аспекты:

➤ Активное использование интерактивных и инновационных методов обучения. Учителя должны стремиться создать интерактивную и стимулирующую учебную среду, включая использование интерактивных технологий, мультимедиа, виртуальной реальности и других современных инструментов обучения.

➤ Практическая направленность: связь теории с реальными практическими примерами необходима для того, чтобы студенты могли применить полученные знания и навыки на практике.

➤ Учет различных стилей обучения и индивидуальных потребностей учащихся. Учителя должны признавать различия в стилях обучения учащихся и предлагать разнообразные методы и материалы для обеспечения максимальной эффективности обучения.

➤ Развитие критического мышления и навыков решения проблем: процесс обучения должен быть направлен на развитие у учащихся аналитических, оценочных навыков и навыков решения проблем, а также способности мыслить независимо и творчески.

➤ Активное вовлечение учащихся в процесс обучения: Преподаватели должны поощрять активное участие учащихся во время урока, поощрять обсуждение и сотрудничество, а также позволять учащимся самостоятельно учиться и усваивать дополнительные материалы.

➤ Оценка и обратная связь. Учителя должны обеспечивать точную и объективную оценку учащихся и предоставлять своевременную обратную связь, чтобы помочь учащимся развиваться и улучшать академические достижения.

➤ Обновление содержания образования: Педагогический процесс должен постоянно обновляться с учетом изменений в знаниях и технологиях, а также потребностей рынка труда.

➤ Развитие междисциплинарности и гибкости: преподавание предметов должно способствовать развитию междисциплинарного мышления и способности студентов адаптироваться к изменениям и новым требованиям в разных областях.

➤ Использование информационных и коммуникационных технологий. Учителя должны владеть современными технологиями для эффективной передачи и получения информации, а также для поддержки современных форм образования, таких как онлайн-курсы и дистанционное обучение.

➤ Непрерывное развитие учителей: Учителя должны постоянно стремиться совершенствовать свои педагогические навыки, изучать новые

методы преподавания и приобретать дополнительные знания в своей области.

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ЗНАНИЯ, НАВЫКИ И НАВЫКИ СТУДЕНТОВ МЕТОДЫ ФОРМИРОВАНИЯ

Аннотация. Список учебников и учебных пособий, рекомендации по темам преподавания естественных наук, введение и основная часть, практические занятия и эксперименты. Исходя из требований государственных образовательных стандартов, возможно предоставление чертежей, курсовых работ и проектов, а также их тем и направлений по отдельным предметам. Должны быть четко указаны часы, отведенные на темы, дидактические и технические средства, используемые по темам, виды контроля знаний по темам и разделам, а также соответствующие методические рекомендации.

Ключевые слова: процесс, активность, разработка, эффективность, адаптация, метод, технология.

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KNOWLEDGE, SKILLS AND ABILITIES OF STUDENTS FORMATION METHODS

Abstract. List of textbooks and teaching aids, recommendations on topics in teaching natural sciences, introduction and main part, practical exercises and experiments. Based on the requirements of state educational standards, it is possible to provide drawings, coursework and projects, as well as their topics and directions in individual subjects. The hours allocated for the topics, the didactic and technical means used for the topics, the types of knowledge control for the topics and sections, as well as the corresponding methodological recommendations must be clearly indicated.

Keyword: process, activity, development, efficiency, adaptation, method, technology.

Существует несколько способов развития знаний, навыков и компетенций учащихся. Некоторые из них включают в себя:

Лекционное и демонстрационное обучение: это традиционный метод обучения, при котором учитель предоставляет учащимся информацию посредством историй, объяснений и демонстраций. Лекции можно дополнять презентациями или видеороликами.

Практическое обучение: Эти тренинги дают студентам практические навыки и опыт в своей области. Они могут включать в себя выполнение практических задач, участие в симуляциях или решение проблемных ситуаций.

Работа в команде: выполняя групповые задания, учащиеся могут делиться знаниями, обсуждать идеи и сотрудничать для достижения общей цели. Этот метод развивает коммуникативные навыки и помогает формировать коллективные знания.

Проектная работа: студенты могут выполнять проекты, которые решают реальные проблемы или создают что-то новое в своей области. Этот метод развивает творческое мышление, решение проблем и самостоятельность.

Электронное обучение. С развитием технологий электронные платформы и онлайн-курсы становятся все более популярными. Они позволяют студентам изучать материал в удобном для них темпе и получать обратную связь и поддержку от преподавателей.

Исследовательская деятельность: метод, ориентирующий учащихся на активный поиск знаний и проведение собственных исследований. Студенты могут собирать и анализировать данные, проводить эксперименты и делать выводы.

Сочетание различных методов и адаптация их к конкретным потребностям обучающихся и образовательной программе помогает эффективно развивать знания, умения и компетенции обучающихся.

Метод педагогического опыта. Использование данного метода позволило решить следующие педагогические задачи: определить приемлемость специальной методики, служащей повышению эффективности формирования знаний, умений и квалификации обучающегося, и разработана ли она в соответствии с ней. с целью; проявление связи между условиями и намеченными результатами; обоснование наличия связи между содержанием специальной методики, педагогическими навыками и проявлением активности; сравнение разницы между показателями, достигнутыми в результате использования методики, позволяющей повысить эффективность текущего состояния учений.

Метод педагогического опыта в обучении – это прием, основанный на использовании жизненного или профессионального опыта учителя в процессе обучения студентов. Этот метод направлен на улучшение процесса обучения и создание более благоприятной среды для обучения и развития навыков.

Основные принципы и особенности метода педагогического опыта:

1. Опираясь на жизненный опыт учителя: в процессе обучения используются примеры, ситуации и задачи, связанные с реальным опытом учителя.

2. Непрерывность: опыт преподавателя передается ученикам для их развития и приобретения новых знаний и навыков.

3. Постоянное развитие: преподаватель постоянно совершенствует свой опыт, использует новые методы и стратегии обучения.

4. Студенческая деятельность: метод педагогического опыта поощряет активное участие студентов в учебном процессе, что помогает им активно усваивать материал.

5. Практическая направленность: практическая значимость полученных знаний и умений для студентов учитывается в методе педагогического опыта.

Использование метода педагогического опыта может быть полезно для различных дисциплин и областей знаний, так как позволяет более эффективно связать теорию с практикой и подготовить студентов к реальным ситуациям и проблемам, с которыми они столкнутся в своей будущей профессиональной деятельности.

Метод педагогического наблюдения. Это создает условия для четкого представления о показателях эффективности рекомендуемой методики. С ее помощью можно будет внести изменения в содержание специальной методики, обеспечить дидактическое обогащение на основе учета обстоятельств, возникших в процессе организации обучения.

Метод педагогического наблюдения состоит в систематическом наблюдении, анализе и оценке деятельности учителей и учащихся на уроке или уроке в ходе учебного процесса. Он предоставляет информацию о качестве уроков, эффективности используемых методов обучения, достижениях учащихся и проблемах, с которыми они сталкиваются.

Целью педагогического наблюдения является повышение качества образования, выявление проблем и разработка мер по их решению. Педагогическое наблюдение может осуществляться как внутренними наблюдателями школы (администрацией школы или другими учителями), так и внешними экспертами (представителями методической службы, научных центров).

При наблюдении обычно отмечают следующие аспекты:

1. Планирование урока: цель, содержание, методы работы и организация.

2. Взаимодействие учителя и учащихся: установление связи, использование педагогического общения.

3. Организация и проведение учебного процесса: использование интерактивных методов обучения, дифференцированный подход к обучающимся, оценка и контроль достижений.

4. Отношение учащихся к уроку: активность, уровень активности, самостоятельность.

5. Результаты урока: достижение целей, успеваемость учащихся, обратная связь учащихся.

Результаты педагогического наблюдения могут быть использованы для анализа и обсуждения, разработки рекомендаций педагогам и оценки качества образовательного процесса в целом. Этот метод помогает учителям и школьным администраторам совершенствовать свою практику и обеспечивать успешное обучение учащихся.

Метод организации анкетных запросов. Этот метод основан на оценке текущей ситуации формирования профессиональных навыков студента, определении условий, позволяющих обеспечить эффективность, поиске возможностей, определении мер использования позволяет вносить изменения в содержание специальной методики.

Метод интервью. Изучая мнения педагогов и студентов по данному исследованию, послужили созданию условий для анализа их сущности. В этом методе выделение определенной темы направлено на выяснение ее сути. были использованы разработанные вопросы.

Инновационные педагогические методы Формирование профессиональных навыков студента является основным фактором, служащим повышению эффективности.

Создаются условия для организации обучения с использованием методов мозгового штурма, кейса, кластера, куба, концептуальной таблицы, которые признаны технологиями, для достижения эффективности.

В ходе данной реализации предусматривалось сформировать у них самостоятельность, навыки свободомыслия, повысить активность. Эти навыки сформировались в результате эффективного использования инновационных педагогических методов в образовательном процессе.

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ЗНАЧЕНИЕ ОПРЕДЕЛЕНИЯ ОБРАЗОВАТЕЛЬНЫХ ЦЕЛЕЙ ПРИ ОРГАНИЗАЦИИ ОБРАЗОВАТЕЛЬНОЙ ДЕЯТЕЛЬНОСТИ В ВУЗАХ

Аннотация. В конце изучения предмета определяются знания, умения и личностные качества, которых студент должен достичь в результате образования.

Ключевые слова: знания, учителя, студенты, педагогика, инновация, интерес, логика, учебник.

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THE IMPORTANCE OF DETERMINING EDUCATIONAL GOALS IN THE ORGANIZATION OF EDUCATIONAL ACTIVITIES IN UNIVERSITIES

Abstract. At the end of studying the subject, the knowledge, skills and personal qualities that the student must achieve as a result of education are determined.

Keyword: knowledge, teachers, students, pedagogical, innovation, Interest, logical, textbooks.

Образовательные цели предмета должны разрабатываться исходя из видов профессиональной деятельности, специальных требований, умений и знаний, представленных в профессиональном описании отраслевого стандарта по каждой специальности. То есть стандартизированные программы обучения должны быть полностью совместимы с сетевыми стандартами.

Метод постановки целей обучения в обучении имеет свои особенности и заключается в том, что цели обучения определяются

действиями учащихся и четко видны, а также измеримы результаты. Чтобы иметь возможность измерять, определять и повторять цели обучения, необходимо знать критерий достижения каждой цели, то есть цель образования должна применяться таким образом, чтобы можно было четко определить ее. вывод о его достижении.

Определение образовательных целей является основой организации образовательной деятельности в вузах и имеет ряд важных аспектов:

Направленность образовательного процесса: Установление образовательных целей помогает определить основное направление и приоритеты в образовательной деятельности университета. Он определяет знания, навыки и компетенции, которыми должны обладать студенты после окончания учебы.

Разработка учебной программы: Целью целей обучения является определение того, какие темы, предметы и курсы должны быть включены в учебную программу. Они помогают формировать содержание образования и обеспечивать приобретение учащимися необходимых знаний и навыков.

Оценка результатов обучения: постановка целей обучения облегчает оценку результатов обучения учащихся. Каждую цель можно измерить и оценить, чтобы определить, достигнуты ли цели.

Мотивация учащихся: постановка целей обучения может служить мотивацией для учащихся. Когда учащиеся видят, что они движутся к ясным и конкретным целям, это может мотивировать их проявлять инициативу и стремиться к успеху.

Актуальность и адаптируемость: постановка образовательных целей помогает образовательным учреждениям быть актуальными и адаптироваться к меняющимся потребностям рынка труда и общества в целом. Образовательные цели могут быть пересмотрены и изменены в соответствии с потребностями и вызовами времени.

Принципы целей обучения. Цели обучения должны основываться на следующих принципах:

1. Ясно.
2. Измеримый.
3. Достижимый.
4. Реально, выполнимо.
5. Приурочено.
6. конкретный и конкретный.
7. связанные с конечным результатом или применением знаний и умений.
8. адекватно подобраны с учетом возраста, уровня подготовки и потребностей учащихся.
9. мотивировать и поощрять студентов.
10. соответствующие и соответствующие общеобразовательным целям.

11. Поощряйте гибкость, независимость и критическое мышление.

12. связанные с приобретением и применением конкретных знаний, навыков и умений.

Общие цели. Определяется важность формирования знаний, умений и квалификации у обучающегося по предмету, охватываемому учебной программой ДТС, и исходя из этого определяются цели обучения.

Педагогическая цель. Он имеет образовательные, воспитательные и развивающие цели.

Образовательный. В ходе обучения осуществляется деятельность по расширению мировоззрения учащихся, познаний; применение знаний на практике; определяется формированием определенных навыков и компетенций.

Воспитательная цель учителя на уроке – развитие личности ученика, формирование его морально-этических и моральных ценностей, а также развитие социальных и коммуникативных навыков. Учитель стремится не только передать знания и умения, но и повлиять на формирование характера и самооценки ученика.

Образование играет не менее важную роль в процессе обучения, поскольку оно позволяет учащимся развивать такие качества, как сочувствие, толерантность, ответственность и уважение к другим. Учитель, зная свою роль в формировании личности ученика, адаптирует свою работу к индивидуальным потребностям каждого ученика и действует системно и последовательно.

На учебном занятии преподаватель использует различные приемы и приемы, способствующие развитию качества образования. Он направлен на развитие ценностей и взглядов студентов и помогает им развивать такие моральные качества, как честность, справедливость, дисциплина и уважение прав и свобод других.

