Multimedial Electronic Textbook and Problems of Organizing Education on the Basis

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ABSTRACT

The article addresses issues such as the multimedia environment, its organizers and methods of organizing multimedia-based education, as well as the rapid and effective control of computer-assisted learning, the delivery of small but very important materials in theoretical and practical classes. obtained.

KEYWORDS: Information, information technologies, types of information, animation, multimedia, media environment, multimedia textbook

INTRODUCTION

The role of modern information technologies in the educational process is very unique, especially in the system of secondary special, vocational education, special attention is paid to computer-based teaching aids - electronic textbooks, electronic teaching aids and multimedia.

Microsoft Internet Explorer browser, HTML language, Microsoft Office FrontPage programming language, Microsoft Office PowerPoint presentation software are widely used in the creation of this type of software. We will discuss below the organization of education on the basis of multimedia.

The concept of multimedia entered science in the early 1990s. Many experts interpret this term differently [1].

In our view, multimedia is an integrated view of the delivery of educational materials to students based on audio, video, text, graphics and animation effects based on computer software and hardware.

LITERATURE ANALYSIS AND METHODOLOGY

Theoretical and methodological bases of development and improvement of teaching methods are reflected in the research work carried out by scientists of the Republic and foreign countries. In particular, V.M. Glushkov, A.P. Ershov and V.K. Kobulov on the development of content and methodological aspects of cybernetics and technical sciences, S.S. Gulomov, A.A. Abdukadirov and. on the use of information technology in education. N.I.Taylakov, A.P.Ershov, A.A.Abdukadirov, M.Aripov, M.P.Lapchik, E.I.Mashbits, E.I.Kuznetsov, U.Yuldashev, R.R. Considered in the works of Bakiev and F. Zokirova; K.T. Olimov developed the technology of principles of creation of electronic textbooks on special subjects and a method of their examination; E.S.Polat, A.A.Abdukadirov, M.Aripov, R.H.Hamdamov and A.Sattorov on the application of distance learning in the educational process; Although the work on the development and application of pedagogical software in education has been considered in the works of such

scientists as M.Kh. Lutfillaev, I. Isakov, A. Hayitov, V.V. Grinshkun, R.Kh.Kadyrov, the methodology of creating shells and using them to increase the effectiveness of education has not been sufficiently studied [2].

DISCUSSION

Multimedia is hardware and software that allows a computer to combine video, audio, animation, graphics, and text resources to create a presentation.

Multimedia is a fast-growing modern information technology, which distinguishes it from other teaching aids:

➤ Integrates different types of information: traditional (text, tables, ornaments, etc.), original (speech, music, video clips, TV frames, animation, etc.) into one software product (Figure 1). Such integration is carried out under computer control using various devices for recording and displaying information: microphones, audio systems, optical CDs, televisions, VCRs, camcorders, electronic musical instruments;

➤ Unlike text and graphics, audio and video signals are only considered at certain time intervals;

➤ A new level of "human-computer" interactive communication, in which the user receives a much wider and more comprehensive information in the process of communication, which allows to improve the conditions of education, work or leisure [3].
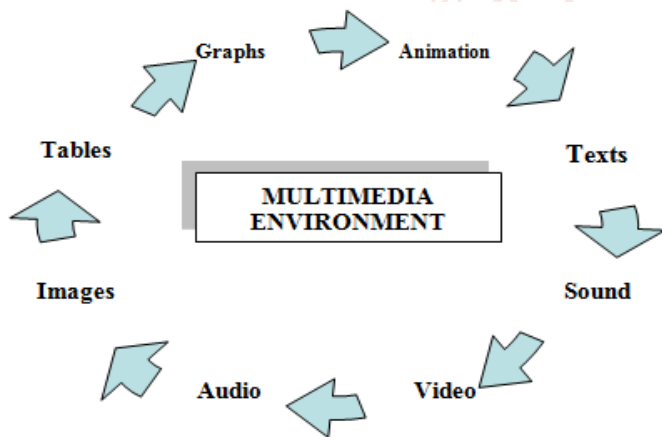

Figure 1. Multimedia environment

Multimedia allows you to create various elements of the media environment, interactive presentation applications, based on computer hardware and software.

