ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-515-x, Impact Factor: 9.23

American Academic publishers, volume 6, issue 01,2026

Journal: https://www.academicpublishers.org/journals/index.php/ijai

INNOVATIVE EDUCATIONAL DEVELOPMENT IN PERIOD OF THE DIGITALIZATION OF THE EDUCATIONAL PROCESS

Jamoliddin Jasurbekovich Yazdonov
Chief Operating Officer at "Makon.ai" LLC, Tashkent, Uzbekistan

Abstract. This article describes the current structure of the education system in the Republic of Uzbekistan, which has been reformed over the past decade in accordance with the National Program for Personnel Training adopted in the country, the educational programs at various levels implemented in Uzbekistan, the qualifications awarded upon completion, and the educational documents confirming these qualifications.
Keywords: education, higher education infrastructure, Bologna Process, deformation, scientific and technological potential.

1.Introduction

In the context of globalization and the transition to a knowledge economy, the education system is becoming a key factor in sustainable socioeconomic development. In recent years, the Republic of Uzbekistan has been implementing a large-scale education modernization policy based on the introduction of innovations, digital technologies, and new management approaches. These reforms are aimed at improving the quality of human capital and developing a competitive workforce for the national economy.

One of the priority areas of innovative educational development in Uzbekistan is the digitalization of the educational process. The introduction of electronic platforms, distance learning, online courses, and digital educational resources has expanded access to education, especially in remote regions. E-learning platforms facilitate the personalization of educational trajectories, increase learner independence, and develop information technology skills.

Considerable attention is paid to innovation in educational content. Curricula are updated to reflect labor market requirements, international standards, and a competency-based approach. STEM subjects, elements of artificial intelligence, robotics, financial literacy, and entrepreneurship are being actively integrated into the educational process. This fosters students' critical thinking, creativity, and ability to solve practical problems.

2.Literature review

The literature on innovation in the education system of Uzbekistan primarily focuses on digitalization, pedagogical technologies, and institutional reforms. For example, Abdullaeva and Khodjaev (2023) analyze the pedagogical conditions for the implementation of innovative technologies, emphasizing the key role of digital platforms and teacher training. Karimov and Rakhimova (2024) pay special attention to the use of artificial intelligence in education, where AI is viewed as a tool for personalized learning and improving the effectiveness of the educational process. Ismailov (2023) studies innovative methodologies for developing academic mobility, highlighting distance learning and international cooperation as important factors for integration into the global educational space. Tursunova and Akhmedov (2022) examine the digital transformation of the education system, including issues of digital inequality and managerial innovation. Overall, the literature analysis shows that innovation in education in Uzbekistan is systemic in nature but requires further development of infrastructure and human resources.

ORIGINAL ARTICLE
INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE
ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

3.Analysis and results

The development of innovative pedagogical technologies is an important aspect. Project-based learning, case studies, blended learning, and problem-based approaches are gradually replacing traditional methods. Advanced training for teaching staff, the introduction of a system of continuous professional development, and academic mobility contribute to the improvement of teaching quality and the adoption of international best practices.

Institutional innovations in education management deserve special attention. In Uzbekistan, the autonomy of educational institutions is expanding, elements of corporate governance, performance assessment systems (KPIs), and public-private partnership mechanisms are being introduced. The active development of private educational organizations strengthens the competitive environment and stimulates improvements in the quality of educational services.

