

## THE ESSENCE AND THEORETICAL ANALYSIS OF PROFESSIONAL GRAPHIC COMPETENCE IN THE INTEGRATION APPROACH

Muslimov Sherzod Narzulla ugli

Doctoral student of the Uzbek Research Institute of Pedagogical Sciences, PhD Associate

Professor

<https://doi.org/10.5281/zenodo.10975061>

**Abstract.** *The article examines the content of professional competence in the integration approach to education, the integration of higher education with science and industry and the harmonization of theoretical and practical vocational education, ensuring continuity and continuity of educational content, the formation of professional competence of future teachers.*

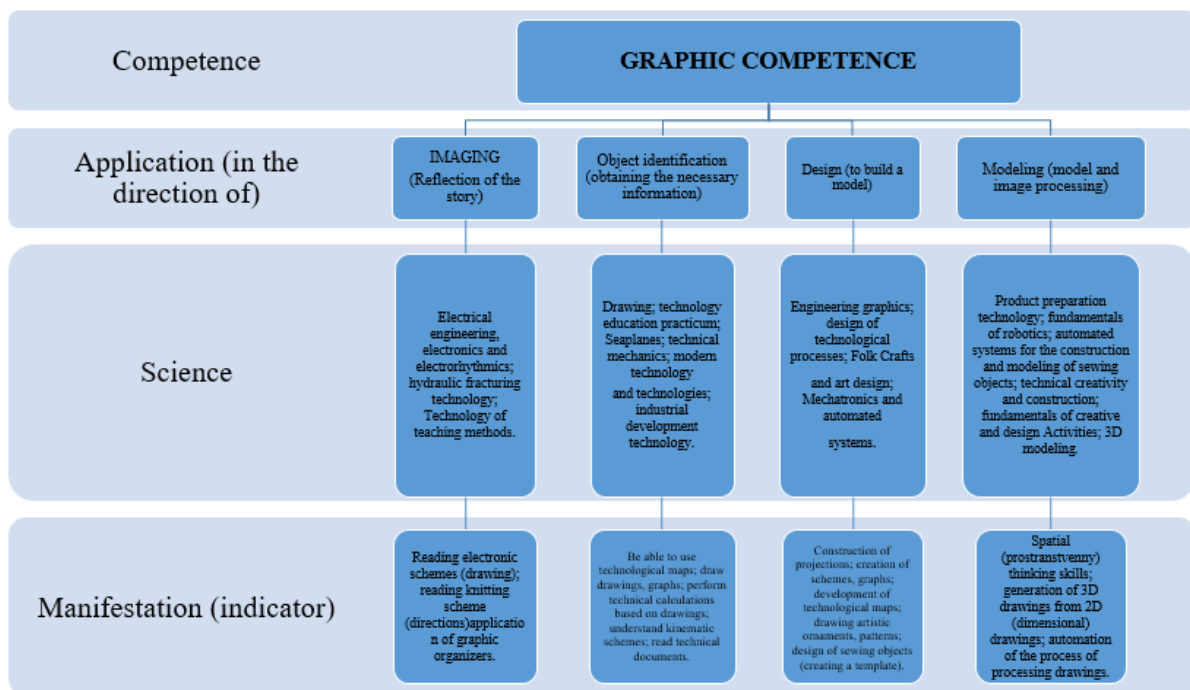
**Keywords:** *student, education, process, content, continuity, commitment, integration, approach, professional and graphic competence, result.*

In the context of innovative processes taking place in Uzbekistan, education with increasingly high requirements is becoming the main requirement for the development of mankind today. The system of pedagogical education, which requires radical reforms, is the central link of the modern object of education and ensures the successful solution of the tasks of education and upbringing. This is largely determined by the appropriate professional training of teaching staff based on the use of effective pedagogical technologies in the educational process along with teaching methods. The criterion of the quality of professional and pedagogical training is the professional competence of the teacher, which fully reflects all the requirements imposed by society and the state on a specialist of the 21st century. In this regard, the training of competent teachers is one of the priorities of modern vocational pedagogical education. The study and use of the term "professional competence of a teacher" in our country dates back to the 80s and 90s of the 20th century. During this period, our domestic scientists made promising attempts to deeply comprehend this educational phenomenon and the various components of competence. Currently, the category of "professional competence of a teacher" occupies one of the leading positions in the context of modern requirements for a teacher of the 21st century. This textbook contains important and meaningful foundations for the professional qualification of a teacher, taking into account the analysis of various views on the phenomenon under study; in the educational process, the pedagogical conditions for the formation of professional qualifications of a teacher and the creation of a creative environment are considered; motivation for reflexive activity; dialogization of the educational process; educational technologies and methods of active learning are analyzed, which help to successfully formulate the professional qualifications of a teacher.

