PEDAGOGICAL CONDITIONS OF DISTANCE LEARNING IN MODERN EDUCATION

Khalmuxamedov Bobir Takhirovich
Tashkent Medical Academy, assistant of the department of internal medicine, independent researcher

Abstract. This article describes the role and importance of distance education, distance education methods, tools, stages and processes of system management. The author describes the names of free and open-source LMS software packages and their main capabilities, which provide the opportunity to organize the distance education process.

Keywords: distance education, distance education method, Learning Management System platform, educational content, Dokeos FREE, Atutor, Dokeos PRO

Introduction

The introduction of modern information and communication technologies into the educational process has led to the creation of a new form of education - distance education, in addition to traditional teaching methods. In distance education, the student and the teacher are in constant communication with the help of specially created training courses, control forms, electronic communication and other technologies of the Internet, while being separated from each other.

Distance education based on the use of Internet technology provides access to the global information education network, performs a series of important new functions with the principle of integration and interaction. Distance learning provides an opportunity for all learners to continuously improve their skills. In the course of such training, the student learns independent teaching and methodical materials in an interactive mode, undergoes supervision, performs supervision under the direct supervision of the teacher, and communicates with other students of the "vertical study group" in the group. Distance education is a convenient form of education for people who, for certain reasons, do not have the opportunity to study in full-time departments of educational institutions, for example, those who do not require health, who intend to change their specialty, or who are old and intend to improve their skills.

Distance education uses different information and communication technologies, that is, each technology depends on the purpose and nature of the issue. For example, traditional print-based teaching tools (study manuals, textbooks) are based on introducing students to new material, while interactive audio and video conferences are designed to communicate over a period of time, to establish direct and reverse e-mail communication, that is, to send and receive messages. Pre-taped video lectures allow students to listen and view lectures, while faxing, instant messaging, and network exchange of assignments allow students to learn through mutual feedback.

LITERATURE ANALYSIS

The process of distance education is independent study, which develops the student's independent thinking, conclusion and prediction skills. The concept of distance education is interpreted and defined in different ways. According to A.A. Abdukadirov: distance education is one of the forms of continuous education, which consists of information and educational environment data, information resources, interaction statements, and organizational and

methodological support aimed at satisfying the needs of users for education, aimed at ensuring the right of a person to receive education and information. . According to Scott Robert, distance education is a unique, perfected form of education, which is based on new information technologies and multimedia systems, modern means of telecommunications and electronic publications allow to eliminate the shortcomings of traditional forms of education, while retaining all their advantages.

RESEARCH METHODOLOGY

The role of science in the development of every field is incomparable. The distance education system has a number of undeniable advantages over other sustainable forms of education. They include:

• Ability to study in comfortable conditions - at home or in the office;

• Individual approach to each student;

• Development of important qualities such as organization and independence;

• Significant saving of time and effort;

• Ability to communicate with the teacher - the ability to ask questions of interest in individual mode;

• Personal conditions, taking into account the student's abilities.

Distance learning method is a form and means of teaching based on computers and telecommunications, a type of teaching using the best traditional and innovative methods in the educational process. In distance education, independent work is carried out under intensive supervision, on the basis of an individual schedule, in direct contact with the teacher by phone, e-mail and regular mail, and in convenient teaching methods through special teaching tools (computer, video, audio). In distance education, educational services are organized in the country and abroad with the help of educational tools at a distance (via satellite, television and radio communication, computer communication). At the same time, it is one of the modern forms of education that realizes the rights of a person to receive education and information. The advantage of this method is that the student can monitor and analyze the changes in the environment with the help of videos taken in nature. At the same time, in addition to the class (auditory), the student independently, in order to strengthen the knowledge gained in the audience, takes the necessary information from electronic libraries and the websites of nature protection committees and conducts research on the topics set for independent work.

STEPS AND PROCESS OF SYSTEM MANAGEMENT

Distance education system includes several stages:

- *The first* is the process of learning with the help of the program;

- *Secondly*, connecting with some elements of education in the audience, various forms of knowledge management are used during this process;

- *Thirdly*, searching and selecting the necessary information for third independent work, including homework.

As mentioned above, interaction with students is carried out through global networks. Developing the informational training programs and materials needed to implement this process is either too expensive or requires too much time and specialized skills. Therefore, it is necessary to use something that requires a distance learning system to create a site. It organizes, controls, and provides opportunities for rapid development of educational content. The specified goal is provided by systems that allow content management - content management systems (CMS). With

their help, you can create, distribute and manage data. They provide an opportunity to form and organize the structure of the site, the design of its individual pages and navigation.

