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### Features of the Use of Distance Learning Technologies in Education

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#### ABSTRACT

Distance learning is actively spreading all over the world. This form of conducting classes incorporates computer and Internet learning technologies, connects the teacher and the student. You can study remotely, practically, in any course. Although, as you know, distance learning has emerged as a condition for teaching exact and technical disciplines. Distance learning is optimally suited for the development of professionally and informationally significant competencies, personal development, the formation of system thinking, the organization of independent work of students.

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#### Introduction

E-education can be called education obtained with the help of information and communication technologies, which are designed to provide effective access to educational resources; interactive interaction of students and teachers; as well a san assessment of their knowledge and skills in the learning process. The concept of "on-demand education" means that a person can get any education depending on the needs and challenges of the time. There are people who can study and work only at home.

Development of the Internet and the electronic environment in general opens up new opportunities for this category of the population. Because they, like all citizens, have the right to education and work.

Distance learning technologies allow you to improve professional qualifications in accordance with the

interests and needs of students, get an education directly at the place of residence, reduce the cost of training compared to other forms of education. This form of training has a lot of advantages: constant availability of educational materials; the ability to devote more attention to important topics for indepth study. Citizens living in different cities and countries of the world can receive education in a narrow-profile direction, for example, oil and gas, which does not require large financial and time costs. If an ordinary part-time student learns the basics of knowledge independently, with the help of textbooks, and can ask

questions to teachers only two or three times a year, then a person studying remotely using the Internet has constant contact with teachers in the on-line or off-line mode. In modern conditions, the public system sets before education the task of providing each of its members with open access to educational technologies throughout their lives, taking into account their interests and abilities, while ensuring adaptability to changing living conditions, depending on the high speed of information flows and the changing situation on the labor market. Such education is distance education, which is currently being actively introduced into the practice of the Russian educational system.

#### Methods and materials

Distance education is not an innovative educational model, since France was one of the first to introduce a distance education system, having founded it in 1939 National Center for Distance Education CNED (Centre national d'enseignement à distance). This center provides training for applicants of almost any age, and also organizes preparatory courses and advanced training courses in various areas, providing assistance in mastering the main (school or university) program, but not being a substitute for it. In addition, the first on-line university was organized in France, where students receive knowledge in various areas using video communication capabilities. As for Germany, there is a virtual institute in the German education system – Virtuelle Fachhochschule, representing a kind of association of 15 German and 4 Swedish universities, which offers higher education in a number of applied sciences. Most often, students choose legal, electrical engineering and information and communication specialties.

When implementing distance education programs, it is necessary to study the experience of countries that use this model in their educational system. Thus, distance education involves the following types of training sessions and the educational products and training tools necessary for their implementation:

- ➤ algorithmic assimilation of knowledge-training based on the development of algorithms of professional skills (working textbook, training computer programs, test training);
- > overview training involves the use of videos, audio lectures, satellite lectures, slide lectures;
- ➤ glossary-type training a system of memorizing facts and concepts included in professional dictionaries;
- developing training involves completing homework, term papers, written creative works, writing essays, participating in collective trainings;
- ➤ knowledge control is represented by standard or pre examination testing.

Since distance education technology implies the existence of an extensive network of training centers of the University developed telecommunication links, the most important information knowledge base is a powerful electronic library, accumulated, as a rule, the Central University and submitted through software ensure each training center, allowing the student to easily search, to request and obtain the

necessary electronic resource. The digital library, most often, functions within the framework of information and satellite educational technology and provides an effective access of students and teachers to information content presented in the form of scientific, educational and reference literature, as well as magazine and newspaper articles. The digital library allows you to securely store and quickly distribute information, and most importantly, it allows you to transform information for more efficient and flexible use.

One more feature of the technology of distance education is the system of providing students with educational products, which consists of electronic cases recorded on CD-ROMs containing several dozen electronic working textbooks, syllabuses of video and audio courses. The use of information and telecommunications means allows us to create an optimal model of an individual educational planning system, which involves electronic control of knowledge acquisition, carried out in the form of monitoring. All training sessions are monitored, in particular, testing is carried out on training computer programs or the result achieved during the lesson is recorded. After all the training sessions included in the standard set of this module are certified with a positive result, testing is carried out for the entire module as a whole.

