

21

FEATURES OF MODERN TEXTBOOKS AND THEIR IMPORTANCE IN THE FORMATION OF A NEW EDUCATION SYSTEM

CARACTERÍSTICAS DE LOS LIBROS DE TEXTO MODERNOS Y SU IMPORTANCIA EN LA FORMACIÓN DE UN NUEVO SISTEMA EDUCATIVO

Ph. D. Kseniya E. Kovalenko¹

E-mail: kovalenko1288@mail.ru

MSc. Natalia E. Kovalenko¹

E-mail: kke@email.asu.ru

¹ Altai State University. Barnaul. Russian Federation.

Suggested citation (APA, sixth edition)

Kovalenko, K. E., & Kovalenko, N. E. (2017). Features of modern textbooks and their importance in the formation of a new education system. *Conrado*, 14(63), 155-158. Retrieved from <http://conrado.ucf.edu.cu/index.php/conrado>

ABSTRACT

The possibilities of electronic textbooks are revealed when students work independently. In most cases, students use the Internet, where there are many thematic sites and portals for various purposes and you can find almost any information. However, with this system of information retrieval, certain difficulties are possible. In such situations, the electronic textbook demonstrates its advantages, as all the necessary information for mastering the discipline is collected in one place and students do not have to spend time searching in various sources. In addition, the student can test how he or she learned the material, since the textbook, as a rule, contains test tasks for testing knowledge. In cases where the audit showed poor results, as a result of the analysis, it is possible to identify gaps in knowledge and to study poorly mastered material.

Keywords:

Education, textbook, quality of education, computer technologies.

RESUMEN

Las posibilidades de los libros de texto electrónicos se revelan cuando los estudiantes trabajan de forma independiente. En la mayoría de los casos, los estudiantes usan Internet, donde hay muchos sitios temáticos y portales para diversos propósitos y usted puede encontrar casi cualquier información. Sin embargo, con este sistema de recuperación de información, ciertas dificultades son posibles. En tales situaciones, el libro de texto electrónico demuestra sus ventajas, ya que toda la información necesaria para dominar la disciplina se recopila en un solo lugar y los estudiantes no tienen que perder tiempo buscando en varias fuentes. Además, el estudiante puede probar cómo aprendió el material, ya que el libro de texto, por regla general, contiene tareas de prueba para probar el conocimiento. En los casos en que la auditoría arrojó resultados deficientes, como resultado del análisis, es posible identificar lagunas en el conocimiento y estudiar el material mal dominado.

Palabras clave:

Educación, libros de texto, calidad de la educación, tecnologías informáticas.

INTRODUCTION

The impact of new technologies on education is inevitably and little dependent on the desires and efforts of educators. For example, with the spread of calculators, the skills of schoolchildren in the oral account deteriorated. However, history has something to teach, so the use of computers should be recognized as inevitable. It remains to determine the most effective way of using computer technologies. Implementing new technologies in education will be expedient if one succeeds in retaining the advantages of established forms of training, while eliminating their shortcomings.

The publication of textbooks significantly expanded the audience of students, but could not provide verbal information and feedback, not to mention the emotional impact. It is these reasons that make self-education second-rate.

The use of computer technology will be a significant step in education, but only on condition that it can not provide a printed textbook.

Electronic textbooks and electronic manuals refer to teaching software, oriented to the organization and conduct of the learning process.

The electronic textbook is a program-methodical complex, providing the possibility of self-mastering a training course or a large section. The textbook is an integrated tool that includes theory, reference books, problem books, laboratory practice, a diagnostic system and other similar components. In the textbooks, the trainee is offered both video sequences illustrating various processes, and a traditional textual presentation with static pictures and diagrams.

The electronic manual is an integrated tool that acts as a component of the educational process support, including theoretical material, designed as a reference book, presented in the form of text, graphics, or in a multimedia format. The presence of a laboratory workshop is acceptable. The manual is an additional tool for the electronic textbook.

The electronic manual differs from the textbook:

- No printed source
- Oriented to study a small section of the academic discipline.

The electronic textbooks are accompanied by simulators and control packages, which relate to training and controlling software.

Simulators are designed to develop and consolidate skills, provide information on the theory and methods of training activities, training at various levels of independence, control and self-control.

Control packages are designed to evaluate the results of training, a program for monitoring and testing.

In electronic publications, information is presented in such a way that the trainee himself, following graphic and text links, can use various schemes of working with the material.

The use of various information technologies in electronic editions gives significant didactic advantages to the electronic textbook in comparison with the traditional:

- In multimedia technology, a learning environment with a bright and visual presentation of information is created, which is especially attractive for schoolchildren.
- The integration of significant amounts of information on a single medium.
- It is possible to select an individual scheme for studying the material.
- Allows you to track and direct the trajectory of the study of the material, thus providing feedback.
- Text contains links to other material without restriction.

But, along with the advantage, electronic media and work with them have a number of problems:

- Do not provide active participation of the student during the whole lesson.
- Control on the part of the computer is not always objective in the maximum degree (possible forms of answers are quite diverse, creating complexity of input).
- Test check does not contribute to the deep assimilation of the material.
- Does not have self-sufficiency and completeness; the educational material is not fully contained in the volume that is necessary for the user.
- Not accompanied by a printed publication.

Does not provide the individuality of the student's training program depending on his requests, so that he can declare his level of preparation and work with assignments selected according to him.

