

## TECHNOLOGIES OF DISTANCE LEARNING IN THE FORMATION OF PROFESSIONAL COMPETENCE OF STUDENTS IN PEDAGOGICAL PRACTICE

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**Annotation.** *The article presents the necessity and advantages of using digital technologies in the educational process and statistics on the use of distance learning. The use of digital technologies and the need to introduce new generation systems of distance learning, the fact that learning new skills or subject-related materials through the distance learning system is faster, easier and cheaper is covered in detail.*

**Key words:** *digital technologies, digital teaching and learning system, Internet network, distance learning, distance platforms, mobile devices.*

The introduction of modern information and communication technologies into the educational process has led to the creation of a new form of education - distance learning, in addition to traditional teaching methods. Modern technologies create the basis for the new organization of distance higher pedagogical education. The modern education system requires the teacher to be ready for the distance learning system, that is, to have mastered advanced teaching technologies (Internet, Case, TV-technologies, etc.). Automation of higher education organization management, introduction of information and communication technologies into the educational process is one of the main directions of the “Program for the comprehensive development of the higher education system in 2017-2021” approved by the President of the Republic of Uzbekistan. Also, individualization of educational processes based on digital technologies in the Concept approved by the decree of the President of the Republic of Uzbekistan dated October 8, 2019 “On approval of the concept of the development of the higher education system of the Republic of Uzbekistan until 2030” No. PD5847, development of distance learning services, wide introduction of webinar, online, “blended learning”, “flipped classroom” technologies into practice, based on the uniqueness of educational areas and specialties, widely used in the educational process at the international level “developing the use of modern software products, sharply reducing the number of various reports and data received from higher education organizations, abandoning the paper form of their preparation, ensuring the electronicization of the management system and educational processes, library and document circulation” Step-by-step transition to the “Electronic University” platform, introduction of an electronic system for monitoring the effectiveness of the participants of the educational process is defined as the main task.

Distance learning uses different educational models, but they all have one thing in common, which is that all students and teachers are separated by distance. Different models of distance education, like all types of education, have been developed. The main components of this educational process are:

- description of the content of science;
- performance of practical assignments;
- direct and indirect communication with teachers;
- control and assessment of student knowledge.

Each model uses similar content and technologies that implement it. Different models of distance education differ not only in the technologies used, but also in the level of responsibility and management of teachers and students. In some models, the teachers and the educational institution completely retain the function of managing the educational process, just as it is taught in the classrooms of the traditional educational system. In other types, the management of education is transferred to the learners. The historical analytical research of scientific sources showed that many authors paid attention to the creation of distance education models, including the team led by E.S.Polat, who presented 6 models in their monographs[1].

At present, these models of distance learning are being used in educational institutions of developed countries in the world.

The use of modern information technologies in the educational process has an effective effect on increasing the effectiveness of educational methods, changing the work of teachers, improving their pedagogical skills, and structural changes in pedagogical systems. This sets specific tasks in the organization and management of informationalization of pedagogical processes. Effective organization of pedagogical education processes on the basis of modern information technologies creates an opportunity to improve the cooperation of the team that creates distance learning courses and electronic literature, teachers, computer programmers, and relevant specialists, and to improve the organization of the education and training process. .

E-books and manuals created in the distance education model based on the cooperation of several higher education organizations are, on the one hand, scientifically perfect and of better quality, and on the other hand, they cost a little less economically. This form of distance education was developed by the English-speaking countries of the European continent under the program “Cooperation in education” (Commonwealth of education - 1997) in cooperation with Great Britain. As a result, citizens of English-speaking countries in Europe had the opportunity to study at universities and colleges of these countries through a specially organized distance education telecommunication system.

Specially organized systems in distance education models, organized in cooperation with specialized educational institutions, are designed for correspondence and distance learners and operate as a result of extensive use of new educational technologies. In this form, in addition to the telecommunication system, multimedia courses are widely used, and as a result, in addition to teaching students, the opportunities for evaluating and certifying their knowledge are expanded. The economic advantages of this form are as follows:

- electronic textbooks prepared on the basis of a single program are used in several educational institutions operating in cooperation;
- allows students studying in different forms of education (full-time, part-time, distance) to use e-books prepared in relevant subjects based on a single program;
- generalization of student knowledge assessment and attestation in the program saves study hours and excess costs.

The cost of creating distance learning programs and e-books is shared between several cooperating educational institutions. This aspect, of course, serves to reduce the value of distance learning contracts. Educational institutions that are widely used in the form of distance learning organized in cooperation with such specialized educational institutions include the National University of Technology in Colorado, the United Kingdom, the Open University of Great Britain, the Open University of London, the National Distance Learning University of Spain, Indira Gandhi University of India can be cited as an example.