В ходе уроков преподаватель активно вовлекает учащихся в дискуссии, дебаты, групповую работу, игры и проектную деятельность. Такой подход позволяет студентам развивать критическое мышление, навыки анализа данных, развивать собственную позицию и вести конструктивный диалог с другими.

Важным аспектом воспитательной работы учителя в классе является также умение создать безопасную и благоприятную среду, в которой каждый ученик чувствует себя ценным и уважаемым. Отношения со студентами строятся на взаимном уважении и доверии, что помогает им эффективно усваивать учебный материал и вносить вклад в общественную жизнь.

Таким образом, образовательная цель учителя на уроке – помочь каждому ученику стать целостной и всесторонне развитой личностью, обладающей не только знаниями и умениями, но и ценностями,

позволяющими ему справляться с вызовами современного мира. полезный член общества.

Образовательный. Воспитание самостоятельности и воли студентов во время обучения; определяется формированием определенного мироощущения, моральных, эстетических направлений, мотивов, которые являются основой самостоятельной деятельности.

Воспитательная цель учителя в образовательном процессе – формирование гармоничного развития личности ученика. Эта цель предполагает, что преподаватель не только передает знания и умения, но и активно влияет на формирование ценностей, нравственных установок, социальной компетентности и эмоциональной сферы ученика.

Основная задача педагога-педагога – помочь учащимся стать личностями с развитыми нравственными качествами и способностью принимать осознанные решения. Для достижения этой цели преподаватель должен быть готов активно, индивидуально работать с каждым учеником, учитывая его индивидуальные особенности, осознавая важность внутренней мотивации и саморегуляции.

Педагог должен создать в классе такую среду, в которой ученикам будет безопасно, комфортно и доброжелательно. Устанавливая позитивные отношения со своими учениками, учитель становится для них примером высоких морально-этических ценностей.

В ходе образовательного процесса педагог использует различные приемы и приемы, направленные на развитие эмоционально-волевой сферы учащихся, формирование таких качеств, как самообладание, терпение, уверенность в себе, чувство ответственности.

Кроме того, педагог уделяет внимание формированию у учащихся таких ценностей, как толерантность, уважение к чужому мнению, гражданская ответственность и патриотизм. Учитель побуждает учащихся к сотрудничеству и совместной работе, развивает их способность к общению и взаимодействию.

Таким образом, воспитательная цель преподавателя в образовательном процессе – помочь учащимся стать всесторонне развитой личностью, способной активно участвовать в жизни общества, стремящейся к развитию и самосовершенствованию.

Разработчик. В процессе обучения это определяется развитием у студентов внимания, памяти, речи, мышления, навыков сравнения, эмпатии, рефлексии, умения находить оптимальные решения, мотивации к обучению.

Цель развития учителя в образовательном процессе является одним из важных аспектов образовательной практики. Оно направлено на всестороннее развитие личности студента, не только приобретение знаний, но и формирование навыков, умений и квалификации.

Основная цель образования – помочь каждому ребенку реализовать свой потенциал, стать самостоятельным, творческим и ответственным

членом общества. Развивающий подход учителя включает создание условий для всестороннего развития интеллекта, эмоциональной сферы, физических и моральных качеств учащихся.

Одним из важных аспектов цели развития является индивидуальный подход к каждому ученику. Учитель должен учитывать его особенности, потребности, уровень развития и интересы. Используя различные педагогические методы, игры, проекты, проблемные ситуации, педагог стимулирует активность и самостоятельность учащихся, помогает развивать их мышление, память, воображение.

Для достижения цели развития педагог должен быть гибким и творческим. Он должен уметь адаптировать свои методы и подходы к каждому ученику, создавать интересные и познавательные задания, стимулировать его личностное развитие. Также важно создать атмосферу доверия и поддержки для обучения и развития ученика, чтобы он мог свободно выражать себя, задавать вопросы и совершать ошибки.

Кроме того, в цель развития педагог должен включить работу с разными видами знаний: теоретическими, практическими, эмоционально-нравственными. Преподаватель не только передает знания, но и помогает применять их на практике, развивать критическое мышление и мышление.

Подводя итог, можно сказать, что целью развития учителя в образовательном процессе является формирование всесторонне развитой, творческой и самостоятельной личности ученика. Оно включает индивидуальный подход, активное участие студента, творческое и художественное самосознание, а также работу со всеми видами знаний и умений. Эта цель основана на вере педагога в безграничный потенциал каждого ребенка и его способность к постоянному развитию и самосовершенствованию.

Таким образом, постановка образовательных целей является важным инструментом, помогающим организовать образовательную деятельность в вузах и обеспечить успешное достижение студентами ожидаемых результатов.

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СУЩНОСТЬ ОРГАНИЗАЦИИ УРОКОВ ПО ПРЕДМЕТАМ В ВУЗАХ

Аннотация. Суть организации занятий по предметам в высших учебных заведениях заключается в обеспечении эффективной и систематической подготовки студентов на основе учебной программы и учебных планов.

Ключевые слова: предыдущий, корректировать, усваивать, материалы, процесс, эффективно, специалист, занятие, определение.

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THE ESSENCE OF ORGANIZING LESSONS IN SUBJECTS IN UNIVERSITIES

Abstract. The essence of organizing classes in subjects in higher educational institutions is to ensure effective and systematic training of students based on the curriculum and curricula.

Keyword: previous, correct, assimilate, materials, process, effectively, specialists, classes, definition.

Организация занятий в вузах включает в себя:

1. Планирование: определение целей урока, выбор методов и форм работы, составление учебной программы.
2. Подготовка: подбор и анализ учебных материалов, разработка учебных пособий и презентаций, подготовка заданий и практических занятий.
3. Проведение урока: передача знаний и информации учащимся, объяснение материала, использование интерактивных методов обучения, проведение практических занятий и дискуссий.
4. Оценивание и контроль: проверка усвоения обучающимися учебного материала, выставление оценок, анализ успеваемости обучающихся и корректировка учебного процесса.

Организация занятий в вузах включает также координацию работы преподавателей, распределение учебной нагрузки, консультации и проведение индивидуальных занятий со студентами. В его основе лежат принципы системности, последовательности и целесообразности,

направленные на формирование у студентов компетенций, умений и навыков, как специалистов своего дела.

Тип урока. Одним из видов может быть иллюстративно-пояснительное, проблемное, программированное, компьютерное обучение.

Иллюстративный и объяснение. Учебный процесс ведется преимущественно на основе демонстрационных методов. Урок в основном опирается на навыки слушания и запоминания учащихся. Этот тип уроков позволяет сэкономить время, сберечь силы педагога и ученика, эффективно управлять процессом урока.

Проблематично. Такие уроки ориентированы на самостоятельное приобретение знаний, опираются на мышление и интересы ученика. На первом этапе урока важно добиться понимания сути проблемы и необходимости ее решения. Второй этап урока – это способ решения проблемы, который решается путем доведения ее до сути.

Запрограммировано. Материалы урока разделены на отдельные разделы; процесс урока разбит на последовательности; материал урока адаптирован к усвоению путем мышления по определенным разделам; каждое движение ученика находится под контролем; как только ученик выполнит задание, он берет на освоение следующее задание и усердно осваивает его; студенту показывают неверный ответ; каждый студент во время обучения работает самостоятельно, усваивает материал урока в меру своих способностей; выполняет поставленное задание по всем элементам управления, результат известен как ученику, так и преподавателю.

Компьютерное обучение. Его можно алгоритмизировать содержание урока, то есть изучить содержание, разработать последовательность и показать пути достижения конечной цели. Легко проводить, контролировать, корректировать результаты урока, управлять им, собирать необходимую информацию. Качество компьютерного урока определяется двумя основными факторами: качеством образовательных программ; качеством компьютерного оборудования и его возможности.

Формы уроков. Это может быть одна из традиционных, индивидуальных, нетрадиционных форм.

Традиционный. Презентация новых знаний, закрепление предыдущего материала, проверка знаний, умений и компетенций, введение, повторение, обобщение и смешанные уроки.

Индивидуальный заказ. Репетиторское образование.

Нетрадиционный. Лекция, семинар, лаборатория, тренинг, экскурсия, дебаты, круглый стол, викторина, пресс-конференция, поле чудес и т.д.

Методы обучения. Демонстрация и устное выступление.

Методы обучения. Показано, какие методы обучения должен использовать педагог, чтобы быстрее достичь своей цели, но в этом случае педагог не должен ограничиваться, поскольку педагог должен иметь

возможность использовать иные методы, чем те, которые дает творческая деятельность. В этом случае необходимо разумно выбирать традиционные, современные, интерактивные методы, которые служат эффективному освоению учащимися предмета.

Технологии обучения, которые можно использовать на уроке. Креативные, проектные, проблемные, информационно-телекоммуникационные, автоматизированные, программируемые. Вы можете выбрать один из них.

Творческий. Технология, непрерывно формирующая творческое мышление ученика и развивающая его способности. Ее цель – пробудить в ученике творческие способности и развить имеющийся в нем творческий потенциал.

Проектирование. Занятие проводится на основе схемы педагогического процесса и создается технологическая карта. Его цель – активировать имеющиеся у студента знания и приобрести новые для активного участия в проектной деятельности в социокультурной среде.

Проблематично. Это развивающая технология обучения, которая стимулирует процесс активного усвоения знаний и формирует логически последовательный стиль мышления. Сущность проблемного обучения заключается в руководстве педагогом деятельностью по освоению новых знаний путем организации проблемных ситуаций в обучении учащихся и решения учебных (ну, жизненных) задач, проблем и вопросов.

Информация и телекоммуникации. Это совокупность методов передачи информации, обработки знаний и их использования с помощью компьютеров и телекоммуникационных средств. Уровень информационных технологий в образовании оценивается по уровню обеспеченности как программным, так и аппаратным обеспечением.

Автоматизировано. Дает возможность самостоятельно освоить курс обучения или большую его часть. Эта система сочетает в себе черты простого учебника, набора задач, лабораторных занятий, справочника и экспертной проверки полученной информации: обеспечивает оптимальный способ изучения учебного материала; прививает навыки аналитической и исследовательской деятельности; экономит время студента.

Запрограммировано. Это технология, предоставляющая возможность самостоятельно приобретать знания, навыки и умения с помощью образовательных устройств (компьютеров, тренажеров, программируемых учебников) на основе специально разработанных программ.

Технология обучения может иметь следующие программы: линейная; разветвленный; адаптивный; генерализованный; программно-алгоритмический; блок обучения; модульное обучение; полное овладение знаниями.

Учебные инструменты. Приведен перечень учебных пособий и наглядных пособий, необходимых для преподавания данного предмета.

Для учителя. Учебно-методическое пособие, методические рекомендации, методические разработки, учебная программа, план урока, текст лекции.

Для студента. Учебник, методическое пособие, таблицы, раздаточные материалы, карты процессов, карта типичных ошибок, лист заданий, интерактивные методы.

Вести урок. Вы можете выбирать из плакатов, моделей, макетов, оборудования, аудиовизуальных инструментов, технических средств, реальных инструментов.

Соответствующие условия. Оснащенное техническими средствами помещение, где можно применять методы обучения.

Мониторинг. Наблюдение, устный контроль, письменный контроль, оценивание по самостоятельному заданию. Вы можете выбрать один из них.

Структура наук. Разделы, главы и темы предмета взяты из учебной программы данного предмета; учебного предмета последовательность разделов, глав и тем должна быть указана правильно; дать свое предложение по разделу, главе и теме отсутствующего учебного предмета; что часы, отведенные на каждый раздел, главу и тему, являются правильными; цель науки объясняется на основе стандарта; что содержание предмета позволяет реализовать цель; правильное распределение теоретических и практических занятий в содержании науки; что примерный предметный план представлен правильно; учебные материалы должны быть правильно изложены; образовательные методы быть правильно указаны; необходимо обратить внимание на то, чтобы использованная литература была достаточной. Для редактирования междисциплинарности учитывается каждая общая и специальная дисциплина.

Виды контроля качества предметов. Текущий контроль. Сюда входят все виды опроса, которые педагог использует в своей практике, такие как устный опрос, семинарские занятия, письменная работа, лабораторная работа, технический диктант, курсовые проекты, домашние задания.

Промежуточный контроль. Определенная часть науки передается после завершения кафедры. Порядок и форма этого контроля определяются научно-педагогическим советом образовательного учреждения.

Финальный контроль. Это делается после окончания семестра и завершения соответствующего раздела учебной программы. Порядок и форма этого контроля определяются научно-педагогическим советом образовательного учреждения. **Итоговая государственная аттестация.** Государственные экзамены и присвоение квалификации завершаются защитой диссертации (проекта).

Цель и задачи учебного предмета.

Цель. Реализация задач, предусмотренных Законом Республики Узбекистан «Об образовании», «Национальной программой подготовки кадров», формирование и развитие знаний, умений и компетенций обучающихся на основе требований государственных образовательных стандартов, учебных программ и учебных программ, тем самым готовя конкурентоспособные кадры, молодежь для достижения того, чтобы они могли найти самостоятельный путь в политической и социально-экономической жизни.

Задания. Разработка общего, комплексного проекта образования; определение конкретных целей и задач, которые необходимо при этом решить; разработка его содержания; выбор наиболее эффективных методов, методов и инструментов, помогающих обеспечить их эффективность; контроль и оценка деятельности учащихся.

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ТРЕБОВАНИЯ К ЗНАНИЯМ, УМЕНИЯМ И КВАЛИФИКАЦИИ СТУДЕНТОВ ПО ПРЕДМЕТАМ В ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЯХ

Аннотация. Требования к знаниям, умениям и квалификации студентов высших учебных заведений имеют большое значение в формировании высшего образования и подготовке специалистов. Эти требования определяются как на уровне государства и органов образования, так и на уровне конкретного образовательного учреждения.