It should be noted that in the modern conditions the role of the school in society is changing, and, consequently, the pupil's attitude toward school education. Many students show a desire to reduce the time of instruction, the tendency towards the professionalization of education is growing, so the electronic textbook, in such cases, is the best option for self-study of the subject and readiness for the future profession.

DEVELOPMENT

In recent years, teachers are actively using information technology in the learning process. To improve the quality of training future educators, there is a need to improve teaching methods. One of the popular teaching methods is the use of information and communication technologies. The rapid process of informing schools on the basis of modern computer technologies opens the way to electronic textbooks. A textbook is a book for students, which systematically outlines the material in a certain field of knowledge at the modern level of the achievements of science and culture.

In any textbook (electronic and printed), there are two main parts: substantive and procedural. The content of the textbook includes the following components: cognitive, demonstration. The cognitive component is aimed at transferring knowledge to the student, that is, textual information. The demonstration component supports the cognitive in the transfer of knowledge. The procedural part consists of: modeling, control-fixing stages. The modeling stage makes it possible to apply knowledge to the solution of practical problems, to simulate the phenomena and processes studied, and the control-fixing stage determines the degree of mastering by the students of the studied material. In the electronic textbook there are two more parts: control and diagnostic. The control part is a software shell of an electronic textbook, capable of providing a link between its parts and components. The diagnostic part stores statistical information about working with specific programs.

When creating an electronic textbook, the following steps are distinguished:

1. Defining the goals and objectives of the development.
2. Development of the structure of an electronic textbook.
3. Development of content by sections and topics of the textbook.
4. Preparation of scenarios of separate structures of the electronic textbook.
5. Programming.
6. Approbation.
7. Correction of the content of the electronic textbook based on the results of approbation.
8. Preparation of a methodical manual for the user.

At the first stage, the starting point in the creation of electronic textbooks are didactic goals, for the achievement and solution of which information technology is used. Depending on these goals, we can distinguish the

following types of electronic textbooks: subject-oriented textbooks for studying individual subjects of the general education cycle in a particular class; subject-oriented electronic textbooks for studying separate sections of subjects of the general educational cycle in the through study of educational material; subject-oriented electronic simulators with the availability of reference training material; electronic automated systems of abilities development. When developing an electronic textbook, it is necessary to initially develop its structure, that is, the order of the educational material, the type of navigation within the sections, and make the choice of the main reference point of the future textbook.

At the third stage, remember that the concept of the content of the electronic textbook is part of the concept of the content of education, which refers to the system of knowledge, skills, skills, the mastery of which ensures the development of the student's mental abilities. The contents of an electronic textbook can be developed by an experienced teacher. When developing the content of individual topics, it is necessary to rank the educational material: by the degree of complexity of perception; by the degree of complexity of the filing.

In the course of this work it is necessary:

1. Highlight the main content of the training material.
2. To identify secondary issues in the study of educational material.
3. Highlight links with other topics of the training course.
4. To select practical multilevel multivariate tasks for each topic.
5. to select illustrations, graphics, demonstrations, animated video fragments for concepts, wording, events, etc.

At the stage of preparation of scenarios of separate structures it is necessary to know that the scenario of the electronic textbook is a frame-by-stage distribution of the contents of the training course and its procedural part within the framework of program structures of different levels and purposes. Program structures of different levels are components of multimedia technologies: hypertext, animation, sound, graphics, etc. The use of these tools is purposeful: for the development of cognitive interest, increase the motivation for learning.

The electronic manual should be tested in conditions of a real educational process. During the approbation, certain errors unnoticed by the developers are revealed: incorrectness, inconvenience in operation, and so on.

CONCLUSIONS

Despite all the advantages that the use of electronic teaching aids bring to the educational process, it should be borne in mind that electronic manuals are only an auxiliary tool for the teacher. However, the problem arises that the electronic textbook is a new vision of the educational process, which must be learned, not only in terms of design, but also in proper use. The point is that as a result of the change in value orientations in the domestic education, a situation has arisen where teachers not only can not but also do not want to strive for innovations. This, in turn, causes conflict situations between the student and the teacher, since the teacher does not act in his traditional role of the main source of information, but sends the student for the information that is in the global Internet. In other words, the teacher often directs the student to study independently, although often he himself is not familiar with these sources, which causes negative moments in the learning process. For the production of highly qualified specialists, it is necessary that the teachers also have the desire to improve their knowledge, then the students' preparation will be as close as possible to the real conditions of their future activity. It is the use of information technologies that will allow teachers not only to maintain their level of qualification, but also to constantly improve the effectiveness of the educational process.

BIBLIOGRAPHIC REFERENCES

- Piskunova, A.I. (2007). History of pedagogy and education. From the birth of education in the primitive society to the end of the twentieth century: a textbook for pedagogical educational institutions. Moscow.
- Kuzyuk, I. G., Tuch, V.V., & Borisenko, I.G. (2013). Electronic teaching aids in the modern educational process. Scientific community of students of the XXI century. Novosibirsk.
- Gubareva, A. V., Kovalenko, K. E., & Kovalenko, N. E. (2017). Education as a leading factor in the development of society. *Revista Conrado*, 14(62), 60-62. Retrieved from <http://conrado.ucf.edu.cu/index.php/conrado>
- Gribanov, D. V., Kovalenko, K. E., & Kovalenko, N. E. (2017). Educational business games in the educational process. *Conrado*, 14(61), 191-194. Retrieved from <http://conrado.ucf.edu.cu/index.php/conrado>