

Peculiarities of Pedagogical Technologies in Distance Education

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Summary

The article provides a theoretical substantiation of the pedagogical interaction of the subjects of the educational process in the context of distance learning; taking into account the identified features of the implementation of pedagogical interaction defined teaching methods in distance learning; a course has been developed that reveals the features of the pedagogical interaction of participants in the educational process in conditions of distance learning. To solve the tasks and check starting points, a set of methods was used: theoretical: analysis of philosophical, psychological and pedagogical literature, dissertation research, curricula, analysis of the conceptual and terminological system; empirical: questioning, conversation, self-diagnosis.

Keywords:

Distance learning, Higher education, Teaching technology, Information Technology.

1. Introduction

The process of informatization of society is an objective regularity and acts as one of the conditions for successfully solving the problems of socio-economic development country. "Positive transformations in society cannot be achieved within the framework of the traditional model of education. To achieve the goals education, put forward at this stage, it is necessary to change the fundamental foundations of education, the development of effective teaching strategies"[1]. At present, everywhere, both in Ukraine and around the world, there is a leap in the development of technical means, information technologies, the use of which significantly expands the limits of access to education.

Distance learning ceases to be an innovation in the field of education, occupies a strong position, and along with traditional forms learning becomes a competitive form of higher education. The advantages of using this form of education are obvious.

Under certain conditions, distance learning can ensure the availability of quality, including higher education, to the general population, regardless of place of residence, the

presence or absence of labor activity; respond quickly to changing situations labor market; make the most of the pedagogical, scientific and human potential of the university. For 20 years, there has been an active introduction and testing of such technologies in our country, although many years of experience in the use of distance learning in Europe, America and Asia demonstrates the success of such pedagogical practice.

Distance educational technologies are aimed at organizing the process of interaction between students and teachers using information and telecommunication technologies. key the word "interaction" in this context is defining and emphasizes the success of the implementation of the learning process, both from the side teacher and learner. Organized interaction of participants in the educational process using remote educational technologies - the main and essential factor in obtaining knowledge. It is important to understand the need to create a unique educational content, which will become the basis for the implementation of distance learning, the development of methodological equipment for distance learning and special training for teachers [3-5].

In the process of analyzing the psychological and pedagogical literature, contradictions were revealed between:

society's social order for mass higher education in conditions of distance learning and insufficient individualization of the learning process;

the need for active interaction between participants in the educational process in the framework of distance learning and the insufficiently clear organization of this interaction;

the need for pedagogical support of self-education in distance learning and insufficient development of its technology;

the availability of funds that contribute to the intensification interaction between the subjects of the educational process in the course of distance learning, and insufficient theoretical and methodological support for this pedagogical interactions.

The purpose of the article is to consider the features of

pedagogical interaction in the context of distance learning.

2. Theoretical Consideration

The entry of information and communication technologies into our lives is logically determined by the rapidly developing economy.

A new opportunity for organizing labor activity has opened up, in which manual labor is replaced by manipulative and informational ones.

actions. A person no longer simply performs actions, he operates with information. This development of information and communication technologies told the world that specialists of a different level are needed.

The activities of workers who are able to manage computer systems and work remotely contribute to a change in people's attitudes to the information itself. Now it does not act as a commodity, but acts as an incentive for creative searches, since constant interaction with The computer promotes development and teaches to live in the global expanses of information in accordance with the multivariate choice of individual decisions, regardless of mass rules, standards and prejudices [4].

The development of mass media, world information networks, computer training tools has led to the emergence of a new information society. In modern conditions, education is seen as the most important factor in social and economic progress due to the fact that the main value of today's society is the person himself, who has the ability to search for and master new knowledge to make innovative decisions. Economic development and intensive building of technical potential cannot ensure the further development of the country. The future of the country is determined by the level of spiritual culture. "It is education that fundamentally "works" for future, predetermining personal qualities of each person, his knowledge, skills, worldview and behavioral priorities, therefore, ultimately, the economic, moral, spiritual potential of society, civilization as a whole" [2]. Informatization of education creates a material and methodological basis for new forms of education. One such form is distance learning.

