

**INNOVATIVE EDUCATIONAL TECHNOLOGIES AND INTELLECTUAL
DEVELOPMENT OF YOUTH IN THE NEW UZBEKISTAN**

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Abstract. In this article, the role and importance of innovative educational technologies in the context of large-scale reforms implemented in New Uzbekistan is analyzed scientifically. The results achieved in the development of the intellectual potential of the young generation through the digital transformation of the educational system and the application of modern technologies to pedagogical processes are shown. At the same time, the need to form a mature person in harmony with national and universal values, not only technological knowledge, but also through innovative educational methods is justified. The article analyzes the aspects of the scientific heritage of the great oriental scholar Ahmed al-Farghani, which are compatible with today's educational concept, and the issue of its integration into modern educational programs is also studied. Theoretical and practical recommendations were formed based on the conceptual foundations of intellectual education, the integration of international experiences with the national model, innovative approaches and the interdependence of intellectual development. The article also analyzes the strategic directions of state policy in training competitive, free-thinking, creative youth.

Keywords. New Uzbekistan, innovative educational technologies, intellectual development, youth policy, digital transformation, educational reforms, human capital, information and communication technologies, Eastern traditions, Ahmad al-Farghani.

In the conditions of today's globalization and digital transformation, human capital, especially the knowledge, potential and creativity of the young generation, deserves special attention as the main factor in the development of every society. In this sense, in the course of large-scale reforms being carried out in the Republic of Uzbekistan, the education system is being updated based on the needs of the times. As one of the main goals set in the development strategy of the new Uzbekistan, the issue of developing the intellectual potential of young people and preparing them as competitive personnel with modern knowledge and skills occupies a special place.

Education is not just acquiring knowledge, but a means of personality formation, understanding of national and universal values, raising a generation with independent thinking and creative thinking. Taking these factors into account, the educational process in New Uzbekistan is enriched with innovative technologies and improved based on digital approaches. This brings the intellectual growth of young people to a qualitatively new level.

Innovative educational technologies mean the implementation of advanced achievements of modern science, techniques and technologies in the educational process, as well as the organization of education in an interactive, person-oriented and competency-based manner. Such technologies radically change not only the relationship between the student and the teacher, but also the methods of managing the learning process.

For example, in the constructivist approach, knowledge is formed through research and experience rather than in a ready-made form. Tools such as game-based education, problem-solving methodology, and the use of electronic platforms (Google Classroom, Zoom, Moodle, Edmodo) are currently widely entering the educational system of Uzbekistan. This forms critical and creative thinking, independent thinking and decision-making skills in students.

Also, through "Flipped learning", "Project-based learning", STEAM approaches, young people are gaining not only theoretical knowledge, but also practical experience. Especially, the participation of young people is expanding in such fields as information technology, artificial intelligence, robotics, and cyber security.

The intellectual potential of young people largely depends on their education, upbringing, social environment, family conditions and personal motivation. Intellectual potential refers not only to the level of IQ (Intelligence Quotient), but also skills such as critical thinking, creativity, problem solving, teamwork, adaptability to life problems (AQ - adaptability quotient).

In the educational system, it is important to provide young people not only with academic knowledge, but also with education aimed at personal growth, social-emotional development, leadership and a sense of responsibility. In this regard, it is necessary to introduce the concept of intellectual education in an integrated system from preschool education to higher education.

Specialized institutions such as presidential schools, creative schools, and IT schools not only introduce young people to modern technologies, but also direct them to practical activities. There, students have the opportunity to realize their talents by creating scientific projects, developing startups, and participating in international competitions.

On the initiative of the President of the Republic of Uzbekistan, consistent and systematic reform of the education system has become an integral part of the country's intellectual development strategy. The state policy in this direction is strengthened by the constitutional and legal frameworks, and innovative, digital and competence-based approaches are consistently introduced in the field of education.

In particular, the "Concept of the Development of the Education Sector until 2030" serves as a strategic document aimed at transforming the educational system of Uzbekistan into a modern, open and competitive system that meets international standards. This concept aims to improve the quality and efficiency of education, to form a continuous education system, to ensure the integration of educational programs with practice, as well as to prepare an educated and competitive generation by regularly improving the qualifications of pedagogical personnel. Within this document, modernization of educational content, formation of students' independent thinking, critical analysis and creative approach competences are defined as priorities.

Also, the strategic program "Digital Uzbekistan - 2030" envisages accelerating the process of digital transformation in education. Within the framework of this strategy, one of the main directions is the wide introduction of information and communication technologies into the educational process, the development and implementation of digital pedagogy, electronic textbooks, educational platforms based on artificial intelligence. This, in turn, expands the opportunities for students to receive education based on an individual approach, optimizes the work of teachers, and makes the educational process transparent and effective.

In addition, the "Science and Innovation Development Program" is aimed at strengthening the innovative potential of the country, which includes important measures such as integration of research activities with education, support of young scientists, organization of scientific centers at higher educational institutions. Through the program, the interrelationship of science and

education is strengthened, which serves as an important factor in the development of creative thinking of young people and their involvement in scientific and innovative activities.

Another important innovation in the educational system was the establishment of the "Youth Academy". This initiative is aimed at identifying talented young people with high intellectual potential, encouraging them to engage in scientific and innovative projects, and providing them with institutional support by creating scientific schools. Through the activities of the Academy, young people have the opportunity to gain not only theoretical knowledge, but also practical experience.

