



# **SCIENTIFIC AND THEORETICAL FOUNDATIONS OF INCREASING EDUCATIONAL EFFICIENCY BASED ON MODERN PEDAGOGICAL TECHNOLOGIES**

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## **Abstract**

This article provides a scientific and theoretical analysis of the role of modern pedagogical technologies in the education system, their impact on the learning process and their importance in increasing the effectiveness of education. It also highlights the advantages of interactive methods, information and communication technologies and innovative approaches, and considers the issues of their implementation in practice.

**Keywords:** Pedagogical technology, innovative education, interactive method, competence, information and communication technologies, quality of education, pedagogical approach.

## **Introduction**

Today, modernization of the education system, implementation of innovative approaches to the educational process and effective use of modern pedagogical technologies are among the urgent tasks. The radical changes taking place in the global education system require teachers not only deep theoretical knowledge, but also the skills to implement modern technologies in practice. Large-scale reforms are also being implemented in the education sector in the Republic of Uzbekistan. In particular, special attention is paid to improving the quality of education, training competitive personnel in accordance with international standards, and implementing innovative methods in the teaching process. This creates the need for scientific research of pedagogical technologies and their implementation in practice. Modern pedagogical technologies serve to develop

independent thinking of students, increase creativity, and connect knowledge with practice. Therefore, studying the scientific and theoretical foundations of the use of pedagogical technologies is of great scientific and practical importance.

### **Research methodology**

In the process of preparing this article, pedagogical observation, comparative analysis, scientific literature study, systematic approach and generalization methods were used. Also, scientific works of local and foreign scientists on modern pedagogical technologies were analyzed.

### **Main part**

The concept of pedagogical technology and its essence. The concept of pedagogical technology has been in scientific circulation since the second half of the 20th century and is currently one of the important components of educational theory. Pedagogical technology is interpreted as a system that ensures the preliminary design of the educational process, its organization based on a specific goal and the achievement of the expected result. The main goal of pedagogical technology is to increase the effectiveness of education, activate student activity, and create an environment of cooperation between the teacher and the learner.

Modern pedagogical technologies are based on the following principles:

- ✓ systematicity of education;
- ✓ goal-orientedness;
- ✓ effectiveness;
- ✓ interactivity;
- ✓ individualization;
- ✓ innovative approach.

The educational process organized on the basis of these principles increases students' interest in learning and develops independent thinking skills.

The role of interactive methods in the effectiveness of education.

Currently, interactive methods are recognized as a key component of pedagogical technologies. Through interactive methods, students become active participants in the learning process. As a result, the level of mastery of educational material increases.

The following interactive methods are widely used in practice:

- "Brainstorming" method;
- "Cluster" method;
- "Case-study" technology;
- "Boomerang" technology;
- "FSMU" method.

For example, the “Case-study” technology teaches students to make independent decisions by analyzing problem situations. The “Brainstorming” method serves to develop creative thinking.

The advantages of interactive methods are manifested in the following:

- student activity increases;
- independent thinking is formed;
- teamwork skills are developed;
- interest in the lesson process increases;
- practical skills are formed.

The pedagogical importance of information and communication technologies.

The development of information and communication technologies is also having a significant impact on the education system. Electronic educational resources, virtual laboratories, multimedia tools and online platforms serve to organize the teaching process more effectively.

Today, the use of distance learning technologies is expanding. This, while ensuring the continuity of education, creates convenient opportunities for students.

The use of ICT tools creates the following opportunities:

- ❖ rapid access to educational resources;
- ❖ organization of independent learning;
- ❖ explanation of the topic using multimedia tools;
- ❖ monitoring of the educational process;
- ❖ use of electronic control systems.

Also, lessons organized on the basis of digital technologies increase students' interest in the subject and improve the quality of education.

Competency-based approach and innovative education.

The competency-based approach is one of the important directions of modern education. This approach involves the formation of not only theoretical knowledge, but also practical skills and competencies in students.

Education organized on the basis of a competency-based approach serves to: solve problem situations, make independent decisions, develop communicative competencies, and form skills in working with information.

At the same time, innovative pedagogical technologies are also important in improving the professional skills of the teacher.

Advantages of modern pedagogical technologies.

The introduction of modern pedagogical technologies into the educational process gives the following positive results:

- The quality and efficiency of education increases.
- Students' independent learning skills develop.
- Time is effectively distributed during the lesson.
- An atmosphere of cooperation is formed between the teacher and the student.
- The harmony of theory and practice is ensured.
- An innovative environment enters the educational process.

Therefore, the introduction of modern pedagogical technologies into the educational process is one of the important tasks of today.

## **Results and discussion**

The analysis shows that lessons organized on the basis of modern pedagogical technologies are more effective than traditional teaching methods. The use of interactive methods and ICT tools serves to consolidate students' knowledge, increase their interest in the lesson, and develop independent thinking skills.

Also, in the educational process organized on the basis of a competency-based approach, students have the opportunity to connect theoretical knowledge with practical activities. This is an important factor in preparing specialists who meet the requirements of the modern labor market.

## **Conclusion**

In conclusion, modern pedagogical technologies are one of the important factors in the development of the education system. Their effective use can improve the quality and efficiency of education, develop independent thinking of students, and create an innovative educational environment.

Therefore, it is advisable for teachers to study modern technologies in depth, effectively implement them in the teaching process, and widely use innovative forms of education.

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