Theoretical And Methodological Principles Of Distance Learning: Priority Direction Of Education

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Summary

The article considers the state and trends of distance learning in the world and Ukraine, identifies the main species differences between distance education and other forms of education, analyzes the state of the global market for educational services provided via the Internet. Important features and characteristics of distance learning, examples of its organization in higher education, as well as statistics on the development of distance learning in our country. The main problematic points on the way to the implementation of the distance education system in Ukraine and the factors that hinder the development of this promising form of education are outlined.

Keywords:
educational institutions, distance learning, educational processes, distance education

1. Introduction

The key categories in didactics, as is known, are training and education. Distance learning and distance education is a new phenomenon in pedagogy. Studies of the content of scientific, pedagogical and educational literature, legal documents relating to education, as well as the texts of journal articles and numerous speeches, at conferences and seminars, showed that there is no single interpretation of the essence and content of these concepts, even in relation to the traditional educational process not to mention DL. Distance education is a system in which the process of distance learning is implemented and the individual achieves and confirms the educational qualification.

Historical and pedagogical analysis of the problems of the formation and development of distance learning has shown that at present the world has accumulated experience in the implementation of distance learning systems (DLS). In general, the global trend of transition to non-traditional forms of education can be traced in the growth in the number of universities that provide training in new information technologies. In the United States, about 1 million people study in the DL system. Thus, the National Technological University, which represents a consortium of 40 engineering schools, in the early 90s provided training for more than 1,100 students using distance methods for a master's degree. More than half of universities use distance learning technologies for adult education. Television and the Internet are widely used for DL [1-5].

The National University of Distance Education (UNED) has been operating in Spain for more than 20 years. It includes 58 training centers within the country and 9 abroad. Created in 1988 for the purpose of organizing correspondence higher education for adults, it is one of the departments of the Ministry of Education and reports directly to the Secretary of State for Higher Education. In its structure there is a system of advanced training, in particular, teachers of secondary schools. The National Center for Distance Education in France provides distance learning to 35,000 users in 120 countries. The Institute for Distance Learning in Tübingen develops programs for teaching using radio and television. 5000 teachers are involved in the preparation of 2500 training courses. The Baltic University in Sweden unites the efforts of more than fifty universities in the Baltic region. On the technologies of distance learning, education can be obtained at the universities of Uasala, Lund, Gothenburg, Umeå and Linkoping. All educational tasks are carried out outside the university on the basis of special developments and with the advice of teachers. The process of passing exams is carried out directly at the university. Since

the 1970s, DL Centers have been created at 10 universities in Finland, as well as the so-called summer universities, of which there are more than 20 with a number of students of 30,000 people.

An Open University has been operating in Turkey since 1974, with the aim of helping people in remote areas get an education. Students receive from the university the necessary package of educational materials. In addition, educational radio and television programs are conducted for them, summer courses are organized, classes are possible in the evening and on weekends. More than 120,000 listeners have been covered by such training.

It is noteworthy that in the countries of the Middle East and Central America, where the level of education of the population is the lowest and the technical equipment of the educational process is insufficient, the development of distance learning lags behind the development of distance learning in other regions.

It is important to note that DL is developed not only within national education systems, but also by individual commercial companies with a predominant focus on business training, which makes up a fourth of all higher education programs. Private corporate educational networks have been created by companies such as IBM, General Motors, Ford, and others. Many of these educational systems are far ahead of those created at universities, both in complexity and in number. Today, many companies are reviewing the status of educational departments in their structures [3]. Business leaders are increasingly considering investing in training as well as investing in research and development. The traditional system of training, which involves the distraction of an employee from the workplace for a certain period, and, consequently, leads to losses for the company, is becoming increasingly unacceptable. Large enterprises often have divisions, branches around the world and must train staff in different countries. In addition, learning must occur at a rapid pace so as not to hamper the introduction and implementation of new products on the market. Personnel training services should be provided simultaneously with the emergence of new developments of the enterprise. This leads to the need to decentralize the training that the enterprise provides. It allows you to avoid moving staff to the training center and thereby gain time, savings in transport costs and distraction of staff from work. Thus, the use of DL is a chance for a large enterprise to ensure the rapid introduction of new products to the market in the condition of constant modernization of production.

2. Theoretical Consideration

With financial support from the Carnegie Corporation, the Continuing Education Foundation, and the US Departments of Education and Education, SOC was organized by the American Association of Public Universities (AASCU) and the American Association of Community Colleges (AACC). Today, hundreds of thousands of military and civilian personnel of the US Defense Forces, as well as members of their families, are studying under the programs of various universities that are part of the SOC. These programs are supported and effectively coordinated by academic associations and agencies, the MoD and the VS.