Thus, distance education programs implemented different universities have the same features and characteristics, one of which is the use of telecommunications technologies in the educational process, which allows to pass the course learning at home, and opens up opportunities for all categories population (people with disabilities employed in production, etc.). At the same time, the practice of Western countries shows that distance education is additional there and cannot replace the diploma obtained during the development of a full-time educational program. In any case, distance learning programs provide ample opportunities to replenish your knowledge base and improve your professional qualifications. Television (PBS-TV) is also working on distance education programs in the United States today. Adult education program since 1990 it interacts with 1,500 colleges and local stations, offering courses in various fields of science, business, and management. PRE-courses transmitted on four TV-educational channels are available throughout the country and via satellite in other countries. Outside of North America, distance education is mainly developed by «open» universities that are funded by the government. Distance learning is no less popular in European countries. For example, at the open University of the German city of Hagen, you can remotely get not only higher education, but also improve your qualifications and even get a doctorate degree. Distance learning centers and «summer universities» are very popular in Finland, the number of students studying here exceeds 30,000 people. Universities in the UK practice postgraduate degree programs using distance education methods. The largest of them is The Open University (The Open University). At the same time, about 150 thousand students from all over the world study here. Due to the high level of graduate training and the effectiveness of distance learning methods, the university is one of the most prestigious in the world. Spanish National University of Distance Education (Universidad National de Educacion a Distancia UNED), includes 58 educational institutions centers in the country and 9 abroad. In the UK, more than 50% of Master's degree programs in management are conducted using DO. The leading organization in this field is the Open Business School of the British Open University. At this stage, e-higher education programs are being developed in more than 30 countries, including third world countries. At the same time, differences caused by different cultural and pedagogical traditions are taken into account. Asian countries today offer unique educational modules, courses and programs for pre-school education in the educational services market, new technologies and approaches to distance learning are being developed and highly appreciated in the region at university faculties. Today, there are 70 universities operating in Asia, including 7 of the 11 largest universities in the world, each with more than 100,000 students. Internet space promotes the unification of efforts in the development of both pedagogical technologies of distance education and information, as well as the exchange of experience in the field of making effective management decisions.

Development of distance learning in the global educational space in the long term is aimed at providing an opportunity for everyone to study the educational program of any educational institution in any popular discipline anywhere in the world. This is also evidenced by the fact that such well-known computer companies as Novel, Microsoft, IBM, Apple, DEC, Sun and others participate in the development of software for the largest educational networks in the world.

Thus, in recent decades, developed countries have constantly strengthened their positions in the world market of educational services, while how developing countries actively overcame the lag in the development of this sector, which is a key link for economic and social stabilization.

#### Results and discussion

The use of information computer technologies in distance learning allows you to solve a number of important pedagogical objectives: improving the information security of participants the educational process; professional interest and motivation with virtual work and the application of modern computer technologies; improving the efficiency of the learning process by individualizing process, as part of an established graphics the student can independently adjust the tempo study materials.

As a result, as a rule, the most purposeful and organized students who have fulfilled the requirements of the educational program complete their studies. As recommendations for improving the effectiveness of perception of educational and methodological materials, the following should be noted. First, experience shows that it is very effective to place a simple accompanying note in the electronic system with

Internet links and short guidelines for studying the course.

Secondly, the method of taking notes is still a fairly effective method of teaching today. Unfortunately, at present, the presence of a book or an electronic version for a student of any form of education can help reduce the motivation for memorization and study. Students should reread particularly important and complex topics from books or printed materials, since it is known that the non-linearity of information perception, characteristic of electronic educational and methodological complexes and the electronic environment by definition, in some cases can make it difficult to perceive and remember. From our point of view, personal interaction between a teacher and a student in the form of consultations through telecommunications systems or on-line through text systems increases the level of psychological and informational comfort, and, consequently, the effectiveness and quality of training.

