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Designing an electronic didactic environment to ensure interdisciplinary integration in the teaching of "Informatics and information technologies" during professional education

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ABSTRACT

In this article, the absolutization of the classical methodical support forms (standards, curricula, textbooks on subjects, etc.) and the reflection of the achievements of pedagogical sciences (new theories, technologies), scientific and technical development, especially in didactic tools based on information technologies the need for methodical systems that fully reflect the integration of science and special education based on the informatization process of science education and new information technologies, methods and means of forming interest in teaching in an interdisciplinary integrated environment in the process of increasing the cognitive activity of students, in the process of professional education, the issues of revealing the content of the process of designing the interdisciplinary didactic environment of the subject "Informatics and information technologies" were discussed.

Key words: integration, information technology, methodological support, didactic environment, design, professional training, motivation, individual activity, electronic didactic tool.

In the process of the world education system, raising the intellectual development of the younger generation to the next level in terms of quality, introducing innovative forms and methods of education into the educational process has taken an important place in the development of the society. In the current conditions of rapid development of science and technology, the demand and need for the development of industrial sectors in the world, competitive personnel training, and the need for creative specialists are increasing.

The experience of developed countries shows that as a result of the rapid development of society, the information environment and the labor market, the system of reproductive education did not meet the requirements of the time. Due to the sharp increase in the amount of information received, the knowledge that needs to be passed on to the younger generation in order to process and use this information is also increasing. Today's teacher is faced with the problem of delivering the latest information and information to the students along with pre-planned knowledge without increasing the class hours. Education focused only on knowledge remains a thing of the past.

Conditions are being created to implement the tasks of modernization of the professional education process, to prepare the growing young generation for the activities of the 21st century information technology society. In this regard, information technologies become a decisive factor in the development of the level of knowledge of students of professional educational institutions, their intellectual potential, and their use skills. All these factors determine the competitiveness of students of professional educational institutions. The goal of modern pedagogical systems, which

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are currently being developed in accordance with new requirements for this field of education, determines the need to develop professional training for students of professional educational institutions with the help of modern didactic tools. The implementation of this process is directly related to the introduction of a new personnel training system in the professional education system. The integration of modern achievements of "informatics and information technology" sciences and advanced pedagogical experience is an important factor in the effective organization of this process. In the normative documents of the field of professional educational institutions, the task of creating a new educational and methodological support of the educational process based on the integral connection of general education subjects with professional educational tools is emphasized.

The problem of creating a new methodological support of the professional education system is directly related to the formation of the educational environment of the educational institution. The effectiveness of the introduction of new didactic systems into the process of professional education is largely determined by the extent to which they correspond to the tasks of modernization of education. However, it can be said that at present, the period of formation of new integrated didactic environments in the science of "Informatics and Information Technologies" has not been completed, due to the fact that the classical structure of the educational process has been preserved in the teaching of the subject, orientation towards new modern pedagogical technologies is still weakly manifested. .

The lack of sufficient qualifications of pedagogues is an obstacle to the effective organization of this process in the organization of training of students in their respective specialties using didactic innovations or computer-based teaching technologies [4]. In the process of teaching subjects in the relevant specialties in professional educational institutions, there are significant changes in the direction of using a structural and technological approach that ensures the effective pedagogical functions of new didactic environments, methodological connection with the professional issues being mastered by students. there is a need. In this process, the model of creating innovative educational environments by strengthening the role of interdisciplinarity and introducing innovative educational technologies should reflect the content of education, the methods of its active development, the combination of general theoretical questions with special issues, and the use of innovative didactic technologies. This, in turn, shows the structural-technological approach, according to which the content of education is combined with teaching methods and technologies, giving priority to the ontological component of the educational process [1].

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Taking into account the modern level of development of educational didactic tools in the field of professional education, the development of integrated didactic environments to support the educational process is a promising direction for the development of the educational system and the study of its scientific foundations. . At the same time, the process of designing subject didactic environments should not be carried out separately, but it is necessary to pay attention to this process as a component of an integrated pedagogical system. Modern didactic tools should reflect not only the structure and methods of providing educational information, but also the functions of managing students' educational activities and diagnostic processes [6].

The construction of the ontological component of the development of the professional training of students of professional educational institutions in the field of "Informatics and information technologies" with the help of modern didactic tools implies different levels of mastering the scientific content, the questions of related and specialized disciplines of these theories of mastering reflected in the order of level differentiation in connection with.

The methodological component of this process determines the set of teaching methods and technologies of "Informatics and Information Technologies" science, which is formed on the basis of the stages of development of scientific knowledge and the uniqueness of its content, with the priority role of research and problem methods.

The design of an integrated didactic educational environment based on interdisciplinary and structural-technological approaches in "Informatics and Information Technologies" provides the following pedagogical conditions:

- effective development of students' training based on their professional activities and the interdisciplinary content of "Informatics and information technologies" based on modern didactic tools;
- development of students' intellectual abilities and information culture, as well as improvement of teachers' methodological training;
- optimal combination of traditional forms of educational activity with new educational tools; to strengthen the motivational potential and humanitarian orientation of educational tools;
- to more effectively solve the problems of adaptation of students to specific conditions of education in the professional education system.

Conclusion

In the process of professional education, first of all, clarification of the concept of "interdisciplinary didactic environment" contributes to the integration of ontological components of general education and professional education based on interdisciplinary and epistemological principles. The model of the interdisciplinary didactic environment provides a theoretical basis

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that reflects the main components of the organization of the educational process based on interdisciplinary and epistemological principles, as well as the integration of the content of general education and professionally oriented education. The model of formation of systematic knowledge in the subject "Informatics and information technologies" is changed based on the stages of the genesis of scientific knowledge and allows to develop the professional training of students, to differentiate their knowledge in this subject and to diagnose knowledge based on a systematic approach.

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