The term "distance learning" (DL) has firmly entered the world pedagogical thesaurus. It is actively used when designating a form receiving education outside the walls of an educational institution.

Currently, there is a rapid increase in the number of educational institutions that use distance technologies in one form or another. If at the beginning of its formation, distance education was used exclusively for additional education, but today these technologies are used in everyday life and involve an increasing number of students. It is not

only about adults who deliberately choose this form of education, but also about schoolchildren. Distance learning has its place in schools as alternative way of learning. This is due to the following reasons: the replacement of the traditional form of education due to illness or disability, weather conditions and disasters make adjustments to the schedule of the educational process (anomalous frosts do not allow children to attend school) [2].

Let's consider the definitions, which, in our opinion, more capaciously reflect the whole essence of the phenomenon of distance learning.

Distance learning implies a distance between the teacher and students, which is replenished through the use of technological resources [5].

The definition reflecting the whole essence of DL in our country is contained in the following lines: "Distance education is understood as a complex of educational services provided by a wide range of segments of the population in the country and in the world with the help of a specialized information and educational environment at any distance from educational institution. The information and educational environment of distance education is a systematically organized a set of data transmission means, information resources, interaction protocols, hardware, software and organizational and methodological support, focused on satisfaction educational needs of users" [2].

The question arises whether the concepts of "distance education" and "distance learning" are interchangeable or should be differentiated. Having studied the most common interpretation of these concepts, let us dwell on the following interpretation of training and education.

Learning is a specially organized process of acquiring knowledge, skills and abilities, and education is the result of learning, education and personality development [3].

Indeed, all specialists in the field of distance learning understand this term primarily as an educational process, carried out under the direct supervision of a teacher (regardless of the type of educational institution), fully networked or integrated with traditional teaching.

The rapid development of the economy is pushing science to look for new opportunities in education. And education, accordingly, in response to public demand, is transformed into a more flexible and dynamic learning process, which has its own individual features and limitations [2].

First of all, we are talking about the social order of society for mass higher education. Universities respond to the desire of applicants: new areas of training are opening up, implemented using distance learning technologies. But there remains a big problem, which is that teachers of the traditional form of education cannot always adapt to work in

a remote format, they find this form of education incomplete, undeveloped.

Therefore, it is important to talk about psychological readiness for work in the conditions of distance education. For many teachers, this remains a serious difficulty, which leads to negative consequences for both students (lack of motivation), and for the teaching staff (lack of desire to work in the conditions of distance education).

The requirements for distance learning are the same as for traditional ones. The teacher must not only rebuild himself psychologically, but also provide pedagogical support to students. And this moment also causes the appearance of a problem situation. Technically, distance learning appears to be a well-equipped product, but from the point of view of methodological support, there are serious shortcomings. The teacher offers the student an interesting capacious training course, but not everything can be stated in the plane of the text. Then the most global problem arises - building up the interaction of participants in the educational process. It is important to talk about interaction in the conditions of distance education, since it acts as a link between the teacher and the student, a guide for the latter in a difficult learning situation [6].

Despite the presence of a large number of training courses that are aimed at preparing the teacher for work in the conditions of distance learning, problems remain. If we are talking about higher education, then we understand that with adult contingent of students to work in these conditions is much easier. Such students have a motivation to study, the need for higher education is dictated by the need for work. The situation that has developed in 2020 in connection with the pandemic has demonstrated the unpreparedness of school teachers, educators additional education to work in conditions of distance learning. And as a result - the general indignation of the public in the face of students, parents, teaching staff to accept distance learning as an alternative form of education. Today it is really pedagogical a problem that affects all participants in the educational process.

Analysis of the definition of "distance learning" showed that distance learning is a multifaceted process that has characteristic features. These features are manifested in the features of this form of education. Distance learning has taken its place in the education system. First of all, this form of education is considered as alternative to the correspondence form. Technological progress allows to qualitatively improve education. These innovations are well implemented within the framework of DO.