In general, thanks to the SOC, military personnel have the opportunity to receive any kind of certificate, academic title or degree. Many universities provide basic programs for the continental United States, some for foreign countries. The SOC allows you to earn a degree based on education you have obtained elsewhere. It is possible to study full university programs and targeted programs for direct obtaining a degree. When implementing educational programs in SOC, DL technologies are widely used.

To achieve its goals, the SOC functions as a single structural unit in accordance with the principles established by the SOC Consortium and the armed forces:

1. To increase the efficiency of training military specialists and achieve educational and career goals, military personnel should be engaged in the same programs as all ordinary citizens. Curricula for military personnel should be based on the programs of SOC universities;

2. Military personnel should use the most flexible system of amenities in obtaining education, especially those synchronized with the free time of students, the possibility of mutually offsetting high school diplomas, determining competence using standard tests, simplifying the procedure for transferring to other specialties and other universities.

An analysis of the forms of education shows that distance learning (DL) is also a form of education (as well as full-time, part-time, part-time and external) in which the educational process uses traditional and specific methods, tools and forms of education based on computer and telecommunication technologies [4, 7-9]. The basis of the educational process in DL is the purposeful and controlled intensive independent work of the student, who can study in a place convenient for himself, according to an individual schedule, having a set of special teaching aids and an agreed opportunity to contact the teacher and other students by phone, fax, e-mail, etc. regular mail, as well as face-to-face [8-11].

As you can see, distance education organically fits into the system of lifelong education and meets the principle of humanism, according to which no one should be deprived of the opportunity to study due to poverty, geographic or temporal isolation, social vulnerability and the inability to attend educational institutions due to physical disabilities or being busy with industrial and personal affairs. .

Potential consumers of DLs are:

people of all ages living in underdeveloped regions, remote from university centers;

specialists who already have an education and wish to improve their skills, acquire new knowledge or receive a second education;

an extensive contingent of consumers of educational services who are preparing to enter universities;

persons who are unable to receive educational services in the traditional education system due to the limited capacity of this system, the impossibility of combining study with work (rural residents, shift workers, etc.),

persons undergoing active military service in the ranks of the Armed Forces, as well as retired officers and members of their families;

persons with medical restrictions for receiving regular education in stationary conditions (in need of home education);

subjects and objects of the penitentiary system (prisoners and service personnel);

persons wishing to receive education in foreign educational institutions;

foreign citizens who want to get an education, but are not able to come to study for various reasons.

people of all ages living in remote and underdeveloped regions of the country;

specialists who already have an education and wish to acquire new knowledge or receive a second education;

talented and advanced individuals seeking to obtain additional knowledge, a second parallel education, complete an educational program in a short time;

various categories of specialists who need retraining and advanced training, in particular, teachers of various educational institutions;

persons wishing to complete special educational programs consisting of courses provided by various educational institutions, including educational institutions of different countries;

unemployed and refugees registered at municipal employment centres [13].

The fact that DL is not formally spelled out in legislative documents is associated to a large extent with formal procedures. Since elements of DL technologies and DL itself are actively used in pedagogical practice, in this case, practice is ahead of theory and laws. An analysis of domestic and foreign theory and practice of distance learning allows us to note the characteristic features inherent in distance learning. Among them:

1. "Flexibility". Students study at a convenient time, in a convenient place and at a convenient pace. Everyone can study as much as he personally needs to master the course of the discipline and obtain the necessary knowledge in the chosen disciplines.

2. "Modularity". DL programs are based on a modular principle. Each individual discipline (training course) that we master is adequate in terms of the content of a particular subject area. This allows a set of independent training courses to form a curriculum that meets individual or group needs.

3. "Parallelism". Training can be carried out while combining the main professional activity with study, i.e. "without interruption of production".

4. "Long range". The distance from the location of the student to the educational institution (subject to high-quality communications) is not an obstacle to an effective educational process.

5. "Asynchrony". It implies the fact that in the learning process, the teacher and the student work according to a schedule that is convenient for everyone.

6. Coverage. This feature is sometimes also called "massity". The number of students is not a critical parameter.

7. "Profitability". This feature implies the economic efficiency of DL.

8. "Teacher". It is a question of a new role and functions of the teacher.

9. "Student". The requirements for the student are significantly different from the traditional ones.

