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INTEGRATION OF ARTIFICIAL INTELLIGENCE AND MODERN EDUCATIONAL TECHNOLOGIES IN ENHANCING MORAL EDUCATION BASED ON NATIONAL VALUES IN PRESCHOOL INSTITUTIONS

Annotatsiya: Ushbu maqolada maktabgacha ta'lim muassasalarida axloqiy tarbiya jarayoniga sun'iy intellekt va zamonaviy ta'lim texnologiyalarini integratsiyalash masalasi ko'rib chiqiladi. Tadqiqotning asosiy e'tibori bolalarning axloqiy-etik rivojlanishini milliy qadriyatlar asosida shakllantirishga qaratilgan. Maqolada madaniy asosga ega, sun'iy intellekt bilan qo'llab-quvvatlangan o'qitish modeli taklif qilinadi, bu esa maktabgacha yoshdagi bolalarda individual yondashuv, faollik va qadriyatlarning shakllanishini ta'minlashga xizmat qiladi.

Kalit so'zlar: sun'iy intellekt, axloqiy tarbiya, milliy qadriyatlar, maktabgacha ta'lim, texnologiya, erta yoshdagi ta'lim

Аннотация: В данной статье рассматривается интеграция искусственного интеллекта и современных образовательных технологий в процесс нравственного воспитания в дошкольных учреждениях. Основное внимание уделяется формированию этического развития детей на основе национальных ценностей. Предлагается модель обучения, основанная на культурном контексте и поддерживаемая ИИ, направленная на повышение вовлеченности, индивидуализации и формирования ценностей в раннем возрасте.

Ключевые слова: искусственный интеллект, нравственное воспитание, национальные ценности, дошкольное образование, технологии, раннее развитие

Abstract. This study explores the potential for integrating artificial intelligence (AI) and modern educational technologies to enhance moral education based on national values in preschool institutions. A preliminary analysis of the current situation—conducted through institutional reviews, educator feedback, parental input, and policy examination—reveals significant opportunities and existing challenges. While digital tools and AI technologies hold great promise for personalizing learning and transmitting cultural values effectively, gaps in educator training, lack of culturally relevant content, and insufficient parental engagement pose obstacles to successful implementation. Experimental trials are planned to test AI-assisted educational models aimed at strengthening value-based learning in early childhood settings. The study highlights the importance of aligning technological innovation with cultural identity and pedagogical objectives.

Keywords: Artificial intelligence, moral education, national values, preschool, technology, early childhood

Introduction

The global education landscape is undergoing a transformation driven by artificial intelligence and digital innovations. In Uzbekistan, where moral education and the promotion of

national values are integral parts of early childhood development, there is a growing need to align these traditional goals with modern educational technologies. Preschool education serves as the foundation for shaping children's character, cultural awareness, and behavioral norms. Traditional pedagogical approaches, while effective, may not fully address the individualized and interactive learning needs of 21st-century learners.

Recent developments in AI-powered educational tools offer significant potential for personalizing learning experiences, adapting content delivery, and fostering ethical understanding from an early age. The integration of such technologies in moral education can enrich content presentation, enhance engagement, and ensure alignment with national values. However, the practical implementation and pedagogical design of AI-supported moral education models remain underexplored in the context of preschool education in Uzbekistan.

Literature Review

The integration of national values into preschool education has been a subject of extensive research, emphasizing the importance of combining cultural heritage with modern pedagogical techniques. Scholars have highlighted various strategies and approaches to enhance the effectiveness of value-based education in early childhood settings.

Eshpulatov addresses the need for a comprehensive system aimed at improving the delivery of national values in educational settings. His research, “Umuminsoniy qadriyatlarga yo‘naltirilgan milliy tizimni takomillashtirish,” discusses the significance of universal human values while emphasizing the necessity of integrating innovative educational practices to reinforce cultural identity. Eshpulatov’s findings provide a foundation for understanding how value-based education can be aligned with broader pedagogical goals, particularly in the context of preschool institutions. Kadirova in her work “Maktabgacha ta’lim tashkilotlarida milliy g‘urur hissini shakllantirishning ahamiyati,” focuses on the critical role of fostering a sense of national pride among preschool children. She emphasizes that educators play a pivotal role in shaping children's identity and self-esteem. Kadirova’s study, conducted at Termiz State Pedagogical Institute, provides practical insights into how national values can be integrated into daily teaching practices through storytelling, cultural events, and interactive activities. Her research underscores the importance of culturally relevant pedagogy as a tool for emotional and moral development. Zakirova explores the practical application of national values in her paper “Maktabgacha ta’lim tashkilotlarida bolalarga milliy qadriyatlarni singdirish.” Presented at the International Conference on Advance Research in Humanities, Applied Sciences, and Education, Zakirova’s work emphasizes the importance of combining traditional teaching methods with modern technologies. Her research highlights the use of interactive tools such as digital storytelling and multimedia resources to enhance children’s understanding and appreciation of their heritage. Zakirova's findings advocate for a balanced approach that respects traditional values while leveraging contemporary educational tools. Yakubova in her article “National values of Preschool Children basically forming educational and moral qualities,” discusses the foundational role of preschool education in developing moral qualities among young learners. Her research, published in Volume 03, Issue 01 of an academic journal, highlights the potential of digital tools to support value-based education. Yakubova argues that the integration of culturally specific content into educational software and applications can significantly enhance children’s moral and cognitive development. Her study serves as a critical resource for understanding the role of technology in shaping national values. Adilova examines the use of national spiritual values in organizing educational events in preschool settings. Her paper, “Use of national spiritual values in organizing educational events in Pre-School Education,” published in the *Science and Innovation International Scientific Journal*, discusses how cultural narratives

and modern technology can coexist to foster holistic development. Adilova's work highlights the role of teachers in creating an immersive learning environment that bridges traditional values with modern pedagogical techniques. Her findings emphasize the importance of educator training and parental involvement in reinforcing national values.

