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THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE EDUCATIONAL PROCESS

Annotation. Peculiarities of learning with the use of information and communication technologies, directions of application of information and communication technologies in the educational process, purpose of modern technologies, main advantages of ICT implementation are analyzed, researches of modern domestic and foreign scientists on this issue are analyzed. with other teaching aids, conclusions are drawn.
Keywords: information and communication technologies, educational process, methods.

Information and communication technologies have become an integral part of modern human existence and the world at large. They are the basis that largely determines the opportunities for social and economic development.

Prominent scientists, namely P. Obraztsov, O. Koval, A. Velikhovska, V. Bykov, M. Golovan, M. Zhaldak, V. Izvozchikov, T. Zaitseva, O, devoted their research to the issue of realization of information and communication technologies in educational activity. Matvienko, N. Morse,, S. Rakov, A. Penkov, O. Spivakovsky and others. Psychological aspects of the use of ICT in the learning process were described in detail in the works of S. Smirnov, A. Pyshkal, V. Bezpalko, V. Lyaudis, Y. Mashbyts, I. Synelnyk and other researchers.

Information and communication technologies (ICT) are methods related to the processing, management, creation, storage and transmission of information.

The main feature of learning with the use of information and communication technologies is the direct use of the computer as a teaching tool that radically changes the system of methods and forms of teaching disciplines. At the same time, the use of ICT in the learning process is not an end in itself, but a pedagogically sound approach that will provide important advantages over traditional technologies of organization of the educational process [6, p. 186-190].

According to many scholars, the introduction of computer tools in the educational process has expanded the theory and methods of education through the use of new teaching aids. The main areas of application of ICT in the educational process are:

- development of methodical and didactic materials (presentations, images, animation, etc.);
- management of the educational process of higher and secondary school;
- purposeful search of educational information on the Internet;
- conducting an experiment with the help of computer models, mathematical processing of experimental results;
- organization of intellectual leisure of students;
- development of web-resources for educational purposes (distance learning, mass online courses);
- development and implementation of pedagogical software [5, p. 132].

Pedagogical practice has shown that the use of ICT can significantly increase the effectiveness of the educational process during the independent performance of students' work, in

lectures, laboratory, practical and seminar classes. Thus, the problems of using ICT to improve the educational process are designed by S. Sharov, who notes that the introduction of information and communication technologies in the educational process promotes better learning, provides objective self-control and self-examination of knowledge, helps to form relevant professional competencies and personal qualities, allows to provide a differentiated approach, etc.

Trends in the rapid development of scientific and technological progress encourage teachers to implement innovative teaching methods and use and adapt these technologies to modern conditions in the educational process, but the main problem remains the quality, feasibility and balance of modern ICT and proven classical technology.

The purpose of using modern technologies should be the development of cognitive activity of students in the process of designing professional training of future teachers, convincingly and expediently identify possible and most rational directions of combining traditional methods and innovative technologies in teaching.

Here the main goal is to take into account the educational activities of teachers and cognitive activities of students through the introduction of modern teaching aids, including information and communication technologies [1, p. 12-15].

In my opinion, it is very important that this process is based on the active cognitive activity of students and form an active personality of the future highly professional teacher.

Informatization of society, as recorded in modern literature, provides: active use of intellectual potential, which is constantly expanding, concentrated in scientific, industrial and other activities of its representatives; connection of information technologies to scientific and industrial spheres, increase of level of intellectualization in labor activity; high level of information services, availability of sources of truthful information, visualization of the provided information, reality of the used data.

The main advantages of ICT implementation are significant acceleration of knowledge exchange and accumulated social and technological experience for the subjects of the educational process; current ICTs, which improve the quality of education, allow students to adapt more effectively and better to environmental conditions and social change; ICTs have a very strong positive impact on educational activities, as they provide new opportunities for the introduction of new ways of learning.

Certain problems in the use of ICT in education arise due to the lack not only of a methodological basis for their use, but also of a methodology for the development of ICT for education, which requires teachers to focus in practice only on their own experience and empirical experience.

Changes in the structure of the educational process related to the introduction of ICT tools should concern not only themselves, but also the modernization of the didactic education system to take into account new tasks, learning and penetration of new technical educational resources in higher education technology.

One of the main characteristics and advantages of ICT compared to other educational tools is that multimedia programs are mostly designed for independent active perception and acquisition of knowledge, skills and abilities of students [2, p.459]. The very construction, didactic orientation and solution of the educational problem provide active mental activity of the participants of the educational process. They can choose the optimal pace of work with a multimedia program according to individual mental, psychological and physiological abilities and interests.

The use of modern information technologies in education is one of the most important and sustainable trends in the world educational process.

In recent years, computer technology and other ICT tools are increasingly used in domestic schools in the study of most natural sciences.

New ICT learning can intensify the learning process, increase the speed of perception, understanding and depth of learning a wide range of knowledge. Programs are mainly designed

for independent active perception and acquisition of knowledge, skills and abilities of students [4, p. 206].

Therefore, it should be concluded that the implementation of ICT opportunities in the process of their use in the educational process in the training of future professionals contributes to the simultaneous learning and personality formation of each student, which corresponds to the modern paradigm in education and their active implementation in the study of professional disciplines. curricula and programs, contribute to the improvement of professional training in the integration of theoretical and practical components.

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