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**THE NEED FOR FUTURE IT TEACHERS TO LEARN COMPUTER GRAPHICS  
AND ITS ROLE IN THE EDUCATIONAL SYSTEM**

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**Abstract:** It analyzes the improving methodology of computer graphics competence of future informatics teachers. The importance of effective use of interactive technologies and practical training in the educational process is highlighted.

**Keywords:** Computer graphics, informatics teacher, interactive education, methodology, ICT.

**Introduction:** The development of information and communication technologies (ICT) in the modern education system requires new approaches in the pedagogical process [1-3]. To increase the productivity of education, the possibilities of modern information technologies and computer graphics are incomparable in revealing the provided information to students in a more comprehensible and accurate way [4-6]. In particular, it is important to develop the competence of teaching computer graphics in the training of informatics teachers [7]. This article analyzes ways to improve the methods of improving the knowledge and skills of future informatics teachers in the field of computer graphics.

**Main part:** The role of information technologies in every field of today is rapidly developing and its importance in the general public is incomparable. In particular, if we dwell on the field of education, we all know that the use of information technologies is distinguished by a number of advantages in providing a wide coverage of the lesson content to students, creating a high-quality and effective learning environment. That is why it is necessary for computer science teachers to improve their knowledge of computer graphics, to improve their ability to use modern computer graphics programs for effective teaching, to know pixels, vector graphics, 2D and 3D modeling, color theory and other fundamental concepts. In order to further increase and strengthen their knowledge, skills and qualifications, teachers need to use various interactive approaches to computer graphics, conduct practical training, evaluate the results, and come to the necessary conclusions. Basically, in practical training, teachers will have to test their knowledge using various graphic programs (for example, Adobe Photoshop, Illustrator, Blender, GIMP). Also, a number of modern online platforms (for example, Coursera, Udemy, LinkedIn Learning) are important for learning new programs and technologies in the field of computer graphics and improving the ability to work with them. Using them, you can quickly and easily learn modern graphics programs, video editing programs, and 3D modeling programs.



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In order to develop practical skills in the field of computer graphics, teachers should be more involved in practical training. It will be possible to teach students design, graphic editing and other skills based on real-life projects.

- Project-based learning: Provide opportunities for students to propose solutions to real-world problems in hands-on activities. It increases their creative thinking ability.

- Collaborative work: organizing practical work in cooperation between students and teachers. For example, working as a team on projects such as graphic design, web design or 3D modeling.

- Working with digital tools: Providing students with opportunities to create a variety of designs, video edits and 3D models using innovative software. Encourage teachers to use these programs in their classes.

- Teaching teachers to work with multifunctional graphic programs and tools. For example, explaining the difference between vector and raster graphics, combining both methods.

Teachers should be encouraged to create creative works and students should be given assignments to create designs, visual storytelling or interactive graphics to express themselves.

- Brainstorming and inspiration: Encourage teachers to think creatively and organize brainstorming sessions for them. This will help them update and expand their approach.

- Valuing students' opinions: Encourage teachers to encourage students' creative approaches and creatively evaluate their work.

By implementing the above, future informatics teachers will be attracted to create creative and innovative works through computer graphics. It helps teachers create graphic design, develop interactive programs and create visual projects, and work on real programs or projects and solve real problems that they face in their professional activities.

As a result, it is possible to develop the pedagogical competencies of computer graphics teachers, that is, to create teaching methods, lessons adapted to the needs of students, to share their experiences, to teach them the possibilities of creating interactive and visual materials (infographics, presentations, videos) to make their lessons more effective, to conduct scientific research in the field of computer graphics and to write scientific articles or participate in conferences, to learn new innovations and methodologies in the field.

In addition, teachers help students to create innovative and creative developments with the help of computer graphics, which helps them to express their thoughts visually and makes students interested in graphic design. This means that such approaches to the development of competence in computer graphics not only increase their pedagogical skills, but also create the necessary tools for effectively teaching students the science of computer graphics.



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