



EFFECTIVE USE OF INTERACTIVE ELECTRONIC TEXTBOOKS IN IMPROVING EDUCATIONAL EFFICIENCY

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Abstract: In this article, the wide-scale reforms carried out in the education system in our country today, the issues of organizing education in accordance with the requirements of international standards, for the preparation of competent, high-quality, qualified and high-potential competitive personnel who can meet the requirements of international standards creation and use of interactive electronic textbooks are considered.

Key words: educational effectiveness, textbook, training manual, "TurboSite", "iSpring Suite", Electronic education.

Achieving high results in the social and economic spheres in our republic, its position in the international arena, and taking the place of a full-fledged partner in the world economic system directly depend on the education system. Therefore, the issue of improving the effectiveness of education is considered one of the most important directions in today's modern society.

It should be noted that in order to achieve high results in this direction, as in many countries, it is considered as a priority direction and large-scale work is being carried out in our Republic. In particular, organization of training in accordance with the requirements of international standards; wider introduction of modern teaching methods and tools into the educational process; provision of quality educational services; systematic study and analysis of knowledge, skills, qualifications; developing forms of assessment without direct contact with students; development of mechanisms for the development of healthy competition among students in mastering subjects, etc.

If we pay attention to the above-mentioned reforms in the education system, the large-scale work, based on them, the quality and efficiency of education and the international standard requirements, decent, high-quality, qualified and high-potential competitive it is possible to witness that there is a question of personnel training.

In this work, we found it necessary to pay attention to the importance and possibilities of interactive electronic textbooks in increasing educational productivity, based on the study of the experience of educational institutions of foreign countries in the direction of increasing educational efficiency.

It is known that textbooks, training manuals and methodical instructions and other teaching-methodical sets are of great importance in improving the quality and efficiency of education. However, existing traditional textbooks created on the basis of printed editions should be organized in accordance with international standard requirements, modern, innovative teaching methods and tools should be more widely introduced into the educational process, and transition to new state education standards based on the competence approach.

It was not enough to achieve the goals related to the improvement of educational efficiency [1,2].

Therefore, the issue of creating new interactive electronic educational resources (interactive electronic textbook, electronic guide, electronic instruction, etc.) and its implementation in the educational process was recognized as an urgent problem [3-9].

When electronic textbooks were first created, they were designed to facilitate distance learning. But over time, the rapid development of modern information and communication technologies has increased the possibilities of electronic textbooks. It led to the inclusion of interactivity features.

This, in turn, motivated students to perform tasks of independent education and information competence, self-control, and strengthening of knowledge.

Its superiority over traditional textbooks is characterized by having "intellectual" power. Also, find information through convenient navigation, learn and remember educational material through video, animation applications, perform test tasks several times to strengthen knowledge, get answers to control questions in a few minutes through search engines, on time and provides an opportunity to present data with comments where necessary. Interactive electronic textbooks contain many types of multimedia objects. The advantages of interactive electronic textbooks can be explained as follows:

mobility;

that it is possible to increase the speed if necessary;

convenient navigation options: search for a document by content, transitions using hyperlinks, etc.;

use of multimedia applications (animated, video, audio) that allow learning and remembering the given educational material.

Currently, a large number of "template" programs for creating interactive electronic textbooks have been developed, among which the following can be distinguished as those that do not require special training.

1) "eCourse Mast interactive environment. The project builder designs the pages in it. Creates links between pages. Creates control tasks and exercises. Creating a project is similar to working with a computer for children. In this way, you will create a modern, fully functional multimedia product. In addition, it has customization according to the level of knowledge and skill of the designer: novice user, experienced user and expert. They also have a tool to protect against project crashes and unauthorized access, which is very important today.

2) Constructor of e-books "Info Trans Editor" - this program is suitable for the creation of e-textbooks, e-courses, methodical guides, tests, tests and sets of exercises and other educational materials for e-learning. intended. The program has the ability to save other ready-made Microsoft Word texts. This allows us to easily and quickly transfer all the educational methodical materials we have to the format of "Info Trans" interactive textbooks.

