BASIC REQUIREMENTS ON THE CREATION OF MULTIMEDIA TECHNOLOGIES ON THE BASIS OF WEB-RESOURCES CREATED

Tailakova Guli Bekmuratovna,
Basic Doctoral Student, Uzbek Research Institute of Pedagogical Sciences,
Tashkent, Uzbekistan

Annotation
The article describes the basic requirements for web resources created on the basis of multimedia technologies. Pedagogical, psychological, didactic and technical requirements for web resources have been developed.
Keywords. Multimedia, multimedia technology, web resources.

INTRODUCTION

The current state of development of modern information technologies depends primarily on the intellectual potential of society, including the development of education. Therefore, in developed and developing countries of the world, special attention is paid to the informatization of education, the content and quality of education are considered a priority in society, and ways of developing education and increasing its efficiency are determined [1-5].
Web resources created on the basis of multimedia technologies are a new educational tool, a technological basis for creating web resources based on multimedia technologies. The development of pedagogical, psychological, didactic and technical requirements for web resources based on multimedia technologies is very important.
Multimedia is a comprehensive view of delivering student learning materials based on audio, video, text, graphics, and animation effects based on computer software and hardware.

MAIN PART

Web-based multimedia resources are resources that include the text of the talk, workshops, test questions, user manual, online help, animation, video, as well as additional educational materials based on multimedia tools.
Multimedia web resources, created on the basis of multimedia technologies and tools, not only facilitate the daily use of the teacher's functions in educational institutions, but also increase interest in the subject, accelerate the learning process and ensure good knowledge acquisition.

ANALYSES

Multimedia web resources provide the transfer of electronic course materials in various ways (buttons on the toolbar, text and graphic hyperlinks in the workspace):
• movement forward and backward (scrolling);
• movement forward and backward along a variable route;

• moving forward in the context of interactive learning activities;
• in a modular structure - vertical navigation according to a hierarchical scheme;
• running navigation;
• get information about the meaning of terms and words;
• helper - call context;
• demonstration of videos, animations, training materials;
• select a specific part of the training materials from the menu;
• call up educational information that appears;
• Calling external components of the course from the e-learning database (educational and control tests, crosswords, spreadsheets for the systematic analysis of learning movements, practical tasks in the shell and tool environment, etc.).

When creating materials for a multimedia web resource, special attention should be paid to:
• the content of the resource should be structured in such a way that neither the student nor the teacher have any difficulties in receiving additional educational information from him;
• it is advisable to use a modular system when forming the structure of educational materials;
• it should be possible to organize independent education;
• complete instructions for the study of training materials should be provided;
• there should be control tasks, questions and answers for self-examination, practical tasks.

Interactivity is often understood as the student's ability to interact (move) with the media in the form of "interactive communication".

Interactive communication is a dialogue in which the content of the training material is provided and the choice of work plan options. The interactive mode of interaction between the user and the computer itself means that the user generates a program response to each request, and vice versa, a student response is required to replicate the program.

Based on the international definition of the level of interactivity, it can be divided into the following 4 groups:
- simple (assuming a minimum level of user activity, passive);
- limited (student reaction to individual learning requests);
- complete (multiple responses of the reader to a wide range of requests and ways of interaction);
- real time scale (close to a virtual creature).

An interactive learning tool is a tool that allows users to exchange messages with information systems in real time.

Interactive learning tools are seen as a tool that allows students and teachers to effectively interact with all participants in the learning process, manage the flow of learning information, and transform the learning process into creative and cognitive collaboration.

Interactive teaching aids help the teacher to solve a number of pedagogical problems: to increase the level of assimilation of educational material, visualization of information, understanding of abstract material, organization of independent work on understanding, as

well as explanation of educational material, use of illustrations, assimilation of the topic, and quick diagnostics. These tasks are performed by the teachers of the Department of Computer Science and Information Technologies when creating educational presentations and flash animations using web resources.

Practice shows that today it is created using e-learning resources (mainly Adobe Flash, MS Power Point, Smart Board, Star Board, etc.) in the field of "Computer Science and Information Technology". Services provided over the Internet use less HTML or Delphi. The tools mentioned above are often used by teachers to create independent and educational presentations. This is because high quality interactive presentations can be made using the tools available. Examples include MS Power Point or Open Office Impress presentation packages.

