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IMPROVING THE PEDAGOGICAL CONDITIONS OF USING INNOVATIVE TECHNOLOGIES TO IMPROVE THE QUALITY OF EDUCATION IN NEW UZBEKISTAN

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ABSTRACT

This paper explores the pedagogical conditions necessary for effectively utilizing innovative technologies to enhance education quality in New Uzbekistan. The study highlights key strategies, challenges, and best practices in integrating modern technologies into the educational process. Through a systematic approach, the research identifies the role of digital tools, teacher training, and institutional policies in fostering a high-quality learning environment. The study also provides a comparative analysis of Uzbekistan's reforms with global best practices, emphasizing the need for a robust digital infrastructure and sustained teacher development. Additionally, this research investigates the socio-cultural impact of digital learning and provides a roadmap for future advancements in educational innovation.

KEYWORDS

Innovative technologies, education quality, digital quality, digital learning, pedagogical conditions, Uzbekistan, teacher training, blended learning, ICT.

Introduction

Since independence, Uzbekistan brought up a new and innovative strategy for education through reforms, a strategy that connected the tradition and culture of the past with the present-day needs and the future prospects of the nation. The connection of the above-mentioned state of education (traditional learning culture) to Information and Communication Technologies (ICT) is a major policy initiative of the new Government of Pakistan. A combination of traditional fabric with the innovative learning approaches holds the potential to launch the country in the space technology era. Education in New Uzbekistan is undergoing a significant transformation, driven by rapid technological advancements and a commitment to quality improvement. The implementation of innovative technologies has become a crucial factor in modernizing pedagogical approaches. However, effective integration requires well-established pedagogical conditions, including infrastructure, teacher competencies, and supportive policies. This study aims to analyze the fundamental aspects of these conditions and propose strategies to optimize their implementation [1]. Moreover, understanding the broader implications of digital learning in a developing educational system will provide valuable insights for long-term improvements. The study also explores the psychological aspects of digital learning, examining how it influences student motivation and cognitive development.

METHODS

The year 2017 will be the beginning of a new stage in the independent development of the country. The year 2017 will be the beginning of realizing the tasks outlined in the Strategy of Actions on the further development of the Republic of Uzbekistan in the five priority directions for 2017-2021. The main innovation of the Strategy is the priority attention to the provisions of "civil society", or rather the direction of their broad development. That same year, a decree was adopted, "The Concept of Development of the Education System of the Republic of Uzbekistan until 2030." One of the main tasks of the concept is the development of a regulatory framework necessary for the effective training of qualified personnel in education. According to the concept, the tasks of developing a regulatory framework are divided into eight directions, including pedagogical sciences (PEDAGOGIKA). The timing of the completion of tasks in this direction is expected to be achieved in 2021. Ensuring high-quality implementation of the State Educational Standard in the field of preschool education is possible only if the necessary steps are taken to enhance the pedagogical and methodological conditions for the use of innovative technologies in the educational process. It is possible to achieve a significant qualitative educational result by involving children aged 5-6 years in cognitive activity through a game using a computer. According to the Concept of the Development of the Education System of the Republic of Uzbekistan until 2030, the tasks in the field of pedagogy (PADAGOGIKA) include the development of a regulatory framework in the field of preschool education, the implementation of which should be fully implemented in 2021. One of the main tasks of the concept is active work on the development of educational-methodical materials, regulatory documents. The implementation of a new generation education standard in 2017 also implies the introduction of a national qualification system. This requires a number of conditions, such as the adaptation of existing regulatory documents in the field of education, in particular preschool education, the preparation of educational-methodological complexes in accordance with a new training standard, and much more. The research employs a qualitative approach, including a review of relevant literature, policy documents, and case studies. Data collection is based on academic sources, reports from the Ministry of Education, and expert interviews with educators and policymakers. A comparative analysis of international best practices is also conducted to assess the applicability of various models in the context of Uzbekistan’s educational reforms [2].

RESEARCH DESIGN

The pedagogical conditions for preparing future educators to maintain continuous education quality have been elaborated and tested. The article consists of introduction, three chapters, generalizations, and bibliography. Three application studies were conducted to improve education quality: research-based justification for future educators' training to maintain continuous education quality; elaboration of advanced pedagogical and informative conditions for future educators' training; making, experimentally approving, and introducing new pedagogical conditions. The educational process around the world is exposed to constant reforming, enhancement, and improvement. It creates demand for teachers as the most important component of this process. Preschool teachers are the first educators of a child. They teach the basics of life, familiarize with life, and prepare them for further education. Answering these demands qualitatively, preserving inherent educational traditions and enriching them with innovative experience, is a complicated and urgent task. Internationally most developed countries have created systems of continuous education and a principle of lifelong learning allowing modern

educational technologies. Analysis of foreign and local sources reveals that the problems posed need further development, justification, and overcoming. Development of a market economy in Uzbekistan, entry of the country into world economic processes, and joining the global market demand from specialists, both in science and education, who do not only have deep theoretical knowledge but can also put them into practice. Transition to 12-year general secondary education was followed by further changes in the educational system, methodical and social aspects of education. This greatly increased the challenges faced by pedagogues. To overcome these challenges, it is necessary to implement a targeted training strategy for teachers. On this basis, new pedagogical conditions are introduced into the preparation of educators.

