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Theoretical Foundations Of The Development Of Professional Graphic Competence Of Students Of Higher Educational Institutions Through Graphic Programs

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Abstract: This article examines the theoretical foundations of the development of professional graphic competence of students using modern graphics programs, as well as provides information on the purposeful formation of fundamental and professionally significant qualities of graphic competence of technical students, the level of formation of professional graphic competence, the development of successful knowledge acquisition and graphic competence of specialists in the field of computer graphics in preparation for special disciplines.

Keywords: Computer graphics, graphic programs, competence, professional competence, graphic competence, knowledge, skills.

Introduction: The use of modern information and communication technologies and innovative technologies, the development of new techniques, and the rational use of traditional and non-traditional teaching methods using graphics programs are of great importance in computer graphics lessons in higher education institutions.

One of the most important factors in creating potential personnel in our country is the rational use of scientific and technical achievements and innovative technologies in the education system of foreign countries and the introduction of new modern methodological and competence based approaches to the educational process. The need to create an educational environment and widely introduce scientifically-based learning software into the educational process, contributing to the development of students' professional competence through training, control, and graphic programs that guide students to effectively acquire theoretical and practical knowledge and apply it in practice, is becoming a requirement of the time.

In the Concept for the Development of Higher Education System of the Republic of Uzbekistan until 2030, and the Decree on Additional Measures to Further Improve the Vocational Education system, The Decree on Measures for the Further Development of the Higher Education System and on Additional Measures to Improve the Quality of Education in Higher Education Institutions and Ensure Their Active Participation in the Country's Large-Scale Reforms, special attention is paid to improving the methodological support for teachers in mastering the basics of competence and personality-oriented approaches to learning.

METHOD

The possibilities of using graphic programs in the development of professional competence of students of higher educational institutions open up wide opportunities for students to become qualified personnel, acquire the necessary knowledge, develop practical skills, implement independent educational tasks, and increase self-esteem.

The main aspect of the traditional lesson is the students' perception of theoretical information, while the student often cannot actively participate in the lesson process, and the teacher psychologically and physiologically does not have time to organize and control the activities of each student.

The research works of foreign scientists, current state educational standards, and qualification requirements for specialists in the development of professional

competence through graphic programs in teaching engineering and computer graphics disciplines in higher educational institutions are analyzed.

It is necessary to clarify the essence of the concept of “competence”. A competitive specialist who occupies a priority place in the labor market in market conditions requires the acquisition of professional competence and its regular improvement. The concept of “competence” has entered the field of education as a result of psychological research. Therefore, competence refers to a student's ability to behave decently in non-traditional situations, engage in dialogue, have a plan of action when performing ambiguous tasks, using information full of conflicts, and in constantly evolving complex situations. Professional competence is the acquisition by a specialist of knowledge, skills, and abilities necessary for the implementation of professional activities and the possibility of their high level of application in practice. Professional competence does not involve the acquisition of individual knowledge and skills by a specialist but the assimilation of integrative knowledge and actions.

Professional graphic competence, on the other hand, is expressed in relation to professionals who have developed graphic literacy, can effectively design the learning process, manage it, apply it during the lesson, using the capabilities of graphic programs (AutoCAD, ArchiCAD, 3D MAX, Corel Draw and other graphic programs) in teaching computer graphics. This means that students achieve professional graphic competence by consistently enriching their graphic literacy, mastering new graphic knowledge, mastering new knowledge related to modern graphic programs based on the requirements of the era, processing them, and being able to effectively apply them in their practical activities.

DISCUSSION AND RESULTS

The development of professional graphic competence in the professional development of students of technical fields of higher education institutions is interconnected. On the one hand, professional graphic competence is formed in the process of professional development; on the other, it is the manifestation of the personality of a specialist. In order to develop professional graphic competence, it is important to work on yourself and self-development. Self-improvement is the organization by a specialist of purposeful, consistent, and systematic actions for the social and professional development of a personality.

CONCLUSION

In conclusion, it should be noted that in modern graphics programs aimed at improving students' professional competence, it is advisable to indicate the current level of graphic knowledge, qualifications, and personal qualities, as well as promising tasks aimed at developing this competence. And this, in turn, is the product of effective activities aimed at constant monitoring of the dynamics of students' professional development at different levels, as a result of which those parts of the teacher's competence that need to be given great attention become apparent, and this gives impetus to its development. A teacher with high professional graphic competence aims at covering each subject in educational processes so that students can gain a high level of knowledge and develop high professional graphic competence; this will help students grow into highly effective and competitive staff in the future. This, first of all, served as the main factor in the development of society, because the training of highly qualified specialists will ensure the future growth and exit of intellectually talented youth.

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