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The Concepts of Multimedia Teaching Aids

Abstract

In recent years, the use of multimedia teaching technologies in general education school has become a more prominent issue. But we should remember that these are not only new technical tools, but also new teaching methods and approaches that differ from traditional ones. The teacher should create a learning environment that enable practical and effective learning for each student and encourages their active participation and interest to the subject.

Modern pedagogical technologies-one of which is multimedia teaching-are based on an individualized approach to student education, interests, mental abilities and levels of activity.

The application of multimedia tools in the teaching process requires the preparation of appropriate pedagogical technology. With the help of multimedia equipment, several types of information are used simultaneously.

Keywords: *educational technologies, multimedia, presentation, internet resources, multimedia games*

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Multimedia təlim vasitələrinin konsepsiyası

Xülasə

Son illər ümumtəhsil məktəblərində multimedia tədris texnologiyalarından istifadə məsələsi daha çox gündəmə gətirilir. Ancaq yadda saxlamalıyıq ki, bunlar tək-cə yeni texniki vasitələr deyil, həm də ənənəvi olanlardan fərqlənən yeni dil öyrətmə metod və üsullarıdır. Müəllim hər bir şagird üçün praktiki dil mənimsəmə mühiti yaratmalı, hər bir şagirdin fənnə fəallıq və maraq göstərməsinə şərait yaratmalıdır.

Müasir pedaqoji texnologiyalar, onlardan biri də multimedia təlim texnologiyası olmaqla, uşaqların təliminə fərdi yanaşmanın həyata keçirilməsinə kömək edir, onların xüsusiyyətlərinə və öyrənmə qabiliyyətinə diqqət yetirir.

Multimedia vasitələrinin tədris prosesinə tətbiqi müvafiq pedaqoji texnologiyanın hazırlanmasını da tələb edir, multimedia qurğusunun köməyi ilə eyni zamanda bir neçə növ informasiyadan istifadə olunur.

Açar sözlər: təhsil texnologiyaları, multimedia, təqdimat, internet resursları, multimedia oyunları

Introduction

Multimedia is content or contents that simultaneously present information in different ways-by transmitting sound, video and animated computer graphics. One media file can contain text, audio, graphic and video information, a way of interactive interaction with it. Such interaction is determined by the choice of a certain set of hardware and software.

Research

The following approaches have been developed in modern science to understand the concept of multimedia (Chen, Liu, 2008, p.127; Bingimlas, 2009):

1. Multimedia as an idea, a new approach to storing information of various properties. This approach was formed in connection with the development of computer technology, which made it possible to process various information-first of all, digital information, which allowed the computer to master working with text files; later-the computer began to interact with audio and video files, in connection with which at the moment it freely interacts both with the sound of a video sequence and with individual video fragments. Text and numbers for quite a long time were perceived as separate concepts, as well as the digitization of audio files and images. Only 10 years after the beginning of digital processing of audio and video files and images, it was possible to combine them into a single whole, constituting the concept of "multimedia".

2. Multimedia as equipment that allows effective interaction with information of different properties and nature. This includes multimedia boards, multimedia complexes and multimedia centers.

3. Multimedia as a product that includes data of various kinds and all sorts. In addition, a distinctive feature of this product is its clear structuring, allowing for easy navigation, for example, an encyclopedia or a catalog. Traditionally, such a product is associated with CD-ROM and DVD-ROM. A multimedia product makes it possible to obtain the same amount of information that can be contained in a museum or library; in addition, the product is organized in such a way that it is understandable to a person without special education, which ensures the principle of accessibility. A system of menus and links is created inside the multimedia product, serving as a guide inside a specific data system. The main menu allows structuring the presented material and finding the required section in a short time. Such a device of a multimedia product allows both to avoid encountering material of no interest, and to obtain information and delve into details regarding the concept of interest.

Multimedia is a modern computer information technology that combines text files, audio and video materials, graphic images and animation within a computer system.

Multimedia is the sum of technologies that provide input, processing, storage, transmission and display of such types of data as text, graphics, animation, images, audio and video, speech.

The term “multimedia” is also used to denote information carriers that contain a significant amount of information and provide fairly quick access to this data; some of the first carriers of this kind were compact discs. In this case, the term “multimedia” is used to denote the process by which a computer interacts with these carriers, uses them and provides information to the user through the transmission of such types of data as audio and video materials, graphic images, animation and other types used in addition to traditional methods of transmitting information (Davies, Cormican, 2013; Anderson, 1993).

Conventionally, multimedia is divided into linear and nonlinear. An example of a linear method of information reproduction can be considered a film or video sequence. A linear method of information reproduction implies that a person interacting with a given file is not able to influence its output.

A nonlinear method of information reproduction, in turn, allows the student not only to participate in the output of information, but also to influence this output, interacting in a certain way with the proposed means of presenting multimedia data; human participation in this case is considered interactive. Often, the combination of a nonlinear method of transmitting information and interactive activity is described by scientists as hypermedia. A similar method of human interaction with multimedia can be traced in the example of computer games.