Ключевые слова: гражданского, оказывать, государства, отвечающих, образовательной, анализировать.

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REQUIREMENTS FOR KNOWLEDGE, SKILLS AND QUALIFICATIONS OF STUDENTS IN SUBJECTS IN HIGHER EDUCATION INSTITUTIONS

Abstract. Requirements for the knowledge, skills and qualifications of students of higher educational institutions are of great importance in the formation of higher education and the training of specialists. These requirements are determined both at the level of the state and educational authorities, and at the level of a specific educational institution.

Keyword: civil, provide, state, responsible, educational, analyze.

Требования к знаниям учащихся определяют, прежде всего, содержание предметов, изучаемых в образовательных учреждениях. Сюда входят основные теоретические концепции, методы и подходы, а также текущие практические знания в конкретной области. Студенты должны обладать фундаментальными знаниями, чтобы понимать и анализировать существующие научные данные и методологии в этой области.

Требования к умениям студентов включают различные аспекты умственной деятельности, умение анализировать и синтезировать информацию, критическое мышление, решение проблем и принятие решений. Студенты должны уметь применять теоретические знания на практике, превращая их в реальный проект или исследование. Для этого

необходимо развитие коммуникативных навыков, работы в команде, навыков презентации и навыков информационной грамотности.

Компетенция студентов определяется уровнем их подготовки и усвоения учебной программы, а также наличием необходимых практических навыков. Квалификация может быть выражена в форме степени бакалавра, специалиста или магистра в зависимости от образовательной программы и требований учебного заведения.

Следует также отметить, что требования к знаниям, навыкам и способностям учащихся могут со временем меняться, отражая новые тенденции и разработки в области науки и техники. Это позволяет образовательным учреждениям поддерживать актуальность образования и готовить специалистов, отвечающих требованиям современного рынка труда.

Приобретать теоретические и практические знания, профессиональную квалификацию и навыки в рамках фундаментальных наук и конкретной профессиональной области; достаточная сформированность профессиональных навыков и мышления; формирование организаторских и предпринимательских качеств; иметь четкие знания об устройстве государства, его социальном и политическом развитии.

Уметь понимать международные события и проблемы, самостоятельно и творчески мыслить, свободно выражать свои мысли письменно и устно; критическая оценка различных ситуаций, постоянное отслеживание новостей, свободное общение на национальном языке в письменной и устной форме; обладать общечеловеческими качествами, любить свою нацию и родину, гордиться ею, уважать национальные обычаи и ценности; уметь пользоваться компьютерами и другими средствами телекоммуникаций.

Отличное знание других иностранных языков; уметь применять полученные теоретические знания на практике, основные профессиональные навыки в повседневной жизни, браке; быть физически здоровым, способным служить в армии и оказывать неотложную медицинскую помощь; иметь качества постоянного самосовершенствования в духовном, умственном и физическом аспектах; стремление постоянно увеличивать и обновлять знания.

Иметь качества творческого, самостоятельного подхода к учебной и трудовой деятельности; знать приемы и методы логического мышления, уметь применять их в практической деятельности; иметь основу юридических и экономических знаний; самостоятельное приобретение практических навыков работы с современными СМИ; иметь политическую, духовно-нравственную культуру; развить чувство гражданского долга и ответственности; чувствовать экологическую ответственность в

профессиональной деятельности, обладать знаниями в области охраны природы.

Основные правила обучения практическим навыкам.

Сбор данных. Студент анализирует задание и сам собирает всю необходимую информацию.

Составить план. План работы студент создает сам, учитывая все необходимые этапы.

Принятие решений. Студент решает реализовать план.

Выполнение. Студент выполняет свою работу на основании плана работы.

Проверить. Учащийся проверяет результат работы сам.

Заключение. Студент и преподаватель совместно анализируют процесс и результаты работы.

В высших учебных заведениях требования к знаниям, умениям и квалификации студентов могут различаться в зависимости от конкретного предмета и специализации. Однако в целом выделяются следующие общие требования:

1. Знания: Студенты должны хорошо разбираться в предметной области, основных понятиях, теориях и принципах своей специальности. Они должны быть в курсе последних событий и тенденций в своем предмете и дисциплине.

2. Аналитические навыки: учащиеся должны уметь критически мыслить и анализировать данные, применять логическое и аналитическое мышление для решения проблем, оценивать и интерпретировать данные.

3. Коммуникативные навыки: Студенты должны владеть письменными и устными коммуникативными навыками, уметь ясно и связно выражать свои мысли и идеи, работать в команде и эффективно общаться с другими.

4. Исследовательские навыки: Студенты должны иметь базовое представление о проведении исследований, сборе и анализе данных, методах исследования и статистической обработке данных.

5. Практические навыки: в зависимости от специализации студенты должны приобрести практические навыки, связанные с их будущей профессиональной деятельностью. Например, будущие студенты-инженеры должны уметь проектировать, строить и тестировать различные системы и механизмы.

6. Креативность. Студенты должны использовать свое творческое мышление для разработки новых идей и решений, а также для поиска инновационных подходов.

7. Способность работать самостоятельно: студенты должны уметь самоорганизовываться, планировать собственное время и учебные задачи, быть ответственными и самостоятельными в своей работе.

8. Критическое мышление: учащиеся должны уметь критически оценивать информацию и доказательства, высказывать независимую критику и формировать разумные мнения.

Это лишь некоторые из основных требований, а конкретные требования могут различаться в зависимости от университета и специальности.

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СОВРЕМЕННЫЕ ПЕДАГОГИЧЕСКИЕ ТЕХНОЛОГИИ НА УЧЕБНЫХ ЗАНЯТИЯХ ВУЗОВ

Аннотация. Современные педагогические технологии, используемые на занятиях в высших учебных заведениях, включают использование информационно-коммуникационных технологий, интерактивных методов обучения, проблемного обучения, проектной деятельности и др.

Ключевые слова: гражданский, оказывать, государство, отвечающий, образовательный, анализировать.

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MODERN PEDAGOGICAL TECHNOLOGIES IN UNIVERSITY CLASSES

Abstract. Modern pedagogical technologies used in classes in higher educational institutions include the use of information and communication technologies, interactive teaching methods, problem-based learning, project activities, etc.

Keyword: civil, provide, state, responsible, educational, analyze.

Одной из наиболее распространенных технологий является использование интерактивных досок (например, Smartboards), которые позволяют учителю привлекать внимание учащихся и создавать интерактивные уроки с использованием мультимедийных материалов, включая видео, анимацию, презентации и т. д.

Онлайн-курсы и массовые открытые онлайн-курсы (МООК) также становятся все более популярными, позволяя студентам изучать контент и проходить занятия в удобное для них время, а также предоставляют преподавателям доступ к обширным базам знаний и опыту других в своих областях.

Еще одна технология, активно используемая в университетах, — проблемное обучение. Это метод активного участия студентов в решении практических задач и вопросов, помогающий им лучше усвоить материал, развить навыки самостоятельной работы и принятия решений.

Проектная деятельность также широко используется университетами. Студентам предлагаются реальные проекты, в ходе которых они могут

применить полученные знания и развить практические навыки. Это помогает глубже и практичнее понять изучаемый материал.

Это часть современных педагогических технологий, используемых на занятиях в вузах. Преподаватели постоянно ищут новые способы эффективного преподавания и адаптируют различные инновации к потребностям своих учеников и образовательным программам.

Необходимо создать виртуальные лекции, экспериментальные стенды, которые считаются наиболее эффективными методами и средствами передачи информации студентам, и обеспечить их использование на занятиях. Он позволяет студентам приобретать знания и решать различные задачи, получает, анализирует и оценивает их ответы. Педагог создает методические рекомендации по освоению предмета обучения и в необходимых случаях оказывает индивидуальную помощь обучающимся и совместно с методистом-экспертом создает программу освоения предмета с помощью компьютера.

Информационные технологии открывают перед студентами возможности доступа к нетрадиционным источникам информации, повышают эффективность самостоятельной работы, предоставляют возможности для творчества, создания и закрепления различных профессиональных навыков, дают возможность внедрения новых форм и методов обучения. Информационные технологии позволяют повысить эффективность практических и лабораторных работ, проверить знания студентов, повысить успеваемость, увеличить словарный запас. Постоянное повышение качества обучения студентов; использование активных методов обучения; создание методологии и автоматизированных средств для самостоятельной работы; обеспечивать постоянное обновление формы и методов содержания учебного материала; создание и развитие различных форм информационного обеспечения этого процесса на этапах обучения; Студентам будет организовано прохождение автоматизированного теста.

Мультимедийная система позволяет самостоятельно контролировать скорость изучения материалов, повторять отдельные случаи, закрепляющие профессиональные навыки и умения. Дистанционное образование основано на использовании современных технических средств компьютерной телекоммуникации. Дистанционное обучение позволяет обогатить информационную базу, ускорить взаимодействие студента и вуза, восполнить методическое богатство образования.

В национальной программе особое значение придается вопросам укрепления материально-технической и информационной базы образовательных учреждений и ее совершенствования, создания учебников, учебных пособий, методических рекомендаций, использования педагогических технологий в образовательном процессе. Особое значение в решении этих проблем имеет подготовка зрелых кадров с использованием современных информационных технологий.

Современные педагогические технологии на уроках высшей школы:

В современном образовании все чаще используются различные педагогические технологии, которые существенно меняют учебный процесс и повышают эффективность образования. Университеты также активно внедряют и используют новые технологии в своих аудиториях.

Одной из таких технологий является дистанционное обучение. Это позволяет студентам учиться прямо из дома, не приходя на занятия. Существует несколько форм дистанционного обучения: онлайн-лекции, интерактивные курсы, вебинары и т. д. Благодаря дистанционному обучению студенты могут гибко планировать свое время и изучать материалы в удобном для них формате.

Еще одна популярная технология — использование интерактивных досок в классе. Они позволяют преподавателям наглядно и наглядно представлять материал, а также делать заметки и комментарии в режиме реального времени. Также студенты могут активно участвовать в обсуждениях и решении проблем, что повышает их активность и участие в процессе обучения.

В последние годы все большую популярность приобретают такие технологии, как использование мультимедиа и видеоматериалов на занятиях. Они позволяют преподавателям и ученикам наглядно представить материал, делая его более понятным и запоминающимся. Кроме того, использование мультимедиа способствует развитию различных форматов и методов обучения.

Университеты также активно используют различные интерактивные методы обучения, такие как использование игровых технологий и серьезных игр, проведение проектов и исследований для студентов, создание виртуальных классов и учебных пространств.

Однако, несмотря на все преимущества современных педагогических технологий, они не должны полностью заменять традиционные методы обучения. Важно найти правильный баланс между использованием новых технологий и сохранением традиционных форм обучения, чтобы обеспечить максимально эффективное и качественное образование учащихся.

Современные педагогические технологии включают в себя различные методы и средства, используемые в образовательном процессе, которые направлены на активизацию обучения, повышение мотивации учащихся, развитие критического мышления и творческого потенциала.

Некоторые из этих технологий включают в себя:

Использование интерактивных досок и презентаций.

Интерактивные доски и презентации позволяют привлечь внимание учащихся, наглядно представить информацию, сделать уроки интерактивными и интересными. Учителя могут использовать такие инструменты для объяснения материала, организации групповой работы

или проведения тестов. Использование интерактивных технологий, таких как интерактивные доски, компьютерные программы, онлайн-курсы и игры, чтобы сделать процесс обучения интересным и увлекательным для учащихся.

Интерактивное обучение. Использование интерактивных методов обучения, таких как дискуссии, групповые проекты или игры, позволяет учащимся активно участвовать в процессе обучения, обмениваться идеями и решать проблемы с другими учащимися. Проблемное обучение: поощрять учащихся находить решения проблем и проблем, развивать их критическое мышление, аналитические и творческие способности.

Использование онлайн-платформ и приложений. Онлайн-платформы и приложения предлагают широкий выбор учебных материалов и инструментов, которые можно использовать для обучения и проверки знаний учащихся. Они также позволяют учителям и учащимся организовывать и оценивать работу онлайн.

Стратификация образования. Дифференциация образования предполагает индивидуальный подход к каждому ученику с учетом его потребностей, способностей и стиля обучения. Технология позволяет учителям адаптировать материалы и задания для каждого ученика, чтобы обеспечить максимально эффективное обучение.

Кооперативное обучение: организация работы в группах, где учащиеся активно взаимодействуют друг с другом, вместе решают задачи, делятся опытом и знаниями.

Совместное обучение. Смешанное обучение – это сочетание традиционного обучения в классе и онлайн-обучения. Такой подход позволяет учащимся учиться в классе с преподавателем, одновременно используя онлайн-ресурсы и приложения для дополнительного изучения и тестирования.

Проектная деятельность: реализация проектов, требующих самостоятельной работы студентов, позволяющих применить полученные знания и навыки на практике, развивать исследовательский подход и творческое мышление.

Комплексное обучение. Перевернутое образование включает в себя инверсию традиционного образовательного процесса: студенты изучают новый материал вне занятий (например, в виде видеолекций), преподаватель общается с учениками на уроке, объясняет сложные моменты и выполняет практические задания.

Дифференцированное образование: индивидуализация процесса обучения в соответствии с потребностями, способностями и интересами каждого ученика.

