

THE ROLE OF DIGITAL TECHNOLOGIES IN INCREASING THE EFFICIENCY OF EDUCATION AND EDUCATION

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Annotation. This article analyzes the role of digital technologies in the modern education system and the issues of their integration into the educational process. The main purpose of the article is to highlight the didactic capabilities of digital educational technologies, their role in increasing educational efficiency, and their impact on the development of digital competencies of students. The research used methods of theoretical analysis, pedagogical observation, and generalization of best practices. The results show that the systematic introduction of digital technologies into the educational process allows for the individualization of education, increasing the level of mastery of educational materials, and strengthening cooperation between teachers and students.

Keywords: digital technologies, educational efficiency, educational process, information and communication technologies, interactive education, digital competence.

РОЛЬ ЦИФРОВЫХ ТЕХНОЛОГИЙ В ПОВЫШЕНИИ ЭФФЕКТИВНОСТИ ОБРАЗОВАНИЯ

Аннотация. В данной статье анализируется роль цифровых технологий в современной системе образования и вопросы их интеграции в образовательный процесс. Основная цель статьи – осветить дидактические возможности цифровых образовательных технологий, их роль в повышении эффективности обучения и их влияние на развитие цифровых компетенций учащихся. В исследовании использованы методы теоретического анализа, педагогического наблюдения и обобщения передового опыта. Результаты показывают, что систематическое внедрение цифровых технологий в образовательный процесс позволяет индивидуализировать обучение, повысить уровень усвоения учебных материалов и укрепить сотрудничество между преподавателями и учащимися.

Ключевые слова: цифровые технологии, эффективность образования, образовательный процесс, информационно-коммуникационные технологии, интерактивное образование, цифровая компетентность.

Introduction. The global education system is undergoing a period of radical change. The main driving force of these changes is digital technologies. In modern society, digital technologies are deeply penetrating not only the production sector, but also the most

important sector that forms human capital - education [2]. In the Republic of Uzbekistan, the digitization of the education system and the introduction of advanced information and communication technologies into the educational process have been identified as one of the priorities of state policy.

Digital educational technologies are understood as a set of electronic means of creating, transmitting, storing and processing information, software, and teaching methods based on them. The traditional education system often faces limitations in fully taking into account the individual characteristics of students, encouraging them to independent research, and equipping them with modern professional skills. Digital technologies serve as a powerful tool in solving these problems [3].

The significance of this article is that it analyzes the impact of digital technologies on the educational process not only as a technical tool, but also from a pedagogical and psychological perspective, that is, from the point of view of their role in shaping the personality of the student. The main task of the article is to reveal effective methods of integrating digital technologies into education and their educational significance.

Methods. A number of theoretical and empirical methods were used during the study. First, a systematic analysis of domestic and foreign scientific and methodological literature, scientific articles and dissertations on digital educational technologies was carried out [2]. In this process, the development trends of digital technologies in education, their classification and areas of application were studied.

Secondly, the didactic possibilities of traditional education and education based on digital technologies were compared using the method of comparative-critical analysis. Thirdly, using the method of pedagogical observation, the progress of lessons using digital technologies (electronic boards, educational platforms, simulators) in secondary schools and higher educational institutions, the interest of students in the lesson and the level of mastery of the material were monitored.

Also, based on the method of generalization of advanced pedagogical experiences, the work experience of educational institutions that have successfully introduced digital technologies was studied and effective approaches were systematized. The educational process of Bukhara State Pedagogical Institute, Navoi State University, Urgench State University, Termez State University, and Gulistan State University was selected as the object of research, and practical work on the use of digital technologies in these institutions was analyzed [4].

Results. The results obtained during the study showed that the role and importance of digital educational technologies in the educational process are manifested in several main aspects.

First, the enrichment and convenience of educational content were observed. With the help of digital technologies, students had the opportunity to use not only textbooks, but also electronic libraries, virtual laboratories, video tutorials and international scientific databases. This made it possible to obtain deeper and broader information on the topics being studied.

Secondly, the interactivity and personalization of education increased. While in traditional lessons the teacher is forced to work with all students at the same time at the same pace, digital platforms (for example, Google Classroom, Moodle) allow each student to gain knowledge along an individual trajectory and review unlearned topics. It was found that in the lessons observed during the study, interactive tests and gamified tasks significantly increased students' interest in the lesson.

Thirdly, students' digital competencies have been developed. Activities such as information search, information analysis, presentation preparation, and project defense during the lesson have laid the foundation for the formation of modern professional skills in students. The table below provides a comparative analysis of traditional and digital education (see Table 1):

Comparative analysis of traditional and digital learning methods

Table 1

Criteria	Traditional education	Digital education
Information source	textbook and teacher	Electronic resources, internet, platforms
Teaching method	Reproductive (ready-made knowledge)	Interactive, creative and independent
Assessment system	Final control	Continuous and automated monitoring
Listener activity	Passive listener	Active participant and researcher

Fourth, the educational process has improved. Digital technologies have taken not only the provision of knowledge, but also educational work to a new level. Remote quizzes, online cultural events, and trips to virtual museums have been observed to play an important role in shaping students' aesthetic taste and educating them in the spirit of patriotism.

Discussion. The results show that the role of digital educational technologies in the educational process today is not only an auxiliary tool, but also one of the main factors guaranteeing the quality of education. As Orishev J. B. and Achilov S. T. noted in their research, digital technologies play an important role in automating the educational process, establishing electronic control, and increasing the cognitive activity of future personnel. This idea was also confirmed by our observations [1].

However, the process of introducing digital technologies also causes a number of problems. In particular, Murodov O.T. indicated the insufficient development of the methodology for using technologies in the educational process and the low digital competence of teachers as existing problems. This means that simply introducing digital

technologies into the lesson is not enough, but it is necessary to create new pedagogical approaches based on them. The experience of Oxbridge School shows that digital integration can only be successful through planning and special training of teachers.

When discussing the importance of digital technologies in education, one should not forget about their duality. On the one hand, they open the door to a limitless world of information, on the other hand, they can cause negative situations in students, such as addiction to the virtual world and a decrease in live communication. Therefore, pedagogical skills and norms are of great importance in the use of digital technologies. They should be used in harmony with the educational process, not in isolation.

It is advisable that future research be focused on improving the methodology for organizing educational work in a digital environment, the role of artificial intelligence tools in education, and the creation of models for developing teachers' digital competence.

Conclusion. In conclusion, the role and importance of digital educational technologies in the educational process are incomparable. They:

- enrich the content of education and present it in a more convenient form;
- activate the independent learning activities of students;
- allow the educational process to be adapted to the individual needs of each student;
- form digital skills in students that modern society requires;
- serve to organize educational work in new, interactive forms.

Digital technologies are a powerful tool that radically reforms the education system. However, in order to obtain high efficiency from them, it is necessary to improve the skills of teachers, strengthen the material and technical base, and most importantly, combine digital tools with the best traditions of traditional pedagogy. Only then will digital educational technologies become not only a means of imparting knowledge, but also an important factor in raising a well-rounded generation.

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