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Distance Learning As Organizational And Didactic Form of Professional Development of Pedagogical Staff

Keywords: *distance learning, technology, shape, distance learning, innovation, interaction, technology, pedagogical interaction, educational requirements.*

Annotation: *The article is devoted to an actual problem of modern education distance education. The main objective of the article is to substantiate and confirm arguments of facts and law distance learning to be called a promising new form of education. The interrelation of the concepts "distance education", "educational environment", their distribution in domestic and foreign education. Examine the conditions of implementation of this educational technology, learning tools and features of interaction of teacher and learners.*

It is concluded that e-learning can be considered as an independent form of teaching, because it has significant differences that cannot be realized in the traditional form, but still cannot completely replace the traditional types of training.

The distance learning technology was intensively developed in the world in the last decade of the twentieth century. The use of this technology helps to solve one of the most important of the constitutional tasks of the educational sphere, ensuring human rights to education and information. The strategic goal of distance learning is providing citizens with equal educational opportunities at any level in the place of residence or professional activity through the use of new information and communication technologies. Distance learning is one of the leading forms of education, as the prospects of development of distance education can be traced in many directions.

Based on the use of distance learning technologies, the education system should promote the creation of additional opportunities for updating the content of education, methods of teaching and dissemination of knowledge. The technology also contributes to increased access to all levels of education, the implementation of the possibility of obtaining large numbers of young people, including those who can not study in institutions of higher education with traditional forms of learning due to the lack of financial or physical capabilities, professional employment and other reasons. E-learning is education via the Internet and modern information and telecommunication technologies. In distance education there is an exchange of educational information with the help of modern tools at a distance. Distance learning expands the possibilities for getting qualitative education.

Within the unit of learning management of distance learning system provides the following basic functionality: – competence management; – automated creation of training programs; – management of user profiles; – management of access to e-learning courses and tests; – logging of user activities; – providing technical and methodological support of users; – generate reports; – analysis of the learning process.

In the last three decades distance education has become a global phenomenon education and information culture, changing the face of education systems. Arose a booming industry of educational services that combine the General title of "distance education" and which covers a huge number of students and impresses with its size and complexity.

The database of the International Centre for Distance learning (International Centre for Distance Learning, ICDL) contains descriptions of more than 850 centers for distance education located on all continents, in which the various programmes of vocational education enrollment of approximately twelve million learners — about 13-14% of the total number of learners in the world (2).

However, because of versatility and scale of remote education as pedagogical phenomenon, wide variety of forms of the organization of remote education in the national and international centers - the standard definition of distance learning doesn't exist. Distance education is not a form of education, but only special "educational technology" (2) or "information educational environment" (3), others argue that distance education refers to the same organizational form as correspondence education , and others, for this form of education more General term - open education (4).

Because of essentially various didactic sense, separate consideration of the relevant educational systems of distance education is necessary. So, if the "correspondence" type of distance education as education forms, demands development of own didactics, "transmitting" - methodological providing the organization and technology of broadcasting (reproduction at distance of a lesson, lecture, etc.). The didactic principles of "correspondence" educational system of distance education realize psychological features and educational requirements trained in this form of education. It is possible to refer to number of the general didactic principles:

- "correspondence" training as an education form, is based on self-educational activity trained, demanding creation of special educational-methodical and certification materials;
- recognition of independence of the contents which is trained in a choice and terms of training, the pragmatically relation to intermediate and total certification and an assessment as to means of motivation and self-checking, but not as to the purpose and the end result of training;
- division of pedagogical roles: the teacher submitting the content of training, and the consultant (the mentor, the tutor) sending to self-educational activity trained by means of didactic interaction (dialogue);
- the modular organization of the content of training providing higher degree of variability and, on the other hand, facilitating "correspondence" communication;
- flexibility and mobility of terms of training and, respectively, rate of educational process;
- minimizing of number of internal occupations (sessions), the requirement of the special form of these occupations justifying their expediency.

According to the didactic model of "corresponding" distance learning educational systems, traditional classroom training (lectures and seminars) are replaced by other forms: first, self-educational activity of a student, for the organization and which is used to prepare a special complex of teaching materials, and, secondly, the intensive practical lessons for groups – so-called tutorials, very little reminding an ordinary seminar and considerably different from lecture. Tools and channels of telecommunications are used as a means of

delivery of teaching materials and to promote the interactivity of communication between the tutor and learners during individual consultations and group interaction. In a set of training materials, providing self-educational activity of a learner, include only those materials that can be used with equipment that is easily accessible mostly learners.

The implementation of the didactic models "corresponding" distance learning, requires the teacher (tutor) special skills and knowledge related to how individual work with the students, including the most varied kinds of not only consultation but also psychological support, and the conduct of tutorials, for which the tutor must along with fluency in the material of several courses, to be able to organize group work.