One of the important aspects of the reforms implemented within the framework of these documents is the efforts aimed at increasing the global ranking and efficiency of the educational system of Uzbekistan through participation in international assessment programs (PISA, TIMSS, PIRLS). Through these programs, not only the level of knowledge of students, but also their skills such as analytical thinking, functional literacy, and problem solving skills are evaluated. Based on the results of this assessment, appropriate conclusions are drawn on the improvement of educational policy, curriculum and methods.

In order to improve the education system, measures such as increasing the potential of pedagogical personnel, retraining them based on modern methods and technologies, introducing interactive teaching methods, and creating educational literature based on modern and national values are being implemented on a large scale. All this serves to improve the quality of education, educate young people with innovative thinking and creative approach.

Al-Farghani (9th century) is one of the great scholars recognized in the Middle Eastern world. He conducted deep scientific research in the field of astronomy, mathematics and geography. His work "Ilm al-harakat al-Samawiyya wa Jawami' al-ilm an-nujum" was highly appreciated in the Western world. Western thinkers such as Farghani Copernicus and Galileo greatly influenced his scientific work.

In today's education system, studying Ferghani's heritage develops the historical consciousness of young people, increases self-awareness and love for science. For this purpose, programs such as "Scientific centers named after Al-Farghani" and "Lessons of Farghani" are being introduced. Educational modules for mathematics, physics, and astronomy are being developed based on Ferghani's works. This is a bright example of connecting innovative education with national roots.

Looking at the world's experience, one of the main success factors of developed countries in the current global competition and rapid technological development is the development of education as a priority, investment in human capital, and the formation of advanced national models based on innovative knowledge. For example, in the case of countries such as Singapore, Finland, Japan, and South Korea, it can be seen that as a result of a strategic approach to education, economic growth, social stability, and an increase in scientific and technical potential have been achieved.

In particular, the Finnish education system is one of the most effective models in the world, where the teaching profession is recognized as one of the most prestigious and competitive fields. Educators have a high level of independence and work on the basis of a creative approach and pedagogical freedom in the educational process. This serves to develop intellectual competencies in students such as independent thinking, critical analysis, complex approach to problems, information processing and promotion of innovative ideas. In Singapore, the education system is based on the concept of "knowledge-based economy", where digital

literacy, creative thinking, and STEM (science, technology, engineering and mathematics) approaches are emphasized.

In countries such as Japan and South Korea, it is important to stimulate the intellectual potential of students on the basis of educational strategies aimed at continuous research and self-development. A modern education model combined with national mentality and traditional values has been formed in these countries, and their achievements in international rankings are a clear proof of this.

In the conditions of Uzbekistan, as a result of large-scale reforms carried out in recent years, the process of studying international best practices, adapting them to local conditions, and creating a unique innovative educational model based on national values continues consistently. This model is based on several main components: Raqamli texnologiyalarni ta'lim jarayoniga tatbiq etish – masofaviy o'qitish platformalari, sun'iy intellekt, axborot tizimlari, onlayn kutubxonalar orqali zamonaviy bilimlarga ochiqlikni ta'minlash.

1. Use of innovative pedagogical methods - active involvement of students in learning based on constructivism, projective approach, STEAM methodology.
2. Improving the qualifications and motivation of teachers - a system of professional development of teachers through certification, continuous training and courses in accordance with international standards.
3. Awakening national pride and historical consciousness in the process of education - strengthening the national foundations of intellectual education through the scientific heritage of scholars such as Al-Farghani, Beruni, Ibn Sina.
4. Training of globally competitive, creative and independent thinking young people - engaging young people in intellectual activities through international Olympiads, start-up projects, scientific competitions.

These components are aimed at making the educational system of Uzbekistan competitive not only regionally, but also globally. As a result of effective management and targeted orientation of intellectual resources, a stable foundation of economic and social development of the country is being created. Thus, education is emerging as an important driver of future development.

In short, in the conditions of New Uzbekistan, the development of the educational system based on innovative principles, strengthening the intellectual potential of young people and arming them with modern knowledge and skills is one of the most important strategic tasks of the development of society. After all, in the history of mankind, societies that relied on knowledge and science have always developed and set an example to others with their spiritual and educational potential.

Today, the educational reforms implemented in Uzbekistan, adopted state programs and legislative documents are aimed at creating a strong moral, academic and intellectual foundation for the young generation, who are the future of the country. Digitization of education, introduction of innovative teaching methods, updating of personnel training system based on international experiences is an important factor in preparing our youth for the global competitive environment.

Also, through the formation of a modern educational model combined with the traditions of Eastern education and spirituality, it is possible to educate people who are not only educated, but also faithful to national and universal values and morally perfect. In this process, the contribution of great Eastern scholars, including our thinkers such as Ahmad al-Farghani, to the development of science, their heritage and views serve as a scientific basis in the modern education process.



The attention given to the education sector in the new Uzbekistan and the reforms being implemented are a reliable foundation leading to the sustainable development of the country, scientific and technical progress and an intellectual society. From this point of view, the introduction of innovative approaches at every level of education, the harmonization of the educational process with intellectual activity, and the raising of an all-round mature and competitive generation is a guarantee of the development of Uzbekistan.

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