

**METHODS OF IMPROVING PROFESSIONAL GRAPHIC COMPETENCE OF FUTURE INFORMATION TECHNOLOGY TEACHERS**

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**Abstract.** In this article, teachers provide students with the necessary technologies to learn and put them into practice. This is important in improving teachers' professional graphic competence, helping them to better prepare and teach students in the field of graphic design. These methods are important for teachers to get good results in improving their professional graphic competence, and their students are instructed to learn the necessary technologies and apply them in practice.

**Keywords.** Global network, credit module, increase competence, graphics program, theoretical knowledge, professional development, use of technologies.

**INTRODUCTION.** Today, due to the transition of higher education institutions to the credit-module system, classroom training has been reduced, which has led to an increase in the share of independent study hours [1]. This, in turn, requires future informatics teachers to focus on independent education to improve their professional graphic competence. An important part of developing professional graphic competence is teaching students how to analyze graphics, create graphs, visualize data, and visualize. This skill helps students analyze and learn from data, and it also helps them improve their processes of assimilating, presenting, and explaining information.

**Literature review:** The following examples can be cited by scientists and scientific researches that have conducted some research on improving professional graphic competence.

Alberto Cairo: Alberto Cairo is a renowned scholar in the fields of information design and infographics. His book *The Functional Art: An Introduction to Information Graphics and Visualization* is an essential guide to developing professional graphics competence.

Edward Tufte: Edward Tufte is one of the classic scholars in the field of information design. His book, *The Visual Display of Quantitative Information*, is an essential primer on graph analysis and visual representation of data for students.

Stephen Few: Stephen Few is one of those scientists who has extensive experience in visualizing and explaining data. His book, *Show Me the Numbers: Designing Tables and Graphs to Enlighten*, is recommended as a guide to creating graphs, entering data, and visually explaining data to students [2].

It is essential for use by scientists and their creations, to improve professional graphic competence and provide comprehensive information on visual representation of data. Their books and blogs are useful resources for students and teachers.

**Research methodology:** improve graphic competence, the following methods can be used:

**Theoretical knowledge:** teaching theoretical knowledge to teach students how to analyze graphs, analyze their data and determine their exact meaning. It covers important concepts in statistics, mathematics and other subjects.

**Practice:** To allow students to participate in practices in the process of creating graphs, entering information into them, and constructing them. This allows them to learn how to create graphs and enter data into them.

**Professional development:** providing opportunities for students to develop their professional graphic competence through personal approaches and some special projects. They will have to conduct independent research, participate in international seminars and programs.

**Use of technologies:** use software and applications to help students create and work with graphics using the latest technology in the field. This makes their data visualization and analysis processes more efficient [3].

A high level of practice, effective teaching methods and instruction, and opportunities for students to gain experience are essential in developing professional graphics competence. This will help them develop their ability to visually analyze and visualize data and increase their understanding of the use of and against graphs. But information and educational environments developed in our countryways to improve the professional graphic competence of future informatics teachers, in particular, it cannot be considered sufficient for the development of graphic competence [4]. Therefore, as part of the research, an information-educational environment designed to develop the competence of future mathematics and informatics teachers was created at the address of the global network gp-edu.uz. The information-educational environment created within the framework of the research provides the following opportunities: aimed at developing graphic competence of future informatics teachers; (interactive links with various educational resources, use of textual hyperlinks, modeling, etc.); focus on individual education; the possibility of iterative training is provided; availability of future mathematics and informatics teachers for self-assessment of graph programs.

### CONCLUSION

The application of the information-educational environment is a necessary pedagogical tool for today's educational institutions in increasing the motivation of specialists to work with computer graphic programs and developing their cognitive thinking and graphic competence through the methods of increasing the professional graphic competence of future informatics teachers. Therefore, it is necessary to improve the teaching methodology based on the methods of increasing the professional graphic competence related to its use.

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