

Alexander GERTSIY

State Economy and Technology University of Transport, Kyiv, Ukraine

Nataliia ISHCHUK

Ternopil National University of Economics, Vinnytsia Institute of Economics,
Ukraine

Multimedia application in high school

Computers are not new to education and have been used extensively for training especially in the corporate and military sector where identical information is required to be learnt by rote by a large number of staff, possibly at different locations. When this form of training became possible the dominant educational paradigm was 'objectivism'.

In the evolutionary development of methodology of foreign languages teaching process there was a revolutionary leap connected with the appearance of personal computers.

Multimedia has become available to the educational community at a time when the 'constructivist' theory of education is enjoying popularity. This section will consider these two educational paradigms and their relevance for educational multimedia [Phillips Rob 1997].

Constructivism claims that reality is more in the mind of the knower, and the knower constructs or interprets a reality from their own perceptions. In this view, the student constructs their own knowledge from the environment they are in. The task of the teacher is to provide material, explain, support and facilitate, but to let the student synthesize as much of their own knowledge as possible. The main tenets of constructivism are:

- knowledge does not exist outside the bodies and minds of human beings;
- although reality exists independently, what we know of it is individually constructed;
- humans construct knowledge subjectively based on prior experience and metacognitive processing or reflection;
- learning consists of acquiring viable assertions or strategies that meet one's objectives;
- at best, learning can be estimated through observations and dialogue.

Many contemporary pedagogic and methodical ideas are fruitful and prospective for the development of foreign languages teaching multimedia. When creating them one should be based by principles of communicative approach, ideas of entertaining teaching-learning process. Psychological peculiarities of

a learner should be taken into account and materials for the development of intercultural communication be used.

During almost hundred years psychologists expended considerable part of their scientific efforts on attempts to comprehend a teaching process. Factors that influence on learning process speed and loss of knowledge achieved have been mainly investigated. As a result of these attempts a number of reliable principles was accepted. They may be used for the construction of teaching-learning process.

To begin with, this process is more effective if a learner is greatly interested in the object studied.

Secondly, teaching is more effective, if the forms of knowledge and skills acquirement can be easily carried into the „real life“. This means, that it is more important for a learner to be able to find the correct answers to question, than simply get awareness of them.

Thirdly, teaching process accelerates if a learner „finds out the result“ of his/her answers immediately. If the answer is correct, the learner must immediately obtain the confirmation of it; if it is wrong he/she must know about it quickly as well. Even an insignificant delay is a significant obstacle to the teaching process.

A program must be constructed according to the principle of successive material complication. Each lesson ought to be begun with the easiest tasks. Gradually the level of material complication rises. This goes on until a desired experience and ability degree is reached.

Awareness of one's work results stimulates execution of the next task. The difficulties which necessarily to be overcome must arise successively, and their successful overcoming develops a high activity level.

Because of the fact that learning is individual itself, the teaching process should be organized so that every learner could advance in his/her program individually. As soon as some students need more time while the others need less time to cope with tasks it is quite difficult to teach in mixed groups.

Only with use of computer and multimedia programs it is possible to solve these problems. Only few designers of such programs intend to create a device that could substitute a teacher in the classroom. The only thing one can really rely on is to hope that these systems will make easier teacher's work, for example, to control the result immediately after the material had been studied. Then a teacher will have more opportunities to do the tasks that may be executed by a human-teacher only.

Electronic technologies, which promote new type communication, do not only absorb and synthesize well-known genres, they „hatch absolutely new types of discourse“ [Ryan, Marie-Laure 1999: 1–28]. Materialized product of this discourse may be identified as *hypertext* or *cybertext* or *electronic text* –

amalgamation of words, pictures and sound. Many of these CADD (computer-assisted design and drafting) texts are designed to exist in cyberspace only.

These computer-mediated texts are believed to be quite specific, and soon probably a new discipline will appear, analogous with the history of the language – history of the text. The stages of text evolution may be roughly described as noncoherent text, coherent text and hypertext.

Electronic texts differ from printed ones by their ephemeral nature, spatial (not linear) organization, emergent (not predetermined) meaning, decentered structure, free growth, heteroglossia, dialogism, discontinuity, interactive character [Ryan, Marie-Laure 1999: 78–107]. Besides, hypertexts are multisemiotic. Symbols are likely to become key semiotic elements: firstly, visual environment is natural and the best for a symbol, secondly, symbols help to produce information-saturated space, finally, symbols are the best eye-catchers.

Taking into account the humanization of education it is important to create new educational technologies based on the implementation of new informational technologies. Among the goals of education informatisation there are both universal (development of mental abilities, humanization and accessibility of education) and specific ones – computer competence, dataware of education (knowledgebase and database), an individualized education on the basis of new computer teaching technologies.

Literature

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Abstract

Multimedia will help change the paradigm of education: from „filling of a vessel” to „flash of torch”, that is to the development of individual abilities of a man. A wide implementation of multimedia will cause particular opportunities to change the everyday, industrial (educational) and economic culture.

Key words: multimedia, education, computer teaching program.

Programy multimedialne w szkole średniej

Streszczenie

Zastosowanie i wykorzystanie multimediiów w edukacji wymusza zmianę paradygmatu kształcenia. Wprowadzając nowe technologie do procesów dydaktycznych, musimy pamiętać między innymi o rozwoju umysłowym uczących się, wartościach humanistycznych, indywidualnym podejściu do uczących się, ich kompetencji w zakresie umiejętności korzystania z technologii informatycznych i informacyjnych oraz ogólnego nastawienia do korzystania z nowoczesnych technologii.

Słowa kluczowe: multimedia, edukacja, komputerowy program dydaktyczny.