With regard to information and communication technologies used in distance learning, they keep away from specific goals of pedagogy. Regardless of scope, is a universal technology of data collection, processing, storage, distribution, display and use information. To education they have, what should be used in the learning process to achieve educational goals, but not as an end in itself.

This raises the problem of standardization in the field of distance learning, which, unlike the standardization of the content of education, addressed to educational technologies. Primarily, it refers to the standardization of the exchange of training materials developed and used in distance learning.

Decisive factors contributing to the development of this area of standardization are:

- the need to use existing libraries of teaching materials of distance learning regardless of the technical means by which they are developed;
- the need for inclusion of ICT tools in the processes of distance learning, on the technical level means the integration of learning systems with other enterprise information systems.

Currently most developed the following areas of standardization in the field of distance learning:

1. Vocabularies and Taxonomies (vocabularies and taxonomies) is the standard terminology used both in computer and manual processing of educational resources for the uniform application of the concepts.
2. Architectures (architecture) - a standardized set of models describing the process control system training from different perspectives: communication, interaction with other systems and the system architecture of learning management.
3. Learner Information (information about users) is a standardized set of data structures necessary to implement the exchange of user profiles; data showing the learning process; identification data, etc.
4. Learning Content (learning resources) - formalization of the presentation layer of course, its location, the exchange of control information and content courses.
5. Management Systems (management system) - standardization of algorithms, methods, data models, facilitating the interaction between the learning management systems and learning resources.
6. Assessment (grading) is a formalization of the concept of test results or certification, exchange of the test tasks and the organization of the evaluation process (algorithms scoring, adaptive testing algorithms, etc.).

Of these, the most developed are groups of standards that describe training courses and learning management system. A uniform standard in these areas is still under development

and harmonization, however, several standards are already used in practice. the holders of these are standards organizations:

1. Industry standardizing organization ADL (SCORM).
2. Industry standardizing organization AICC.
3. Industrial consortium IMS/GLC.

1. ADL (Advanced Distributed Learning) was developed by the U.S. Department of defense and Department policy in the field of science and technologies of administration of the President of the United States with the aim of developing standards in the field of distance learning. One of the main directions of development is the creation of a technical framework for computer and web training.

The creation of SCORM (be sharable Content Object Reference Model) is the first step towards the development of the concept of ADL, as this standard defines the structure of the learning materials and interface information and learning environment, through which learning objects can be used in various systems of distance training, with the possibility to work with the SCOs (be sharable Content Objects).

The main content of the standard describes:

- Content Aggregation Model - structure of the learning materials, metadata, data structure to generate packages of courses;
- Run Time Environment - mechanisms of interaction, play and run training materials in information and communication environment on the basis of a standard interface and data model.

Now, the version of the SCORM 1.2 standard which is supported by many systems is widely used.

2. AICC (Aviation Industry CBT Committee) is committee on computer training of the aviation industry in the international association, created for development, delivery and estimations of the courses involved in process of computer training in the aviation industry.

The CMI Guidelines for Interoperability specification (CMI001) belongs to standardization of interaction of systems of distance learning and educational resources:

- interaction between system of distance learning and educational resource;
- import/export of courses between various systems of distance learning;
- data storage about passing of courses by users.

3. IMS/GLC (Instructional Management System Global Learning Consortium) – the international organization which main activities is:

- definition of technical specifications for the organization of interaction of the appendices and services participating in process of distance learning;
- support of introduction of specifications in process of creation of software products and services on everything.

At the moment the greatest distribution was gained by the following 4 specifications:

IMS Question & Test Interoperability Specification (the latest version 2.0) - describes the structures of data used for an exchange of the training materials intended for estimation of results of progress of trainees and information on results of estimation by the trained.

IMS Learning Resource Meta-data Specification (the latest version 1.3) - formalization of metadata of the resources used in the process of training. This specification is also used in the ADL SCORM standard.

IMS Content Packaging Specification (the latest version 1.1.4) - is intended for the description of structures of data which are used for export/import, processing and display of training materials and other data. This specification is also used in the ADL SCORM standard.

IMS Learner Information Packaging (the latest version 1.0.1) - is intended for the description of structures of data for exchange of information on the purposes, tasks and achievements of the user in the process of training, and also about the user preferences, the studied materials, the received skills and qualification.

The analysis of concept and models of remote education allows to come to the following conclusions:

Distance education — is the organizational and didactic form of education different from other forms in the way nature of the educational communication which is carried out generally indirectly.

The information and communication technologies used in distance learning are its means, the structure and which specific weight changes depending on technological progress, availability degree trained, models of the organization of educational process.

In practice of distance education exists some models of the organization of educational process developing within two types of educational systems of distance learning which cornerstone essentially different didactic principles are

Practice use of the diverse educational and methodical materials of distance learning developed and used on the basis of ICT demands broad standardization.

For the solution of modern educational tasks, satisfaction of educational requirements of pedagogical staff, the "correspondence" model of distance learning is optimum.

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