



## EFFECTIVE INDEPENDENT LEARNING METHODS OF IMPLEMENTING INNOVATION AND INFORMATION TECHNOLOGIES IN THE EDUCATIONAL SYSTEM

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<b>Received:</b> August 6 <sup>th</sup> 2023 <b>Accepted:</b> September 6 <sup>th</sup> 2023 <b>Published:</b> October 8 <sup>th</sup> 2023	From the point of view of modern teaching, the theory of innovative technologies is considered as an effective tool for students' learning and cognitive activity regarding the problematic approach in education. Thus, the activation of teaching is, first of all, the organization of students' actions aimed at finding solutions and solving specific learning problems in all academic subjects. Independent education means the organization of regular, independent and autonomous activity of the learning process in accordance with the subjective goal of the development of concepts, skills and competencies in an individual way. Therefore, teaching the general basics of the theory of educational technology in modern education, its laws, principles, purpose, content, tasks, objective and subjective factors, basic concepts and criteria with the help of information technology platforms.
<b>Keywords:</b> Education, information technology, information, educational technology, technique, method, innovation, modern platform, educational process.	

The importance of all laws on education in the Republic of Uzbekistan, the main goal and content of education have been fundamentally updated on the basis of innovative technologies. Modern innovative technologies are an integrally connected complex that implements the perfect improvement of the educational process, design, setting specific issues, and planned results.

The great Czech scientist Ya. A. Komensky, who left a deep mark in the field of pedagogy, believed that human knowledge has unlimited possibilities. He considered anything that a person could not know as a burden, and he believed that he (a person) could solve it alone, without outside help. As an example of this, we can cite the lines from his song "The Great Didactic": "...the examples of autodidacts (the science of self-education) clearly show that following nature, a person can perceive everything."<sup>1</sup>

"Innovation" (eng. innovationas — introduced innovation, invention) -1) funds spent on the economy to ensure the replacement of technology and technology generations; 2) means innovations in the fields of technique, technology, management and labor organization based on scientific and technical achievements and best practices, as well as their application in various fields and spheres of activity.<sup>2</sup>

The word "technology" comes from Greek - "techne" - skill, art, and "logos" means teaching, teaching or learning. He entered pedagogy from the field of production. From the point of view of production, the technology is appropriate for the object of work; It means mastering the art and skill of changing its state, characteristics, shape, etc. by affecting it.

The general basis of the theory of educational technology is its laws, principles, purpose, content, tasks, objective and subjective factors, basic concepts and criteria. The phrase "educational technology" means the English educational technology - the art and skill of teaching.

In Western Europe and the USA, the process of educating and developing a person is called "Educational process", and accordingly, in these countries, the expression "educational technology" is used more often than "pedagogical technology".

In the process of education, there are educational technologies that are optimized with teaching methods. Among them, the MOODLE system and the HEMIS system are developing from modern teaching platforms. The users of this platform are covered with scalable convenience. Provides a mobile and comprehensive opportunity for the teaching process. This approach to the understanding of the essence of independent education, depending on their functional purpose, makes it possible to consciously plan students and use them in the classroom as a reliable tool for their

<sup>1</sup> Ya.A.Komenskiy "Buyuk didaktika" kitobi 54-60 betlar

<sup>2</sup> O'zbekiston milliy ensklopediyasi I xarfi 199-bet.

development, education and upbringing. (HEMIS student information system) for topics corresponding to the modules on each subject page of the internet portal:

- methodological instructions;
- lecture texts and slides;
- materials for practical training;
- summaries;
- test, situational problem, picture test and other information are posted.

It is possible to replace, obtain and copy this data in any situation.

Educational innovations are forms, methods and technologies used in the field of education or in the educational process to solve existing problems based on a new approach and guarantee a more effective result than before.

Educational innovation is also known as innovative education. The concept of innovative education was first used in 1979 at the Club of Rome. Educational innovations are divided into several types. They are:

1. Depending on the type of activity: innovations used in the pedagogical process or in the management of the educational system.

