

RESEARCH NOTES

Electronic Information And Educational Environment of the University as a Factor of Implementing The Requirements of the Federal State Educational System for Preparing Future Bachelors of Humanities

La información electrónica y el entorno educativo de la universidad como factor de implementación de los requisitos del Sistema Educativo del Estado Federal para la preparación de los futuros licenciados en Humanidades

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Abstract

The article reveals the content of "electronic information and educational environment" as a pedagogical category. Various approaches to the definition of this concept are shown. The article presents the main objectives of the research, which are as follows: to identify the essential characteristics of the electronic information and educational environment, to determine its functions, to characterize the structural components. Distance learning, as one of the main components of the electronic information and educational environment and as one of the innovative educational models that creates the necessary conditions for providing educational services at any distance, without visiting educational institutions, has a number of advantages: it opens up opportunities for education, regardless of age and geographical location, studying the disciplines of the educational program at your own pace, regardless of time and from other participants in the educational process, self-development based on self-education and self-discipline. Thus, the research hypothesis is determined: the electronic information and educational environment of the University is an effective means of forming the professional competence of students. Theoretical analysis and generalization of scientific and methodological literature were used as research methods. The result of the study was the identification of the essential characteristics of the electronic information and educational environment, advantages and disadvantages. Moreover, the author's interpretation of distance learning and electronic educational resources as the main components of the electronic information and educational environment is proposed.

Keywords: distance learning, electronic information and educational environment, electronic educational resource, educational system, university.

Resumen

El artículo revela el contenido de "información electrónica y entorno educativo" como categoría pedagógica. Se muestran varios enfoques para la definición de este concepto. El artículo presenta los principales objetivos de la investigación, que son los siguientes: identificar las características esenciales del entorno electrónico de información y educación, determinar sus funciones, caracterizar los componentes estructurales. La educación a distancia, como uno de los principales componentes del entorno electrónico de información y educación y como uno de los modelos educativos innovadores que crea las condiciones necesarias para brindar servicios educativos a cualquier distancia, sin visitar instituciones educativas, tiene una serie de ventajas: abre oportunidades de educación, independientemente de la edad y ubicación geográfica, estudiar las disciplinas del programa educativo a su propio ritmo, independientemente del tiempo y de otros participantes en el proceso educativo, el autodesarrollo basado en la autoeducación y la autodisciplina. Así, se determina la hipótesis de investigación: la información electrónica y el entorno educativo de la Universidad es un medio eficaz para formar la competencia profesional de los estudiantes. Se utilizaron como métodos de investigación el análisis teórico y la generalización de la literatura científica y metodológica. El resultado del estudio fue la identificación de las características esenciales del entorno informativo y educativo electrónico, ventajas y desventajas. Además, se propone la interpretación del autor de la educación a distancia y los recursos educativos electrónicos como los principales componentes de la información electrónica y el entorno educativo.

Palabras clave: aprendizaje a distancia, información electrónica y entorno educativo, recurso educativo electrónico, sistema educativo, universidad.

Introduction

One of the decisive factors of high-quality training of future specialists in modern conditions is the electronic information and educational environment, and its capabilities. Based on the analysis of a number of works (Andreev, 2011; Akhmetov & Bidaybekov, 2006; Ilchenko, 2012), it is established that the generic concept for the concept of "electronic information and educational

environment” is the concept of “information and educational environment”, which is disclosed as a system that includes tools and resources to provide the necessary conditions for the implementation of educational activities using information technologies.

Electronic information and educational environment (EIEE), the essence of which is disclosed in article 16 of the Federal law “On education in the Russian Federation”, must meet a number of requirements: functionality, which implies the presence of a set of different levels of functions; reliability and security, which ensure data integrity, protection from unauthorized access; modification capabilities, which allow structural and functional changes; operational stability, which ensures the constant functioning of the system; ergonomics, which allows for high performance of training with the lowest probability of errors.

Basic EIEE functions are the following: information and training function related to ensure access to all regulatory documents in the areas of training, educational-methodical development, and conducting various types of lessons (lectures, laboratory and practical classes, etc.) using e-learning, distance learning technologies; communication function that provides simultaneous and (or) asynchronous interaction of subjects of educational process; control and administrative function aimed at controlling the educational process and its results.

Methods

In the study the following research methods were used: theoretical analysis and generalization. The use of elementary-theoretical analysis method has allowed us to give the identification of essential characteristics of the electronic information and educational environment, show the advantages and disadvantages of its use. Moreover, the author's interpretation of distance learning and electronic educational resources as the main components of the electronic information and educational environment is proposed.

Results and Discussion

The main functions of EIEE can be divided into the following groups: information and training function related to ensure access to all regulatory documents in the areas of training, educational-methodical development, and conducting various types of lessons (lectures, laboratory and practical classes, etc.) using e-learning, distance learning technologies; communication function that provides simultaneous and (or) asynchronous interaction of subjects of educational process; control and administrative function aimed at controlling the educational process and its results.