According to the «Methodology of distance learning technology (distance learning) in educational institutions higher professional education» distance learning «the combination of educational technologies, which focused mediated or not fully mediated by the interaction of the student and the teacher, independently of their location and distribution in time, based on pedagogically organized by information technology, especially with the use of telecommunications and television»[1]. Distance learning technologies are implemented through the use of information and telecommunications technologies with indirect or not completely indirect interaction between the student and the teacher

through the use of case (portfolio) technologies, Internet technologies and television and satellite technologies. As an independent form of training, information technologies are the leading means in this type of training, while individualizing the entire learning process and increasing its interactivity. But with using distance learning in practice raises many questions and problems. The main problem is the lack of direct contact between the teacher and the student, because electronic resources cannot replace live communication, without which the training loses its efficiency; after all, electronic funds can not fully convey both verbal and non-verbal forms of speech, emotions, feelings, conditions that may must charge of students, stimulating their learning and creative activity.

You can diversify the tools of communication between a teacher and a student, optimize the means of delivering and processing educational information, but they are not able to replace the value of human communication. After all, learning is not only the transfer of knowledge, but also the comprehension and understanding of it. The role of the teacher in this case is the leading one. Although, there are studies that prove that the quality and structure of training courses, and the quality of teaching in distance learning is much higher than in traditional forms of education.

The next problem is the problem of monitoring educational activities. In the traditional education system, knowledge control is characterized by systematic and regular implementation, a variety of methods of conducting and differentiated approaches in its implementation, etc. In distance learning, the problem of control lies, firstly, in the objectivity of knowledge control, which is difficult to identify through tests, control and other works with this system, because it is almost impossible to trace the independence of their implementation, problems may arise with the identification of trainees and prevent intentional falsification, secondly, in the systematic nature, when it is necessary to check and evaluate students 'knowledge and skills in the logical sequence in which they are studied, and with a remote system it is impossible to identify, third, in the frequency of checking knowledge and skills by sections or topics of the course in order to diagnose the quality of students' assimilation of the relationships between the structural elements of the educational material, its systematization and generalization, fourth, in the complexity, which consists in diagnosing the quality of the implementation of interdisciplinary connections through the ability of students to explain phenomena, processes and events.

Despite the above, distance learning opens up wide opportunities for education and professional development for different categories of citizens. This is an opportunity to save money and time, as well as to study at a pace that suits a person,

to understand the material of interest in more detail independently and to look for additional sources of information, which improves the quality of training.

#### Conclusion

Organized using modern methods of communication, distance learning does not require close interaction between students and teachers, and therefore there are problems in the implementation of control in the development of material that is no longer based on the principles of systematic and regular implementation, is practically not characterized by a variety of methods of conducting and differentiated approaches in its implementation. Therefore, the study of the problem of control and the development of effective forms and methods of quality control of education in the distance form training is relevant. The analysis of existing studies also showed that despite the fact that the works of many domestic authors (M.P. Karpenko; S.M. Kostenok; E.S. Polat; A.G. Shabanov; S.A. Schennikov, etc.) are devoted to the problems of distance education, they require consideration and clarification in a

#### direct formulation.

Pedagogical requirements for the organization of control of educational activities with such an organization are practically leveled, the role and importance of the teacher in the educational process are changing, because in the system of distance education, the leading role is assigned to the independent cognitive activity of the student, which should be active. With the traditional system of quality control of educational activities, such forms of control as current, periodic and final are successfully used; effective methods are: observation, oral control, written verification, tests, practical works. In the remote form, their full application is impossible, therefore, in practice, a variety of written control papers and tests are used, which cannot ensure the objectivity and completeness of the assessment of students 'knowledge, because it is impossible to trace the independence of their implementation, there are problems with the identification of students and the inability to prevent intentional falsification.

Therefore, when organizing quality control of educational activities in the distance learning system, it is necessary to conduct a long and systematic examination of the dynamics of the student's personality development in the educational process using various assessment mechanisms. Included in the system of electronic provision of educational information itself. Which involves the introduction of a control unit for the study of a topic, section, course and allows the student, having answered the control questions correctly, to proceed to the study of a new topic, section, course, discipline, and the wrong answer returns to the repeated study. Thus, the improvement of the quality control system of educational activities in the distance learning system will allow determining the level, structure, quality of the knowledge obtained, diagnosing, stating and predicting the level of knowledge obtained, carrying out corrective work in time.

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