Distance learning system, like all educational systems, has its structural purpose, content, methods, tools and organizational forms. Distance education based on the use of Internet technology provides access to the global information education network, performs a series of important new functions with the principle of integration and interaction. Distance learning provides an opportunity for all learners to continuously improve their skills. In the course of such training, the student learns independent teaching and methodical materials in an interactive mode, passes control, performs control work under the direct supervision of the teacher. Nowadays, distance learning is developing a lot.

Modern telecommunication tools in distance education provide interactive learning. Students will be able to communicate quickly, and the teacher will be able to quickly respond to student requests, monitor and correct their work in a timely manner. Various information and communication technologies are used in distance education. For example, traditional print-based teaching tools (study guide, textbooks) are based on introducing students to new material, while interactive audio and video conferences are designed to communicate over a period of time, establish direct and reverse e-mail communication, that is, send and receive messages. Pre-taped video lectures allow learners to listen to and view lectures, while instant faxing, messaging, and network sharing of assignments allows learners to learn through peer-to-peer communication. Communicative activity of students in distance education differs from the corresponding full-time form in terms of the possibility of participation in subjects with different quality characteristics. The range of subjects of remote communication activities is practically not limited by quantity, geographical space, or time zones. The creative educational product created by students during the cognitively effective production activity in the distance mode, which expands the learning space for the participants of distance education, allows to present their products to a wide range of users, is presented for discussion in electronic conferences and chat discussions. Thoughts and comments about the created creative products enter into educational communication with distance learning subjects.

By the decision of the government, the regulation on measures to introduce the form of distance education in higher education organizations was approved. The procedure for organizing the training of personnel at the bachelor's and master's levels in higher education organizations through distance education was established.

For this, the educational organization must have: a Learning Management System platform for remote education management; information and communication infrastructure for Internet connection and use; educational content intended for the academic year; electronic educational-methodical complexes of subjects and electronic database of scientific and educational literature; a separate building or auditoriums equipped with computer equipment; engineering and technical personnel who ensure the operation of technical and software components; a server device belonging to an educational organization located in the territory of the country; the page where all the information about the educational organization is placed.

Below we describe the names of free and open-source LMS software packages and their main capabilities, which provide the opportunity to organize the distance education process. Atutor is an open-source, web-based learning management LMS system. The system has training modules: Forums, Materials, Messenger, Chat, Exercises, Group work, Student tracking and other

modules. As the system supports multiple standards, students with physical disabilities can access learning resources through the system. In particular, visually impaired students can connect to the system through special web applications and listen to the words of the educational content in a recognizable audio format. Stable version of the Atutor software complex at the time of writing the educational module 2.1.1. There are more than 20 different modules on the system's own site. The number of standards supported by the system is quite large, and this is what makes it different from other LMS systems. The official web address of the system is: http://atutor.ca/atutor/. Claroline is a free and open source Web-oriented software package that enables the organization of distance learning courses. The system was created at the Institute of Pedagogy and Multimedia of the Catholic University of Louvain (Belgium). The use of the software is based on the GNU (General Public License), which means it can be used for free. PHP/MySQL/Apache are required to be installed on the server for the system to work. The system was tested on EasyPHP installed on Windows 98 and NT, Mandrake Linux8.1 environment. Claroline software complex is used in more than 80 countries and translated into more than 30 languages (program interface). The system can accommodate more than 2000 students simultaneously.

The Claroline software complex meets all the requirements for organizing the distance education process, in particular, registering users, defining the roles of users (teacher, student and guest) in the system by the administrator, creating training courses, editing their content, controlling student knowledge, monitoring provides an opportunity to visit, analyze control results, use and manage communication elements (chat, forum, short message sending modules) between users within the system. The system, like other LMSs, has the following training modules: Forums, Materials, Messenger, Chat, Exercises, Group work, Student tracking, Calendar, Wikiva and other modules. Like other LMSs, IMS and SCORM support standards. You can use the capabilities of the Claroline software complex in the demonstration mode, for this, you can visit the link http://demo.claroline.net/ and enter the system in different roles (administrator, subject teacher, student) and familiarize yourself with the system's capabilities. At the time of writing the training module, the stable version of the system is Claroline 1.11.8. The official web address of the system is: http://www.claroline.net Dokeos is a new software package released from version 1.4.2 of Claroline. Dokeos is the product of the work of several members of the original working group that developed the Claroline platform, which they aimed to adapt to the working staff of public enterprises, as opposed to Claroline, which was created for educational institutions. If you visit the official website of the Dokeos software complex, there you will be offered to download 2 versions of the program: Dokeos FREE - free and Dokeos PRO - a non-free software package with additional modules. But the Dokeos FREE version, in our opinion, has all the training modules you need to organize the educational process. The capabilities of the system and the learning elements it contains can be seen through the mind map shown below. Training modules available in the system can also be used in educational institutions. Currently, most LMSs are adapting their work environments to social networks based on existing ideas. Accordingly, social network elements are widely included in this system. Like the above-mentioned LMS systems, the Dokeos software package also supports the SCORM standard. This allows you to export/import courses to other LMS systems that support this standard. The latest stable version of the Dokeos training module at the time of writing is Dokeos 2.2 RC2. The official web address of the system is: http://www.dokeos.com