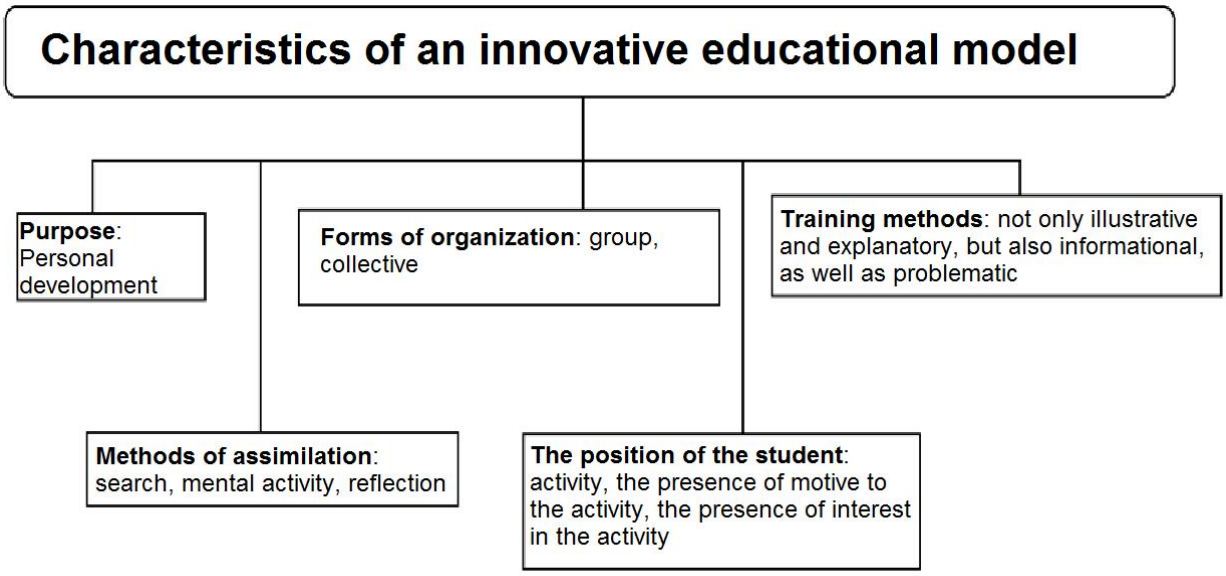


Fig.1. Innovative educational model [7]

Innovations also affect the area of education quality assessment. The introduction of international assessments (PISA, TIMSS), independent accreditation systems, and digital monitoring tools enable the objective assessment of learning outcomes and the adjustment of educational policies. This contributes to increased transparency and accountability of educational institutions.

Despite the progress achieved, innovative development of education in Uzbekistan faces a number of challenges, including uneven digital infrastructure, the need to enhance teachers' digital competencies, and adapt innovations to national and cultural specifics. However, the systemic nature of reforms, government support, and focus on international cooperation create a solid foundation for further development.

Overall, innovation in education in Uzbekistan is a strategic tool for building a competitive economy and a sustainable society. Consistent implementation of innovative educational policies not only improves the quality of education but also ensures the country's long-term socioeconomic development in the context of global transformations.

Higher education based on secondary specialized and vocational education is an independent component of the continuing education system and is implemented in accordance

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

with the Law of the Republic of Uzbekistan "On Education" and the National Program for Personnel Training.

Access to higher education in Uzbekistan is available to individuals with a general secondary (11 grades) and secondary specialized and vocational education. Students are admitted to higher education institutions based on the results of placement tests and other additional creative examinations determined in accordance with the established procedure. The Rules for Admission to Higher Education Institutions are established by the Cabinet of Ministers of the Republic of Uzbekistan. Education at higher education institutions is funded by state grants and on a fee-paying contract basis. Secondary and subsequent higher education in the Republic of Uzbekistan are only possible on a fee-paying contract basis.

The higher education system of Uzbekistan consists of:

state and non-state higher education institutions implementing educational programs in accordance with state educational standards for areas and specialties of higher education;

Scientific and pedagogical institutions conducting research on the regulatory, legal, and scientific-methodological support of higher education;

authorized state bodies for the management of higher education;

enterprises, institutions, and organizations subordinate to them.

Higher education has two levels: bachelor's and master's degrees.

Graduates of a bachelor's program are prepared:

to work in the field of study in positions to be filled by individuals with a higher education;

to continue higher education in a master's program in a chosen specialty within the corresponding bachelor's program;

to obtain additional professional education in the system of retraining and advanced training.

A master's degree is a higher education program in a specific specialty with a duration of study of at least two years based on a bachelor's degree. The duration of study in a master's program without interruption from work is increased by at least six months. Upon completion of the master's degree program, graduates are awarded a master's degree in their specific specialty based on state certification and a state-recognized diploma with a supplement (diploma supplement).

The scope and types of professional activity of the master's degree, qualification and discipline requirements, the structure and content of the educational program, its implementation mechanisms, and quality control are determined by the state educational standard for the specific master's degree program. Based on the state educational standards for the relevant master's degree programs, curricula and syllabi are developed and approved by the authorized state body for higher education.

