Electronic Educational Resources as a Component and Conditions of Interaction of the Subjects of the Educational Process

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Abstract: This article considered the issue of the influence of electronic educational resources on the educational process, the problems of creating electronic educational resources and ways to solve these problems.

Keywords: electronic educational resources, educational process, subjects of education, informatization, competence, society.

At present, the process of informatization of society has significantly accelerated, which leads to serious changes in all areas of human life. The problem of introducing information and communication technologies in various parts of the education system today is one of the most significant.

The formation and development of modern higher education in recent years is inextricably linked with the use of digital and information and communication technologies, which contribute to improving the quality of the educational process at all levels of education and the technologization of its tools. The introduction of various software, hardware, information, electronic, computing resources into the educational process expands the possibilities for studying and mastering educational material, and also increases the variety of forms, methods and means of its presentation for both teachers and students.

Today, the issue of using information technologies and electronic educational resources for a modern educational institution at all levels of education is being updated, which is interconnected with the conditions for the implementation of the main educational program and the implementation of the educational process. The second "social order" in the current context of the humanization of society refers to the socialization of students in the information world, that is, the development of their information competence. The use of promising achievements in the field of informatization and communication and their implementation in practice opens up new opportunities for the teacher in creating new conditions for interaction.

The 21st century is the century of high computer technologies. A modern person lives in the world of electronic culture, so the teacher must become the coordinator of the information flow. Therefore, the teacher needs to be not only competent users of information and communication technologies, but also to master modern methods and new technologies in order to communicate in the same language with students. To create a single space of educational organizations and ensure the interconnection of information and pedagogical learning technologies, it is necessary to introduce electronic educational resources (EER). Informatization of education objectively entails the reorganization of methodological work and the educational process, as well as increased requirements for the teacher and a change in his role, taking into account the individual characteristics of students and new opportunities for cooperation with participants in the educational process.

An electronic educational resource is a collection of graphic, text, speech, video, photo and other information processed and presented using computer technology, published on any electronic medium or on a computer network, which is a systematized material on the relevant scientific and practical field of knowledge. providing creative and active mastery of the knowledge, skills and abilities in this area. The concept of an electronic resource can be defined as any information that requires electronic

devices to reproduce. Information for educational purposes is characterized by a consistent and systematic presentation of the material, focus on a specific audience, focus on obtaining results, and other distinguishing features. Thus, electronic resources that can be used in education - electronic educational resources (EER) - is a set of software tools, information, technical, regulatory and methodological materials, full-text electronic publications, including audio and video materials, illustrative materials and catalogs of electronic libraries, placed on computer media and (or) on the Internet.
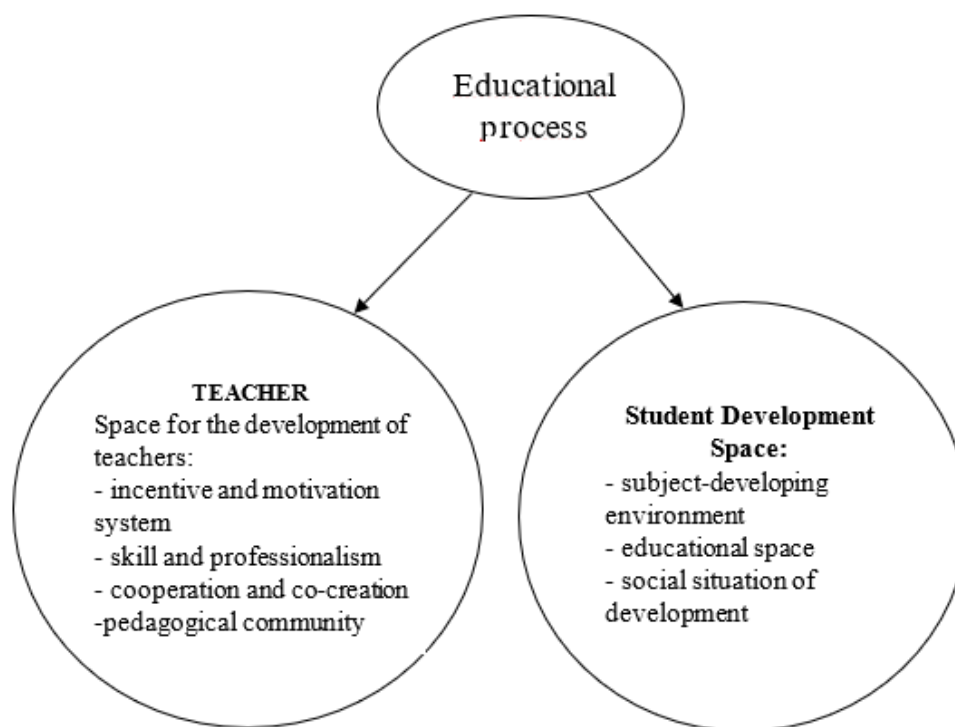

Figure 1. Space for the development of subjects in the educational process

Electronic educational resources are a means of learning and act as a tool to improve its quality. A change in the means of education, as well as a change in any part of the educational environment, inevitably leads to a restructuring of this entire system: the content of the educational material, the forms and methods of teaching, as well as the activities of the subjects of the educational process, change. In the traditional educational environment, the active role belonged to the teacher, while the student was considered as an object that needs to be influenced in order to achieve the planned learning outcomes. Reproductive methods prevailed, connected with the transfer of knowledge and the formation of skills for their application in standard familiar situations. The student was the recipient of ready-made information, which, when mastered, became knowledge.

