

**ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ ТА ЗАСОБИ НАВЧАННЯ ФІЗИКО-
МАТЕМАТИЧНИХ, ІНФОРМАТИЧНИХ ТА ТЕХНІЧНИХ ДИСЦИПЛІН**

**INFORMATION TECHNOLOGIES ADVANTAGES FOR SPECIALISTS
TRAINING**

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The peculiarity of modern education at higher educational institutions is the ability not only to equip students with knowledge, but also to form their need for constant individual improvement, to develop skills of self-education. Therefore, the main task is to create an data literate person, able to understand the tasks at hand, comprehend, analyze the results, look for new possibilities for application with changes in technology and market requirements. Information, by the way of reflection for human perception, is divided into the following main types: audio, text, numeric, graphical, combined information.

Information technologies were used to ensure information exchange among people at all stages of society development. In my opinion, during the learning process, a student who uses technical learning tools is quicker on the uptake. But it should be considered that technical means of teaching give positive results only when they are skillfully and reasonably used, especially in combination with other means of learning. Pedagogical skills of work with technical means of training – is the ability of a teacher to successfully implement the educational goals of study on the basis of their own psychological, pedagogical, methodological, special and technical knowledge. The problem of technical means use in the process of specialists training is one of the most important ones in disciplines teaching methodology.

Let us consider such a phenomenon as “informatization”. Informatization (from Latin “information”) is an explanation, presentation. It is one of the main directions of modern scientific and technological revolution, which is based on transition from the industrial stage of society development to information one.

Education informatization in Ukraine is one of the priority directions for reformation. In the broad sense, it is a complex of socio-pedagogical transformations associated with saturation of educational systems with information products, means and technology. In the narrow understanding – the introduction of information media at educational institutions; also information products and pedagogical technologies based on these means.

The use of modern information technologies allows not only reproducing data in one way or another, but also enables to effectively and directly interacting with the information object being created or demonstrated.

I would like to show a simple example how to improve the learning process with the presence of only one smart board in the audience. Being extended enough at this time in educational environment, a representative of modern information technologies

is a program-technological training complex on the basis of Smart Board software program, which is known as the “interactive whiteboard”.

The Smart Board complex includes: touch screen, software, personal computer, multimedia projector and communication equipment. The combination of the Smart Board, featuring a touch screen and a modern computer, has the following advantages:

- directly creates educational elements in the classroom;
- shows slides, videos, makes labels, draws different schemes, as on an ordinary board;
- makes notes during the demonstration of slides or videos, makes the necessary changes;
- stores any images as computer files for further editing, printing on a printer or e-mail;
- if necessary, uses a virtual on-screen keyboard;
- sets up convenient for the teacher sequence of slide show presentation in the form of albums with graphic files;
- fixes the individual stages of performance and, if necessary, immediately returns to the screen the previously made record or slide.

In determining the appropriateness of using an interactive whiteboard in classes, there are numerous factors such as pedagogical and scientific quality of electronic manuals, the subject of training, the content of the material necessary for the training and methodological maturity of a teacher. But skillful use of Smart Board by a teacher in the field of education, e.g. work with electronic maps, diagrams, drawings, presentations, seminars, demonstrations to a wide audience helps consider something graphically, computer training and use at higher educational institution.

Also, one of the advantages of information technology is that you can put much more well-illustrated material in the computer memory than in the book. At higher educational institution, it can also be used as a means of accessing electronic directories using the global Internet network. A module test can also be performed on a computer that, with the help of certain software, displays the results on a screen, analyzes errors and selects points with tips on how to fix them. This facilitates the work of a teacher in the training of specialists. Teaching topics can be implemented in the form of computer games and educational projects. If during the classes one of the topics was not mastered, it can be worked out after classes individually.

So, having considered the advantages of information technology in specialists training, we can conclude. The introduction of technical means of teaching on the basis of information technology in the educational process opens up significant opportunities for implementing an individual approach. It allows influencing on students, considering their individual mental characteristics (memory, imagination, observation) and developing critical thinking.

Students knowledge and skills quality monitoring is of particular importance in training of specialists. The control should be systematic, constant and personal. It is usually not easy to carry out such control. And last but not least, the use of technical means of control, computer control programs greatly facilitates the work of a teacher.