

## METHODOLOGY OF USING ELECTRONIC TEXTBOOKS IN THE FIELD OF TECHNOLOGICAL EDUCATION

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<https://doi.org/10.5281/zenodo.7573638>

**Abstract.** *To improve the training of future teachers of technology science, in the development of the methodology of using electronic textbooks in the teaching of the "Technology" discipline of "Technology and Design", multimedia teaching systems are included in the educational tools; audio educational materials; video educational materials; practical work; trainers; information and knowledge base; electronic libraries; The use of teaching tools, electronic exhibitions and practical training on the basis of teaching tools based on expert teaching systems determines the urgency of developing the quality and efficiency of the educational process.*

**Keywords:** *technology, electronic textbook, multimedia, electronic didactic tool.*

In the further development of the continuous education system, to increase quality educational services and opportunities for students, to further improve the continuous education system based on the development of the field of technological science, to fundamentally improve the quality of education, together with science, education and production Creating an e-learning environment is important.

The fact that the methodological and didactic support of the science in fulfilling the requirements of the State Education Standard of the science of technology does not fully meet the modern requirements of today is the basis for the development of the use of electronic textbooks in the fulfillment of the goals and tasks of the science.

Based on the stated opinions, it is necessary to carry out a number of processes to increase the efficiency of the educational system using electronic textbooks, including the selection of the field of education and the development and implementation of electronic textbooks in order to analyze and eliminate the necessary problems.

Electronic textbooks are aimed at computerization of various processes and facilitating the activities of technology teachers.

At present, there are very few scientific-methodical recommendations for the organization and implementation of electronic practical work, descriptions of equipment and practical exercises performed using them. The concept of an electronic textbook in the science of technology has a much wider meaning from a methodological point of view, it corresponds to the principles of open and distance education, and allows solving the problems of the material and technical support of the educational process, even if only partially.

The main components of the electronic textbook are as follows: a brief text and analysis of theoretical aspects of the studied object, event or process; the text that records the tools and equipment used for conducting research, computer programs, their characteristics and the

sequence of use; the procedure for performing practical work, the procedure for researching the studied object, phenomenon or process, processing the results.

Electronic textbooks are the most convenient way to use teaching aids, textbooks, charts, videos, slides, etc. for the educational sector.

Images and drawings of tools, machines, types of work, video clips illustrating types of work, animations of the production process serve as data to fill the database of the electronic textbook.

The information of the multimedia catalog is connected with specific topics of the science curriculum, and the teacher can use one multimedia object as a visual material when explaining various topics.

In addition, in order to save teachers' time, ready-made sets of visual materials on a number of topics are included on the disc:

Click the left mouse button on the desired lesson type. For example, if the mouse is hovered over the practical lessons button and the right button is clicked, then a practical exercise window will appear on the computer screen in the direction of "Technology and Design".

Electronic textbooks are effective methods and means of organizing training, which allow to demonstrate the performance of electronic tasks in order to increase the quality and efficiency of education.

MS Word (for editing text), Adobe Photoshop (for editing images), Macromedia Flash (for creating a virtual process) is used to create electronic textbooks.

Computerized classrooms for technology include additional graphic illustrations of analog type or video-audio footage, animation, hidden graphic illustrations (photographs, diagrams, pictures) and structured descriptions of work objects with hypertext.

By working on electronic textbooks, future teachers of technology can learn the methods of technology and design, learn the operations performed on machine tools, the elements of electrical engineering and automation, and perform a number of practical works. For example, in the electronic textbook, in the process of processing wood according to the instructions, its defects, moisture, density, surface roughness when given certain values of cutting speed, thrust value and depth of cut from metal cutting modes, the processes of cutting, gluing, and finishing when working with polymer materials, and in the section of the basics of business science, small repairs of faucets, faucets, analytical views of the preparation of a schematic image of the electricity and heat supply system are shown in enlarged images can reach. In order to increase the effectiveness of the perception of the educational material, it is advisable to use special technological methods, for example, flash-animation using a magnifying glass, which allows you to see the object of work as a whole and get acquainted with its small details.

The content of electronic textbooks consists of a large database, which the teacher can use to learn different teaching methods. The content of this e-textbook is developed in accordance with the age of the students for taking technology lessons in general secondary education.

It is possible to achieve further development of the quality and effectiveness of education if it is used in the formation of competence in the electronic textbooks used in the organization of practical training in the subject "Technology".

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