In the nature of the activities of the participants in the educational process in the conditions of the modern information educational environment, built on the basis of electronic educational resources, there should be changes in the direction of increasing the share of independent, research, creative and productive work of students. The planning of the educational process should take place as a result of the joint activities of the teacher and students in accordance with the planned educational results, the content of education, the individual characteristics of students, with a focus on the formation of universal learning activities (personal, regulatory, cognitive and communicative). The change in the content of education takes place in the direction of its expansion through electronic visual aids, electronic supplements to the textbook, information retrieval systems, through numerous Internet

resources that provide students with a huge amount of information available for review. In addition, unlike a traditional paper textbook, electronic educational resources have the ability to non-linearly present educational information using hypermedia, which also allows you to significantly increase the amount of available material, expand the topics and ways of presenting it.

The circle of users of electronic resources is quite wide and varied. These include students who use electronic textbooks, tourists and museum visitors who, with the help of electronic resources, can carry out virtual travel and inspection of cultural monuments, specialists using reference and other manuals according to their qualifications, viewers and listeners who "visit" multimedia virtual performances and so on.

EER is a product created on the basis of knowledge about the subject area using pedagogical methods, didactic approaches and means of information and communication technologies. EERs can be classified according to the following criteria:

1. program and methodological (curricula of educational institutions of all levels, work programs of academic disciplines in accordance with the curricula);

2. educational and methodological (guidelines, teaching aids, methodological recommendations for studying a separate course, guidelines for the implementation of project work, thematic plans for conducting individual lessons, studying individual topics, scenarios for organizing educational events);

3. educational (network textbooks and manuals, multimedia textbooks, electronic textbooks, electronic manuals);

4. auxiliary (collections of documents and materials, anthologies, books for reading, encyclopedias, reference books, annotated indexes of scientific and educational literature, scientific publications of teachers, conference materials, scenarios of entertainment and educational events);

5. controlling (testing programs, banks of control questions and assignments in academic disciplines, banks of essay topics, design work).

6. informational (general informative materials about educational institutions of all levels, information about educational projects implemented in the region).

This functional classification determines the meaning and place of EER in the educational process and is the basis for building a model of interaction between the subjects of the educational process through EER.

Basic requirements for electronic resources:

1. pedagogical requirements (didactic principles; methodological requirements; justification for the choice of the subject of the training course; verification of the pedagogical expediency of use and effectiveness of application);

2. technical requirements;

3. ergonomic requirements;

4. aesthetic requirements.

Both traditional teaching aids and modern EER are based on well-known didactic principles and rules:

Visibility. In educational psychology, the main ways of learning or knowing the world around are distinguished: vision, hearing, abstract thinking. Vision and hearing are the most informative and, accordingly, the most important and most effective in learning.

It is on the use of these most important models of information perception that the visibility of learning is built, allowing you to collect maximum visibility in the form of audio, photo, video and other types of multimedia information, which activates attention, enlivens perception;

Interactivity. During the lessons, the student must perform a number of interactive actions: viewing and listening to educational material, navigating through content elements, copying them, accessing the help system, answering control questions during the lesson, which helps to increase the efficiency of consciousness and memory;

Practical orientation. For all sections and training modules, a powerful block of training modules of a practical orientation is presented - practical tasks, learning tasks, test questions, laboratory work, which become a universal training for the student;

Availability. The method of presenting the material (from simple to complex, from concepts to logic, from knowledge to competence) is accessible for perception and allows learning, both with the help of a teacher (or parent), and independently;

Scientific presentation of the material. The content of the course is based on the latest ideas of the sciences that are integrated in it, including ICT as the basis of new educational technologies;

Methodological requirements imply the need to: take into account the uniqueness and characteristics of a particular academic subject; provide for the specifics of the relevant science, its conceptual apparatus, the features of the methods for studying its laws; implementation of modern methods of information processing.

All of the listed principles and requirements for EER can be translated into the educational environment and considered EER as:

➢ didactic means of the educational process for students;

➢ means of communication of students in informational, auxiliary areas of interaction;

➢ means of methodological support of the educational process of communication within the pedagogical community.

Pedagogical practice shows that the introduction of electronic educational resources in the information and communication environment of an educational organization, in particular in the process of interaction between the subjects of the educational process and the technology for developing the cognitive interest of students, needs to be further improved, due to the requirements of the humanistic educational paradigm. One of the effective directions of such improvement is the inclusion of an ESM component. It has been established that the inclusion of electronic educational resources in the educational process is an urgent requirement of life in the modern information community and a condition for effective interaction between the subjects of the educational process.

References:

1. Gomulina N.N. Features of the formation of electronic educational resources for interactive whiteboards. Collection of multimedia tools "Umnik-PO" // Information and communication technologies in the preparation of a teacher of technology and a teacher of physics: materials of a scientific-practical conference, Kolomna, April 8-10, 2008 / Kolomna State University. ped. in-t. - Kolomna, 2008. - S. 25-27.

2. Gorneva E.A. Electronic educational resources as a complex means of forming the information culture of future technology teachers: Ph.D. dis. … cand. ped. Sciences. - Bryansk, 2007. - 24 p.

3. Gura, V.V. Theoretical foundations of pedagogical design of personality-oriented electronic educational resources and environments: author. dis. … doc. ped. Sciences. - Rostov-on-Don, 2007. - 44 p.

4. Osetrova N.V. Book and electronic means in education. - M .: Ed. Service Logos, 2003. – 144 p.