APPLICATION OF INFORMATION TECHNOLOGIES AND MULTIMEDIA IN TEACHING

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Annotation. This paper analyzes the features of informatization of the education system; technologies and multimedia tools are explored in modern learning systems.

Keywords: information technologies, multimedia technologies, interactivity, education system, computer tools.

ПРИМЕНЕНИЕ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ И МУЛЬТИМЕДИЙНЫХ ТЕХНОЛОГИЙ В ОБУЧЕНИИ

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Аннотация. В данной статье анализируются особенности информатизации системы образования; технологии и мультимедийные инструменты исследуются в современных системах обучения.

Ключевые слова: информационные технологии, мультимедийные технологии, интерактивность, система образования, компьютерные средства.

Introduction

The development of modern society based on knowledge and highly effective technologies requires making adjustments to pedagogical theory and practice, intensifying the search for new models of education aimed at improving the level of qualifications and professional skills of teachers, meeting society's needs for specialists capable of successful adaptation and self-realization in the information society.

Thus, the main task of vocational education is implementing such a model for training a qualified specialist, which will allow him to successfully compete in the labor market, effectively implementing his professional skills in the acquired specialty with high creative ability [1].

The use of information and communication technologies (ICT) opens up new opportunities in teaching the subject, allows you to increase the efficiency of learning, and the intellectual level of students, instills the skills of self-education, and self-organization, and facilitates the solution of practical problems. The use of computer technology makes it possible to make each lesson non-standard, bright, rich, and memorable.

A modern teacher is engaged in various types of professional activities: pedagogical, educational, scientific, methodological, and managerial. It has various possibilities for using computer or information technologies for receiving, transmitting, systematizing, and processing information, as well as for communication between colleagues, students, their parents, etc.

1. Use of ICT in education

Informatization of education puts forward compliance requirements and professional training of teachers. Therefore, one of the global goals of informatization of education is the training of teachers who are ready and able to

apply new information technologies in the process of teaching and education management, actively participating in the process of informatization of education.

The use of ICT in education allows not only taking a fresh look at the pedagogical process but also provides the necessary scientific and methodological apparatus for their analysis and updating. In addition, ICTs have a significant impact on the content of education and management of the pedagogical process (planning, organization, monitoring, forecasting, etc.).

Traditional training of specialists, focused on the formation of knowledge, abilities, and skills in the subject area, still lags behind modern requirements, therefore the formation of a system of knowledge, abilities, and skills in the use of information and communication technologies in education is an urgent task, for which it is necessary to have:

– ability to generalize, analyze, and perceive information;

– readiness to use basic methods, methods and means of obtaining, storing, and processing information, readiness to work with a computer as a means of control

information;

– ability to work with information in global computer networks;

– the ability to understand the essence and importance of information in the development of a modern information society, to understand the dangers and threats that arise in this process, to comply with the basic requirements of information security;

– the ability to develop modern pedagogical technologies, taking into account the characteristics of the educational process, the tasks of education, and personal development.

The teaching profession is becoming more complex, and multifaceted, but also more interesting from the point of view of revealing abilities and self-realization. The teacher must develop and implement new pedagogical technologies based on rapidly developing information and telecommunication

technologies, opportunities taking into account modern scientific and production technologies, which require deep knowledge in the field of pedagogy, psychology, computer science, etc., mastering the methods of scientific knowledge, a developed research type of thinking.

It is possible to create a successfully functioning and timely model of professional training for a future specialist only on the basis of the constant introduction of pedagogical innovations into the practice of the educational process. Innovation in educational activities is the widespread use of new teaching technologies and the organization of the educational process at a university to obtain results in the form of educational services that differ in social and market demand.

In traditional teaching technology, the leading role is given to teaching aids: the teacher does not teach students but performs the functions of stimulating and coordinating their activities, as well as the managerial function of the teaching aid [4].

The pedagogical skill of the teacher lies in the selection of the necessary content, the application of the best methods, and teaching aids in accordance with the program and pedagogical objectives.

A modern teacher constantly solves the following problems in his activities:

– use theoretical and practical knowledge for the design, implementation, and methodological support of the pedagogical process;

– select and analyze information;

– independently or in collaboration create new information based on it;

– use information technologies in the pedagogical process, in one's own research activities, when organizing students' research activities;

– develop educational and methodological complexes using information technologies;

- carry out experimental work and the like.

– develop and implement educational and training programs of various directions and at different levels;

– use various methods to assess student achievements, etc.;

– use various means of communication to communicate with colleagues and students (email, social networks, Internet, multimedia, etc.);

– generalization of one's own achievements and problems, search for new ways to solve them;

– navigate the sociocultural situation, using its opportunities to ensure the quality of education;

– bear responsibility for the quality of education and student performance results.

New requirements of society for the level of education and personal development have already led to changes in educational technology. Today, innovative technologies make it possible to organize the educational process taking into account the professional orientation of training, as well as the orientation of the student's personality towards his interests, inclinations, and abilities. Among them, the leading place belongs to such types as problem-based learning, test forms of knowledge control, block-modular learning, project-based learning, case method, and multi-level learning. As a result of their implementation, the functions of both the teacher and the student radically change.[5]

Today, there is no general and holistic education system that allows for the fully diversified development of student's personal qualities and intellectual abilities.

However, the use of multimedia in teaching can allow:

– development of interdisciplinary connections between mathematics and computer science;

– formation of computer literacy;

– development of independent work of students in the classroom.

Many educational institutions already have full-fledged computer classes, projectors, interactive whiteboards, and other equipment that are necessary for a more successful implementation of the process of informatization of education. One of the tools that is quite widely used is multimedia technology.

Multimedia is a field of computer technology that helps transform various (text, graphic, audio) information using computer tools. Often, correct transformation of the material allows you to make information more visual and memorable. Conducting lessons using multimedia resources is the strongest incentive for student learning. Through such lessons, the mental processes of students are strengthened: attention, memory, and thinking; the arousal of cognitive interest occurs much more actively and quickly.

Thanks to the use of presentations, the teacher can structure the material well. Modern applications for creating presentations support a large number of different functionalities: creating animations on pages, using sound effects, inserting pictures, and tables, text formatting, and using diagrams. A significant advantage of the presentation is that it can be easily distributed and the learner will always have well-structured material that is always at hand.

This material is often easier to read than handwritten text, it is easy to access, and the content search system helps save a lot of time. Moreover, if a student gets sick, he can always review the material covered and not miss out on the necessary knowledge [2].

Conclusion

The use of ICT helps to increase motivation for learning, deeper and more durable assimilation of material, development of independent thinking, the ability to reason, and independently obtain information.

The use of ICT is not only justified, but also expedient, since it allows students to intensify their activities, which, in turn, affects the quality of education, and the variety of forms of interpersonal communication between participants in

the educational process allows them to achieve better results in the learning process [3].

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