Currently, teaching subjects using computers is gaining importance. The possibilities of computer technologies can be effectively used in the personal development of students and the development of their creative abilities. Educators use the computer not only in the preparation of methodical materials for the lesson, but also in the use of computer programs necessary for teaching science, and in the process of individual work with students. Also, it should be mentioned that the distance education method based on video conference technology requires a high-quality channel and special devices, so it is considered to be one of the methods that require more money financially than other methods of distance education.

Distance learning technologies depend on the fact that many of today's young people, that is, the new generation, can freely use a personal computer, and now every educational institution, every person skillfully uses the Internet and the information on it. In the process of getting into this topic, it is appropriate to dwell on the existing international experiences of distance education and to consider its main didactic concepts. In particular, we often find that e-learning, distance learning technologies, and similar concepts are listed. We will try to find detailed answers to the questions of whether these concepts are similar, whether there are differences between them, whether they replace each other, and whether they can be combined.

The term "distance learning" has been used by the University of Wisconsin since 1892 for correspondence courses. Distance education is defined as education organized at a distance. "Correspondence education", "studying at home" and others were considered synonymous with it.

A number of institutions and scientists have conducted research on distance education in foreign countries and expressed different opinions about distance education. Experts of the American Distance Learning Association understand distance learning as teaching using electronic tools and published manuals to organize the learning process while the learner and the tutor are in different geographical locations. One of the foreign specialists in the field of distance education, in explaining the term "distance education", indicates two main features of the distance education process: the teaching is in the form of a publication and in the video or audio-written way, while , emphasizes that the organization of communication is communication at a distance with various modern technical means. Also, distance learning by specialists such as scientists and leading experts of the CIS countries A.A.Andreev[2], Ye.S.Polat, A.M.Bershadsky, V.M.Monakhov, V.A.Slastenin[3], V.P.Tikhomirov, I.K.Shalaev, A.V.Khutorskaya, M.V.Moiseeva concept and other terms related to it are widely analyzed. E.S.Polat describes distance learning as a learning process in which tutors and students and students interact with each other at a distance and through Internet technologies or special tools specific to other interactive technologies. emphasizes as an independent form of education that reflects all the components (goals, content, methods, organizational forms, educational tools). Analyzing various definitions, A.A.Andreev[2] found that distance education is a unique special activity, which is invariant to their location in space and time. comes to the conclusion that it is a goal-oriented, organized process of interactive activities carried out in the didactic system. According to V.P. Tikhomirov [4] and others, distance learning means such an educational technology in which the tutor and the learner are located in different places, and case technology, TV technology and network technologies are used as a teaching tool. . In the work of M.V.Moiseeva [5], it is explained that distance education is a type of distance learning, that is, maximum use of computer telecommunications, modern new information technologies, and active information exchange among all participants of the educational process. Summarizing these points, experts define distance education as the relationship between the tutor

and the students that is carried out remotely and is carried out with specific means of Internet technologies or other means of interactivity inherent in the educational process (goal, content, method, form, tools) are emphasized as a form of education.

E-learning - information available in the database and used in the implementation of educational programs and information technologies that process it, technical tools and transmission of the indicated information along communication lines, students and pedagogical staff is to organize educational activities with the help of information and telecommunication networks that ensure mutual activity.

E-learning refers to learning and teaching activities in a specific electronic information-educational environment, the entire process of education. E-learning requires a knowledge base. In order to implement electronic education, it is necessary to create a virtual environment that helps to organize the access to electronic educational resources and the joint activities of the learners with the pedagogic staff. Therefore, the concepts of "distance learning technologies" and "e-learning" do not mean the same thing and can be used separately. Only in the implementation of electronic education, distance learning technologies are necessary and necessary. Another term that has been established in this field for a long time, although not officially, is e-learning (abbreviation of electronic learning). In the foreign education system, this term appeared at the end of the 20th century and is used as a result of the integration of distance and traditional education. Currently, this term refers to teaching using modern information technologies and the Internet. E-learning is the most promising direction of open education development. Its motto is "anywhere, anytime". It is clear that "e-learning" and "electronic education" are not the same concepts. At the same time, "e-learning" is a term that is generally accepted, but is not found anywhere in official sources. Thus, it is possible to teach different concepts of distance education technologies, distance education, and electronic education from existing literature. In this research work, distance education, that is, the relationship between the tutor and students, which is carried out remotely and is carried out with the specific tools of the Internet technologies inherent in the educational process, or all components that provide for interactivity (goal, content, method, form, tools) is considered as a form of education.

Despite the fact that experts in the field have different opinions on the characteristics, almost all authors point to the following main characteristics of distance education: flexibility, modularity, convenience, economic efficiency, speed of communication, breadth of coverage, technology, social equality, the new role of the tutor, the improvement of quality. makes the following comments about specific controls:

1. Flexibility - the ability to choose and implement the educational process in accordance with the time, place and duration of study. In the distance education system, students do not attend continuous classes in the form of lectures and seminars, but have the opportunity to work at a convenient time, place and speed.