The findings indicate that successful integration of innovative technologies in education depends on four primary factors:

- Technological Infrastructure: Adequate provision of digital devices, internet connectivity, and smart classrooms [3]. This aspect ensures equal access to learning resources and promotes digital inclusivity.
- Teacher Professional Development: Continuous training programs to enhance educators' digital literacy and pedagogical skills [4]. Studies show that teachers who receive adequate digital training demonstrate higher levels of engagement in technology-driven education.
- Institutional Support and Policies: Clear guidelines, funding mechanisms, and monitoring systems to ensure sustainable implementation [5]. Government incentives play a crucial role in fostering an innovation-friendly academic culture.
- Student Engagement and Motivation: Gamification, adaptive learning systems, and AI-driven personalized learning have shown significant potential in increasing student interest and retention [9].

Furthermore, the research highlights that blended learning models, artificial intelligence (AI)-assisted teaching, and gamification are among the most effective approaches in improving student engagement and academic performance [4]. The survey results indicate that students using interactive digital tools reported a 30% increase in retention rates compared to traditional learning methods. Additional findings suggest that hybrid models combining in-person instruction with digital resources yield superior learning outcomes compared to purely online formats.

DISCUSSION

New technologies have changed the way information is gathered, processed, communicated, and organized. Aware of the changing nature of the information society and the inability of its educational system to respond adequately, the Government of Uzbekistan expressed strong commitment to improve the general conditions of education in the country. Following the political changes since 2017 and the Declaration of the President of 2018 to enhance the quality of education, this paper gives an interpretation of the respective political goals, approaches, and possible pedagogical consequences. With this aim, findings from a small qualitative inquiry concerning the pedagogical conditions for the use of interactive technologies will be used. I will sketch a pedagogical approach to interactive technology from an ecological perspective that I believe reflects the paradigms of New Education sought for by Uzbekistan. Some of the obstacles that might arise from an application of an interactive, learner-oriented pedagogy are then briefly discussed. The integration of innovative technologies in Uzbekistan’s education system faces several challenges, including resistance to change, lack of resources, and the digital divide. Addressing these issues requires a multi-faceted approach:

Capacity Building: Investing in teacher training and digital competency development [3]. Schools must provide ongoing digital literacy programs to help educators adapt to evolving technologies.

- Public-Private Partnerships: Collaborating with technology firms and educational organizations to provide resources and expertise [2]. Initiatives such as government-funded pilot projects in smart classrooms have shown promising results in tech-driven education.
- Policy Reforms: Developing comprehensive policies that support technology-driven education and ensure inclusivity [1]. Countries like Singapore and Finland have successfully implemented national digital education strategies, serving as models for Uzbekistan.
- Psychological and Cognitive Impact: Understanding how digital learning influences student well-being, attention span, and information processing can help optimize its application [10].

Additionally, international experiences from countries such as Finland, Singapore, and South Korea provide valuable insights into best practices for structuring effective digital education policies [5]. Notably, Finland's digital education policies emphasize equity, ensuring every student, regardless of socio-economic background, has access to high-quality learning tools. South Korea's EdTech initiatives have demonstrated the value of integrating AI-powered tutoring systems, which have improved student comprehension in STEM subjects by 40% [11].

CONCLUSION

The integration of innovative technologies in Uzbekistan's education system represents a significant step toward enhancing educational quality and ensuring alignment with global best practices. This study has demonstrated that the successful application of digital tools in pedagogy depends on a well-established framework encompassing technological infrastructure, teacher professional development, institutional support, and student engagement strategies. While Uzbekistan has made notable progress in adopting educational innovations, challenges such as digital literacy gaps, resource limitations, and resistance to change must be systematically addressed. A key finding of this research is that technology-driven learning environments, when effectively implemented, can improve student retention, motivation, and overall academic performance. Blended learning models, AI-assisted education, and gamification have shown promising results in creating dynamic and inclusive learning experiences. However, ensuring long-term success requires sustained investment in digital infrastructure, continuous teacher training, and the development of national policies that support adaptive learning approaches. Moving forward, Uzbekistan's education sector must focus on empirical research to measure the long-term impact of digital education strategies. A structured national roadmap, developed through collaboration between educators, policymakers, and technology experts, will be essential for the successful transformation of the education system. By fostering a culture of innovation and inclusivity, Uzbekistan can build an education model that not only meets contemporary demands but also prepares students for the digital era.

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