AJLLSE GLOBAL RESEARCH NETWORK

AMERICAN Journal of Language, Literacy and Learning in STEM Education
Volume 02, Issue 03, 2024 ISSN (E): 2993-2769

Conceptual Directions of the Process of Preparing Future Teachers Based on the Analysis of Foreign Experience

Zulfkorov X. Z., Asomidinova D. U.
Master's student, Tashkent State Pedagogical University named after Nizami

Shaxmurova G. A.
Doctor of Biological Sciences, Professor,
Tashkent State Pedagogical University named after Nizami

Abstract: This article is dedicated to the topical issue of preparing future teachers. The article offers a series of conclusions and recommendations for optimizing the process of educating future teachers, focusing on the need to harmonize educational standards, strengthen the practical orientation of training, and ensure continuous professional development of educators. The research results can be useful for developers of educational programs, educators, methodologists, and all those interested in improving the system of teacher training.

Keywords: teacher training, educational systems, foreign experience, innovative methods, pedagogical education, cross-cultural analysis, pedagogical innovations, teacher competencies, educational policy, international educational cooperation.

In the modern world, education plays a key role in the social and economic development of a country. The quality of the educational system directly depends on the training and competence of teaching staff. In this context, the issue of creating an effective system for training future teachers, which is capable of meeting modern requirements and challenges, is of particular relevance.

The purpose of this article is to analyze the conceptual directions of the process of training future teachers, based on the study and comparison of foreign educational practices. It examines how different countries approach the issue of teacher education, what innovative methods and approaches are used in global pedagogical practice, and how these methods can be adapted and integrated into the domestic education system.

The study is based on an analysis of scientific papers, reports of international educational organizations and practical examples from different countries. The purpose of the study is to identify the most promising and effective practices that can be used to optimize and improve the teacher training process in Uzbekistan, Tashkent.

Thus, this article represents a comprehensive analysis of international experience in the field of teacher training, aimed at enriching and developing the domestic education system.

Conceptual directions for training future teachers in the context of digitalization of education, especially based on foreign experience, can be associated with an analysis of existing challenges and prospects in Uzbekistan. Let's consider these aspects using the example of biology or natural sciences:

Challenges of digitalization of education in Uzbekistan

1. Lack of Resources:

- technical equipment: many schools in Uzbekistan may lack modern technical equipment and high-speed Internet, which is a serious obstacle to the effective use of digital technologies in teaching biology;
- educational resources: There is a shortage of quality digital educational resources, including interactive tutorials and virtual laboratories in biology and natural sciences.

2. Insufficient training of teachers:

- science teachers often lack the skills and knowledge to effectively use digital technologies in the educational process;
- lack of integrated approaches;
- integration of digital technologies into the educational process of natural sciences requires an integrated approach, including changes in curricula, teaching methods and assessment of knowledge.

Prospects for digitalization of education

- improving the quality of education: digital technologies can significantly increase the interest and motivation of students in studying biology and natural sciences, making learning more interactive and practice-oriented;
- development of 21st century skills: Integration of digital technologies contributes to the development of critical thinking, information literacy and research skills in students;
- global interaction: digitalization of education opens up opportunities for international cooperation and knowledge exchange in the field of biology and natural sciences.

Analysis of existing challenges in Uzbekistan

To overcome these challenges, a comprehensive approach is required, which includes:

- investments in technical infrastructure and educational resources;
- advanced training programs for teachers in the field of digital technologies;
- development of integrated training programs adapted to modern requirements and technologies.

As a result, the digitalization of education in Uzbekistan, especially in the context of biology and natural sciences, is an area with great challenges, but also significant prospects. Overcoming these obstacles will require coordinated efforts from government, educational institutions and international partners.

