

## TEACHER SKILLS IN USING INNOVATIVE TECHNOLOGIES IN HIGHER EDUCATION

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**Abstract.** The article discusses the need to apply innovative technologies to the educational process, the skills of the teacher in this process, the effective use of innovative technologies requires a teacher, along with technological skills, pedagogical thinking, a creative approach and a readiness for continuous development, innovative technologies are considered an important factor not only in improving the quality of education, but also in the effective organization of the educational process, the professional skills of the teacher, the ability to use educational technologies and the pedagogical approach, the directions that provide for future changes in the content, form, methods and technologies of education according to the perspective of the education sector, the main tool in the practical application of innovative educational technologies, the perspective of innovative technologies in the educational process is not only the use of technical means, but also a radical renewal of the content, form and process of education, and the teacher is central in this process, innovative educational technologies are becoming not only a tool in education, but also a key factor ensuring development interpreted.

**Key words:** education, innovation, technology, necessity, student, knowledge, skill, qualification, process, control, demand, teacher, approach, quality, preparation, result, formation.

**Introduction.** The reforms taking place in the education system worldwide and the widespread introduction of digital technologies pose new challenges for teachers. Today, innovative technologies are an important factor not only in improving the quality of education, but also in the effective organization of the educational process. In this process, the professional skills of the teacher, that is, the ability to use new technologies and the pedagogical approach, play a special role.

According to the perspective of the education sector, it is a set of directions that envisage future changes in the content, form, methods and technologies of education. Innovative educational technologies are the main tool for implementing this perspective in practical life. The perspective of innovative technologies in the educational process is not only the use of technical means, but also a fundamental renewal of the content, form and process of education. The teacher is central in this

process. Thus, innovative educational technologies are becoming not only a tool in education, but also a key factor ensuring development.

The development of information and communication technologies (ICT) and the processes of digital transformation in the modern education system require a review of teaching methods and tools. The teacher should not be limited to conveying scientific knowledge, but should also fulfill the task of developing students' creative thinking, forming independent learning skills, and ensuring the effective use of modern technologies. This article discusses the importance of teacher skills in the application of innovative technologies in the educational process and issues related to its effective implementation.

**Main part.** The development of modern society in the field of science, technology and information requires qualitatively new approaches from the education system [3]. Innovative educational technologies play an important role in implementing this requirement. These technologies are aimed at organizing the educational process in a person-oriented, creative and active environment, and serve to effectively form the knowledge, skills and competencies of students [1].

In the current era of globalization, the education system must comply with international standards. Countries such as Finland, Singapore, Japan have achieved high results through innovative pedagogical approaches. The introduction of active learning methods instead of the traditional “teacher says - student listens” model increases the student’s ability to think independently, critically analyze and find solutions. In the information age, students must have the ability to work with ICT, use digital resources, and obtain knowledge from electronic sources. To effectively organize this process, the teacher must also have digital competence [4].

Modern education is result-oriented and aims to develop student competencies. This requires the use of innovative methods such as projects, case methods, clusters, mental maps, and STEM education.

The need to use innovative pedagogical technologies in education is determined by the need to develop in harmony with the development of modern society, science and technology [2]. Such technologies serve to improve the quality of education, strengthen the person-centered approach and make education competitive. The mastery of these technologies by teachers and their implementation in the practical process creates the basis for the formation of the future generation as knowledgeable, active and creative individuals.

Innovative technologies include the use of information and communication tools in the educational process, multimedia tools, virtual laboratories, electronic textbooks and online platforms. These technologies: visual and interactive organization of lessons; development of independent thinking and creativity in students; expansion of

distance learning opportunities; create the basis for the implementation of individual education [7].

Innovative technologies include the use of information and communication tools in the educational process, multimedia tools, virtual laboratories, electronic textbooks and online platforms. These technologies serve to effectively organize the educational process, develop independent thinking and creativity in students, expand the possibilities of distance learning and implement individual learning [6].

To effectively use innovative technologies, a teacher must have the following abilities and skills [8]:

mastering information and communication technologies: computer literacy, use of interactive programs.

methodological approaches: developing new teaching strategies and methods suitable for new technologies.

psychological preparation: adapting to a changing environment and being open to innovations.

leadership and initiative: working in a group, collaborating, managing innovative projects.

Innovative technologies have become an integral part of education. In modern education, it has become necessary to use tools such as information and communication technologies (ICT), multimedia, interactive presentations, virtual simulations, online platforms (Zoom, Google Classroom, Moodle). They make the educational process: effective and interesting; student-centered; comprehensively interactive and suitable for the needs of the new generation.

