

E-Book as a Means of Distance Learning

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Abstract--*The article deals with the issues based on analyzing the role of e-book in teaching process as a part of modern information technology. An electronic book is considered as the most common resource for distance learning, as it contains the necessary theoretical material, as well as control, laboratory work, simulators, tests, tasks for creative activity, etc.*

An electronic book is a hypertext system for the organization of educational material, the presentation of information in the form of a graph, the nodes of which contain text elements (pages), there are links between the nodes that can be used to switch from one text element to another, due to which simplicity of navigation and interactivity of the resource is provided (work in the dialogue mode with the user). An e-book should not just repeat a similar print edition, but should supply it. The purpose of creating an e-book is to take advantage of information and communication technologies that will most effectively in the content of educational material and increase the degree of its comprehension by students.

Another advantage of the e-book is the ability to use hyperlinks on its pages, which allow you move quickly to the study of the selected moment (term, process or phenomenon described in the book), it is possible to use hyperlinks to other electronic educational resources, reference books, virtual laboratories, websites, etc. An electronic book, which includes not only text and graphic information, but also audio and video clips, allows you to individualize training, and unlike a printed book, it has interactive capabilities - it can present the necessary information at the request of the student. This brings the e-book closer to tutoring. The student's independent work with the electronic book accustoms him to an independent search for solutions to problems, stimulates the learner's cognitive activity, and contributes to the formation of ICT competence.

Key words--*e-book, ability, IT, technology, distance learning, hyperlinks, hypertext.*

I. INTRODUCTION

Traditional learning is a focused process of interaction between teacher and students in order to obtain the latest knowledge, skills, as well as mastering universal values. And what is distance learning? Different authors gave different answers to this question. An electronic book (textbook) is the most common resource for distance learning, as it contains the necessary theoretical material, as well as control, laboratory, test work, simulators, tests, tasks for creative activity, etc.

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Also, it is a hypertext system for the organization of educational material, that is, the presentation of information in the form of a graph, the nodes of which contain text elements (pages), there are links between the nodes that can be used to switch from one text element to another, due to which simplicity of navigation and interactivity of the resource is provided (work in the dialogue mode with the user [1]). An e-book should not just repeat a similar print edition, but should complement it.

II. MATERIALS AND METHODS

To implement educational programs using distance learning in an educational institution, the conditions for the functioning of the electronic information and educational environment should be created: electronic information and educational resources, a set of technical means for using information and telecommunication technologies that will ensure that students fully master educational programs independently from their location, that is, remotely.

2.1. Creating e-books as one of the means for distance learning.

The purpose of creating an e-book is to take advantage of information and communication technologies that will most effectively disclose the content of educational material and increase the degree of its comprehension by students. For example, on the pages of an e-book, it is possible to use various video materials, presentations, graphic images (including animated images), which will help to better illustrate the processes and phenomena under study, the properties of the objects being studied. This is one of the main advantages of an e-book in comparison with a printed book. Another advantage is the ability to automate the stage of monitoring the level of performance of a student who has studied a specific topic of the book, using electronic tests, tasks with a detailed answer, and a response in the form of a file. Another advantage of the e-book is the ability to use hyperlinks on its pages, which allow you to quickly move to the study of the selected moment (term, process or phenomenon described in the book), it is possible to use hyperlinks to other electronic educational resources, reference books, virtual laboratories, websites, etc. Thus, the electronic book provides information and illustrative training and facilitates easier assimilation of a large in volume and quite complex material.

2.2. The efficiency of using electronic books

Using an electronic book (textbook) allows us to minimize the cost of duplicating similar prints. Placing an e-book on the Internet enables the student to study the material at any convenient time and regardless of its location, which is important for the organization of distance learning.

An electronic book, which includes not only text and graphic information, but also audio and video clips, allows you to individualize training, and unlike a printed book, it has interactive capabilities - it can present the necessary information at the request of the student. This brings the e-book closer to tutoring. The student's independent work with the electronic book accustoms him to an independent search for solutions to problems, stimulates the learner's cognitive activity, and contributes to the formation of ICT competence.

Currently, the following requirements are imposed on e-books (textbooks):

1. Information on the chosen course should be well structured and represent complete fragments of the course.

2. Each fragment, along with the text, should present information in audio or video ("live lectures"). The obligatory interface element for live lectures will be the scroll bar, allowing you to repeat the lecture from anywhere.
3. Textual information can duplicate some of the live lectures.
4. The illustrations representing complex models or devices should have an instant help that appears or disappears synchronously with the cursor moving over individual elements of the illustration (map, plan, diagram, product assembly drawing, object control panel, etc.).
5. The text part should be accompanied by numerous cross-references, allowing to reduce the search time for the necessary information, as well as a powerful search center. A promising element may be the inclusion of a specialized explanatory dictionary for a given subject area.
6. Video information or animations should accompany sections that are difficult to understand in the usual way. Some phenomena cannot be described at all by a person who has never seen them (waterfall, fire, etc.). Video clips allow you to change the time scale and demonstrate phenomena in fast, slow or selective shooting.
7. The presence of audio information, which in many cases is the main and sometimes indispensable content of the textbook.