3) "TurboSite" - site creation constructor. The program can be used to create not only a site, but also interactive e-textbooks, e-methodical guides, tests and other educational materials for e-learning. The project creator can use one of the templates available in the program itself or download a suitable template from the Internet. It is possible to design pages simultaneously, establish links between them, place texts created in the Word text editor on pages, copies of tables, as well as place non-text media files on pages, create test pages [6].



If the project developer has any problems creating a test page using this program, there are a number of test creation programs that can refer to the test pages created with it.

TurboSite offers 3 different ways to create links between pages. First, by referring to the pages of the project being prepared; the second, by reference to local documents; and third, by referring to documents anywhere on the WWW.

As we mentioned above, one of such test programs is the Hot Potatoes program. Hot Potatoes is an instrumental shell program that allows you to create interactive exercises on your own, attracting teachers and programming experts who do not have sufficient knowledge of programming languages. With the help of this program, you can create 10 types of exercises with text, graphics, audio and video information, not only in the fields of informatics and information technologies, but also in other fields, in different languages.

A unique feature of the program is that the created exercises are saved in the standard format of web pages. This, in turn, allows you to refer to local documents from the project being created using the TurboSite program. Because the format of the project is also saved in the standard format of web pages.

Interactive exercises created with the help of the Hot Potatoes program, together with occupying an important place in the interactive electronic textbook project, provide an opportunity for the teacher to move the control system to a new - quality stage, and for students to regularly strengthen their knowledge. Educational institutions around the world widely use the Hot Potatoes program to study various subjects [6].

• 4) "iSpring Suite" is a set of programs for creating electronic courses, tests, interactive products based on Microsoft Office PowerPoint. iSpring Suite has the following capabilities [4]:

- possibility to convert presentation files in several (exe, swf, html) formats;
- the ability to include external resources (audio, video or flash files) in the content of the presentation;
- protection of the content of the presentation: viewing with the help of a password, putting a "protection mark" on the presentation, "rotating" the presentation only on authorized domains;
- add video and synchronize it with animations;
- a tool is installed for creating electronic tests (controls) and creating interactive texts with the possibility of sending the results to e-mail or distance learning system (LMS) (Quiz button);
- creating SCORM/AICC-compliant courses for use in the distance learning system;
- ActionScript API for application-level scrolling of the presentation;
- recording a video and synchronizing it with a presentation;
- Possibility to include YouTube videos in the content of the presentation.

5) There are also a number of software products that allow you to create courses in SCORM format. Most modern distance learning systems support various versions of the SCORM specification. This, in turn, provides the ability to transfer educational content from one system to another.

Despite the many advantages of independent education with the help of interactive electronic textbooks, there are also a number of problems that hinder its development in most educational institutions. That is:



1. Lack of specialists who have mastered the technology of creating interactive electronic textbooks.
2. The fact that professional license software is not suitable for creating interactive textbooks.
3. It takes a lot of time for non-specialist teachers to create electronic textbooks, prepare teaching materials and work with students without programmers and technical experts. The time spent on it exceeds the daytime study time.
4. There is currently no reason for teachers to create interactive electronic textbooks themselves.
5. The fact that most teachers working in the field of e-learning do not have basic technical skills and online communication skills suitable for the relevant educational environment.

In conclusion, it should be said that in exchange for solving the problems in this direction, the number of specialists and programmers who have mastered the technology of creating interactive electronic textbooks will increase; professional level national license software is created for creating interactive textbooks; through retraining and upgrading the skills of teaching staff working in educational institutions, the ability to use interactive electronic educational resources in online and offline modes without programmers and technical specialists and the knowledge of creating an interactive electronic textbook will be improved, etc.

As a result, the educational process for students of educational institutions is organized in accordance with the requirements of the international educational standard, with the wide application of modern methods and tools, high-quality educational services are provided, knowledge-skills-qualifications are systematically analyzed, based on the results of the analysis, the students are given the necessary knowledge to be taught and mastered, and there are opportunities to make appropriate changes in the management of the educational process, forms of assessment without direct contact with the students are developed. It will also improve the quality and efficiency of education in educational institutions.

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