Despite the colossal elaboration of the issue of implementing DL in universities in terms of technical

support, there are problems associated with methodological equipment.

In fact, under the conditions of the traditional form of education, in order to organize pedagogical interaction at the optimal level, it is necessary to combine functional-role and personal interaction at the same time. This will make it possible to convey not only the general social, but also the personal experience of the teacher himself, which will contribute to the stimulation the process of becoming a person.

In conditions of distance learning, the communication process is mediated by a computer. This link between the participants of the interaction on the one hand, allows you to organize communication at such moments when it is necessary, with the actual territorial separation. On the other hand, the computer acts as an obstacle between participants in the educational process. If there is a desire to solve the emerging issue in a short time, obstacles arise in the form of an asynchronous type of communication in distance learning. In the motivational-value attitude of the teacher to the learning process, it is difficult for him to implement his plan: a wide palette of means of pedagogical influence is difficult to implement in such conditions (words, facial expressions, deeds, actions). And the effectiveness depends on the characteristics of those who influence, and on whom they influence, on the situation in which it is carried out, from the choice of means of influence, clearly presented to the teacher by the goal of influence and, of course, from the nature of the relationship between interacting [5].

In this context, one should understand what forms and methods of work of a teacher should be used in their professional activities so that the above principles are reflected in the daily work of a teacher. Undoubtedly, the trinity of these principles successfully can be implemented in a traditional form of education, when there is direct contact with students, there is an opportunity the use of a variety of teaching aids at the discretion of the teacher. In the context of distance learning, the teacher becomes limited by his own job opportunities, if they do not have certain knowledge and skills. The teacher should be familiar with the essence and possibilities of distance learning, the advantages and disadvantages of this form of education. It is under such conditions that he will be able to orient himself in the educational space and in such a way to build the learning process so that the tasks set in terms of the implementation of pedagogical interaction can be achieved both in the traditional form of education and in the conditions of distance education [7].

Collaboration is the basis of pedagogical interaction.

Cooperation between students and the teacher occurs when the transition of the educational process to the level of

personal interactions. The development of modern educational technologies allows the teacher to work within the framework of cooperation. Exists many platforms that provide an opportunity for both the teacher and the student to transfer the model of their relationship to another plane. In the presence of a clear organization of activities and modern teaching aids, such a transfer can be considered not as forced measure and taken quick exits from a difficult situation (a hastily organized lesson), but as an action that has a large potential compared to the traditional lesson. We are talking about the possibility of preserving and modernizing pedagogical interaction in conditions of distance education, on the use of new effective forms and methods of interaction.

For the effective implementation of interaction in the context of distance learning, it is necessary to create certain conditions that will contribute to:

active involvement of all participants in the educational process in the discussion and performance of tasks;
organizing research in collaboration;
implementation of constant feedback (synchronous and asynchronous means of communication);
development of empathy and reflection [1].

An important requirement is the availability of technical training aids for all participants in the educational process (computer, Internet), and also the skill of owning office computer programs and Internet services.

Currently, the automatic learning system is designed in such a way that the participation of the teacher is minimal.

Intermediate attestation and control measures in the test form do not require outside actions of the teacher. The only form of manifestation of mutual participation is control or practical work, where participants in the educational process can demonstrate their knowledge and opinion regarding the subject being studied. But the reality is that these activities are optional to receive an assessment, and only a few students perform these activities. The only thing that is mandatory for execution is term papers. It is within the framework of this type of activity that the participants in the educational process interact (using e-mail, a special chat) [3].

Thus, the forms of work that are currently offered in the context of distance learning do not allow organizing pedagogical interaction at the proper level. Training courses developed by teachers, taking into account personal experience, the use of various kinds of innovations, are ignored by students. Getting education is carried out without a personal contribution from the teacher.

In fact, the artificial intelligence system independently manages the educational process, and the educational process remains unclaimed.