Electronic publications are used in the system of both school and vocational education. The introduction of computer-based training and monitoring systems into the educational process, which, due to their interactivity, has great potential for distance learning, is a promising direction on the path to modernizing modern education.

The course includes theoretical and practical material for study and contains 10 thematic sections, each of which has subtopics. To advance on the course there are explanations.

After studying the theoretical material of each topic, questions and tasks for self-control are proposed. Performing these tasks, the student must give a detailed answer in the system by clicking on the "Add answer to the task" button, and the teacher has the opportunity to evaluate the student's response by adding a comment.

In addition, the teacher has the opportunity to assign certain tasks to perform a particular student. For example total resources and interactive elements in Moodle system can consist of:

1. Resources

Webpage - 40

Resource notes - 22

2. Interactive elements

Tasks (answer in the form of text) - 71

Glossary – 1

The lecture texts should contain hyperlinks to the meeting terms from the glossary, which is very convenient. At the end of the e-book there should be a list of sources recommended for further study.

2.3. Content of e-book

A consistent study of all course topics is recommended. After studying the topic, there should be questions and tasks for self-control.

- News forum.
- Chat "Questions to the teacher"
- Questions to the teacher while studying the course.
- Glossary.

III. DISCUSSIONS

E.S. Polat gives the following definitions:

1. "Distance learning is the interaction of a teacher and students with each other at a distance, reflecting all the components inherent in the educational process (goals, content, methods, organizational forms, learning tools) and implemented by specific means of Internet technologies or other means of interactivity" [7].
2. "Distance learning is an independent form of learning, information technology in distance learning is the leading means [6].

E.M. Khabibulina defines: "Distance learning is distance learning using various technical means (multimedia devices, the Internet, satellite communication channels) that allow students and teachers to communicate remotely and interactively" [5].

Distance education is education, the implementation of which occurs through distance learning.

From these definitions it is clear that in the process of distance learning, the teacher's participation is not necessary, since such training can be carried out by students themselves by interacting with electronic educational resources. From this it becomes clear that for the implementation of distance learning, a single information and educational space is necessary, which includes: all kinds of online and electronic sources of information, electronic textbooks, virtual libraries, museums, reference books, databases, consulting services, etc.

Consider the types of distance learning. Currently, in domestic and world practice, there are several options for the organization (model) of distance education:

- external education - for students who, for various reasons, cannot attend full-time educational institutions;
- University education - for students who study not stationary, but at a distance, in absentia (open forms) or remotely;
- education based on simultaneous interaction in the network of several educational institutions - educational institutions jointly prepare distance learning programs in various disciplines;
- Organization of autonomous educational institutions specializing in various forms of distance education;
- local education based on autonomous learning systems;

- distance education integrated with traditional methods, or, otherwise, distance support of the educational process.

The main goals of distance learning today are:

1. vocational training and retraining;
2. advanced training of personnel in various specialties;
3. preparing students for individual subjects for exams externally;
4. preparing students for admission to educational institutions of a certain profile;
5. in-depth study of topics, sections of the studied disciplines;
6. bridging the gaps in knowledge, skills, and skills of trainees in certain disciplines;
7. basic course of the curriculum for students who are not able to attend full-time classes for various reasons;
8. continuing education on interests.

The planned results and content of distance learning coincide with the results and content of full-time study, the difference lies in some principles of training, as well as in the forms of presentation of educational material and in the forms of interaction between the teacher and students and students.

Of course, distance learning should be built in accordance with all didactic principles that take place in modern pedagogy: objectivity, science; the connection between theory and practice; consistency, systematic; availability with the necessary degree of difficulty; visibility and variety of methods; consciousness and activity of students; the strength of the assimilation of knowledge, skills.

IV. CONCLUSION

Thus, e-book is the most necessary tool for distance learning; We found out that the Moodle system has ample opportunities for creating electronic resources for the purpose of distance learning. As the e-book has the advantages of using it for distance learning, since the student has access to it at any time of the day, the main condition is that he has access to the Internet. Thus, the student can choose a convenient time to study a particular topic, has the ability to determine the time spent studying a specific topic.

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