10. "NIT" (New information technologies). All types of information technologies are used in LMS, but mainly new information technologies, the means of which are computers, computer networks, multimedia systems, etc.

11. "Sociality". Distance learning relieves social tension to a certain extent, providing an equal opportunity to receive education, regardless of place of residence and material conditions.

12. "Internationality". DL provides a convenient opportunity to export and import educational services.

The listed features also determine the advantages of distance learning over other forms of education, but at the same time presenting certain specific requirements to both the teacher and the student, in no way facilitating, and sometimes increasing the labor costs of both.

DL is closest in characteristics and some organizational aspects to distance learning, but has significant, even outwardly noticeable differences. For example, a free schedule in time upon admission and in the process of studying; expanded opportunities for communication with a teacher using the tools of new information technologies NIT, specialized sets of teaching aids for effective independent work, etc. Experience can be very useful for the formation of a system of distance learning. It is known that over the past 70 years about a third of highly qualified specialists have been educated on the job. At present, the AE system includes about 35 state correspondence institutes and dozens of secondary educational institutions, in which more than ten thousand students and pupils study. In addition, hundreds of technical schools and universities have subdivisions and departments that use distance learning. However, interest is waning.

The best in quality, but the most expensive is full-time education, and the most economical is DL (in steady state).

Economic efficiency is confirmed by quantitative data obtained from practice and statistics.

Attention is drawn to the fact that distance learning is the most "friendly" to students.

The opinions of well-known experts and the experimental practical results of the introduction of distance learning technologies into the traditional educational process confirm the assumption that the existing forms of education, with a natural necessity, asymptotically tend to some ideal humanistic, universal, synthetic, integral form, isomorphic to modern distance learning. In other words, they merge into one form of education.

Distance learning ideally:

Provides an opportunity to undergo training without leaving the place of residence and in the process of production activities;

provides wide access to educational domestic and world resources;

provides an opportunity to receive education for solving various life problems and at any level of primary education and training;

provides an opportunity to organize the process of self-learning in the most effective way for oneself and obtain all the necessary means for self-learning

provides the opportunity to interrupt and continue education, depending on individual capabilities and needs;

significantly expands the circle of people who have access to all types of educational resources without age restrictions;

reduces the cost of education due to the wide availability of educational resources;

allows you to create unique educational programs by combining courses provided by educational institutions;

allows to increase the level of the educational potential of the society and the quality of education;

satisfies the country's needs for well-trained specialists and skilled workers;

increases the social and professional mobility of the population, its entrepreneurial and social activity, outlook and level of self-awareness;

contributes to the preservation of the increase of knowledge, human and material potential accumulated by the domestic educational system;

maintains and develops a unified educational space on the territory of the country where the population lives.

Conclusions

The theory of distance learning (DL) can be imagined as a set of views, ideas, ideas aimed at interpreting and explaining the educational process in the DL system. From a formal point of view, the theory of distance learning as the highest most developed form of organization of generalized reliable scientific knowledge is presented as a system that describes, explains and predicts the functioning of a certain set of components of the theory object, in our case, the education system. The structural elements of the theory are: the subject of the theory, terms and concepts, categories, research methods, functions, principles, etc. Some functions of the theory are implemented, for example, explanatory (the concept of distance learning is considered in scientific and applied aspects), prognostic (a hypothesis is put forward about the integration of all forms of education into one), etc.

The specifics of the dissertation topic, which lies in the fact that it is located at the intersection of pedagogy and technology (new information technologies), led to a set of empirical and theoretical research methods listed in the introduction.

As a scientific result, the position is formulated that distance learning is a purposeful interactive, asynchronous process of interaction of subjects and objects of learning with each other and with learning tools, and the learning process is invariant to their location in space and time. The educational process of distance learning takes place in a specific didactic system, the elements of which are subsystems: learning objectives, learning content, teaching methods, learning tools, organizational forms of learning, identification-control, educational-material, financial-economic, legal, marketing [7].

Based on the study of the directions of development and improvement of traditional forms (full-time, part-time, external studies) and distance learning, a hypothesis is formulated, according to which some integral synthetic form of education can theoretically be considered, to which, during modernization and development, all currently known forms of education will asymptotically, evolutionarily strive education, including modern DL. In other words, by comprehensively improving the existing forms in the directions: educational, methodological, organizational and material and technical, we come to a certain unified form of education, isomorphic to modern DL. This form is conceived by us as some kind of ideal that incorporates all the best of the existing forms and which may appear in the future.

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