The solution of complex tasks of teaching and educational work of students in the education system depends on the knowledge, qualifications, professionalism, giftedness, talent and culture of teachers and activity, the ability to use new pedagogical and information technologies during the lesson. Therefore, today a modern system of educational technologies is being created, the main task of which will be to ensure the continuity and continuity of educational content in the education system, improve the teaching methods of subjects, and introduce pedagogical and information technologies into the educational process. Today, every specialist should have

sufficient knowledge of computer and information technologies in addition to perfect knowledge of their field. Because nowadays it is impossible to imagine the education system without information technology. Today, it is becoming one of the urgent issues that all students studying at all educational institutions will be able to study, master and practice computer and information technologies perfectly. Especially during the lesson, the transition of subjects in connection with each other leads to an easier understanding of the mentioned topic and their assimilation.

According to international experience, the integration of higher education with science and industry, as well as the harmonization of theoretical and practical vocational education contribute to the formation of professional competencies of future specialists. Despite the fact that a lot of research is being carried out on the development of professional knowledge and skills among students, the market assumes the need for them to form the necessary and sufficient level of professional training in order to educate them as a person capable of working in various sectors of the economy who are able to correctly assess certain situations, the noted



60112300-the manifestation of graphic competence among students of the technological field of education

Graphic competence: - nowadays, communication skills with modern techniques and technologies are important for all professional representatives of the social sphere. In this case, the market economy requires specialists not as a simple user of this technology, but to be personnel with such a level of skills and qualifications that, if necessary, they can adapt (customize) these techniques and technologies to their tasks in various fields of industry (interact).. Taking into account the fact that zma computer technologies and CAD tools designed to improve the efficiency of personnel and field work processes are being developed based on graphical methods, we can look forward to the fact that this relationship between man and technology will be built primarily on the basis of a graphical interactive interface. This, in turn, also requires specialists to have "graphic competence" in the content of their professional competencies.

Application (by directions): - graphic competence, which is one of the most important professional competencies of a specialist (especially those who work in the field of engineering and technology), is mainly a competence that is formed within the framework of a number of specialized disciplines and courses: "drawing", "engineering graphics", "computer graphics". In

the process of analyzing the content of this competence within the framework of our research work, we divided it into four groups in the direction of conditional application. These are: visualization – the use of ahborot for the purpose of graphical reflection, visual improvement; object recognition – the use of graphics as a result of reading, in order to obtain the necessary information for this area; design application – representatives of technical and design directions in order to build a planned object model using graphical competencies; modeling - improvement of a newly created model and image, the application of its graphic images for the purpose of processing.

The manifestation of indicators in the subjects section: - in particular, the application of the above-mentioned graphic competencies of students in the directions 5112100-technological education and 60112300-technological education, selected as objects within the framework of our dissertation work, was studied in the section of various compulsory and optional (specialist and universal) disciplines presented in the curricula. In them, the manifestation of the student's graphic competence was highlighted as separate indicators. Including: due to the ability of students to read drawings of electronic circuits in the subject "Electrical engineering, electronics and electrotechnological engineering", due to understanding the knitting scheme (the trajectory of a knitting needle or hook and knitting thread) in the subject "hand weaving technology", due to understanding the content of graphic organizers in the subjects "Methodology of technological education" and skillfully using all of the above skills in

The manifestation of indicators of graphic competencies in the direction of object identification is identified as the ability of students to use technological measures within the disciplines of "drawing", "technological educational workshop", "science of seaplane", "technical mechanics", "modern technologies and instrumentation", "industrial development technology"; drawing up drawings, schedules; performing work on technical accounting based on drawings; understanding of kinematic schemes;