Обратная связь: активное использование методов оценки знаний и умений учащихся, обратная связь по их результатам, а также

конструктивная обратная связь между преподавателем и учащимися для улучшения учебного процесса.

Использование информационно-коммуникационных технологий (ИКТ): использование компьютеров, Интернета, мультимедиа и других современных технологий для повышения эффективности образовательного процесса и расширения его возможностей.

Эти и другие современные педагогические технологии помогают сделать образовательный процесс более эффективным, интересным и адаптированным к современным запросам и потребностям учащихся. Это лишь некоторые примеры современных педагогических технологий, которые активно используются в современной образовательной среде. Важно отметить, что выбор и использование конкретных технологий должны основываться на конкретных потребностях и требованиях вашего класса или студенческой группы.

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МЕХАНИЗМЫ И ЗАДАЧИ РЕАЛИЗАЦИИ ПЕДАГОГИЧЕСКИХ ТЕХНОЛОГИЙ НА ПОДГОТОВОЧНЫХ ЗАНЯТИЯХ В ВУЗАХ

Аннотация. Сутью педагогической технологии является ясность цели обучения и способность обучающегося осваивать каждый учебный модуль в строго определенной последовательности и осуществлять самостоятельную деятельность для ее достижения. Постановка целей включает в себя процесс от проектирования процесса обучения до оценки его эффективности, его тестирования и распространения. Воспитательные цели являются важнейшей частью педагогического процесса.

Ключевые слова: анализ, преобразование, категория, независимость, обеспечение, технология, тренинг.

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MECHANISMS AND TASKS OF IMPLEMENTING PEDAGOGICAL TECHNOLOGIES IN PREPARATION CLASSES IN UNIVERSITIES

Abstract. The essence of pedagogical technology is the clarity of the learning goal and the student's ability to master each educational module in a strictly defined sequence and carry out independent activities to achieve it. Goal setting involves a process from designing a learning experience to evaluating its effectiveness, testing it, and disseminating it. Educational goals are the most important part of the pedagogical process.

Keyword: analysis, transformation, category, independent, provision, technology, training.

Механизм внедрения педагогических технологий. Они есть:

- ознакомление педагогического коллектива с основами педагогических технологий, рекомендация лекций, литературы;
- определение команды педагогов, работающих на основе педагогических технологий;
- через них донести до педагогов целевую цель использования педагогической технологии, ее суть;
- организация семинаров, тренингов, индивидуальных консультаций, организация демонстрационных занятий;

- контроль работы сотрудников на основе педагогических технологий, оказание методической помощи, заслушивание их отчетов;
- организация комнаты дидактических материалов и инструментов, необходимых для работы по педагогической технологии; обеспечение преемственности, непрерывности обновления.

Педагогические технологические задачи:

- разработка общего, комплексного проекта обучения;
- определение конкретных целей и задач, решаемых в обучении;
- разработка содержания обучения;
- выбор наиболее эффективных методов, методов и технических средств, способствующих обеспечению эффективности обучения;
- организация контроля и оценки деятельности студентов;
- создание условий для самостоятельной деятельности студентов и формирования навыков и квалификации.

Фактически этот процесс, независимо от его сложности и продолжительности, в первую очередь начинается с определения цели. Ее составные части, такие как принцип, содержание, стиль и форма, выбираются и гармонизируются между собой в соответствии с установленной целью.

Важно расположить цели в последовательности взаимозависимости, то есть составить их таксономию (расположение по порядку). Впервые он был разработан Б. Блумом из США, описывает выражение образовательных целей в когнитивной (познавательной) сфере и признан во всем мире.

Когнитивная сфера. Оно включает в себя решение задач от запоминания изученного материала и его пересказа до полного понимания полученных знаний самостоятельно и представления их в гармонии с ранее изученными методами и методами. Когнитивные таксономические категории Б. Блума включают знание, понимание, применение, анализ, синтез, оценку. Кроме того, существуют категории целей обучения в аффективной и психомоторной сферах.

аффективный поле. Цели варьируются от базового восприятия, интереса, ценностной ориентации и готовности осваивать установки до формирования эмоционально-личностных отношений учащихся к окружающей среде.

Психомоторный (относящийся к движению) поле. В той или иной двигательной деятельности возникают цели, связанные с быстрой и ловкой сменой направлений движения, формированием согласованного управления нервами и мышцами.

Для педагогов очень важно создать четкий, упорядоченный и иерархический набор целей. Причины этого следующие:

- **ориентация на цель в образовательном процессе.** Используя педагогическую таксономию, можно определить не только эти цели, но и основные задачи, порядок и ход дальнейшей деятельности.

- **точность и прозрачность деятельности во взаимодействии педагогов и студентов.** Четкие цели дают возможность преподавателю объяснить и обсудить основные тенденции в общей деятельности учащихся.

- **создание системы оценки образовательных результатов.** Цели, четко выраженные через результаты деятельности, позволяют достоверно и объективно оценить их. Создание таксономии является одним из важных факторов повышения эффективности работы педагогов. Чем раньше они освоят этот метод, тем больше они внесут вклад в ускорение образования своими лучшими практиками. С помощью таксономии Блума педагог способен не только уточнить образовательные цели, но и расположить их в строгой последовательности взаимообусловленности. В результате такого выражения целей создается контроль освоения. Эта таксономия также облегчает составителям тестов определение того, к каким категориям относятся элементы учебного материала. Прежде всего эти цели определяются в более общем виде по категориям таксономии, затем подбирается соответствующий им глагол и более четко выражающий конечный результат, а затем создаются тестовые задания.

Список глаголов, представляющих категории таксономии Блума по когнитивным областям

- **знать:** доказательство, термин, признак, классификация, критерии оценки, метод, используемый при решении задач, объяснении и прогнозировании событий;

- **понимание:** преобразование контента из одной системы в другую, интерпретация, применение полученных результатов;

- **применение:** метод и применение понятий и задач на практике;

- **анализ:** деление целого предмета (явления) на части, установление связей между ними, анализ частей, знание принципов организации целого;

- **синтез:** обобщение данных частей с целью создания нового содержания, составление плана работы, создание целостной картины на основе данных;

- **оценка:** оценивать, реагировать на материал или методы, используемые соответствующим образом. Оценка на основе внутренних и внешних критериев.

Такие процессы, как анализ, синтез, применение и оценка, помогают в решении различных проблем и освоении научных концепций. В зависимости от конкретной цели прикладной задачи эти процессы имеют свои особенности. При анализе учащийся высказывает расплывчатые предположения, может видеть ошибки и недостатки в мышлении, может выявить различия между доказательствами и причинами, может анализировать связи; при синтезе определяет соответствие выводов материала заданным размерам, исходя из внутренних критериев, пишет реферат, составляет план эксперимента; демонстрирует способность применять концепции, принципы, законы и теории к конкретным

практическим ситуациям; оценивает значимость деятельности на основе соответствия материальных выводов заданным значениям в оценке. Уточнение целей обучения на основе этой таксономии осуществляется в два этапа. В первом определяются общие, а во втором – цели образовательной деятельности. Цели, разделенные на части, формализуются в виде таблицы, в столбце размещаются разделы предмета или учебных задач, в строке – основные виды интеллектуальной деятельности обучающегося при освоении. Например:

Классифицировать цели обучения

№	Содержание раздела	Интеллектуальные операции					
		Знание	Понимание	Приложение	Анализ	Синтез	Оценка
1							

Эта двумерная спецификация является руководством при постановке образовательных целей. По методике Дж. Блока и Л. Андерсена эти цели определяются содержанием разделов. Затем в каждом разделе определяется и классифицируется новое содержание раздела для учащихся. Интеллектуальные операции учащихся проявляются в соответствии с уровнем мастерства, заданным преподавателем. Например:

Определение цели обучения по теме

№	Содержание раздела	Интеллектуальные операции					
		Знание	Понимание	Приложение	Анализ	Синтез	Оценка
1							
2							

Четкое суждение о достижении выявленных целей выносится только по внешне выраженной деятельности ученика и ее продукту (таким как ответ, решение задачи, разборка и сборка механизмов, определение последовательности технологического процесса). При определении результатов обучения педагог должен сосредоточиться на выражении внешне наблюдаемого поведения учащегося.

Эта технология была создана в 60-70-е годы под влиянием идеи и методов бихевиоризма. Оно предполагает практическую направленность, заключающуюся лишь в анализе своего внешне выраженного и наблюдаемого поведения. В этом случае схему мастеринга можно записать в виде $S \rightarrow R \rightarrow P$. В данном случае S – это действие (стимул). Стимулом может выступать проблемное состояние, вопрос, приказ, команда и т.п. R – действие, совершаемое в результате воздействия, примером этого может быть ответ на вопрос, решение проблемы, выполнение приказа. P – (rgr) подкрепление правильного выполнения действия. Например, педагог может использовать словесное одобрение, оценку, поощрение в качестве

подкрепления в обучении. В этом случае П является важным компонентом армирования. Правила преподавания в бихевиористской интерпретации таковы: максимально разделить учебный материал на отдельные части; учитывать все проявления воспитательных элементов в деятельности; быстрое закрепление положительной реакции (контроль-коррекция); достичь высокого уровня мастерства, практикуя (поведение), повторяя много раз.

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ЗНАЧЕНИЕ ОПРЕДЕЛЕНИЯ ОБРАЗОВАТЕЛЬНЫХ ЦЕЛЕЙ В СОВРЕМЕННОЙ ОРГАНИЗАЦИИ УЧЕБНЫХ ЗАНЯТИЙ

Аннотация. Полное выявление и выражение образовательных целей в строго единой форме означает, что учащиеся выражают свою деятельность не традиционными средствами, а внешним наблюдением и конкретными действиями. Если результаты обучения позволяют разделить его на отдельные компоненты и обучать их последовательно, то в этом случае можно полностью следовать схеме поведения (например, обучение производственным операциям, выполнению различных упражнений, формированию навыков устной речи и т. д.).

Ключевые слова: знания, учителя, студенты, педагогика, инновация, интерес, логика, учебник.

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THE IMPORTANCE OF DETERMINING EDUCATIONAL OBJECTIVES IN THE MODERN ORGANIZATION OF EDUCATIONAL CLASSES

Abstract. Full identification and expression of educational goals in a strictly unified form means that students express their activities not by traditional means, but by external observation and specific actions. If the learning outcomes allow you to divide it into separate components and teach them sequentially, then in this case you can completely follow the pattern of behavior (for example, learning production operations, performing various exercises, developing oral speech skills, etc.).

Keyword: knowledge, Teachers, Students, pedagogical, innovation, Interest, logical, textbooks.

Это особенно важно при формировании профессиональных навыков в результате разделения трудовых операций студентов на отдельные части.

Распространенным методом уточнения целей обучения является выражение их с помощью глаголов, обозначающих действия для достижения конкретных результатов. Например, прочитав и изучив тему, студент: различает имеющуюся информацию и выводы; знает доказательства и предположения; различает причинно-следственные связи;

выявляет ошибки в рассуждениях; выделяет важные моменты, не относящиеся к сути мероприятия; определяет диапазон обоснованных и необоснованных оценок; пишет реферат по теме.

Список глаголов для нескольких типов определенных целей.
Глаголы, выражающие общую цель. Анализировать, рассчитывать, комментировать, демонстрировать, знать, оценивать, понимать, изменять, использовать, создавать и т. д. **Глаголы, используемые в творческих целях.** Повторение одной и той же формы в разных формах, изменение форм, улучшение, перегруппировка, прогнозирование, допрос, реорганизация, синтезирование, систематизация, упрощение и т. д. **Глаголы, обозначающие сферу устной и письменной речи.** Общайтесь, выражайте мнение, соглашайтесь, хвалите, сотрудничайте, улыбайтесь, участвуйте и т. д. Список глаголов, аналогичный приведенному выше, можно составить для уточнения образовательных целей и в других областях – общих логических операциях.

Сторонники педагогической технологии предполагают, что цели каждого урока должны соответствовать количеству новых учебных единиц в нем и выражать их через внешне наблюдаемые действия учащихся. Желательно, чтобы количество таких единиц было 6-7 на каждом уроке, иначе учащиеся могут оказаться не в состоянии сохранить в полном понимании и памяти излишнюю информацию.

При таком определении целей, **во-первых**, можно четко знать, что они достигнуты, **во-вторых**, когда тестовые задания созданы в соответствии с этими целями, полностью раскрывается содержание обучения, в-третьих, одинаковые и ясные цели одного и того же обучения гарантируют, что педагоги достигнут одного и того же результата. Это будет иметь большое значение при проектировании будущего образовательного процесса, то есть в зависимости от его результатов будет вноситься корректировка в цели (контрольные задачи) и содержание дидактических конструкций образовательного процесса. Это гарантирует, что образовательный процесс представляет собой педагогическую систему, которая постоянно развивается и совершенствуется.

Преобразование целей обучающихся в задачи – важный этап в построении обучения по педагогической технологии. Потому что только тогда, когда цели успешно трансформируются в задачи, можно будет четко знать, что они достигнуты. Цели учащихся должны охватывать наиболее важные концепции учебного материала, а задания должны быть структурированы соответствующим образом. Задачи должны быть выражены вышеуказанными глаголами, которые указывают на конкретное поведение учащихся. При этом особое внимание следует обратить на употребление глаголов, соответствующих уровню освоения мышления. Потому что они обеспечивают усвоение материала на высоком интеллектуальном уровне. Каждое задание должно проверять усвоение

только одного понятия или правила и должно быть представлено в краткой и понятной форме. В противном случае это создает дополнительную нагрузку для ученика и ослабляет учебную мотивацию. Задания могут быть выполнены в форме устных вопросов и ответов, письменных и тестовых. Также эффективно создавать задачи разной формы для одной и той же цели. Потому что это создает возможность объективно оценить знания ученика по освоению того или иного задания.

