



## GRAPHIC CULTURE OF STUDENTS AT A TECHNICAL UNIVERSITY

Bayrieva Aysulu Jangabaevna

Karakalpak State University named after Berdaq

### Abstract

The problem of the formation of the graphic culture of students of a technical university, the development and use of modern technologies in the teaching of graphic disciplines is considered.

**Keywords:** Graphic culture, electronic manuals, graphic images – diagrams, drawings, sketches.

### Introduction

At all stages of human activity in history, improved graphic images are inextricably linked with the development of technology.

The creation of the latest machines and apparatuses requires great creative energy, deep knowledge, correct construction and reading of drawings in workshops and design bureaus of factories and research institutes and laboratories. The problem of forming the graphic culture of students of a technical university is considered. The development and use of modern technologies in the teaching of graphic disciplines. Forms, methods and means of presenting educational material. A modern specialist in production requires the ability to operate with the acquired knowledge in the professional engineering aspect, readiness to analyze and predict the production process, which is impossible without the ability to translate his thoughts and ideas into graphic images - diagrams, drawings, sketches. Therefore, an engineer should be a carrier of graphic culture, the foundations of which are laid in the first year of university when studying geometric and graphic disciplines (descriptive geometry and engineering graphics).

Studies have shown that most students have only an initial level of graphic culture, elementary graphic literacy. They perceive, memorize and reproduce elementary theoretical knowledge about the patterns of image acquisition, are poorly aware of the requirements for graphic training in higher education [1].

The causes of academic failure in graphic disciplines were identified, the main of which is a lack of interest in the subject. The analysis of the content of educational and methodological material, lectures and practical classes showed that in the practice of teaching the subject "Descriptive geometry and engineering graphics"



at a technical university there is no orientation towards the future professional activities of students, there is a separation of this subject from real professional situations. Therefore, most of the first-year students do not realize the importance of graphic knowledge that creates the basis for studying special disciplines.

Among specialists engaged in geometric and graphic training of students, there are diametrically opposed views on the subject and methods of teaching students, on the directions of further development of departments, on their role and place in the general system of engineering education [2]. Today, in professional design practice, specialists mostly no longer use traditional pencil drawing methods. But society and industry are not yet ready to completely abandon the drawing, the media in the traditional form. Currently, there are two methods of teaching engineering graphics: traditional and computer, there is a transition period. There is no doubt that the teaching of graphic disciplines requires improvement. Many things are offered in a timely and interesting way.

The practice of introducing innovations in geometric and graphic training indicates that they are carried out with varying success. There are few studies devoted to the analysis of this practice and its results. The development of a multimedia training course is currently an urgent direction in the development of innovative technologies aimed at helping teachers and students in the educational process.

The creation and development of a methodological base that meets the curricula and work programs of disciplines is a complex, time-consuming task. To solve it, an engineering graphics teacher must have a whole range of specific competencies: the ability to use special software designed to record video files and process them; the ability to create web resources, post them on the network and organize access to them; the ability to use presentation tools, hypertexts. The transformation of such skills requires considerable time.

Today, a significant number of teachers teaching geometric and graphic disciplines at the university do not meet the needs of modern production, they are not ready to develop creative tasks, electronic manuals, tests at a high level using modern technologies. The average age of teachers is high, but they have deep fundamental knowledge, extensive pedagogical experience, which is transmitted to students by the traditional method. It is clear that these problems are difficult to implement and require solving a number of difficult scientific, methodological, organizational and other issues. It seems that their implementation will ensure a reliable increase in the general academic training of future specialists.



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