Collectively, these studies provide a comprehensive understanding of how modern educational technologies can be integrated into preschool education to foster national values. The literature underscores the importance of a multifaceted approach that includes educator training, culturally relevant curricula, and the active involvement of parents and communities

Research Methodology

This study is planned to be carried out within the framework of a mixed-methods research approach, combining both qualitative and quantitative elements to comprehensively investigate the integration of artificial intelligence (AI) and modern educational technologies in the moral education of preschool children. The research is being developed in response to the growing demand for innovative, culturally grounded pedagogical strategies that are both developmentally appropriate and technologically enriched.

The methodological framework will follow an exploratory and design-based model. Initially, an in-depth theoretical and contextual analysis will be conducted to identify the current state of moral education in preschool institutions and the extent to which digital and AI-based tools are already being utilized. This diagnostic stage will inform the design of an AI-supported pedagogical model tailored to foster national values and moral development in young learners.

The study will involve preschool-aged children (6–7 years old), as well as their educators and parents, from selected preschool institutions in urban and semi-urban settings in Uzbekistan. Purposeful sampling will be employed to select institutions with varying levels of technological infrastructure. It is anticipated that approximately 60 to 80 children, along with their respective teachers and parents, will participate in different stages of the study.

To gain a comprehensive understanding of the research problem, several data collection instruments will be used:

- Document analysis of current preschool curricula and state educational standards regarding moral and national values;
- Semi-structured interviews with teachers and administrators to gather insights into existing practices and expectations for technology use;
- Parent surveys to understand family perspectives on value education and digital learning;
- Classroom observations during the experimental implementation phase to monitor engagement, behavior, and teacher-child interactions;
- Pre- and post-intervention assessments to evaluate the impact of AI-based activities on children's moral reasoning and behavior;
- System logs from the AI platform (e.g., time spent, task completion, response types) to measure learning engagement.

The central component of the study will be the design and pilot implementation of a digital learning module supported by AI technologies. This model will include interactive storytelling, national folklore, ethical dilemmas, and voice-assisted feedback. The content will be designed in collaboration with educators and cultural experts to ensure that it reflects Uzbekistan's moral and cultural heritage.

Quantitative data from the assessments and usage statistics will be analyzed using basic descriptive and inferential statistical methods to determine the effectiveness of the intervention. Qualitative data from interviews, observations, and open-ended survey responses will be

thematically analyzed to identify patterns, perceptions, and experiences related to the use of AI in early moral education.

The study will be conducted in accordance with ethical research standards. Informed consent will be obtained from all participants' guardians. The privacy and confidentiality of children and families will be respected, and all data will be anonymized. Necessary approvals will be sought from relevant educational institutions and ethics review boards prior to the intervention.

Analysis and Results

The current stage of the study involved a comprehensive analysis of the existing situation in preschool education institutions. Observations, educator feedback, parent input, and a review of policy documents revealed several key issues related to the integration of artificial intelligence (AI) and modern digital technologies into value-based moral education. The following findings reflect the early stage of research, with experimental trials yet to be conducted.

1. Untapped potential of digital technologies in moral education

Preliminary observations indicate that modern digital tools—such as mobile applications, interactive games, and augmented reality platforms—offer significant potential for teaching national values in engaging and understandable ways. However, their practical and systematic use in this domain remains limited. AI-based personalized learning approaches are not yet being utilized in preschool settings.

2. Low level of technological and methodological preparedness among educators

The study found that many preschool educators lack sufficient knowledge and skills to effectively integrate AI and digital tools into moral and value-based education. Most educators view digital resources as entertainment or storytelling tools rather than as structured methods for transmitting cultural and ethical values.

3. Lack of culturally relevant digital content

Existing educational applications and digital materials rarely include content related to national customs, folklore, historical figures, or ethical principles. Much of the digital content used in preschool settings is based on foreign models, lacking local cultural relevance and national context.

4. Limited parental involvement through digital means

Family involvement in moral education remains largely disconnected from technological integration. There are currently no structured digital platforms or mobile applications designed to guide parents in reinforcing national values at home. As a result, children may not receive consistent value-based support outside the classroom.

5. Underexplored applications of artificial intelligence

AI-based tools for personalized instruction, speech recognition, and real-time interactive support hold great potential for preschool education. However, these technologies have not yet been explored or piloted in practice. This highlights the need for experimental research to evaluate their pedagogical effectiveness in moral education.

6. Weakness in policy and methodological frameworks

Existing educational policies and curricula do not specifically address the integration of AI in moral and values-based preschool education. Moreover, there are no comprehensive methodological guidelines to assist educators in aligning digital technologies with national cultural content and moral development goals.

Conclusions

This study highlights both the promise and the complexity of using artificial intelligence and modern educational technologies in preschool moral education. While the initial analysis

reveals structural and methodological challenges, it also confirms a strong rationale for intervention. The upcoming experimental phase will aim to develop and test innovative, culturally grounded, AI-enhanced teaching models that support the development of ethical reasoning and national identity in early learners. Findings from this research could inform policy development and best practices for integrating AI in early childhood education globally.

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