Устный вопрос и ответ. Преподаватель ведет непосредственную беседу со студентом, в ходе которой оцениваются ответы на вопросы. Наблюдение и анализ педагогической литературы показывают, что важным фактором развития мыслительных способностей учащихся являются вопросы, которые учитель задает им и учащимся друг другу. Отмечается, что 80-85% этих вопросов требуют лишь доказательных знаний, и они ограничиваются повторением того, что запомнили. Так какой же вопрос можно добавить в список вопросов, развивающих мышление? Эксперименты показывают, что только вопрос, правильный ответ на который четко не изложен в учебной литературе или не подсказан педагогом, заставляет учащегося думать.

Например: «Почему?», «Сравнить?», «Деагрегировать?», «Какие признаки являются наиболее важными?» такие вопросы побуждают учащихся мыслить на уровне высшей интеллектуальной деятельности или после прочтения неизвестной темы побуждают их к размышлению: «Как можно озаглавить эту тему?», «Найдите пять ключевых слов из темы, которые полностью передают ее содержание?». «, «Какой вопрос вы зададите учителю?», вы бы его задали?» Также уместно задавать такие вопросы, как

Написание заданий. Он предполагает использование базовых слов и фраз. При создании задач такой формы необходимо обращать внимание на объем задач, решаемых интерактивными методами. Поскольку использование интерактивных методов, таких как кластер, синквейн, диаграмма Венна, вставка, концептуальная таблица, Case-study, создание Т-схемы, написание технического диктанта, развивает мыслительные способности учащихся, обеспечивает усвоение материала на высоком интеллектуальном уровне.

Активирующие вопросы. На стадии приглашения. Какую информацию вы знаете по теме тренинга? Что вы знаете об этом заранее? Какое это имеет значение для вас? Чего ты не понимаешь, но хочешь знать?

После выполнения данного задания. Что ты понял? Что вы почувствовали? Какие вопросы остались без ответа в этом материале? Есть ли у вас какие-либо предложения?

На стадии понимания. Какую новую информацию вы почерпнули из этого материала? Каково ваше мнение по этому поводу? Какое значение это

имеет? Что вас больше всего впечатлило? Связано ли это с вашим опытом? Это хорошо или плохо?'

На этапе рассмотрения. Что я об этом думаю? Какие выводы мы можем сделать из этого? Как эта информация связана с тем, что я уже знаю? Как изменятся мои взгляды в результате этих идей?

Реконструируя свои впечатления. Какой мы можем из этого сделать вывод? Где мы можем применить эти знания? Что можно добавить или исключить? Каковы ваши сильные и слабые стороны? Рассматривали ли вы подобные идеи? Какие у вас есть предложения?

Наряду с вопросами учителя важное значение в активизации познавательной деятельности учащихся имеют вопросы учащихся друг другу и учителю, поэтому необходимо их поддерживать. На уточнение целей уходит много времени, но тот факт, что она охватывает важные стороны деятельности педагога, планирования, контроля и оценки образовательного процесса, повышает ее значимость.

Развитие мышления у учащихся. Разделение существующего материала на части; обоснование общего сходства наблюдаемых явлений; определить основное содержание определенной темы; делать выводы из изложенных фактов; систематизация фактов по признакам или последовательности; поиск нового, дополнительного решения проблемы; важно выявить различные пути и методы, которые приводят к решению проблемы.

На уроке понимание, расположение законов в последовательности. Понимание последовательности определенных ситуаций и событий; самостоятельно отвечать на вопросы, заданные учителем; сравнивать различия между ранее изученной и новой информацией; объяснение и обоснование хода события, наблюдаемого в течение определенного периода времени; должен знать такие вещи, как определение связи между событиями и доказательствами.

Определение соотношения теории и практики. Решение задач, связанных с информацией предыдущего урока; решать задачи, отличные от модельных задач; поиск проблем, связанных с информацией в других дисциплинах, и поиск их решения; создавать независимые новые задачи и выражения, используя теоремы и правила; отличие от других, объяснение новых явлений, самостоятельное изучение несложной информации; обосновать их различия и сходства путем сравнения нескольких событий; работа над исправлением и устранением ошибок; подготовка материала, схемы, таблиц; оно осуществляется посредством таких упражнений, как написание рефератов и лекций на занятиях.

Отношение студентов к профессии. Удовлетворенность работой и факторы, которые ее формируют; положительное и отрицательное отношение к выбранной профессии; особое внимание следует уделить технологиям и методам обучения.

Технологические аспекты организации обучения. Технологическая карта. Условное определение технологического процесса с использованием описания отдельных функциональных элементов и логических связей между ними.

Научная основа. Педагогическая технология должна основываться на определенной научной концепции процесса достижения образовательных целей.

Систематический. Рациональность тренировочного процесса; взаимосвязь всех частей; честность.

Управляемость. Поставить цель; планирование; планирование тренировочного процесса; поэтапная диагностика; предоставление таких возможностей, как наличие различных инструментов и методов для достижения результатов.

Эффективность. Достижение требований определенного образовательного стандарта за счет существования конкурентной среды в передовых педагогических технологиях.

Широкий диапазон. Педагогический предположить, что технологии можно использовать в любом образовательном учреждении.

Правила педагогической технологии. Правило эквивалентной практики. Обучение студентов и предполагаемая из этого процесса деятельность, а также учебная деятельность, указанная в итоговом тестовом задании, должны осуществляться в одинаковых условиях.

Аналогичное практическое правило. Поскольку учащиеся должны демонстрировать действия в тесте, им следует практиковать их во время обучения.

Правило знания результата. Необходимо оперативно информировать студента о результате каждого контроля.

Правило положительных реакций подкрепления. Педагог должен вовремя реагировать на каждое достижение ученика и поощрять его. Их усилия в обучении не наказываются, и в этом случае учащихся следует поощрять к работе с мотивационными словами, например, попробуйте еще раз, вам следует выучить это у другого человека.

Проектирование уроков по педагогической технологии. В организационной части занятия учащиеся заинтересованы в изучении предмета данной деятельности. Студентам объявляются цели обучения (ожидаемые результаты) каждого урока. При необходимости изменения вносятся после обсуждения с их участием. В классах организуется самостоятельное чтение студентами небольших лекций по 15-20 минут, демонстрация выставок.

Изложение основных правил заменяется такими формами обучения, как 5-10-минутная письменная работа. На лекциях и практических занятиях студентам предлагается развивать самостоятельное мышление посредством чтения и письма, разумно используются интерактивные методы. На

занятиях используются интерактивные методы обучения, в том числе некоторые мероприятия проводятся и обсуждаются в небольших группах. Для эффективного использования других методов, активизирующих учащихся, необходимо следовать технологической карте урока по педагогической технологии.

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ЭКОНОМИКО-ГЕОГРАФИЧЕСКИЕ АСПЕКТЫ РАЗВИТИЯ МАЛЫХ ГОРОДОВ КАШКАДАРЬИНСКОЙ ОБЛАСТИ

Аннотация. В статье анализируются сведения о состоянии и перспективах экономического и социального развития города Карши, использовании трудовых ресурсов, социальной инфраструктуры города

Ключевые слова: крупный город, промышленный узел, трудовые ресурсы, миграция, занятость населения, инфраструктура, социальная сфера, диверсификация, промышленное производство, сфера услуг.

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ECONOMIC AND GEOGRAPHICAL ASPECTS OF DEVELOPMENT OF SMALL TOWNS IN KASHKADARYA REGION

Annotation. The article analyzes information about the state and prospects of economic and social development of the city of Karshi, the use of labor resources, and the social infrastructure of the city

Key words: Large city, industrial hub, labor resources, migration, employment, infrastructure, social sphere, diversification, industrial production, service sector.

Город Карши является административным, политическим, экономическим и культурным центром Кашкадарьинской области. Карши – крупный город Южного Узбекистана, основанный в 1926 году. Площадь города 75,51 км². С населением 289,6 тыс. человек он занимает 8-е место среди городов республики по численности населения. Экономико-географическое положение города очень выгодно. Город Карши расположен практически в центре области и развитой Каршинской степи, на пересечении магистральных железнодорожных и автомобильных дорог, является оазисом интенсивного сельскохозяйственного развития и широкими пастбищами между Карши-Заравшанской, Сурхан-Шерабадской долинами и удобный промышленный узел. При этом производственные силы республики расположены в быстро развивающейся сфере. В 1943 году была образована Кашкадарьинская область, областным центром стал город Карши. В 1960 году в результате присоединения Кашкадарьинской области

к Сурхандарьинской области город Карши выполнил функцию города ведения области. С февраля 1964 года в результате реорганизации Кашкадарьинской области она вновь стала центром области. Подобные изменения на территории провинции крайне негативно отразились на развитии и функциональной структуре не только города Карши, но и других городов и поселков оазиса. В результате до недавнего времени город Карши значительно отставал от других райцентров республики по своему экономическому и культурному уровню.

Правильное и рациональное использование трудовых ресурсов в условиях Кашкадарьи создает возможность развивать производительные силы и эффективно использовать природные ресурсы. Рост трудовых ресурсов в городе, прирост населения зависит от его состава и миграционного движения. После 1960-х годов рост городского населения быстро увеличился. Например, по переписи 1959 года в городе проживало 33 000 человек, а в 2022 году оно достигло 289 600 человек. Этот рост населения обусловлен, прежде всего, освоением пустыни Карши и открытием в регионе многих природных ресурсов, что дает возможность развивать городское хозяйство, что побудило многих людей приехать и поселиться в городе. С ростом населения увеличились и трудовые ресурсы (158,6 тыс. человек). В социальной работе занято 47,1% от общей численности населения. Остальные – маленькие дети, подростки и пенсионеры. Общая численность работающей молодежи Карши (165,5 тыс. человек) растет. Поэтому для обеспечения занятости молодежи формирование предпринимательства в городе требует развития среднего и малого бизнеса и других отраслей.

Однако показатели занятости молодежи различны в разных регионах республики, и в связи с этим, по словам И. Бободжонва, в октябре 2018 года эксперты Республиканского научного центра занятости и охраны труда Министерства занятости и по трудовым отношениям сообщили об уровне безработицы и плохом уровне, был проведен социальный опрос с целью выявления случаев алкоголизма. В опросе приняли участие 330 органов самоуправления граждан, 3300 домохозяйек и более 17 тысяч граждан.

Как уже говорилось выше, важную роль в становлении и развитии региона играют природные, экономические и социальные факторы. Среди отраслей экономики основой формирования и развития районных микрорайонов являются преимущественно сельское хозяйство и животноводство, отчасти ремесла и промышленность в райцентре и городских округах.

С другой стороны, районы, специализирующиеся на сельском хозяйстве, состоят из районов, занимающихся садоводством, виноградарством и ремеслами. Различны и условия производства магалов, специализирующихся на сельском хозяйстве и животноводстве. Сравнительно крупные микрорайоны созданы в районах, где развито

орошаемое земледелие, а адреса проживания населения, занимающегося животноводством, не очень велики.

По сравнению со многими другими регионами Узбекистана, в Кашкадарьинской области гораздо значительнее роль небольших сел и сел, расположенных в горных и предгорных районах. На наш взгляд, целесообразна частичная оптимизация сельских кварталов на основе их классификации в условиях Кашкадарьинской области. То есть на данной территории целесообразно объединять кварталы с населением до 500 человек в микрорайоны с населением до 100 человек, 101-200 человек, 201-300, 301-500 человек. Такая группировка отражает экономические, социальные и географические особенности Кашкадарьинской области. Его использование нецелесообразно в условиях других регионов нашей республики с высокой плотностью населения, где большую часть сел составляют крупные села. В целом наблюдаются большие различия в темпах роста населения микрорайонов региона на районном уровне. Это связано, прежде всего, с образом жизни населения, его занятостью, воздействием окружающей среды, уровнем урбанизации и другими факторами.

На примере Кашкадарьинской области зарегистрировано 600 семейных предприятий в Китабском районе МСП "Оха Машали", Чиракчинском районном предприятии ковроткачества, городе Карши, Гузорском, Китабском, Шахрисабзском, Чиракчинском, Камашинском и Мубаракском районах. Работают более 1000 ремесленников. В районе созданы ремесленные мастерские по изготовлению ювелирных изделий, национальных музыкальных инструментов, рукоделия, вышивки, ювелирного дела, шитья жемчуга. Это подтверждает, что видам традиционных народных промыслов в этих регионах уделяется особое внимание.

В целом, поскольку Кашкадарьинская область является уникальным регионом южного региона по своему географическому положению, этнодемографическому положению, геополитическим и геоэкономическим факторам, то расположенные на ее территории города и села, то есть микрорайоны, имеют определенные характеристики друг от друга.

При этом в целях обеспечения занятости населения в микрорайонах, особенно трудоустройства молодежи, из микрорайонов, занимающихся садоводством, виноградарством и ремеслами, формируются микрорайоны, специализирующиеся на малом бизнесе, частном предпринимательстве, сельском хозяйстве. подтвердило, что сформировались и развиваются такие специальные отрасли, как вышивка, рукоделие, шляпное дело, изготовление детских кроваток, кондитерское дело. С другой стороны, состояние производства магалов, специализирующихся на сельском хозяйстве и животноводстве, практически аналогично друг другу (в магалах Чиракчинского, Дехконабадского, Кокдалинского, Яккабогского районов).