2. Modularity - the content of distance learning presented in modules allows the learner to create an individual educational trajectory in accordance with the need for personal learning.

3. Convenience - it does not depend on the place of residence and economic opportunities of the students;

4. Economic efficiency - economic efficiency, costs of the educational institution (utility costs, cost of occupied space, etc.) and student costs (travel, accommodation costs, etc.) are reduced. The cost of educational services can be reduced by approximately 50-60% compared to the traditional one.

5. Speed of communication - availability of quick feedback between the tutor and the learner.

6. Broadness of coverage - i.e. distance learning does not require an auditorium or a room intended for a certain number of learners, so it is possible to cover any number of learners with distance learning.

7. Technological - effective use of new information and communication technologies in the study process.

8. Social equality - the same conditions and opportunities created for everyone in distance learning, regardless of their health and socio-economic conditions.

9. Internationality - the availability of convenient and fast opportunities for exporting and importing world achievements in the market of educational services in the implementation of educational goals and tasks.

10. The new role of the teacher is that the tutor is a special psychological-pedagogical and information-communication technology environment that organizes the independent learning activities of students, and is a consultant-mentor in their personal and professional development.

A unique control of the quality of education - in distance education, distance exams, interviews, practical, course and project work, externships, computerized intellectual testing systems are used as a form of control. It should be emphasized that the quality control of distance education is important for the success of the entire system of education, the solution of problems, and compliance with the standard of education. Thus, the basis of the distance learning educational process is the goal-oriented and controlled intensive independent work of the learner. He can study independently in a place convenient for him according to the set schedule, communicate with tutors by phone, fax, e-mail. One of the unique features of distance learning is that the learner actively works independently with a computer without a teacher, which in turn requires the learner to use modern telecommunication tools. According to scientists, the new term "distance education" is related to the effective use of telecommunications and modern information technologies in pedagogical processes, which provides an opportunity to manage the educational process more effectively.

When thinking about its advantages, distance learning certainly has a number of advantages and advantages compared to traditional teaching from the organizational-pedagogical, content, technological, financial, and individualization and differentiation aspects of education.

Based on all the points mentioned above, the advantages of distance learning in the educational system are as follows:

- distance learning is open, it creates educational opportunities for everyone;
- distance learning serves to satisfy the learner's need for learning and increase their intellectual potential;
- distance education allows to use educational programs of different levels;
- distance education provides an opportunity to solve the tasks of individualized and differentiated education;
- distance education gives the learner the opportunity to study without changing his place of residence and without leaving work;
- the advantage of distance education in personnel training, it provides an opportunity to increase the level of the tutor's professional skills, compensate for the lack of employees and reduce periodic repetition of the training course.

When talking about the organizational forms and software of distance education, the introduction of modern information and communication technologies into the educational process leads to the creation of a new form of education - distance education, in addition to traditional teaching methods. It should be noted that it was a factor. In distance education, the student and the teacher are in constant communication with the help of specially created educational courses, control forms, electronic communication and other technologies of the Internet, while being separated from each other. Distance learning based on the use of Internet technology provides access to the global information and education network, performs an important series of new functions with the principle of integration and interaction. Distance learning provides an opportunity for continuous improvement of skills for all those who want to learn. In the course of such training, the student learns independent teaching-methodical materials in an interactive mode, passes control, performs control work under the direct supervision of the teacher, and communicates with other students of the “vertical learning group” in the group. Distance learning uses various information and communication technologies, that is, each technology depends on the purpose and nature of the issue. For example, while traditional print-based teaching aids (study guide, textbooks) are based on introducing students to new material, interactive audio and video conferences are based on interacting during a certain period of time, via e-mail. Designed to establish forward and reverse communication, that is, to send and receive messages. Pre-prepared video lectures allow students to listen to and watch lectures, and fast exchange of faxes, messages, assignments over the network allows students to learn through mutual feedback. Based on the above, we will give descriptions and definitions of some terms that are repeatedly mentioned in the educational process.

Distance education is a form of education based on information and telecommunication technologies, such as part-time and full-time education, including the best traditional and innovative methods, teaching tools and forms. Distance learning is an educational system based on new information technologies, telecommunication technologies and technical means. It provides the learner with educational conditions and training based on certain standards and educational regulations.

It is a system that requires the student to engage more independently while providing communication with the teacher. In this case, the learning process does not depend on the time and place of the student. Distance learning is an educational complex based on means of exchanging educational information at a distance. Distance learning system is an education system organized on the basis of distance learning conditions. Like all educational systems, the distance education system has its own structural purpose, content, methods, tools and organizational forms.

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