2. According to the description of changes: radical, modified and combined innovations.

3. According to the scale of changes: network (local), module and system innovations.

4. According to the source of origin: innovations directly created or mastered by the team.

The goal is to obtain the highest possible result from the spent money and effort in the application of innovations in the educational system or educational activities. Innovation differs from any innovation in that it must have a changeable mechanism that allows for management and control.

In education, as in all fields, there is talk about novation, innovation and activities that represent their essence.

If the activity has a short-term, integral system characteristic and serves only to change some elements in the system, it is called novation (updating). However, if the activity is carried out on the basis of a certain conceptual approach, and its result serves the development of a certain system or its radical change, then it is called innovation.

Pedagogical innovation in the field of education in our republic is a previously unknown and previously unrecorded situation, the result looks at the quality of the changing content of the pedagogical reality that leads to the developing theory and practice. The process of informatization of the educational system embodies such important issues as the use of information and computer technologies for the purpose of effective organization of education, the use of modern technologies, and the preparation of young people to live in the conditions of an information society.

One of the most important areas of improving the education system is the use of information and communication technologies (ICT). Information is a set of information that we can receive through all our organs and their level of interconnection. Communication is a process of communication, a set of actions aimed at achieving a set goal is understood.

The goal of modern information and communication technologies is to produce information for human analysis and to make a decision on the performance of an action based on it. Therefore, the introduction of modern information and communication technologies into the educational system creates an opportunity to comprehensively guarantee the effectiveness of the lesson in terms of quality.

The implementation of information and communication technologies in the educational system, the maximum use of many modern technical tools in the fields of economy, science and education, overhead projectors, audio and video recorders, television, computer, scanner microphone, multimedia projector and copiers in the course of teaching creates wide opportunities to increase the effectiveness of education.

Information technology is the process of using tools and methods of data collection, processing, and transmission that bring information about an object, process, or state of events from one form to another, qualitatively completely new form.

Information culture is the ability to use all types of information technologies in the daily life and activity of the student in the educational and cognitive process. The educational system faces the task of forming and developing the culture of information acquisition and processing of students. In the successful course of this process, the teacher himself becomes a consultant, a guide, a manager of the educational process. The teacher entrusts information technologies with the functions of a source and distributor of information. In this case, the main issue is related to entering the world of knowledge, using and mastering the resources of this world. It is necessary for the student to learn new rules in the world of information, to receive information in all academic subjects, and to be able to process it.

In education, the methods of teaching and acquiring knowledge related to speech, words, and sound fall to the second level, and the methods of teaching related to imagination, shape, color, and image begin to move to the first place.

The emergence of global computer networks creates new, unique methods and forms of human communication, different from books, newspapers and television. These methods are now characterized by new forms of personal relations, new types of activities, thinking and a different way of self-awareness. Introducing information and communication technologies into education means solving some issues of self-education in modern society,

providing free and open access to education for every person throughout his life, taking into account his interests, abilities and needs.

Modern teaching technologies are complex interactive systems, which include the selection and development of educational goals, organization of the acquisition of professional skills and competencies, personality traits by students and the acquisition of knowledge, as well as the selection and development of educational goals, the determination of educational methods and tools. should be justified.<sup>3</sup> The collective application of the mentioned criteria determines the essence of the educational process and knowledge of its pedagogical and innovative technology in education. It is known that any pedagogical and innovative technology is based on new principles that develop education, and it should be directed to the formation of the student's personality. At the center of the new pedagogical technology are the teacher and the student, who are the leader of the educational process and the subject and object of this process. For this, the requirements for the educational process, the teacher and the educational process, the principles and ways of organizing and managing education, the methods of mental and physical development of the pupil-student, cooperation with him, directing him to study and learning, correct personal activity of the pupil-student should be equipped with methods of organizing, communicating with them, eliminating problems and disagreements, creating a creative and working environment in the auditorium, and clearly and correctly evaluating student activity.<sup>4</sup>

Another important requirement for the organization of modern education requires high pedagogical skills to achieve high results in a short time without spending too much mental and physical effort.

In short, on the basis of the introduction of modern information and communication technologies into the educational process, positive changes will occur in the teacher's pedagogical activity and create opportunities for the student to acquire knowledge in a convenient format.

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