Сравнительно крупные и густонаселенные кварталы создавались в районах, где были развиты богарное и орошаемое земледелие, что свидетельствовало о своеобразном составе расселения населения, занятого этим видом занятий.

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ПРАВОВОЕ РЕГУЛИРОВАНИЕ ПРОВЕДЕНИЯ ПРОВЕРКИ ПО СООБЩЕНИЮ О ПРЕСТУПЛЕНИИ

Аннотация: в статье исследуется правовое регулирование проведения проверки по сообщению о преступлении. Основной целью стадии возбуждения является установление наличие поводов и оснований для принятия решения о возбуждении уголовного дела, для чего законодательно предусмотрены определенные средства и способы производства проверки по сообщению.

Ключевые слова: сообщение о преступлении, проверка сообщения о преступлении, доследственная проверка, стадия возбуждения уголовного дела, срок проверка сообщения о преступлении.

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LEGAL REGULATION OF CARRYING OUT A CRIME REPORT CHECK

Abstract: the article examines the legal regulation of conducting an inspection based on a report of a crime. The main goal of the initiation stage is to establish the existence of reasons and grounds for making a decision to initiate a criminal case, for which the law provides for certain means and methods of conducting verification of the report.

Key words: reporting a crime, checking a report of a crime, pre-investigation check, stage of initiating a criminal case, period for checking a report of a crime.

Любая информация должна быть проверена и оценена до принятия решения о возбуждении уголовного дела.

Необходимо отметить утверждение Т.Э. Сальмаер о том, что «количество поступивших в правоохранительные органы заявлений о преступления значительно больше, чем количество дел, возбужденных на

их основании. Данный автор не разделяет точку тех исследователей, которые относят данное обстоятельство на недобросовестное поведение сотрудников правоохранительных органов, стремящихся уменьшить себе объем работы за счет принятия решений об отказе в возбуждении уголовного дела» [4, с. 53].

В.А. Середнев настаивает, что «разница в количестве возбужденных дел и количестве поступивших обращений обусловлена как проведением тщательной проверки, в ходе которой изложенные гражданами сведения не подтверждаются. Он достаточно четко обозначает свою позицию в части необходимости проверки информации о преступлениях как наиболее значимых способ избежать необоснованного возбуждения уголовного дела» [5, с. 19].

Позиция представляется правильной, с одной только поправкой – нельзя полностью исключать недобросовестное поведение сотрудников правоохранительных органов.

Судебная практика, широко освещаемая средствами массовой информации со ссылкой на лиц, наделенных правом расследования уголовных дел, свидетельствует о том, что правоохранители те же люди, которым свойственно и добросовестное заблуждение и недобросовестное поведения, злоупотребление своими правами и полномочиями. Если случаи противоправности сотрудников правоохранительных органов выявляются, они также расследуются, а затем судом разрешается вопрос о доказанности вины. Единственное отличие – это «совершение преступлений должностными лицами государственных органов, что несет в себе гораздо большую опасность, чем совершение преступлений гражданами, не имеющими отношения к власти» [6].

По поводу необходимости проверки сведений о преступлении неоднократно высказывался Конституционный Суд Российской Федерации.

Например, в своем определении от 27.06.2017 № 1437-О «Об отказе в принятии к рассмотрению жалоб гражданина Кизикова Игоря Анатольевича на нарушение его конституционных прав положениями части второй статьи 118 и части первой статьи 263 Уголовного кодекса Российской Федерации, части первой и пункта 3 части второй статьи 75, пункта 1 части первой и части второй статьи 140, части первой статьи 144, части восьмой статьи 151 Уголовно-процессуального кодекса Российской Федерации Конституционный Суд Российской Федерации отметил, что «положения о порядке проверки сообщений о готовящемся или совершенном преступлении не должны толковаться как допускающие произвольно, без тщательной проверки принять решение о возбуждении уголовного дела либо об отказе в его возбуждении. При этом, принимая решение, процессуальное лицо обязано четко сослаться на конкретные обстоятельства, послужившие основанием для принятия того или иного

решения, которое должно быть законным, обоснованным и мотивированным» [7].

С утверждением о необходимости осуществления предварительной проверки информации о преступлении соглашается Е.В. Никитина уделившая внимание изучению вопроса о возбуждении уголовного дела по делам о взяточничестве в сфере образования. По ее мнению, «информация, размещенная в средствах массовой информации, может и должна являться поводом к возбуждению уголовного дела, однако ее стоит тщательно проверять, особенно в тех случаях, когда источник сведений не указывается или скрывается в силу различных причин.

Сообщение о совершенном или готовящемся преступлении, может быть получено из различных источников. При этом предполагается, что получить данные сведения лицо, уполномоченное на решение вопроса о возбуждении уголовного дела вправе самостоятельно» [3, с. 43].

С развитием науки и техники в последние годы многие преступления стали выявляться благодаря публикациям в сети «Интернет», в средствах массовой информации, в результате фиксации данных на видеокамерах, как статичных, размещенных на улицах и в домах, так и камерах видеорегистраторов.

Проблематики в плане толкования и определения поводов для возбуждения уголовного дела достаточно и различные исследователи выявляют разные аспекты затруднений в теории и практике.

Хотелось бы обратить внимание, что «большинство проблем применения норм права, пробелы в них, коллизии отдельных положений в принципе могут быть выявлены только на практике с учетом того толкования, которое дается правоприменителями. Это связано с недостаточностью развития юридической техники, использования терминов, которые допускают двусмысленное толкование, формулирования положений норм права некорректным образом. Некоторые аспекты выявляются практиками после того, как они сталкиваются с ранее неизвестными или малоизвестными и не изученными аспектами той или иной области правоприменения» [2, с. 249].

Е.С. Кузьменко, исследуя проблему такого повода к возбуждению уголовного дела как сообщение, которое может быть получено из различных источников, приходит к выводу, что «круг данных источников крайне широк, вследствие чего может быть использована любая информация, в том числе полученная сотрудниками правоохранительных органов в ходе расследования иных уголовных дел. С данным утверждением можно согласиться, поскольку законодатель не ограничивает правоохранительные органы в плане возможности получения сведений о готовящихся либо совершенных преступлениях» [1, с. 129].

Однако везде существенным моментом является указание на источник получения данных. Единственное исключение – это результаты оперативно-розыскной деятельности.

Понятие оперативно-розыскной деятельности содержится в статье первой Федерального закона «Об оперативно-розыскной деятельности».

В соответствии с указанной нормой закона оперативно-розыскная деятельность – это деятельность государственных органов, основными признаками которой являются следующие: деятельность может осуществляться гласно и негласно; правом ее осуществления наделяются оперативные подразделения государственных органов; деятельность осуществляется исключительно в тех пределах, которые определены нормами Федерального закона «Об оперативно-розыскной деятельности»; деятельность осуществляется в целях охраны и защиты прав и законных интересов граждан, а также государственных интересов.³⁰ Возможность не разглашать сведения, полученные сотрудниками в ходе оперативно-розыскной деятельности, в том числе и об источниках информации, предусмотрена законодательством Российской Федерации.

Указом Президента Российской Федерации от 30.11.1995 № 1203 «Об утверждении Перечня сведений, отнесенных к государственной тайне» сведения о силах, средствах, источниках, методах, планах, а также результатах и финансировании оперативно-розыскной деятельности не подлежат разглашению и не должны поступать в открытый всеобщий доступ, что обусловлено необходимостью организации деятельности таким образом, чтобы исключить возможность заблаговременного противодействия.

Еще одним поводом для решения вопроса о возбуждении уголовного дела является постановление прокурора, указавшего на необходимость разрешения вопроса о возбуждении уголовного дела.

Постановления такого рода выносятся прокурорами в рамках осуществления прокурорского надзора.

Сущность прокурорского надзора заключается в проверке соблюдения законодательства Российской Федерации всеми юридическими и физическими, а также государственными органами и учреждениями.

В соответствии с Федеральным законом «О прокуратуре Российской Федерации» прокурорский надзор реализуется в следующих направлениях: надзор за исполнением законов; надзор за соблюдением прав и свобод человека и гражданина; надзор за исполнением законов органами, осуществляющими оперативно-розыскную деятельность, дознание и предварительное следствие; надзор за исполнением законов органами уголовно-исполнительной системы.

Реализуется прокурорский надзор путем проведения соответствующих проверок. В соответствии со статьей 27 Федерального закона «О прокуратуре Российской Федерации» в случае выявления в ходе

проводимой проверки признаков преступления, прокурор должен принять меры к тому, чтобы виновное лицо было подвергнуто уголовному преследованию, либо административному, если усматриваются признаки состава административного правонарушения.

Именно в рамках принятия мер к наказанию виновных, выносится постановление, которое направляется по подведомственности руководителю органа, наделенному правом принимать решение о возбуждении уголовного дела.

Несмотря на это стадия возбуждения уголовного дела и, как следствие необходимость принятия решения о возбуждении уголовного дела либо об отказе в законе сохранены и подлежат исполнению, поскольку соблюдение процедуры значимо с точки зрения последующей возможности принятия решения о признании лица виновным или невиновным на стадии судебного разбирательства.

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ПРОСТРАНСТВЕННОЕ РАСПРЕДЕЛЕНИЕ ТЕМПЕРАТУРЫ ВОЗДУХА И КОЛИЧЕСТВА ОСАДКОВ НА ЮГЕ УЗБЕКИСТАНА В ПЕРИОД 1991-2020 ГГ.

Аннотация. В статье выполнен сравнительный анализ основных климатических показателей, температуры воздуха и количества осадков, за четыре 30-летние климатические периоды (1961-1990 гг., 1971-2000 гг., 1981-2010 гг. и 1991-2020 гг.) на основе данных наблюдений метеостанций, расположенных на юге Узбекистана – в Кашкадарьинской и Сурхандарьинской областях. Результаты показали, что температура воздуха и количество осадков на этой территории увеличиваются с периода к периоду. С использованием данных реанализа ERA5 Европейского центра среднесрочных прогнозов погоды (ECMWF) определено распределение температуры воздуха и осадков в климатический период 1991-2020 гг.

Ключевые слова: климат, температура воздуха, осадки, ERA5, Узбекистан.

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SPATIAL DISTRIBUTION OF AIR TEMPERATURE AND PRECIPITATION IN THE SOUTHERN UZBEKISTAN IN THE PERIOD 1991-2020

Abstract. The article performed a comparative analysis of the main climatic indicators, air temperature and precipitation, for four 30-year climatic periods (1961-1990, 1971-2000, 1981-2010 and 1991-2020) based on data observations of weather stations located in the south of Uzbekistan - in the Kashkadarya and Surkhandarya regions. The results showed that air temperature and precipitation in this area are increasing from period to period. Using ERA5 reanalysis data of the European Center for Medium-Range Weather Forecasts (ECMWF), the distribution of air temperature and precipitation in the climatic period 1991-2020 was determined.

Keywords: climate, air temperature, precipitation, ERA5, Uzbekistan.

Глобальное изменение климата выражается в изменении частоты и интенсивности опасных гидрометеорологических явлений, таких как волны жары, сильные ветры, интенсивные осадки, наводнения, засухи и т.п. Оно оказывает все большее влияние на деятельность сельского и водного хозяйства, энергетики, транспорта, строительства, здравоохранения, туризма и многие другие сферы человеческой деятельности.

Температура воздуха и количество осадков являются основными показателями, описывающие состояние климата того или иного места и по этой причине информация о режиме температуры и осадков широко используется при решении многих научных и практических задач.

Территории Кашкадарьинской и Сурхандарьинской областей имеют достаточно разнообразные формы рельефа. Кашкадарьинская область расположена на юге Узбекистана, включает в себя Каршинскую степь, Китаб-Шахрисябзскую котловину, Хисарские и Зарафшанские горы, предгорные склоновые равнины. Сурхандарьинская область входит в состав Южно-Таджикистанского района Туранской провинции и расположена в самой южной части Узбекистана (рис. 1). В настоящее время в Кашкадарьинской области функционируют 9 метеостанций Узгидромета, а в Сурхандарьинской области – 6.

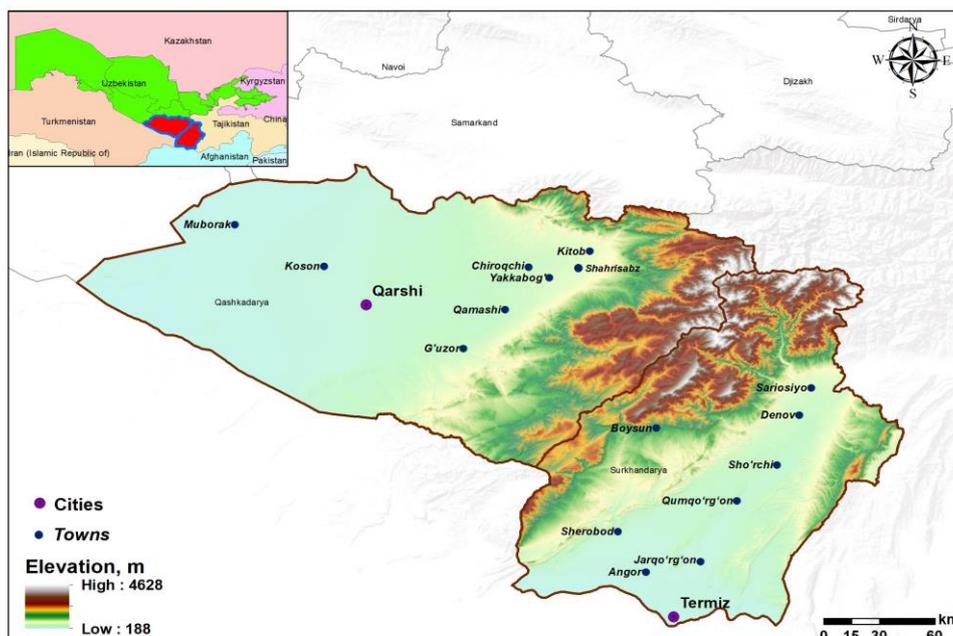


Рис. 1. Карта-схема расположения Кашкадарьинской и Сурхандарьинской областей

Изменения в многолетнем режиме температуры воздуха и осадков на территории областей выявлены на основе сравнительного анализа данных наблюдений метеорологических станций за 1961-1990 гг., 1971-2000 гг., 1981-2010 гг. и 1991-2020 гг. (табл. 1, 2).

