

TO THE QUESTION OF INVESTIGATING THE FACTORS OF INFLUENCE ON IMPROVING THE QUALITY OF MASTERING GRAPHIC DISCIPLINES BY STUDENTS OF TECHNICAL SPECIALTIES

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Abstract. Progressive process of improvement of educational activity puts forward new requirements for education in the system of higher education in Ukraine in connection with which there is a need for constant monitoring of the quality of academic achievement and the assimilation of any discipline, as well as a generally competent approach to teaching. The main priorities of graphic training of technical students are, of course, studying the ways of drawing and reading drawings, developing abilities to perceive the spatial objects of the environment and the skills to properly perform their images, and to store and transmit other graphic information

Keywords: *graphic education, monitoring of improving the quality of progress and learning, competence approach, students of technical specialties*

Анотація. Поступовий процес удосконалення освітньої діяльності висуває нові вимоги до навчання у системі вищої освіти України, у зв'язку з чим виникає необхідність постійного моніторингу якості успішності та засвоєння будь-якої дисципліни, а також в цілому компетентнісного підходу до навчання. Основними пріоритетами графічної підготовки студентів технічних спеціальностей, безумовно, є вивчення способів утворення та читання креслень,

розвиток здібностей сприймати просторові об'єкти оточуючого середовища та вміти правильно утворювати їх зображення, а також зберігати та передавати будь-яку іншу графічну інформацію.

Ключові слова: графічна освіта, моніторинг підвищення якості успішності та засвоєння, компетентнісний підхід, студенти технічних спеціальностей

The system of higher education should now respond in a timely manner to changes in the society and improve existing models of training specialists.

The aim of our study is to analyze and summarize the results of experiments on the effect of quality of graphic training of marine and technical colleges students which contributes to the effectiveness of their professional competences development. Long-term practice of teaching and exchange of experience in the methodology of graphic disciplines at leading universities of Odessa has shown that the formation of professional competence of prospective engineers is impossible without a thorough study of the foundations of graphic literacy, whose essence lies in the study of the discipline “**Engineering Graphics**”, since it is that point from which improving of skills and elements of graphic culture starts [1-2].

The studies in the field of professional education, based on the formation of professional competency of prospective specialists have been recently developing. As we know, professionalism is the word, which is characteristic for a particular profession, professional training is a set of special knowledge and skills, allowing to carry out the work in a certain field. At this time, this concept is often used intuitively to express a high level of skills and professionalism. Current approaches to treatment of professional competence are different. Contemporary definitions of professional competency as “deepened knowledge”, “the state of adequate conducting the tasks”, “abilities to actual realization the activity” and others do not fully concretize the content of this notion [3-4].

Graphic education is a process, which leads to student's gaining knowledge and skills of work with graphical information. The development of the ability to correctly perceive, create, store and transmit different graphical information about objects, processes and phenomena is the task of graphic training of professional education. Study of fundamental mathematical sciences in technical universities, as well as geometry and engineering graphics is of great importance for prospective engineer development. The qualitative study of graphic disciplines is possible on the basis of a comprehensive approach to the educational process. Of great importance is the presence of pre-university training of graphic training, which is, unfortunately, almost absent (a lot of schools do not have the subject "Drawing"). In this regard, the first-year students have difficulty related to the development of spatial imagination and later with reading blueprints and other technical documentation.

The present article summarizes the results of experimental studies of graphic quality of education of the 1-st and 2-nd year students of social engineering and marine specialties of 10 academic groups, with the total number of 225 students in 2014-2015 and 2015-2016 academic year [2-4]. For the four groups of the second year students were selectively conducted test surveys on the most important sections of the discipline with a differentiated assessment and certification according to the criteria of residual knowledge.

It should be emphasized that the qualitative organization of students' self-guided work (SSW), and in the future – the pass-through graphic training presupposes the necessary classroom fund – drawing rooms, computer labs with Internet access. The educational and informational support includes the required amount of literature, teaching and visual aids, texts of lectures and examples of solving common tasks on paper and electronic media; educational and methodical documentation on the organization of different types of self-guided work; the required number of variants of tasks and guidelines for their implementation. An important aspect of teaching graphics is the development of student's conscious active approach to learning based on a clear understanding of the problem and thorough study of the depicted object.



Final analysis of the results of the research showed that in order to improve the quality of education it is important to improve the methodology of teaching graphic disciplines that is ensured by teachers' professionalism, availability of sufficient training and methodological support. In addition, self-guided work as an important factor of mastering educational material, forms the student's autonomy, the level of his individual skills and knowledge which in case of the first-year students firstly requires a teacher's guidance, and then – without his direct involvement.

The teacher should systematically monitor SSW, in our opinion, during the first year. And finally, the desire to achieve better results in education is shown by motivated students who feel the presence of the competitiveness in the future profession, who are interested in a deeper exploration of theoretical material and practical skills.

Thus, increased motivation is an important cognitive activity control lever. In psychology, motives stand for the reasons of actions caused by certain needs. A strong motive significantly affects the purpose of the activity, conditions the phenomenon of “motive shift on target”. Motives of learning should make the new knowledge necessary for a learner; form his need to obtain it.

One of the most important areas of learning should be the creation of conditions for professional and personal development of prospective engineers, the formation of their creative personality and professional competence. Professional competency is a set of integrated fundamental knowledge, person's generic skills and abilities, his significant professional and personal qualities, a high level of culture and mastery, creative approach to the organization, readiness to continuous self-development.

In conclusion, it is necessary to emphasize the following: proceeding from the absence of pre-university graphic training, it is necessary to persistently and consistently form the ability to use graphic tools for first-year students of technical universities, as well as for sustainable graphic skills.

In addition, it is necessary to have the knowledge and strictly follow the requirements for the execution and execution of drawings in accordance with existing

regulatory requirements. For this purpose, it is expedient to activate the educational activity of students in practical classes and the qualitative organization of their independent work based on an individual differentiated approach

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