MODEL OF SUPPORT E-LEARNING IN UNIVERSITY

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ABSTRACT
This article presents an analysis of the concept of e-learning support system at the university. An analysis of the model of the use of the e-learning support system as a means of developing the ICT competencies of the employees of the distant education centers of the universities is formulated. The main tasks to be solved by e-learning support system are formulated. The e-learning support system at the University was developed in the context of a systematic and informational approach in accordance with the main points regarding the characteristic features inherent in, on the one hand, pedagogical, on the other hand, information systems.

1. Introduction. The term “e-Learning” was first used in October 1999 in Los Angeles at the CBTSystems workshop. By the term e-learning (e-learning education) is understood learning, built with the use of modern computer technology [1]. There is a definition given by UNESCO experts: “e-Learning - learning through Internet and multimedia.” Very often e-learning and distance learning are associated.

Under the e-learning support system, we understand the software product that allows the user to get information about the use of e-Learning elements in the learning process, to solve the problem issues when working with e-Learning elements. The additional goal of implementing the e-Learning support system is to determine the quality of the services and materials provided to the user and the level of ICT competencies of the employees of the centers of distance education.

Problem Formulation. The article raises the problem of ICT-competence of university teachers. Also, a practical way of using the e-learning support system is given.

Analysis of recent researches and publications. Significant role in support of distance education, in particular in higher education institutions, is played by information and communication technologies that permeate both the learning process itself and the management process. In the field of using distance learning in the educational process, considerable scientific potential has been accumulated in the work of V. Y. Bykov, V. P. Bespalka, A. V. Verlana, A. M. Gurzhia, M. I. Zhaldak, T. I. Koval, O. Lyashenko, Y. I. Mashbitsa, V. M. Monakhov, S. A. Rakov, V. P. Sergienko, O. V. Spivakovsky, O. M. Spirin and others.

The object of the article is to identify the problems of ICT competence of university teachers and to find ways to improve these skills.

2. Results of the research. The concept of "e-learning support system" has a double interpretation: from a practical and theoretical point of view. The e-learning support system from a practical point of view is a collection of automated processes of circulation and processing of information, descriptions of these processes, tied to a specific subject area and implemented on modern technical and economic means, performing the specified list of functions. From the point of view of development priorities - e-learning support system is a scientific and technical discipline, in which problems of development and application of automated processes of circulation and processing of information are investigated.

The basis of idea of the e-learning support system, based on the widespread use of personal computer technology, established three basic principles: integration, flexibility and interactivity [4].

For the e-learning support system, you need:
- work of the user in data manipulation mode. The user must see and act, not know and remember;
- cross-cutting information support at all stages of information flow on the basis of an integrated database, providing a unified form of storage, retrieval, display, restoration and data protection.

E-learning support functions:
- to make an interactive (dialog) mode of a task solution with wide opportunities for the user;
- to create the possibility of adaptive reorganization of forms and the way of presenting information in the process of solving a problem;
- to bring the user closer to computing and information resources;
- to ensure ease of user communication with e-learning;
- to shorten the time, calculated from the occurrence of information to its consumption;
– to ensure minimum human participation in the implementation of all stages (phases) of the information cycle;
– to improve mutual understanding of the components of the e-learning system.

The main purposes of e-learning as a system are: expediency, the presence of components and structure, interaction with the environment, integrity, development in time [2].

New information technologies in education include, in particular, teaching and education technologies, based on the use of computer technology and special software, information and methodological support [3].

The speed of improvement of information technology and technology at a certain stage caused the need for a qualitative definition of its novelty. It is clear that comparing some quality with quantitative indicators is inevitably conditional. Much more important is how these metrics affect user behavior. In the term “e-learning support system” that appeared, not only the parameters of technology are reflected, but above all the essence of the relationship between technology and man. For example, observing the tendency of reducing the time for access to information can be analyzed in the ideal case, that is, the possibility of instant access to information, etc. [5].

The e-learning support system at the University was developed in the context of a systematic and informational approach in accordance with the main points regarding the characteristic features inherent in, on the one hand, pedagogical, on the other hand, information systems.

Fig. 1. An algorithm for using the e-learning support system to enhance the ICT competencies of the CSO staff

Under the e-learning system, we mean a set of tools that can provide information to the user through modern information and communication technologies. And the e-learning support system allows the user to fully master the e-learning system. The characteristics of any system are the response rate of the user to the system request [6].

Employees of distance learning centers can be divided into four categories of technical support, methodologists, teachers, administration. Accordingly, each category has its own function presented in the table. All these categories of employees form the e-learning information environment.

The technology of the e-learning support system consists of two parts:
– inquiry of e-learning support system;
– user request.

The algorithm of the "user request" technology is shown in the picture. The basis of this is the automated e-learning support system, which helps to answer the typical technical and methodological questions. In an ideal performance, an automated e-learning support...
system should integrate all the elements of the e-learning system and use one single mechanism.