Данные, приведенные в табл. 1 свидетельствуют, что от периода к периоду по всей исследуемой территории средняя многолетняя температура воздуха увеличивалась. Прирост температуры воздуха в последний 30-летний климатический период (1991-2020 гг.) относительно базового климатического периода (1961-1990 гг.) колеблется в пределах от $+0,4^{\circ}\text{C}$ в Минчукуре до $+0,8^{\circ}\text{C}$ в Карши и Шахрисябзе (Кашкадарьинская область) и от $+0,7^{\circ}\text{C}$ в Шерабаде и Байсуне до $+1,0^{\circ}\text{C}$ в Термезе (Сурхандарьинская область). Многолетняя средняя температура воздуха в горных районах Кашкадарьинской области составляет $7,0-12,0^{\circ}\text{C}$, а в равнинной и предгорных районах – $12,0-17,0^{\circ}\text{C}$. В горных районах Сурхандарьинской области (Байсун) многолетняя средняя температура воздуха в период 1991-2020 гг. составила $13,7^{\circ}\text{C}$, а в остальной территории области – $17,0-19,0^{\circ}\text{C}$. Внутригодовое распределение многолетней средней температуры свойственно континентальному типу – самым жарким месяцем является июль, а самым холодным – январь.

Таблица 1

**Многолетние среднемесячные и среднегодовые температуры воздуха
в Кашкадарьинской и Сурхандарьинской областях в различные
климатические периоды, °С [1-4]**

(1 – 1961-1990 гг., 2 – 1971-2000 гг., 3 – 1981-2010 гг., 4 – 1991-2020 гг.)

МС	Период	I	II	III	IV	V	VI	VI	VI	IX	X	XI	X	Го
							I	II					II	д
Кашкадарьинская область														
Мубарек (286 м)	1	1, 6	3, 9	9, 6	17 ,1	23 ,5	29 ,3	31 ,9	29 ,5	22 ,8	14 ,4	8, 0	3, 2	16 ,2
	2	1, 6	4, 1	9, 1	16 ,7	24 ,0	25 ,9	31 ,8	30 ,0	23 ,2	14 ,6	7, 3	2, 5	15 ,9
	3	2, 4	4, 8	10 ,3	17 ,3	23 ,3	27 ,1	31 ,2	29 ,4	22 ,8	15 ,2	9, 0	3, 7	16 ,4
	4	2, 8	5, 1	11 ,1	17 ,9	24 ,2	29 ,5	31 ,5	29 ,5	23 ,4	15 ,7	8, 6	3, 8	16 ,9
Карши (370 м)	1	1, 4	3, 9	9, 8	16 ,5	23 ,0	28 ,4	30 ,5	27 ,9	21 ,7	14 ,7	8, 8	4, 1	15 ,9
	2	0, 7	4, 3	9, 2	16 ,2	22 ,5	27 ,5	29 ,9	27 ,4	21 ,2	14 ,3	7, 7	3, 1	15 ,3
	3	3, 0	5, 3	10 ,5	17 ,3	23 ,2	28 ,6	30 ,4	28 ,2	22 ,2	15 ,5	9, 7	4, 6	16 ,5
	4	3, 4	5, 6	11 ,2	17 ,4	23 ,6	28 ,8	30 ,5	28 ,1	22 ,4	15 ,8	9, 2	4, 5	16 ,7
Чимкурган (466 м)	1	1, 2	3, 6	9, 4	16 ,3	22 ,0	27 ,5	29 ,4	27 ,0	20 ,9	14 ,6	8, 6	4, 1	15 ,4
	2	0, 9	3, 5	9, 3	16 ,2	21 ,8	27 ,5	29 ,3	26 ,8	20 ,9	14 ,3	8, 2	3, 9	15 ,2
	3	2, 7	4, 9	10 ,0	16 ,5	21 ,9	27 ,2	29 ,0	27 ,0	21 ,3	14 ,8	9, 4	4, 5	15 ,8
	4	3, 1	5, 2	10 ,7	16 ,6	22 ,2	27 ,3	29 ,0	26 ,9	21 ,5	15 ,1	8, 8	4, 4	15 ,9
Гузар (524 м)	1	3, 1	5, 0	10 ,3	17 ,2	22 ,9	28 ,3	30 ,0	28 ,2	23 ,0	16 ,0	10 ,3	5, 9	16 ,7
	2	2, 6	5, 3	9, 8	16 ,5	22 ,5	27 ,6	29 ,9	28 ,2	23 ,0	16 ,2	9, 4	4, 8	16 ,3
	3	4, 2	6, 3	11 ,0	17 ,5	23 ,0	28 ,4	29 ,9	28 ,4	23 ,3	16 ,5	11 ,0	6, 0	17 ,1
	4	4, 5	6, 3	11 ,6	17 ,6	23 ,5	28 ,7	30 ,2	28 ,6	23 ,6	16 ,8	10 ,3	5, 8	17 ,3
Шахрисяб з (627 м)	1	2, 0	4, 0	9, 4	16 ,0	21 ,4	27 ,0	28 ,8	26 ,7	21 ,2	14 ,5	9, 3	5, 0	15 ,4
	2	1, 6	3, 3	9, 5	16 ,1	21 ,4	27 ,0	28 ,8	26 ,5	21 ,2	14 ,7	9, 2	4, 9	15 ,4
	3	3, 0	5, 1	10 ,1	16 ,3	21 ,5	27 ,0	28 ,9	27 ,2	21 ,6	15 ,0	10 ,0	5, 2	15 ,9
	4	3, 6	5, 5	10 ,8	16 ,5	21 ,9	27 ,3	29 ,4	27 ,5	22 ,1	15 ,4	9, 3	5, 1	16 ,2

Дехканабад (938 м)	1	2, 3	3, 7	8, 7	15 ,1	20 ,7	26 ,4	28 ,7	27 ,0	21 ,4	14 ,4	9, 2	5, 1	15 ,2
	2	2, 0	4, 5	8, 5	14 ,6	20 ,5	25 ,8	28 ,3	26 ,6	21 ,0	14 ,3	8, 0	4, 2	14 ,9
	3	3, 3	4, 6	9, 2	15 ,2	20 ,4	25 ,9	28 ,2	27 ,0	21 ,7	15 ,1	10 ,2	5, 5	15 ,5
	4	3, 5	4, 9	9, 8	15 ,4	20 ,7	26 ,0	28 ,4	26 ,9	21 ,9	15 ,4	9, 4	5, 5	15 ,7
Акрабад (1599 м)	1	- 0, 7	- 0, 2	4, 3	10 ,6	15 ,8	21 ,8	24 ,4	23 ,0	17 ,8	11 ,4	6, 5	2, 2	11 ,4
	2	- 0, 7	0, 1	4, 3	10 ,6	15 ,6	22 ,0	24 ,3	22 ,9	17 ,8	11 ,4	6, 6	1, 8	11 ,4
	3	- 0, 1	0, 6	5, 0	11 ,1	16 ,1	21 ,7	24 ,3	23 ,4	18 ,4	12 ,0	7, 2	2, 4	11 ,8
	4	0, 1	1, 0	5, 8	11 ,4	16 ,5	21 ,9	24 ,6	23 ,4	18 ,7	12 ,4	6, 5	2, 5	12 ,1
Минчукур (2130 м)	1	- 3, 3	- 3, 0	1, 0	7, 0	11 ,8	17 ,2	20 ,0	18 ,9	14 ,0	7, 9	3, 4	- 0, 7	7, 9
	2	- 3, 1	- 2, 3	1, 2	7, 1	11 ,6	17 ,0	19 ,9	18 ,7	14 ,1	8, 1	2, 8	- 0, 7	7, 9
	3	- 3, 0	- 2, 5	1, 5	7, 4	11 ,9	17 ,2	19 ,7	19 ,1	14 ,3	8, 2	3, 8	- 0, 6	8, 1
	4	- 2, 9	- 2, 2	2, 2	7, 6	12 ,2	17 ,6	19 ,9	19 ,0	14 ,5	8, 5	3, 2	- 0, 6	8, 3
Куль* (2161 м)	3	- 4, 7	- 3, 0	1, 6	7, 2	11 ,4	15 ,8	18 ,0	17 ,8	13 ,6	7, 9	2, 3	- 2, 2	7, 1
	4	- 4, 3	- 3, 1	1, 8	7, 2	11 ,8	16 ,0	18 ,6	17 ,8	13 ,7	7, 7	1, 9	- 2, 3	7, 2
Сурхандарьинская область														
Термез (313 м)	1	3, 0	5, 6	11 ,5	18 ,6	24 ,2	28 ,5	29 ,9	27 ,4	21 ,9	15 ,8	9, 9	5, 4	16 ,8
	2	2, 4	6, 1	11 ,4	18 ,4	24 ,3	28 ,2	30 ,4	28 ,1	22 ,4	15 ,8	9, 8	5, 1	16 ,9
	3	4, 2	6, 7	12 ,1	18 ,9	24 ,6	29 ,1	30 ,5	28 ,4	22 ,9	16 ,5	10 ,8	5, 6	17 ,5
	4	4, 6	6, 8	12 ,7	19 ,2	25 ,0	29 ,5	30 ,9	28 ,6	23 ,4	16 ,9	10 ,4	5, 5	17 ,8
Шерабад (417 м)	1	4, 4	6, 5	12 ,0	18 ,9	25 ,0	30 ,1	31 ,5	29 ,2	24 ,2	17 ,9	12 ,0	7, 1	18 ,2

	2	3, 7	7, 0	11, ,6	18, ,6	24, ,9	29, ,9	31, ,9	29, ,8	24, ,5	18, ,1	11, ,0	6, 1	18, ,1
	3	5, 5	7, 6	12, ,8	19, ,5	25, ,2	30, ,2	31, ,4	29, ,4	24, ,7	18, ,5	12, ,7	7, 4	18, ,7
	4	5, 9	7, 9	13, ,4	19, ,6	25, ,4	30, ,4	31, ,6	29, ,5	24, ,9	18, ,7	12, ,0	7, 3	18, ,9
Шурчи (449 м)	1	3, 0	5, 1	10, ,7	17, ,3	22, ,7	27, ,3	28, ,2	25, ,8	20, ,8	15, ,0	9, 6	5, 4	15, ,9
	2	2, 9	5, 7	10, ,6	17, ,0	22, ,7	27, ,1	28, ,3	25, ,8	20, ,8	15, ,2	9, 1	4, 9	15, ,8
	3	4, 0	6, 2	11, ,3	17, ,5	22, ,8	27, ,6	28, ,9	26, ,7	21, ,7	15, ,6	10, ,4	5, 7	16, ,5
	4	4, 4	6, 5	12, ,0	17, ,7	23, ,0	27, ,9	29, ,2	27, ,0	22, ,2	16, ,1	10, ,1	5, 7	16, ,8
Денау (553 м)	1	3, 9	5, 8	11, ,2	17, ,6	22, ,9	27, ,9	28, ,8	26, ,5	21, ,8	16, ,1	10, ,8	6, 6	16, ,7
	2	3, 6	6, 1	10, ,7	17, ,1	22, ,4	26, ,9	28, ,4	26, ,1	21, ,3	15, ,5	9, 9	5, 6	16, ,1
	3	5, 0	6, 8	11, ,8	18, ,0	23, ,3	28, ,2	29, ,5	27, ,6	22, ,9	16, ,8	11, ,6	6, 9	17, ,4
	4	5, 1	7, 1	12, ,4	18, ,2	23, ,5	28, ,5	29, ,8	27, ,7	23, ,2	17, ,1	11, ,0	6, 8	17, ,5
Сарыяссия * (586 м)	4	4, 8	6, 3	12, ,7	18, ,0	23, ,7	28, ,9	30, ,8	28, ,6	23, ,9	17, ,1	10, ,1	6, 2	17, ,6
Байсун (1241 м)	1	1, 3	2, 3	7, 1	13, ,1	17, ,9	23, ,2	25, ,3	23, ,6	18, ,4	12, ,3	7, 6	3, 9	13, ,0
	2	1, 1	2, 4	7, 3	13, ,1	17, ,6	23, ,2	25, ,4	23, ,7	18, ,6	12, ,6	7, 3	3, 8	13, ,0
	3	2, 1	3, 3	7, 8	13, ,5	18, ,1	22, ,9	25, ,1	23, ,8	19, ,0	12, ,7	8, 3	4, 2	13, ,4
	4	2, 3	3, 7	8, 5	13, ,7	18, ,4	23, ,3	25, ,5	24, ,1	19, ,5	13, ,2	7, 8	4, 2	13, ,7

* – для некоторых периодов отсутствуют данные.