A student enrolled in distance education must come to a higher education institution in the following cases: before the beginning of the educational process - to register on the LMS platform; at the end of each semester - for the final examination.

The defense of the final state certification, graduation qualification and master's thesis is traditionally carried out directly at the higher education institution, it is not allowed to receive them in the synchronous or asynchronous mode. The form of distance education is implemented on the basis of a payment contract.

RESEARCH DISCUSSION

To summarize the above points, there are a number of advantages and disadvantages of distance education today. Such a learning environment involves separating the student from the teacher in time and space. At the same time, modern forms of distance education leave the possibility of full communication through the use of modern technical tools. Thanks to this format, residents of regions where there are no qualified teachers will be able to study for highly qualified higher education, required qualification level.

Distance universities, i.e. virtual colleges, started to appear in European countries in the second half of the last century. Forms of distance education were distinguished by various pedagogical techniques and economic mechanisms.

Interactive activities of students and teachers. *This term is used not only in local, but also in foreign pedagogy. In the narrow sense, the concept of "interactive" is considered as communication between the program and the user, the exchange of requests (text commands) and invitations (responses). The emergence of the possibility of asking arbitrary questions and answering them in detail has prompted the emergence of a large number of distance learning universities. User activity and interactivity directly depends on the technical capabilities of the program.*

Forms of distance education, such as external forms, are aimed at students who, for various reasons, cannot study in a traditional (classroom) form. In 1836, the University of London appeared, its main task was to organize examinations, to give scientific degrees and certificates to students who were not engaged in regular educational institutions. And nowadays, the relevance of this type of education has not disappeared.

Distance learning models

A single model implies the use of one information channel or one teaching tool. For example, the educational process is carried out through television and correspondence. This model considers printed materials as the main means of acquiring knowledge. There is no two-way communication here - traditional distance learning is assumed.

Multimedia refers to the use of a variety of teaching aids: printed manuals, computer programs on removable media, video and audio recordings. The leading position refers to the one-way transfer of information. If necessary, they will additionally conduct consultations, face-to-face meetings, exams, training seminars.

Hypermedia is the next generation of distance learning. The model assumes the use of the latest information technologies, where computer telecommunications play a leading role. The easiest option is to use e-mail and conferences.

SUMMARY

Summarizing the above, it can be said that the introduction of elements of distance education in educational institutions is beneficial in all respects. The higher education system has

all the conditions for introducing this complex. The use of information and communication technologies in the educational process (in particular, the distance learning process) is mainly carried out in two ways. The first condition is technical equipment, and the second condition is the provision of special software.

1. Provision of technical equipment: computers, network devices, high-speed Internet networks, video conferencing equipment, etc.

2. Software: From software that uses existing devices to a collection of software designed for this industry. In recent years, the type of electronic education through the Internet or Internet network, which is used in the management of the educational system in the West, has come under the term Elearning (electronic education). Electronic education is a broad concept that means various forms of education based on information and communication technologies.

It is impossible to organize full distance education without the use of information technologies. There are two main points to note:

Distance education does not mean abandoning the classic (traditional) option of education. No matter how technologically advanced, ICT-enabled learning is a necessity, but not a cure-all. Of course, such opportunities cannot be ignored, because technical tools can improve the quality of education. The main technologies used in distance education: video conference, computer tests, electronic textbooks.

Science does not lag behind the trends in modern society. Each school, secondary and higher education institution has its own sources of information. The choice of the form of distance education remains with the student or the student's parents (legal representatives). This type of education is the future, with its help everyone has equal opportunities to get the necessary knowledge.

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