The most common approach to improving the quality of education is based on the fact that a fundamentally new system of social wealth creation has emerged in the modern world, based on education, research, and innovation. Proponents of the dominant "innovative" approach note that in the real economy, requirements for specialists in various professions are constantly being updated, while education largely retains a cumulative, conservative model. Education must be mobile, practically oriented, and capable of flexibly responding to technological changes. Only then can it be a true source of social development. It is advisable to develop a system of teacher training that ensures teachers have a clear understanding of the economic processes taking place in society and orients future specialists specifically toward the needs of production.

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

Unfortunately, in some regions, educational technologies remain largely conservatively oriented, that is, aimed primarily at the accumulation of knowledge rather than at its practical application. Moreover, these are predominantly disciplinary, while the innovative educational model embraces interdisciplinarity to provide future specialists with a holistic view of the processes being studied, understanding their interconnectedness and interdependence. Knowledge presented in a systemic manner, rather than as a sum of separate fragments from various disciplines, is much easier and more effective to apply in subsequent practical activities, which increases its economic viability.

It is believed that a promising direction for improving state policy to enhance the quality of specialist training could be the introduction of a new generation of standards based on a competency-based approach. This would help narrow the gap typical of graduates between a high level of theoretical knowledge, a developed ability to solve typical problems, and a limited ability to apply theoretical knowledge in real-life situations to solve complex problems.

There is another point of view, which is increasingly supported. In line with the global trend, universities, in addition to teaching and research, are acquiring a third function – entrepreneurial, related to the commercialization of scientific results. Belarus has also followed this path. However, in the rush to expand the activities of universities and the corresponding rankings, less and less attention is being paid to the core purpose of universities—education. The quality of education itself is suffering, as without an appropriate level, it is impossible to train personnel who are adequate to the demands of the knowledge economy, possessing new competencies, and an innovative mindset.

4.Conclusions

The main results of the reforms implemented in the education system of the Republic of Uzbekistan over the past decade include, first and foremost, the introduction of specialized education at the senior secondary school level, increasing the standard duration of secondary education to 12 years, the establishment of a two-tier qualification system in higher education (bachelor's and master's) for virtually all fields and specializations, and the expansion of the autonomy of educational institutions while maintaining state oversight of educational quality.

References:

1. Abdullaeva, D., & Khodjaev, B. (2023). Improving the pedagogical conditions of innovative technologies in Uzbekistan. American Journal of Research in Humanities and Social Sciences, 16, 45–52.https://americanjournal.org/index.php/ajrhss/article/view/2819
2. Karimov, S., & Rakhimova, N. (2024). Revolutionary shift in education: The role of artificial intelligence in Uzbekistan. American Journal of Multidisciplinary Research and Development, 6(1), 12–18.https://ajmdr.com/index.php/ajmdr/article/view/33
3. Ismailov, A. (2023). Innovative methodologies in the development of academic mobility. International Journal of Multidisciplinary Research and Development, 10(4), 89–94.https://www.ijmrd.in/index.php/imjrd/article/view/3195
4. Tursunova, M., & Akhmedov, J. (2022). Digital transformation of the education system in Uzbekistan. Problems of Science and Technology Journal, 2, 33–40.https://www.pstjournal.uz/index.php/pst/article/view/21
5. Khamidova, L. (2023). Innovative pedagogical technologies as a tool for the modern teacher. Open Journal of Education, 5(2), 61–67.https://supportscience.uz/index.php/oje/article/view/2518

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

6. https://cyberleninka.ru/article/n/sistema-obrazovaniya-respubliki-uzbekistan-obrazovatelnye-programmy-i-prisvaivaemye-kvalifikatsii?ysclid=mkrqn45xhq893181761
7. https://scipress.ru/pedagogy/articles/digital-education-as-the-necessity-for-modern-social-development.html
8. Mannapova R. Application of IFRS In the Conditions of Digital Technologies //Science and innovation. – 2023. – Т. 2. – №. A11. – С. 301-307.
9. Popkova E. G. et al. THE ROLE OF KNOWLEDGE AND TECHNOLOGY MANAGEMENT IN IMPROVING THE QUALITY OF BUSINESS 4.0 PRODUCTS //International Journal for Quality Research. – 2024. – Т. 18. – №. 1.
10. Ergasheva S. T., Mannapova R. A., Yuldashev E. I. 18 Accounting–a System for Managing Economic Information in Agriculture //New institutions for socio-economic development: The change of paradigm from rationality and stability to responsibility and dynamism. – 2021. – Т. 5. – С. 173.