No matter how modern and functional an innovative technology is, how a teacher uses it affects the result. If a teacher: does not know the technology or cannot use it correctly; does not accept innovation; does not have a creative approach to working with students, then the effectiveness of the technology will decrease.

It is not enough for a teacher to know the technology technically, but also to know how to adapt it to pedagogical goals. It is important to constantly train teachers in the use of technology, improve their skills, and form their psychological readiness. Because any innovation requires: a new approach; a new teaching method; a digital learning environment [9].

**Results and Discussions.** With the increasing role of innovative technologies in education, the innovative activity of the teacher has also become one of the main criteria for determining the quality of education. This means that it is not good technology, but a teacher who can use it wisely, that produces high results. These experiences show that highly skilled teachers effectively implement such technologies, increasing the interest and level of knowledge of students.

Innovative educational technologies are a new, effective educational system aimed at restructuring the content, forms, methods and means of education based on effective ideas. They: create an active learning environment taking into account the personal characteristics of students; promote interactive, creative, research-based activities; provide an opportunity to integrate information technologies and an interdisciplinary approach.

For the effective integration of innovative technologies into the educational process, the following steps should be taken [10]:

Modernization of curricula: development of curricula that incorporate new technologies.

teacher training: organizing trainings and seminars for teachers on the use of innovative technologies.

infrastructure renewal: introducing modern computers, Internet communication tools and multimedia devices into educational institutions.

- development of methodological materials: creating electronic textbooks, video programs and interactive materials.

Improving teacher skills is a key factor in improving the quality of education. For this, the following measures should be taken [12]:

training courses: organizing training courses for teachers on the use of innovative technologies.

exchange of work experience: sharing the experience of advanced teachers with other teachers.

creative developments: supporting and popularizing innovative pedagogical developments of teachers.

Modern technologies - through distance learning, interactive lessons, digital resources and multimedia - make the learning process multifaceted and interesting. This increases students' interest in the lesson and forms independent learning skills [11].

Whatever innovation is introduced in education, its successful implementation depends on the teacher's skills [5]. The teacher's methodological knowledge, creative approach, psychological and information and communication potential are crucial in using technology. If the teacher does not have innovative competencies, the technologies will be ineffective

In most cases, even if educational institutions are equipped with modern technical means, the result will not be as expected, since teachers cannot use them correctly. This problem is a consequence of a lack of qualifications and training. Improving teacher skills is key to unlocking the potential of innovative education

When teachers' knowledge and skills in digital technologies are increased through continuous professional development courses, seminars and trainings, the educational process will be qualitatively updated and meet modern requirements.

Improving the quality of education and positive changes in student outcomes are observed. When analyzing the activities of schools and teachers that have introduced interactive lessons, online platforms, and virtual learning environments, it is observed that the level of students' knowledge acquisition is increasing, and their interest in education is increasing [13].

It is not enough to simply introduce technical tools; it is important to use them for the right pedagogical purposes. Teachers need special methodological manuals, developments, and spaces for sharing experience. A teacher needs flexibility, critical thinking, and creativity.

Modern education is changing, so every teacher must constantly update their knowledge and skills. Openness to innovation is the basis for success.

A clear strategy for innovative approaches is needed in the national education system. Much attention is being paid to the digitalization of education in Uzbekistan. However, this process must be developed in harmony not only with the provision of infrastructure, but also with full support for teacher skills. It is necessary to include innovative activity in the teacher evaluation system. Developing a system for evaluating and encouraging teachers' innovative activities (new methods, digital resources, projects) will lead to qualitative changes in education.

**Conclusion.** When introducing innovative technologies, the teacher should act not only as a user of the tool, but also as a creator and process manager. Therefore, the development of his professional skills and digital competencies is one of the main tasks of modern education.

The use of innovative technologies in the educational process has become not only a need, but a necessity. In this process, the teacher's skills, that is, the ability to accept innovations and integrate them into his professional activities, are the decisive factor. Therefore, improving the skills of teachers and organizing regular training seminars on innovative technologies will help bring the quality of education to a new level.

Today, in order to effectively use innovative technologies, a teacher, along with technical skills, is required to have pedagogical thinking, a creative approach and a willingness to constantly develop. Technology is only a tool, and its rational use is a skill. Therefore, the skills of a teacher are of decisive importance in improving the quality of education.

The use of innovative technologies in the educational process is an important means of improving the quality of education today. The skills of the teacher are of decisive importance in this process. Therefore, improving the ability of teachers to



effectively use innovative technologies will serve to adapt to the modern requirements of the education system and develop students' creative thinking.

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