The use of information from the e-learning support system can be addressed to a specific executor (a member of the distance learning center). After determining the responsible for the lack of an analysis of the level of ICT competencies in the six categories of ICT competencies. The basis of building the category of ICT competencies is the recommendations of UNESCO. Accordingly, for a particular employee, we can find the level of ICT competencies and determine the individual trajectory of training to enhance the ICT competencies required in the work. Accordingly, each of the six competencies presented can present the topic of the course in advanced training. The e-learning support system was designed as a system that includes the required number of interconnected, interdependent, interacting components. The mentioned components are responsible for the management and control of the formation, communication and communication of the employees of the centers of distance education (high level of proficiency in advanced competencies and abilities, and the ability to apply them operationally), professional orientation of professional training (high level of acquisition of a complex of professional competences of employees of centers distance education), intensification of their intellectual capabilities in the context of research activities, financially the, staffing, etc. provision of the educational process.

As a result, e-learning support enables the user to identify gaps in the work of the system with the help of the user, by means of decision-making theory to assess the possibility of making a management decision, and to formulate a staff member of the distance learning center for an individual plan of work to raise the roots of ICT competencies.

The principles of functioning of the e-learning support system were formed on the basis of close interaction of structural components and related functions. It should be noted that we did not approach the development of structural components, but given their close relationship with each other. We agree with the opinion of Ye. M. Stepanov that functions that ensure the activity of vocational and pedagogical systems, carry out basic relations between the initial state of the structural elements of the system and the result obtained, revealing the features of an object in its relationship with other objects [12].

Further development should acquire:

- formation of a centralized e-learning support system;
- formalization of ICT competencies of employees of distance learning centers.

Under the e-learning support system at the university, we will understand a fixed set of interrelated methods, techniques, forms, methods and tools used to solve problem situations when working with e-learning [7].

E-learning support system should include:

- the purpose and expected result of using E-learning;
- principles of using e-learning;
- methods, techniques, forms, methods and means of using E-learning;
- printed and electronic materials describing e-learning algorithms.

The task of the e-learning support system can be divided into two types-the system request and the user's request.

The e-learning system and e-learning support system must have a flexible structure based on asynchronous online learning combined with online interactive multimedia. Existing practice of using e-learning requires technical support for the collaboration of Cdoow experts with the e-learning system. Its meaningful, functional embodiment - the system, its use, that is, the dynamic (procedural, process) aspects of the user's queries and the system for improving the work process, is a support system.

In accordance with the requirements of the e-learning system, we distinguish the following key issues that the system must deal with in a compulsory manner.

1. Convenience and intelligibility of the interface of e-learning support system.

   The main problem for the user with e-learning is the interface. The clearer it is built-the better and more pleasant it is for the user to work.

2. Easy understanding of the organizational issues of education.

   Accordingly, we get the first competence required for employees of distance learning centers.

   1. To be able to conveniently and easily understand the user to post materials in the e-learning system.

   Let’s divide the employees of the distant education centers of universities into four groups:

   1. Technical support - staff working on the adaptation of software and hardware e-learning.

   2. Methodologists - Personnel working on the organization of teaching activities, but not involved in the teaching process.

   3. Teacher - takes direct part in pedagogical work. With the participation of a teacher and the development of knowledge through e-learning.

   4. Administration - makes decisions to improve the quality of work with the system of e-learning.

   The full organization of the work of all these four elements will enable the organization of the e-learning information environment. Under the informational environment, we mean a set of pedagogical, technological and organizational decisions taken by the administration to organize work with e-learning.
Fig. 2. Request for e-learning support system

Fig. 3. The general scheme of responsibility in the e-learning support system

Fig. 4. User request in e-learning support system
The experience of information provision in the process of training specialists in foreign universities allows us to talk about the existence of tendencies of redistribution of functions between teachers and information workers in this process. On the one hand, the CSD service and, consequently, employees acquire certain pedagogical functions - both in terms of training consumers and in the aspect of providing them with scientific information for educational purposes. Submission of meta-information and scientific information to students from here should be subject to pedagogical principles (accessibility, sequence, etc.). And to be linked with the curriculum. Therefore, "an instructor in information seeking should seek cooperation with those who are responsible for training courses on other subjects" [10, p.18].

On the other hand, the training of information users, which was previously only in the tasks of university libraries and information institutions, is increasingly becoming a task for university instructors [9], their natural function, since "educational goals for information search learning should be incorporated into the context of general educational goals Institute "[10, p.11], that is, the training of information users is now included in the content of education. Thus, there is a mutual diffusion of functions of teachers and informational workers of higher educational establishments. This process essentially broadens the circle of people who are directly involved in the training of a modern specialist, or give it indirect influence. In addition to the intermediaries, here are the coordinators of training on the organization of educational process within the system for its users [11]. One of the methods of teaching information consumers is to create a working group consisting of experts in the development, provision and operation of dynamic IPs [8].

REFERENCES