Multimedia transmission of information is provided by means of (Davies, Cormican, 2013; Kapi, Osman, Ramli, Taib, 2017):

1. Presentations.
2. Games.
3. Internet resources.

A presentation, as a type of multimedia, can be considered both a linear and a non-linear way of transmitting information. A presentation, formed by a speaker from start to finish and demonstrated to the audience, conveys the necessary information, but it does not leave the viewers the opportunity to influence either the achievement of a certain conclusion or the speaker presenting this presentation. Such a path will be considered linear. A live presentation, presented as a non-linear way of transmitting information, allows the audience to interact with the speaker, ask him questions related to the topic of the presentation. A live presentation allows the speaker to digress from the topic a little, give additional comments on it, explain individual terms and controversial points. A live presentation makes it possible to present information interactively.

A multimedia presentation is demonstrated by a speaker on stage using a projector or other local playback device. A multimedia presentation can be designed for a fairly wide audience, while being either “live” (online broadcast, for example) or pre-recorded. Such a broadcast presentation is traditionally based on analog or electronic technologies for storing and transmitting information. An online broadcast of a multimedia presentation can be either downloaded to a specific device that allows viewing it, or played directly from an Internet resource using streaming data technologies. Thus, we can judge that the transmission of multimedia information can be either provided on demand or “live” (Akbaba-Altun, 2006, p.285; Blevins, 2018).

Multimedia games allow the participant of the game to interact with the virtual environment created by the computer. The participant of the game perceives the presented virtual environment and its state directly through various methods of presenting information (auditory and visual). All games provided on the computer and other specialized devices are considered as multimedia. Such gaming activity can be carried out either individually on a local computer or by a group of players via a local or global network (Hwang, Wang, Sharples, 2007, p.215).

An Internet resource is one of the types of multimedia presentation of information. A multimedia Internet resource is traditionally presented as a site, the main part of which is information presented in the form of multimedia. A multimedia Internet resource is a mechanism that meets modern standards and allows you to supplement and expand the range of functions and services for new visitors, without replacing the performance of classic functions.

Multimedia Internet resources have the following features (Bayramov, 2004, p.201; Ağayev, 2006; Kərimov, 2011; Veysova, 2007):

1. Content of various types of information-text, graphic, audio, etc.
2. Availability of a high degree of clarity of the information demonstrated.
3. Providing access to various types of files.
4. Availability of the possibility of using Internet resources to promote creative projects in the field of art.

Resources of this type allow you to announce upcoming events, demonstrate an overview of a particular area, institution or specific team, establish communication with visitors to this Internet resource, and ensure the active presentation of new material.

Conclusion

The above-presented formats of multimedia information transmission allow to simplify the process of perception of new data by the user. For example, a text document offered to students, illustrated with images or audio and video files will be most accessible and understandable to them, which will ensure the effectiveness of its assimilation.

References

1. Ağayev, Ə. (2006). *Təlim prosesi: ənənə və müasirlik*. "Adiloğlu" nəşriyyatı.
2. Akbaba-Altun, S. (2006). Complexity of integrating computer technologies into education in Turkey. *Educ. Technol. Soc.* 9(1):176-187.
3. Anderson, R.E. (1993). *IEA Computers in Education Study*. Department of Sociology, University of Minnesota. Computers in American schools 1992, an overview, a national report from the international IEA computers in education study.
4. Bayramov, V.H. (2004). *Müasir təlim metodlarının və yeni pedaqoji texnologiyaların tətbiqinə dair*.
5. Bingimlas, K. (2009). Barriers to the successful integration of ICT in teaching and learning environments: a review of the literature. *Eurasia J. Math. Sci. Technol. Educ.*, 5(3):235–245
6. Blevins, B. (2018). *Teaching digital literacy composing concepts: focusing on the layers of augmented reality in an era of changing technology*. *Comput. Compos.* 50:21-38.
7. Chen, H.Y., Liu, K.Y. (2008). Web-based synchronized multimedia lecture system design for teaching, learning Chinese as second language. *Comput. Educ.* 50(3):693-702.
8. Davies, W., Cormican, K. (2013). An analysis of the use of multimedia technology in computer aided design training: towards effective design goals. *Procedia Technol.*, 9:200-208.
9. Hwang, W.Y., Wang, C.Y., Sharples, M. (2007). *A study of multimedia annotation of Web-based materials*. *Comput. Educ.*, 48(4):680-699.
10. Kapi, A.Y., Osman, N., Ramli, R.Z., Taib, J.M. (2017). Multimedia education tools for effective teaching and learning. *J. Telecommun. Electron. Comput. Eng.*, 9(2-8):143-146.
11. Kərimov, Y.Ş. (2011). *Təlim prosesində yeni texnologiyalar*. Mütərcim.
12. Veysova, Z. (2007). *Fəal və interaktiv təlim*. Müəllimlər üçün vəsait.

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