Multimedia web resources that ensure the mastery and implementation of educational programs - curriculum, e-courses on a certain part of a subject or curriculum, teaching or practical manuals, control materials for quality control of learning lessons, study or control, or a course, systematized theoretical and practical an educational resource posted in electronic form containing methodological recommendations, educational (didactic) teaching aids and sets of questions.

Multimedia web resources are resources that allow you to collect, describe, update, store, present and control knowledge in an interactive manner based on modern information technologies.

DISCUSSIONS

Multimedia web resources are designed for the use of computer teaching methods, self-study and comprehensive and effective assimilation of scientific information:

- educational and scientific materials only in oral (text) form;
- teaching materials in oral (text) and two-dimensional graphic form;
- multimedia (multi-information) applications, that is, information in three-dimensional graphical form, audio, video, animation and partly verbal (text);
- tactile (tangible), in which the student enters the real world, which is depicted in a stereo copy in the "world of the screen" and creates the impression of movement in relation to objects in it.

Multimedia web resources should be user-friendly and meet the following basic criteria:

- be interesting and attractive;
- allow the user (student) to improve their skills, knowledge, understanding of science and worldview;
- contain the necessary material in the official curriculum;
- clear and easy to use;
- provide examples, problems, real-life situations and practical concepts;
- the presence of pictures and diagrams that help connect practice and theory;

- take into account national and cultural traditions and values;
- designed for intermediate users, taking into account both high and low level users, etc.

Tutorials for multimedia web resources will be introduced using new information technology tools [4,5]. Electronic copies of traditional textbooks, teaching aids and other printed materials are used to create multimedia web resources.

When creating materials for multimedia web resources, special attention should be paid to the following:

• the content of e-learning guides should be structured in such a way that the student does not have any difficulty in obtaining additional educational information from them;
• it is advisable to use a modular system when forming the structure of educational materials;
• complete instructions for organizing self-study and study of educational materials;
• availability of control tasks, questions and answers for self-study, practical tasks.

Multimedia web resources should consist of the following components:

- instruction for the study of science with guidelines for independent work;
- a workshop on the formation of skills and abilities to apply theoretical knowledge;
- tests to help determine the level of proficiency in theoretical and practical teaching materials;
- tables on science, a reference book with formulas, etc.

Multimedia web resources should have the following features in a specific field of science:

1) the educational material is described in a specific area of knowledge;
2) educational material is covered at the level of modern achievements of science, technology, technology and culture;
3) the educational material is systematically described in textbooks, that is, it describes all the completed work, which consists of many elements of meaningful relationship and communication, ensuring the integrity of the resource.

Thus, in multimedia web resources knowledge is presented in an attractive, effective way, basic concepts and definitions are given clearly and concisely, as well as the possibility of electronic control of user knowledge.

CONCLUSIONS

In modern conditions, computer-aided teaching tools have great potential for solving issues of individualization, differentiation and intensification. The use of computers and interactive equipment in the educational process increases the quality and effectiveness of teaching, fully meeting the individual needs of students. However, computer training requires not only a change in the organizational form of training, but also the development of new types of educational and pedagogical activities based on the integrated use of a set of computer training aids.

Reference:

1. Gvozdeva V.A., Informatics, automated information technologies and systems: textbook / VA Gvozdeva. - Moscow: Forum: Infra-M, 2016 .-- 541 p.
2. Lyakhovich V.F., Molodtsov V.A., Ryzhikova N.B. Fundamentals of Informatics. - M .: KnoRus, 2016 .-- 348 p.
3. Makarova N.V., Informatics and information and communication technologies. - SPb .: Peter, 2011 .-- 224 p.
4. Fedotova E.L., Information technologies in professional activity: Textbook / E.L. Fedotov. - M .: ID FORUM, SRC INFRA-M, 2018 .-- 368 p.
5. Filimonova E.V., Informatics and information technologies in professional activity. Textbook. M .: Justice, 2019.216 p.