

## ELECTRONIC TEACHING AID AS A MEANS OF CREATING ELECTRONIC DIDACTIC MATERIALS

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**Annotation.** An electronic textbook can be designed for self-study of educational material in a particular discipline or to support a lecture course for the purpose of its detailed self-study.

**Key words:** digital tools, infographics, web portfolio, electronic didactic materials.

For a modern information society in the conditions of modernization of education, purposeful training of a modern competitive specialist is necessary. In the educational process of a secondary vocational school, it is most expedient to use various forms of information and communication technologies for deep and comprehensive training of students.

Modern digital tools and services that a teacher can use in the educational process are designed for a variety of purposes. For example, to prepare colorful and visual educational materials, create tests, record audio, video and animation clips, create graphic, musical inclusions, infographics, modeling programs. Tools for maintaining a web portfolio, organizing joint online work on projects or web quests.

Electronic didactic materials is an educational resource in electronic digital form, having a certain structure, subject content and metadata. The structure, methods, means of developing electronic didactic materials are determined by its functional purpose and the specifics of its application in a particular information and educational environment. At the same time, the subject content should correspond to the level of education received and contribute to the formation of competencies specified by the discipline program, and metadata (i.e. resource description) should include a brief description of all the parameters of electronic didactic materials. A single standard metadata model allows you to systematize and keep records of existing electronic resources, and also makes it possible to find them on the Internet.

Electronic didactic materials should also ensure the fulfillment of the requirements of interactivity, adaptability, consistency and structural and functional coherence of the material, integrity and continuity of the learning cycle [1]. Regardless of the purpose, method of use or implementation technology, the basis of any didactic tool, including electronic didactic materials, is the educational material of the studied subject area. The creation of an electronic resource includes 2 stages: preparation of the material and its layout. First, the teacher selects sources, develops the main content, structures and processes data, both textual and graphic, multimedia. At the first stage, it is possible to use general-purpose software tools: text and graphic editors (Word, Paint, Photoshop, Corel Draw, Picture Publisher), audio and video digitizing programs (Movie Maker, VideoPad Video Editor, Wave Editor, Free Audio Editor).

Much more opportunities are provided by special tools called authoring systems or electronic educational kits. They allow you to create resources based on multimedia: hypertext, static and animated images, video and audio clips. Work with such programs takes place directly in the browser, without the need for additional formatting and editing tools. The presence of special "helper" panels simplifies and speeds up the procedure for creating hyperlinks, text documents, tables, graphs, audio and video fragments. At the same time, large documents are divided into separate parts with automatic navigation inside. The teacher can create materials not only for the whole course, but also for individual classes and provide access from any,

even mobile platform, since the finished resource is stored both in the local version (for recording on media) and in the online version.

The following software tools are also used to develop individual elements of electronic didactic materials:

- to create mind maps - Coggle <https://coggle.it/>;
- for educational games - Kahoot [https://kahoot.com/?utm\\_name=controller\\_app&utm\\_source=web\\_app&utm\\_medium=link](https://kahoot.com/?utm_name=controller_app&utm_source=web_app&utm_medium=link);
- to create animation - Animator <http://www.algodoo.com/>.

Automation of the control system provides great opportunities for reducing time costs. The most convenient, in our opinion, are the following test constructors: iSpring QuizMaker, Online Test Pad Test constructor. These shells allow you to create different types of tests, set the number of attempts, limit the response time for each question, enable automatic summarizing. Having created an online test once, the teacher saves time on checking and evaluating the results in the future, because after passing the test, students instantly receive results by e-mail or server in the form of a total score or a detailed report with correct answers and comments on each question.

Thus, various electronic didactic materials-constructors enable teachers to create the necessary didactic materials taking into account the requirements of the state standard of education, greatly simplify the process of preparing for the lesson and organizing educational activities, and optimize the system for monitoring and evaluating students. The use of electronic didactic materials makes it possible to diversify the content and methods of teaching computer graphics, make the educational process personally oriented, increase activity and creativity, and improve the quality of education.

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