The multimedia education system can be demonstrated in one general computer program of demonstration of educational material, practice and testing with the help of a computer simulator, as well as all other additional materials. In developed

countries, this method of teaching is now widely used in the field of education [4].

A multimedia textbook not only facilitates student learning, but also increases interest in science, activates the learning process, and ensures the acquisition of new knowledge. Multimedia systems require a certain amount of hardware, hardware, photo editing software or multimedia software, which in turn takes up a lot of space on the computer, leading to limited workflow.
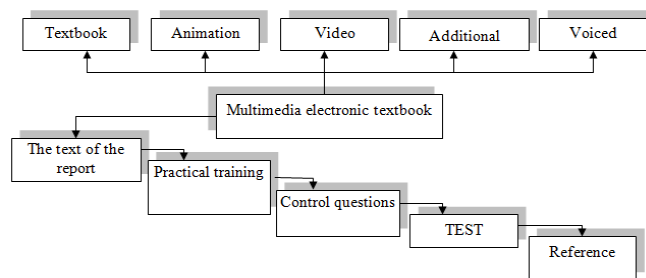

Figure 2. The structure of a multimedia electronic textbook

Psychologists say that multimedia-based learning can save students up to 30% of their time, and the knowledge gained will be stored in memory for a long time. If students receive the given materials on the basis of viewing (video), the chances of storing information in memory will increase by 25-30%. In addition, when learning materials are presented in an audio, video, and graphical form, memory retention increases by 75%.

Multimedia-based teaching has the following advantages:
➤ the ability to master materials more deeply and more perfectly;
➤ to establish close contacts with new areas of education;
➤ opportunity to reduce training time (save time);

the ability to retain the acquired knowledge in memory for a long time, etc.

When creating multimedia applications, various programs are used - Divector, Tool Book, Visual Basic, Power Point, Flash.

In some cases, special hardware and software will be required to create large multimedia learning tools.

It is not advisable to use large amounts of audio and video clips when creating multimedia teaching aids. Sometimes these features cause inconvenience to the program. For example, excessive sound effects can cause inconvenience when using excessive software [5].

In presentations, multimedia should be used only where it is needed and where it is effective. This is

why multimedia applications can be used in cases that complement traditional methods to solve specific problems. For starters, it is best to create computer presentations rather than multimedia applications.

It allows you to use computer presentations, various pictures, video clips, stereo sound, color images, ie a series of multimedia resources. We discuss below one of the multimedia teaching aids, a multimedia e-textbook.

Multimedia e-textbook (MED) - is designed for the use of computer-based teaching methods, independent learning and effective teaching of scientific materials, scientific knowledge in all respects:
➢ educational and scientific materials only in verbal (text) form;
➢ teaching materials in verbal and two-dimensional graphic form;
➢ multimedia (multimedia - multi-information environment) applications, ie information in the form of three-dimensional graphics, audio, video, animation and partially verbal form;

tactile (perceptible, perceptible), is characterized by the fact that the learner enters the real world, where his stereo copies are depicted in the world of the computer screen, and creates an image of the objects in it.

MED is a universal software that allows you to automate the processing of certain types of professional activities, types of information or types of information.

MEDs have the following features:
➢ the possibility of an individual approach to the studied materials in relation to traditional textbooks;
➢ suitability to the needs, level of training, intellectual capabilities of students;
➢ ability to perform practical tasks without complex calculations and substitutions;
➢ the possibility of self-monitoring winter at all stages of learning;
➢ clear paperwork, publication of information, etc. provides opportunities.

CLEAR CONCLUSIONS AND PRACTICAL SUGGESTIONS
MED provides the following opportunities for practical training in specialized classrooms:

➢ perform a large number of tasks using computer support, analyze solutions and their graphical interpretation;

➢ participation in the form of independent work in front of a computer with the participation of the teacher as a guide and consultant;

➢ quick and effective control of students' knowledge by the teacher with the help of a computer;

➢ to provide the teacher with theoretical and practical materials at his / her own discretion, which are small in size but very important in content;

➢ to enable students to engage independently in solving problems that can be studied outside the classroom;

➢ freeing the teacher from hard work such as homework, checking various calculations and control tasks;

allows you to individualize work with learners, especially in the area of homework and supervision.

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