The Positive Effect and Importance of Innovative Technologies on the Educational System

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Abstract: This article presents concepts about innovative technologies in education and the main basis of pedagogical technology - the importance and useful aspects of selected technologies for the teacher and student to achieve a guaranteed result from the set goal. This study delves into educational reforms in Uzbekistan, with a specific focus on higher education and the President's 2030 development vision. Employing qualitative analysis, the research evaluates the impact of pedagogical technology, educational tools, and innovative technologies, including digitization and the shift towards a "University 4.0" model. The results indicate that these reforms have granted academic and financial autonomy to universities, facilitating adaptation to contemporary demands, the training of highly qualified personnel, and achieving international competitiveness.

Keywords: digitalization, higher education, innovations in education, electronic education, online education, pedagogical technology, auxiliary educational tools, technical tools of education

Introduction

New Uzbekistan begins at the school threshold. Today, all spheres of life in New Uzbekistan have become a field of deep reforms. In this process, it is impossible not to talk excitedly about the changes in the education system (Bellei, 2023; Danieli, 2019; Farewell, 2020; Grace, 2023; Huang, 2020; Kim, 2021; Kondo, 2022; Pogorelskaya, 2021; Rus, 2019; Singh, 2023; Teelken, 2019; Zamirbekkyzy, 2023), which is considered the basis of the social sphere. In recent years, practical work on the organization of all stages of the education system based on modern requirements has entered a decisive stage in our country.

As our President noted: "The more educated our children are, the faster the economic sectors based on high technologies will develop, the more social problems will be solved." Therefore, if I say that the threshold of New Uzbekistan starts from the school, I think that our whole people will support this idea”. In particular, to determine the priorities of the systematic reform of higher education in the Republic of Uzbekistan, to raise the process of training independent thinking highly qualified personnel to a new level in terms of quality, to modernize higher education, based on advanced educational technologies In order to develop the social sphere and economic sectors, the concept of the development of the
higher education system (Behle, 2021; Gryshova, 2019; Hsiao, 2022; Li, 2022; Mukhtar, 2020; Noskova, 2022; Roopchund, 2019; Vargas, 2021; Xie, 2023) of the Republic of Uzbekistan until 2030, approved by the decree of the head of our state on October 8, 2019, serves as a prelude to new reforms in the field. This document includes the acceleration of intellectual development, training of competitive personnel, scientific and in order to effectively organize innovative activities and strengthen international cooperation, tasks such as the development of integration of science, education and production were taken as a basis.

Methodology

The research employs a qualitative analysis of the pedagogical technology, educational tools, and innovative technologies introduced in the educational system. It assesses the impact of digitization, electronic libraries, and the transition to a "University 4.0" model, emphasizing the use of modern methods and technological training.

Result and Discussion

The main basis of pedagogical technology is the technology chosen for the cooperation of the teacher and the student to achieve a guaranteed result from the set goal. Each educational technology used in the teaching process to achieve a guaranteed result according to the goal should be able to organize cooperation between the teacher and the student, both of them should be able to achieve a positive result, the student in the learning process Students should be able to think independently, work creatively, research, analyze, draw their own conclusions, evaluate themselves, the group, and the group, and the teacher should create opportunities and conditions for such activities. is the basis of the process. Each lesson, topic, educational subject has its own technology, that is, pedagogical technology in the educational process is an individual process, which is directed to one goal based on the needs of the student is a pedagogical process aimed at providing a pre-planned and guaranteed result.

Educational tools are auxiliary materials that visually present the educational material and at the same time increase the effectiveness of teaching. Technical means of education - help to visually demonstrate the educational material, its systematic delivery, allow students to understand and remember the educational material. Examples of such tools can be: slide projector, overhead projector, blackboard-notebook, blackboard-stand, educational aids - graphs, drawings, samples, handouts, etc. Educational and methodological materials - educational materials, exercises to strengthen the acquired educational materials. These help to activate students' independent work (worksheet, notes, checklist, texts). The selection and use of various types of educational tools that help students accelerate learning activities depends on:
1. Setting the goal;
2. To the main source of knowledge;
3. To the method of education;
4. Newness and complexity of educational material;
5. To students’ educational opportunities. Innovative technology- (innovation in English "innovate" - innovation, innovation, and technology in Greek "technos" - art, skill and "logos" - science) means a new approach to educational forms, methods and methods. Innovative technologies are innovations and changes in the pedagogical process and activities of teachers and students.

The main result related to the educational process was the introduction of a distance learning platform and an electronic evaluation system. In this system, the control written work is submitted by the student in electronic form, that is, it is uploaded to the system, then it is automatically encrypted and sent to the appropriate department for verification in electronic form. In the departments, these works are distributed among professors and teachers, and the system itself is checked, evaluated, and a comment is written on the assigned grade, that is, it is shown why it was evaluated in this way and what shortcomings the student made. The assessment of the checked work and the review written on the work can be seen in the student's personal office. In addition, the university electronic library has been established and more than 10,000 sources have been placed in it, and the complete digitization of existing literature is ongoing. From a management perspective, digitization makes it easier for universities to manage their resources and academic programs. For example, digital tools can be used to manage the educational process of students, monitor the activities of professors and staff, and allocate resources effectively. Work is being carried out on the introduction of the attendance system through special cameras. It should be noted that now students are very different from the previous ones. Now they have modern demands and needs, and the providers of modern higher education services should be worthy of them. Today, according to the main demand of the time, educational organizations, especially higher education organizations, should rely on new technologies such as flexible learning, artificial intelligence, UX-design, virtual or cyberspace in the development of their activities, augmented reality. At this point, it is necessary for higher education organizations to gradually move to the concept described as "University 4.0", in some cases "digital university" or "smart university".

Therefore, a modern digital university offers convenient opportunities that help students and teachers organize the teaching process and communications, automate digital recording and analysis without bureaucracy, competently design individual educational trajectories, and quickly respond to possible problems. and should provide services. Essentially, all related processes of a modern university should be established on the basis of digital technologies. This requires working with applicants, starting with the analysis of...
the educational process and the quality of education, and ending with the monitoring of employment and promotion of graduates. Reforms in the field of education are showing their results, our universities have achieved academic and financial independence, have the ability to define their goals and tasks, adapt to the requirements of the time, and train highly qualified personnel for today and the future. Continuation of the implemented reforms, the implementation of the laws and regulations adopted by educational organizations and the priority tasks in the higher education system indicated by the President of the Republic of Uzbekistan will ensure the high quality of education in our country. Serves to reach heights and, most importantly, to develop our young people into highly qualified personnel who can be competitive at the international level.

Conclusion

At the initiative of our president, the granting of academic and organizational, as well as financial independence for higher education organizations and the expansion of the powers of the Councils are the implementation of the state policy in the field of education, the provision of quality education services and the fulfillment of the tasks assigned by our government in this regard. It creates ample opportunities for the training of potential personnel who will determine the development of our country. It is recommended to use the presented comprehensively, taking into account the specific characteristics of lectures, practical and laboratory exercises. Modern methods and technological trainings that help to increase the effectiveness of education help to develop logical, mental, creative, critical, independent thinking in students, develop their abilities, become competitive mature specialists and educate positive professional qualities.

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