First, there is the problem of loneliness. The student experiences a lack of information about the DL process, does not understand the sequence of actions, requirements for oneself, feels lost and lonely when left alone with questions on the discipline being studied, the depth of knowledge is not taken into account, the connection between theoretical knowledge and practical skills is not tracked. Secondly, the role of the teacher is shifting to the role of a tutor, who exclusively organizes training and provides all possible assistance. In such a situation, the computer and the automatic system itself learning take on all the functions of a teacher as a carrier of subject knowledge.

The organization of pedagogical interaction in the conditions of distance learning is complicated by the presence of an automated learning system, to which teachers have an ambivalent attitude. Many see the computer as an obstacle to interaction, others see it as an equal participant in the educational process [8].

For the organization of pedagogical interaction at the proper level, a reasonable combination of functional-role and personal interaction is important. We observe an active strengthening of the functional-role side of pedagogical interaction. personal interaction in the form of transfer of experience by the teacher, in which he acts as the owner of pedagogical and professional skills, is not realized.

The educational practice of distance learning is based on the opportunities provided by information technologies, especially those that allow you to implement various ways of transferring knowledge and interacting with the subjects of the educational process [9]. The learning system of artificial intelligence can rightfully be considered as a participant in pedagogical interaction.

Within the framework of traditional and distance learning, pedagogical interaction is an integral part of the educational process.

When interacting, there are always difficulties that are different from each other depending on the form of education. Organization of interaction in conditions, distance education requires professional skills, significant time resources and a responsible attitude to each occupation. This process will be effective when all educational activities are carried out on the basis of a developing impact strategy teacher on students, which should be purposefully organized.

Conclusions

Currently, serious attention is paid to the search for all kinds of forms of education that would be able to meet all the requirements for the educational process. Remote training is recognized as a fairly effective form of education. Therefore, the focus is shifting to distance learning as the only form of education that can maintain its effectiveness, despite different circumstances and force majeure situations in the world. But the difficulties of implementing traditional forms and methods of work in a computer-mediated environment are obvious and require the search for new solutions. University students in their professional activities face the use of distance learning and experience difficulties. In order to meet all the requirements for teaching staff, it is necessary to create conditions already at the university for obtaining the skill of working in a distance learning environment. The necessity of training teachers for activities in the conditions of distance learning in order to improve the education system as a whole is identified.

Within the framework of this study, the definitions of "distance learning" and "pedagogical interaction" were clarified. For the basis in this study, a term was adopted that reflects the whole essence of distance learning. This is training in which all training procedures are carried out using modern information and telecommunication technologies with territorial disunity of the teacher and students. An important role is played by the information and educational environment of distance education, which is understood as a set of means of transmission data, information resources, interaction protocols, hardware and software, organizational and methodological support, focused on meeting educational needs users. An automated learning system, where the computer acts as a technical component, provides the conditions for organizing pedagogical interaction in the context of distance learning.

Pedagogical interaction in the conditions of distance learning is considered as a specially organized process aimed at solving the set educational tasks. The organization of interaction in the context of distance learning requires professional skills and significant time resources. This process will be effective if all educational activities are carried out on the basis of from the developing strategy of the teacher's influence on students, which should be purposefully organized.

Pedagogical interaction in the context of distance learning is characterized by features that indicate the presence of unexplored moments in pedagogical practice. Among them: technical organization of the learning process; asynchronous type of communication; long-term adaptation to work and study in the conditions of distance education; increasing the share of self-study for students; the appearance of additional duties for the teacher in the form of tutor support of the learning process.

Each of these problems carries specific tasks that determine the choice of methods and means that allow pedagogical interaction in conditions of distance learning.

Identified teaching methods that improve the effectiveness of pedagogical interaction in the context of distance learning. A special place is occupied by active and interactive teaching methods (business game, brainstorming, master class, case method, etc.), and also methods reflecting the specifics of interaction in the conditions of territorial disunity of the teacher and students - on-line consultations, off-line consultations, on-line video lectures, off-line video lectures, interactive computer video lectures, seminars.

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