Indicators of graphic competencies of students of the design direction are manifested in the ability to build projections in the science of "resistance graphics"; in science lessons "designing technological processes", developing technological maps; in teaching science "folk crafts and art design", the ability to draw artistic ornaments, patterns, sewing; in the specialty "Mechatronics and automated systems",

The manifestation of indicators of graphic competencies in the direction of modeling is the skill of spatial thinking in a number of disciplines, such as "product preparation technology", "fundamentals of robotics", "automated systems for designing and modeling sewing objects", "technical creativity and design", "fundamentals of creative-structural activity, "3D modeling", construction and creation patterns in the process of designing sewing products, drawings are determined by the presence of many skills, such as automation of the processing process and their development.

Currently, integration-competitive personnel are considered important tools of competition between manufacturers in the domestic and foreign markets, and the training of such personnel requires special scientific research, their implementation in the educational process.

The competitiveness of any country in the world market is determined not only by the availability of natural resources, but also, above all, by the fact that it is able to master modern, regularly updated technologies, preparing a highly qualified and disciplined specialist.

In the research of foreign scientists, the idea was put forward that education based on integration is considered as a law of movement of differently organized, controlled processes, or without integration there is no possibility of rapid development.

Integration makes it possible to dialectically combine the old with the new, replace one form with another improved form, find new forms and create the likelihood of their successful development by referring to the necessary elements of communication of the past, present and future.

In our opinion, it is possible to give a more accurate and complete description of the essence of the concept of integration.

Firstly, it is characterized by development, that is, the emergence of new aspects, characteristics and qualities in the object, and secondly, the preservation of developed elements, sides and traditions of the old in the new.

Integration is a philosophical category that serves in any process of development of changes to bring individual features and sides of the previous stage in line with the new conditions of a developing object at a new stage and to establish the need to discard its outdated features and sides that do not fit into the new environment and complement the existing ones.

### **REFERENCES**

1. Belikov V. A. Personal orientation of educational and cognitive activity (didactic concept): monograph. - Chelyabinsk: ChSPU "Fakel", 1995.-141 p.
2. Zeer, E.F. Modernization of vocational education: a competence-based approach/E.F. Zeer, A.M. Pavlova, E.E. Simanyuk. – M.: Mpsi, 2005. - 216 p.
3. Nabatova, L.V. Creative and design activity of students as a means of forming critical thinking / L.V. Nabatova, E.R. Gaineev // Secondary vocational education. - 2009. – No. 8. - pp. 22-24.
4. Abdukodirov A. A. et al. Information technologies. - T., 2002.
5. Abdukodirov A. A., Pardaev A. H. Theory and practice of distance learning. - T.: Nauka, 2009.
6. N.Muslimov, D.Saifurov, M.Usmanboeva and A.To 'raevlar. Web- creation and implementation of electronic information educational resources based on technologies. - T., 2015
7. Muslimov N.A., Urazova M.B. Web assignment as a technical tool for the formation of professional qualifications of future teachers // Education throughout life: continuing education for sustainable development: materials of the international scientific and practical conference. St. Petersburg: St. Petersburg State University, 2014. pp. 127-129.
8. Muslimov Sh.N. "Improving the methodology for the development of professional graphic competence of future teachers of technological education" T-2020: dissertation of the Doctor of Philosophy (PhD) in pedagogical sciences.
9. Sh.Muslimov., M.Khalimov., Sh.Dilshodbekov., X.To 'heaven. educational literature "Descriptive geometry and engineering graphics" Sparks Publishing House, 2020. -168 p.
10. Muslimov Sh.N. Electronic textbook "Descriptive geometry and engineering graphics" 2020. Certificate of the Republican Intellectual Property Agency. #DGU 07744
11. Muslimov Sh.N., Kholmurzaev A.A., Madaminov Zh.Z., Khomidov A.K. Exposition program for assessing students' knowledge on the subject "Descriptive geometry and

- engineering graphics" 2020. Certificate of the Republican Intellectual Property Agency. #DGU 08206
12. Muslimov Sh.N., Turakhanov Sh.U., MATLAB I.A. Electronic manual "Drawing" (mobile application) 2020. Certificate of the Republican Intellectual Property Agency. №DGU 08816