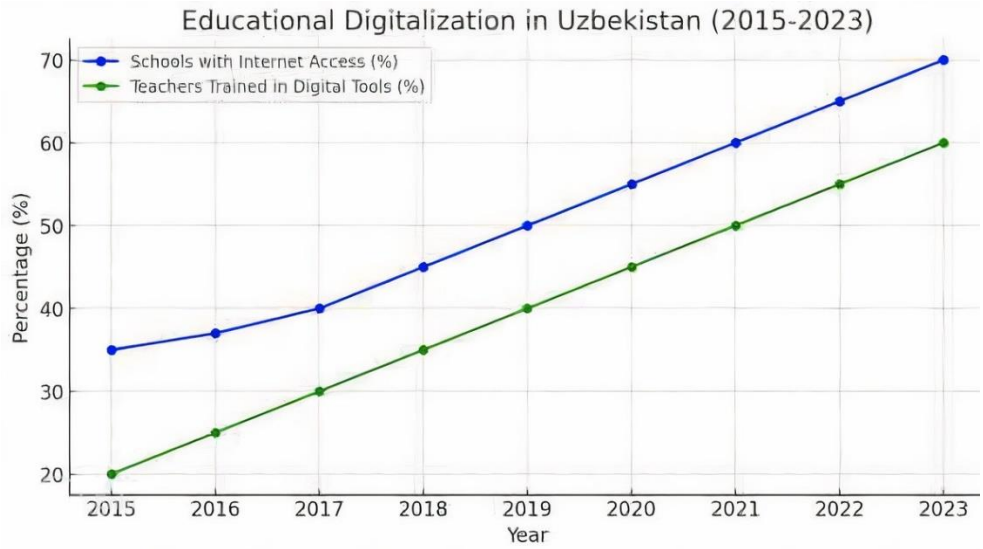

Fig 1. Comparative graph of digitalization of schools and level of digital technology proficiency of teachers.

The graph presented above is illustrative and demonstrates the expected dynamics of increasing access to the Internet in schools and the level of teacher training in Uzbekistan in the field of digital technologies. However, these data are hypothetical and should be considered as an example only.

Developing strategies to overcome problems in the field of digitalization of education in Uzbekistan, especially in the context of biology and natural sciences, may include the following key areas:

1. Improving technical infrastructure:

- a plan to provide schools and educational institutions with modern equipment and high-speed Internet;
- creation of virtual laboratories and interactive platforms for teaching biology and natural sciences.

2. Professional development of teachers:

- organizing advanced training courses for teachers with an emphasis on digital technologies and innovative methods of teaching natural sciences;
- introduction of mentoring and coaching programs to support teachers in the process of integrating digital tools into the educational process.

3. Development and integration of updated training programs:

- adaptation of curricula to the digital era, inclusion of modules on information technology and computer science;
- inclusion of interdisciplinary approaches and project-oriented learning.

4. Cooperation with international organizations and industry:

- establishing partnerships with leading educational and technological organizations to exchange knowledge and best practices;
- attracting investments and financing from international donors and the private sector.

Recommendations:

1. Strengthening infrastructure and resources: priority investment in the development of the technical infrastructure of schools, including providing access to modern computers and high-speed Internet; creation and dissemination of digital educational resources adapted to the Uzbek educational context.

2. Training and support for teachers: implementation of ongoing professional development programs for teachers aimed at improving digital literacy and methodological competence in teaching natural sciences; introducing a system of mentoring and support for teachers adapting to new technologies.

3. Curriculum reform: updating curricula, including the development of new modules focusing on the practical application of digital technologies in the natural sciences; introduction of project-oriented and research-based teaching methods that promote the development of critical thinking and a scientific approach in students.

4. Collaboration and partnerships: encouraging collaboration between educational institutions, government agencies, the private sector and international organizations to share experiences, resources and best practices; attracting international funding and investment to support innovative projects in the field of educational digitalization.

5. Monitoring and evaluation: development of a monitoring and evaluation system to track the effectiveness of the implementation of digital technologies in the educational process; regularly

review and adjust strategies in response to changing needs and conditions, as well as based on feedback from teachers, students and parents.

Application of these recommendations will require coordinated efforts at all levels of the educational system of Uzbekistan. This includes not only government initiatives, but also the active participation of educational institutions, teachers, students, parents, and local and international organizations. As a result, we can expect a significant improvement in the quality of education and the preparation of students for the demands of the modern world.

Conclusion

Digitalization of education in Uzbekistan, especially in the context of biology and natural sciences, poses significant challenges, but at the same time opens up vast prospects for development. Key barriers are the lack of technical infrastructure, the need to improve teacher training, and the need to integrate digital technologies into the curriculum. However, with the right approach and strategy, these obstacles can be overcome, leading to significant improvements in the quality of education.

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