Didactic Tools of Increasing the Professional Competence of Future it Teachers through Programming Languages

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Abstract: In the information society, new demands are being made for improving the qualifications of teachers. In the modern world, a highly qualified teacher meets the demands of society only when he combines the fundamentals of basic professional knowledge with innovative thinking and a practice-oriented scientific approach to solving specific educational problems.

Keywords: informatics, information technologies, professional competence.

Introduction

Due to the rapid development of informatics, telecommunication systems and new information technologies, the role of information processes is increasing. At the same time, a new environment will appear for people to live, and the development of society will rise to a new level. This environment and society is increasingly called information. Global informatization of society today is not only an objective reality, but also one of the dominant trends in the development of 21st century civilization. The educational system faces the problem of timely preparation of people for living conditions and professional activities in a highly automated information environment.

Main Part

The sharp increase and continuous replenishment of the most diverse set of information related to all aspects of modern and future social life significantly increases the conflict between the need for selective search of information, rapid processing and their effective use. In such conditions, the wide use of various information and computer technologies, which significantly increase the intellectual capabilities of a person and help to quickly make optimal decisions not only in production, but also in everyday situations, is of particular importance.

There is another factor that predetermines the intensive penetration of computer technologies into the field of pedagogy and education. This factor is related to the internal needs of the educational system, determined by the logic of the development of the science of pedagogy - the need to significantly increase the quality of the educational process, optimize management in the field of education, improve scientific and pedagogical research and evaluate their results. is a pedagogical practice that strengthens the mystery.

The educational system and science are one of the objects of the process of informing society. The use of new information technologies is associated with increasing the efficiency of the educational process, hoping to reduce the gap between the society's requirements for graduates of educational institutions and what these institutions actually give to their students. In this regard, it is possible to choose the content of education, develop methods.

Based on the wide use of modern information systems, teaching all subjects without exception, creating textbooks and teaching-methodical manuals, teaching-methodical manuals, using computer technologies in the educational process. methods of preparation, training of professor-teachers and the organization of professional development, development of scientific-methodical support of self-education of teachers are becoming a number of urgent problems of restructuring of the educational system.

Effective use of information technologies requires fundamental changes in the pedagogical activity of teachers. The modern system of teacher training is designed to ensure the potential and long-term direction of such changes.

Regardless of the specialty, the preparation of the teacher for the use of computer technologies in the educational process should provide the necessary knowledge and skills that allow the teacher to confidently use automated information systems in the educational process.[1]

Efforts to actively use modern information technologies in the field of education should be focused on increasing the level and quality of training of specialists. It is not enough to simply master this or that information technology. Among its features and capabilities, it is necessary to highlight and effectively use the features that provide the solution of the following tasks to a certain extent:

- support and development of the student's systematic thinking;
- supporting all types of human cognitive activity in acquiring knowledge, developing and strengthening skills and competencies;
- Implementation of the principle of individualization while maintaining the integrity of the educational process.

Currently, one of the leading trends in the development of education is the transition to a continuous education system. Continuing education includes increasing the duration and importance of the stages of self-education in the general education system of a person. In such conditions, the role of educational tools inevitably increases, the tools of information and telecommunication teaching technologies are of particular importance, and their mastery becomes one of the main tasks of studying informatics at school and university.

Conclusion

Systematically involving students of higher educational institutions of pedagogy in educational and research activities using information technologies is of great importance in preparing future teachers to use computer technologies in the educational process.

Teaching at a pedagogical university can be organized by modeling research activities. Such an organization not only ensures compliance with state educational standards, is one of the forms of implementation of the concept of professional pedagogical direction of personnel training at a pedagogical university, but also inculcates research skills in future teachers, and their professional training meets changing requirements. Guarantees a response.

New information technology is a tool of professionalization that allows teachers to quickly change and improve their working methods and organizational forms, to maintain and develop the individual abilities of students more fully, as well as to strengthen interdisciplinary connections in teaching, which is the end result. resulting in continuous learning. [2]

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