Как и в случае температуры воздуха, количество осадков имеет четко выраженное высотное изменение. В отличие от температуры воздуха, изменения в количестве осадков от периода к периоду не большие. В пустынных зонах Кашкадарьинской области выпадают в среднем 180-250 мм осадков в год, а в горных районах до 750 мм. В Сурхандарьинской области осадки выпадают меньше от 180 мм до 480 мм в год (табл. 2). Основная часть осадков выпадает в холодное полугодие. Летний период, особенно август, отличается в равнинных районах практически отсутствием осадков.

Таблица 2

**Многолетние среднемесячные и среднегодовые количества осадков
в Кашкадарьинской и Сурхандарьинской областях в различные
климатические периоды, мм [1-4]
(1 – 1961-1990 гг., 2 – 1971-2000 гг., 3 – 1981-2010 гг., 4 – 1991-2020 гг.)**

МС	Период	I	II	III	IV	V	VI	VI I	VI II	IX	X	XI	XI I	Год
Кашкадарьинская область														
Мубарек (286 м)	1	27,9	25,0	38,8	26,9	9,9	1,5	1,4	0,1	0,7	7,3	13,3	23,8	176,6
	2	26,0	26,0	37,0	29,0	10,0	2,0	1,0	0,0	0,0	5,0	13,0	19,0	168,0
	3	29,5	27,1	37,7	28,4	13,8	1,6	0,8	0,3	1,0	4,4	16,4	25,3	186,3
	4	28,0	33,8	32,7	28,8	13,8	1,6	0,3	0,3	0,9	3,8	17,1	18,7	179,8
Карши (370 м)	1	36,0	31,6	59,7	36,0	17,1	1,3	0,6	0,1	1,0	11,2	18,2	31,4	244,2
	2	41,0	36,0	56,0	40,0	17,0	1,0	0,0	0,0	0,0	8,0	21,0	31,0	251,0
	3	32,5	35,9	52,5	32,6	19,3	1,7	0,8	0,1	1,5	5,4	21,9	32,9	237,1
	4	35,7	42,1	46,5	34,8	18,8	1,6	0,6	0,2	1,1	4,7	24,4	27,2	237,7
Чимкурган (466 м)	1	50,2	45,9	82,2	56,6	22,5	2,3	1,0	0,0	1,7	16,3	26,7	44,9	350,3
	2	48,0	48,0	87,0	61,0	21,0	2,0	1,0	0,0	1,0	15,0	28,0	41,0	353,0
	3	48,3	55,3	77,9	48,1	28,0	3,7	1,0	0,4	2,4	10,5	34,0	52,0	361,6
	4	52,6	64,0	75,5	48,2	27,7	3,4	0,5	0,5	1,9	9,8	40,7	44,1	368,9
Гузар (524 м)	1	49,6	47,0	74,3	54,7	22,1	1,1	1,0	0,0	1,2	15,2	24,5	44,1	334,8
	2	51,0	50,0	74,0	51,0	20,0	2,0	1,0	0,0	0,0	10,0	25,0	42,0	326,0
	3	44,7	54,5	75,0	51,4	28,9	3,7	1,1	0,6	1,4	10,4	30,3	46,8	348,8
	4	43,3	56,3	71,1	49,0	27,0	3,3	0,6	0,6	0,9	9,0	34,7	39,5	335,3
Шахрисабз (627 м)	1	70,7	72,9	108,8	86,4	32,9	3,2	1,2	0,2	3,3	26,7	40,2	68,0	514,5
	2	77,0	86,0	124,0	92,0	41,0	4,0	1,0	0,0	1,0	22,0	46,0	69,0	563,0
	3	68,2	81,4	102,2	80,9	40,2	7,9	1,7	0,9	3,9	20,1	49,0	72,5	528,9
	4	71,8	86,0	98,2	80,8	45,0	7,2	1,1	1,2	2,7	18,4	60,2	62,2	534,8

Дехкана бад (938 м)	1	44,4	41,5	72,4	61,7	24,9	3,7	0,7	0,0	0,8	14,8	22,1	42,9	329,9
	2	45,0	48,0	74,0	59,0	29,0	3,0	0,0	1,0	1,0	11,0	25,0	39,0	335,0
	3	43,1	50,7	70,0	50,3	34,3	5,3	1,2	0,1	1,0	12,1	30,6	45,9	344,6
	4	43,3	54,7	72,0	53,8	40,5	5,4	0,9	0,3	0,7	11,1	38,3	41,3	362,3
Акрабад (1599 м)	1	53,9	54,9	89,9	84,0	39,7	5,9	2,3	0,1	1,6	15,5	27,7	50,1	425,6
	2	54,0	63,0	97,0	88,0	44,0	7,0	2,0	0,0	1,0	12,0	31,0	49,0	448,0
	3	53,6	62,3	82,6	71,1	48,1	9,5	2,7	2,5	2,4	14,1	34,0	51,3	434,2
	4	52,7	68,3	80,8	74,0	52,1	9,5	1,8	2,8	1,8	13,5	41,5	45,6	444,4
Минчук ур (2130 м)	1	85,8	91,0	133,2	112,7	51,3	8,8	6,7	0,5	3,6	32,2	44,7	85,5	656,0
	2	85,0	98,0	136,0	121,0	62,0	8,0	3,0	1,0	2,0	27,0	52,0	80,0	675,0
	3	86,5	97,7	125,3	95,2	62,8	16,0	7,3	2,4	5,1	26,3	65,1	93,6	683,3
	4	90,1	106,1	116,0	101,0	68,3	18,8	5,2	3,2	4,5	26,6	73,9	83,5	697,2
Куль* (2161 м)	3	66,6	96,6	112,2	112,1	96,4	47,2	18,5	4,4	13,0	43,6	67,1	71,9	749,6
	4	72,3	91,4	109,7	117,6	97,8	39,8	15,4	5,0	11,7	48,5	66,5	66,8	742,5
Сурхандарьинская область														
Термез (313 м)	1	23,4	20,2	37,7	26,2	9,8	0,8	0,1	0,0	0,1	3,3	8,8	17,4	147,8
	2	23,0	22,0	32,0	21,0	11,0	1,0	0,0	0,0	0,0	2,0	9,0	19,0	140,0
	3	24,3	23,7	36,4	23,5	9,5	1,5	0,2	0,0	0,5	3,2	11,1	20,5	154,4
	4	22,9	29,6	31,5	24,3	9,5	1,3	0,2	0,0	0,5	3,0	20,0	17,8	160,6
Шерабад (417 м)	1	32,3	28,4	46,4	27,6	10,2	0,8	0,5	0,0	0,1	5,4	11,3	23,7	186,7
	2	35,0	34,0	44,0	29,0	11,0	1,0	0,0	0,0	0,0	3,0	13,0	24,0	194,0
	3	35,7	32,3	49,2	28,8	14,2	5,2	0,2	0,6	0,3	5,1	14,5	30,3	216,4
	4	31,8	36,1	44,0	31,5	14,7	4,9	0,2	0,6	0,3	4,5	19,5	24,9	213,0
Шурчи (449 м)	1	44,7	39,9	68,7	43,3	16,1	0,8	0,2	0,0	0,5	9,7	18,9	33,9	276,7
	2	42,0	40,0	63,0	44,0	20,0	1,0	0,0	0,0	0,0	7,0	18,0	30,0	265,0

	3	44,8	46,8	67,0	39,3	24,0	4,1	0,8	0,0	0,9	7,6	22,1	42,4	299,8
	4	41,5	50,4	60,8	43,9	23,8	4,7	0,7	0,0	0,8	6,5	30,2	37,7	301,0
Денау (553 м)	1	54,6	52,9	82,9	57,1	23,0	1,1	0,3	0,2	0,5	12,4	26,2	42,0	353,2
	2	56,0	52,0	79,0	63,0	32,0	3,0	0,0	0,0	0,0	8,0	28,0	42,0	363,0
	3	49,3	57,7	75,0	47,9	26,8	3,9	0,3	0,0	1,1	10,9	25,6	45,2	343,7
	4	44,7	59,3	66,2	51,3	28,5	4,7	0,4	0,1	1,0	11,1	34,4	44,5	346,2
Сарыассия*(586 м)	4	39,1	62,2	62,7	58,8	28,3	4,0	0,8	0,4	0,6	11,4	40,8	33,9	343,0
Байсун (1241 м)	1	61,2	58,4	96,6	87,9	44,1	4,8	4,4	1,2	1,4	15,7	25,5	53,2	454,4
	2	66,0	67,0	109,0	93,0	50,0	8,0	2,0	2,0	1,0	11,0	31,0	54,0	494,0
	3	56,9	65,6	89,8	68,4	45,8	13,1	5,8	1,4	2,6	14,2	30,8	55,9	450,3
	4	56,8	73,6	91,2	76,5	54,4	13,1	4,6	0,6	2,4	14,3	42,4	49,7	479,6

* – для некоторых периодов отсутствуют данные.

Проанализированные выше данные, без сомнения, представляют определенный практический интерес. Однако, имеющаяся наблюдательная сеть не дает возможность получить достоверное пространственное распределение исследуемых величин [5]. Основываясь на ряде исследований, выполненных для территории Узбекистана, для выявления пространственного распределения многолетней средней температуры воздуха и количества осадков на юге Узбекистана использованы данные реанализа ERA5 ECMWF [6, 7]. Результаты обработки срочных данных реанализа ERA5 приведены на рис. 2 и 3.

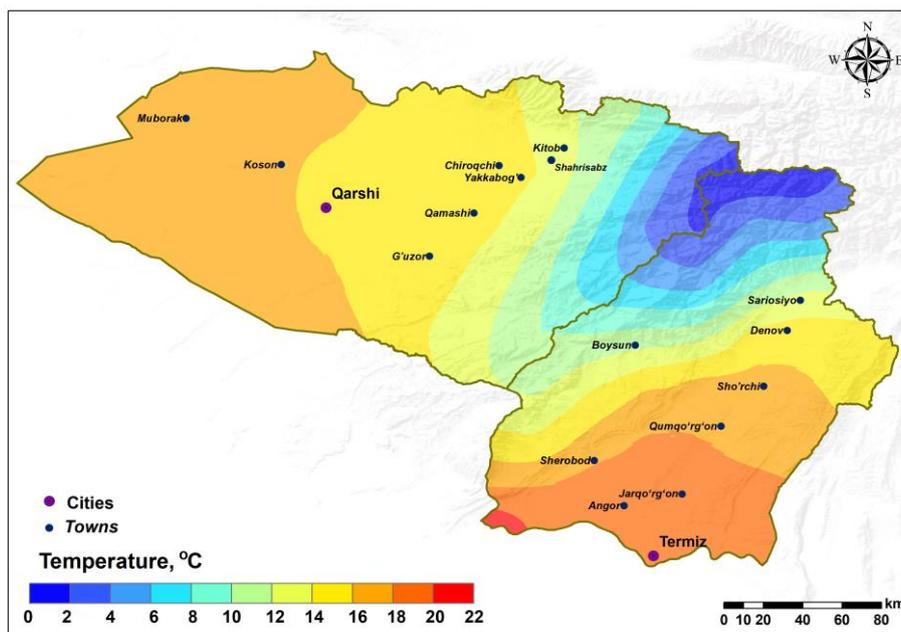


Рис. 2. Распределение многолетней среднегодовой температуры воздуха в Кашкадарьинской и Сурхандарьинской областях в период 1991-2020 гг. (на основе данных реанализа ERA5)

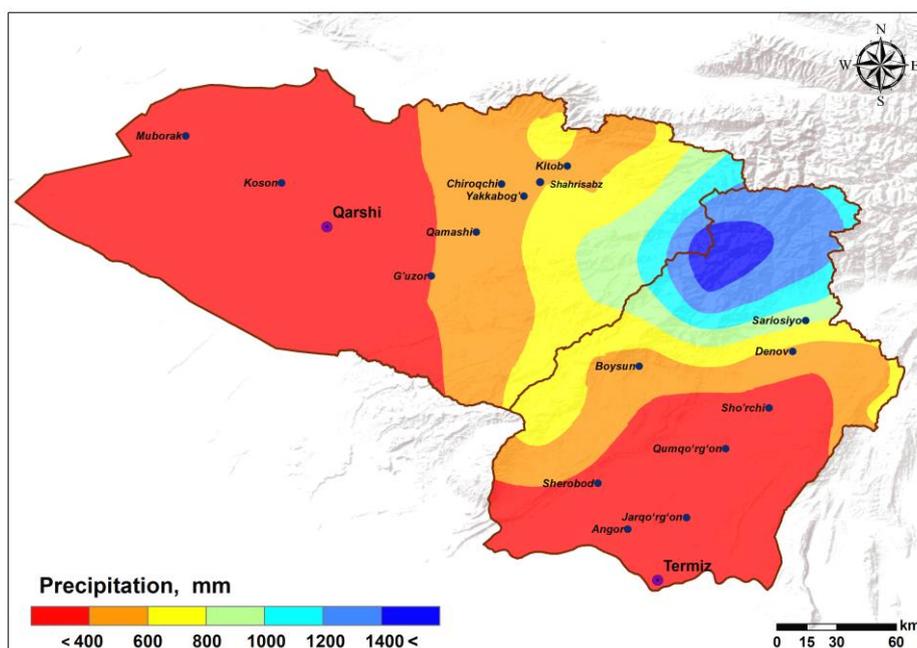


Рис. 3. Распределение многолетней среднегодовой суммы осадков в Кашкадарьинской и Сурхандарьинской областях в период 1991-2020 гг. (на основе данных реанализа ERA5)

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