EIEE should be based on the following principles: openness – provides access to a large number of free courses; multi-functionality – for students this environment acts as a source of information and as a means of organizing educational activities, for the teacher – as a means of forming competencies and controlling this process; interactivity – involves direct interaction of subjects of the educational process and their immediate reaction to each other's actions.

Distance learning, as one of the main components of EIEE and as one of the innovative educational models that creates the necessary conditions for providing educational services at any distance, without visiting educational institutions, has a number of advantages. Among some of the most important we can distinguish the following ones: opportunities to get education, regardless of age and geographical location, study the disciplines of the educational program at their own pace, regardless of time and other participants in the educational process, self-development based on self-education and self-discipline.

Distance learning, depending on the communication of the subjects of the educational process, can be implemented in synchronous (online interaction) and (or) asynchronous (offline interaction) types and involves the use of various types of classes-chat classes, web classes, audio-video lectures, seminars, consultations, etc.

Our analysis of different sources has shown that, along with the above advantages, of course, distance learning has some disadvantages: the control function of the teacher cannot be fully realized because there is no way to be sure of autonomy of students in performing tasks; the teacher must perform additional work to design and adapt traditional teaching materials in different e-learning resources, consultation, verification of completed tasks and feedback in the form of recommendations; lack of live communication, which can reduce the effectiveness of training.

Electronic educational resource (EER), as the next important component of EIEE, is an educational resource, which includes structured subject content, metadata about it and recommendations for its use. The EER consists of electronic educational and methodological complex, training module, textbook, glossary, etc.

According to many researchers (Borodovskaya, 2016; Demshina, 2017; Tsvetkov, 2019), an EER should possess the following main qualities such as system, interactivity, completeness of content and multimedia content of educational materials.

The EER developed for the areas of preparation "Linguistics" has the following structure (Bagateeva & Akhmetzyanova, 2017; Valeeva et al., 2014):

- glossary - a small dictionary in which words for a specific module are collected;
- chat rooms - for instant messaging between the student and the teacher;
- news forum - a teacher in a news forum creates topics with explanations of certain sections, tests and others;
- theoretical material – used for self-study and offered in the form of a file for download (pdf-document for self-study by the student offline), either in the form of an HTML document for self-study by the student, or in the form of a link to electronic resources on the Internet (texts, audio or video, electronic library resources).
- electronic textbooks – designed to study each of the modules;
- dictionaries - they are structured by modules, have a menu, by hyperlinks from the positions of which you can access the desired module;
- tests - contain tasks of open and closed types, can be used for preliminary, current, repeated, periodic control.
- electronic tasks – they are dedicated to the independent work of students, being equipped with an assistance function and a feedback mechanism;
- interactive presentations – the main task of such presentations consists in mastering language by students themselves. The interactive feed makes such a study visual and interesting.
- videos – a selection of educational videos corresponding to the lecture and practical course of each of the modules, and allowing you to organize various forms of training work in an interactive format.
- test topics – a list of topics that must be disclosed to the student in the MOODLE system, a file located in the ESM, or implemented outside the system.
- final test – tests with instructions on their implementation. The question bank for tests contains questions of two or more types (multiple choice, correspondence, short answer, etc.).

To sum it up, EER provides students with a number of advantages for all subjects of the educational process. Thus, for students, the use of various media for the presentation of educational materials (image, video, audio, etc.) ensures their maximum visibility; the possibility of repeated repetition of educational materials on those topics that caused the greatest difficulties in the study, creates all the conditions for successful assimilation of educational material. The teacher, in turn, has the ability to modify the training material without reissuing it; based on the input testing, it is possible to adapt training materials depending on the initial level of preparedness and characteristics of students (Pronina et al., 2018; Akhmetzyanova & Bagateeva, 2017).

However, there are also a number of problems when using EER in the educational process. These include the moral and technological unpreparedness of some teachers for the development and implementation of EER in the educational process; certain difficulties in the technical equipment of educational institutions (Akhmetzyanova & Bagateeva, 2019); insufficient

pedagogical methods for the design and development of EER (Akhmetzyanova & Bagateeva, 2019).

Conclusions

One of the decisive factors of high-quality training of future specialists in modern conditions is the electronic information and educational environment, and its capabilities. It is established that the generic concept for the concept of “electronic information and educational environment” is the concept of “information and educational environment”, which is disclosed as a system that includes tools and resources to provide the necessary conditions for the implementation of educational activities using information technologies.

Distance learning is one of the main components of EIEE and of the innovative educational models that creates the necessary conditions for providing educational services at any distance, without visiting educational institutions, has a number of advantages. Electronic educational resource is the next important component of EIEE, is an educational resource, which includes structured subject content, metadata about it and recommendations for its use. Electronic educational resources enable the reproduction of educational materials using electronic devices. The development of information technologies funded to the development of a new form of education – electronic education, which requires new means of learning – an electronic educational resource.

Thus, the electronic information and educational environment is considered as a complex phenomenon, provides effective learning tools and is an important component of higher professional education.

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