MULTIMEDIA IN EDUCATION

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World is changing every minute. Human life in many ways has become easier with the advent of computers. Everyone today knows what the media is. It is a powerful tool if used correctly, and especially it can be of great benefit in education. General multimedia includes five main components: text, sound, animation, video, and graphics. Since the mode of learning is interactive and not linear, a student or teacher can choose what to investigate next. For example, one does not start on the first page of a linear document and read to the end. Interactive multimedia learning mode is more like constructing a spider's web, with one idea linked to another, allowing choices in the learner's path. However, the instructional design of these systems should be based on a careful examination and analysis of the many factors, both human and technical, relating to visual learning. Students must be able to select appropriate multimedia tools and apply them to the learning task within the learning environment in order for effective learning to take place.

We conducted a survey among students on what kind of media attracted their attention most of all. The most popular answer was video which images were used to demonstrate particular chemical reactions without exposing students to highly volatile chemicals, or medical education, where real-life situations can be better understood via video and so on. 50 per cent of students voted for it. Approximately 25 per cent of students preferred the sound in the process of acquiring knowledge. 16 per cent of students voted for the use of animation. 8 per cent of the students like to use graphs as an explanation of the information. And nobody liked situations when teacher used text in educational process.
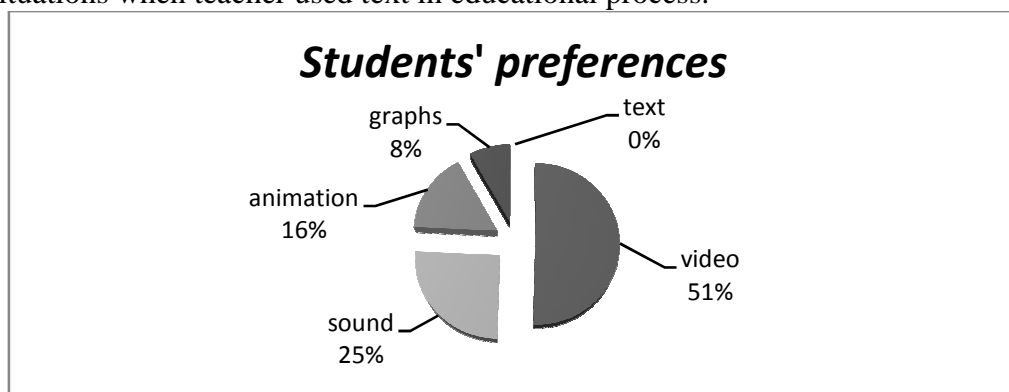

Fig. 1. Students' preferences

There are many quite general potential negative aspects of multimedia learning tools in the system of open education. These include distraction, the possible lack of feedback, lack of accessibility and other aspects.

Independent learning. Some students are not able to take advantage of that freedom, which provides multimedia content based on hypertext.

Accessibility. Not all students enrolled in the system of open education, have the required hardware and software resources, which may limit the applicability of the training using the latest multimedia tools.

Problems of access to telecommunication networks. A slower communication channel mean low quality sound, image, video and other multimedia information, which may adversely affect the quality of distance open learning process.

Problem reading data from a computer screen. Information on the computer screen is not as easy to read, as printed. Large amounts of text that should be fully read, is easier to read on paper.

This is only part of the problems that may arise among students in the application of multimedia. However, there are advantages in this kind of education.

A Multimedia Learning provides flexibility in expressing the creativity of a student and in exchanging ideas.

Text. Out of all of the elements, text has the most impact on the quality of the multimedia interaction. Generally, text provides the important information. Text acts as the keystone tying all of the other media elements together. It is well written text that makes a multimedia communication wonderful.

Sound. Sound is used to provide emphasis or highlight a transition from one page to another. Sound synchronized to screen display, enables teachers to present lots of information at once. This approach is used in a variety of ways, all based on visual display of a complex image paired with a spoken explanation A great advantage is that the sound file can be stopped and started very easily.

Video. The representation of information by using the visualization capabilities of video can be immediate and powerful. There are many instances where students, studying particular processes, may find themselves faced with a scenario that seems highly complex when conveyed in purely text form, or by the use of diagrams and images. In such situations the representational qualities of video help in placing a theoretical concept into context. Video can stimulate interest if it is relevant to the rest of the information on the page. The use of video is appropriate to convey information about environments that can be either dangerous or too costly to consider, or recreate, in real life but we already discussed about it above.

Animation. Animation is used to show changes in state over time, or to present information slowly to students so they have time to assimilate it in smaller chunks. Animations, when combined with user input, enable students to view different versions of change over time depending on different variables. Animations are primarily used to demonstrate an idea or illustrate a concept. Video is usually taken from life, whereas animations are based on drawings.

Graphics. Graphics provide the most creative possibilities in educational process. They can be photographs, drawings, graphs from a spreadsheet, pictures, or something pulled from the Internet.

Multimedia provides training in the dialog (interactive), user interacts with the computer. Online training allows you to move from passive to active way to implement educational activities in which the learner is a major participant in the learning process.

In the selection of multimedia learning tools teachers need to take into account the uniqueness and peculiarities of a particular academic subject, include relevant specifics of science, its conceptual apparatus, especially its methods of research relationships. A multimedia learning tool should meet the goals and objectives of the course and organically fit into the learning process. Giving students an opportunity to produce multimedia documents of their own provides several educational advantages. Students work with the same information from four perspectives: 1) as researcher, they must locate and select the information needed to understand the chosen topic; 2) as authors, they must consider their intended audience and decide what amount of information is needed to give their readers an understanding of the topic; 3) as designers, they must select the appropriate media to share the concepts selected; and 4) as writers, they must find a way to fit the information to the container including the manner of linking the information for others to retrieve.