

THE EXPERIENCE OF USING OF ELECTRONIC EDUCATIONAL MEANS IN TEACHING OF NATURAL DISCIPLINES AT THE PRE-UNIVERSITY STAGE OF FOREIGN STUDENTS TRAINING

Yakovenko Victoria, senior teacher
V. N. Karazin Kharkiv National University
yako.victoria@gmail.com

For foreigners who have entered a higher educational institution in Ukraine mastering the terminology of a subject is a difficult process against the background of adaptation to new social and living conditions. Therefore, involvement of visual methods in teaching natural disciplines is especially important at the stage of pre-university education of foreigners. Modern technical tools and software give a wide range of opportunities to develop teaching material. So over the last few years the lecturers of Natural Sciences Department of International Education Center of V.N. Karazin Kharkiv National University have been developing and actively implementing multimedia lecture courses in the studying process of biology, mathematics, physics, computer science, chemistry. These electronic materials were developed in such software environments as Microsoft Office Power Point, Libre Office Impress, Elite Panaboard and they are currently used in classes with the help of a personal computer (or computer class), a multimedia projector, an interactive touch panel or an interactive whiteboard. As a result we got a number of positive improvements over the period of practical application of these electronic educational materials. It has become possible to stimulate students' interest with the help of carrying out experiments in physics and chemistry without laboratory, visualization of engineering concepts and principles of software applications work in computer science, visualization of complex wide processes in biology, demonstration of educational videos, etc. Multimedia, which is an organic combination of texts, images and sound, causes a vivid psychological effect of "immersing" students into the academic atmosphere of the subject and its vocabulary [1, 230]. It's particularly worth mentioning the efficiency of a touch panel and an interactive board, as these tools allow not only to demonstrate multimedia presentations, but also write, draw charts and graphs like on an ordinary board, mark projected image with tags, move, group, add and remove objects [2, 76].

Each multimedia lecture:

- is a sequence of slides (pages), which typically contains a system of links that can help you navigate through the presentation, go to content of lecture, etc.;
- contains blocks of text, graphics, audio and video clips;
- meets ergonomic requirements;
- volume of one lecture (number of slides-pages) can vary from 20 to 40 slides, depending on the level of students' knowledge, the complexity of the material and the speed of its mastering by listeners.

For quality assessment of students' knowledge author and her colleagues have worked out and are currently using systems of electronic tests of module, term and final control in biology, computer science, physics, mathematics. Such electronic tests were created with the help of Wondershare Quiz Creator, Quiz Press, My Test X programs and they are means of additional stimulation of students' logical thinking, an ability to analyze and systematize educational information. Maximal visualization of the testing process is realized by implementing various graphical and multimedia objects in tasks. And it stimulates cognitive motivation of foreign students: they are more likely to do electronic tests rather than paper ones.

The results of the approbation of above mentioned electronic materials have shown that they are an effective and important element of natural sciences methodology at the pre-university stage of foreign students training.

References:

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