

INCREASING STUDENTS' GRAPHIC LITERACY THROUGH TEACHING THE SCIENCES OF DRAFTING AND DESCRIPTIVE GEOMETRY

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ABSTRACT

The article describes variety of issues based on increasing students' interest in science through the sciences of drafting and descriptive geometry. Samples are also provided for them to work on the issues independently using the letters of the Latin alphabet.

Keywords: Projection, frontal, horizontal, profile, cube, clear image, prism, space, model, detail.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

“Expressing his opinion that the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021 identifies specific mechanisms to improve the living standards of our people, we emphasize that this strategy has become an important document that attracts the attention of not only our people but the world community”¹.

One of the factors in the development of education is the introduction of new modern teaching technologies. In addition to the knowledge acquired in their specialty, the teacher must have pedagogical and psychological knowledge, the necessary pedagogical minimums, which is a set of new pedagogical technologies and teaching methods.²

In an age of rapid development, new ideas, new thoughts are being formed every minute. The evolving era calls for progress without stopping. Manufacturing enterprises must keep pace with the development of factories, if the goods they produce do not meet the demand, if they lag behind the development. The quality of goods produced at the enterprise depends on the technically accurate operation of the enterprise. A manufacturing enterprise needs a process that consumes less labor but has better profits. Any company hires fewer staff based on their knowledge. How knowledge is acquired depends on the school period. As our scholars have said, the knowledge acquired in youth is like a pattern carved in stone. Everyone's role in life begins with knowledge. The attention paid to education in our country is growing. Every parent is trying to spend their prime time productively, caring for their child's future. From the time a child is born until the age of three, it includes home, then pre-school, general secondary education, higher education and other education. In general education schools, the department of drafting science is distinguished by the different features of each subject. General education subjects are subdivided into humanities and sciences. Within the exact sciences, the importance of the science of drafting has grown in today's evolving world. The environment is every dimension of everything in existence, from the smallest particle to the largest universe. There

¹ Strategy of actions on five priority directions of development of the Republic of Uzbekistan for 2017-2021 Part IV

² G.I. Mukhamedov, U.N. Khodjamkulov INNOVATION CLUSTER OF PEDAGOGICAL EDUCATION: TARIFF, DESCRIPTION, CLASSIFICATION (scientific brochure) Chirchik Institute 2019

are dimensions of the shapes that our imagination creates in our minds. Every shape that surrounds us and is visible to the eye has two things, color and shape. Nature has inherited from the sixties and it is necessary to pass this heritage on to the future. Attention to urban planning is growing in our country. Drafting is taught in 8th and 9th grades in secondary schools. The science of drafting is invaluable to our sense of existence. In the drafting, the shape details are often given by two cornices, and the third cornice is collected on the basis of two cornices. It is necessary to imagine and be interested in the science of drafting. The psychology of the student is diverse and changeable. In the developing world, the child should not be distracted in any way. The task given to science is interesting and it is good that things that are familiar to it are involved³.

In many cases, students face a number of difficulties in mastering the science of drafting. To overcome these difficulties, it is necessary to enrich the spatial imagination in students.

Each piece created in the technique consists of a combination of details of a certain type. Each available detail is sketched several times before production, and on the basis of this sketch a working drafting is drawn and applied directly to production. The international technical language of drafting can be used to draw a drafting in any country. A working drafting is said to be a drafting that is made using drafting tools, based on the requirements of a known detail standard. Before students can analyze the process of drafting, it is important to analyze the appearance of the detail on which the drafting is performed, the task it performs. There are many processes that enrich the spatial imagination in the graphic sciences, some of which we will comment on⁴.

In the process of drafting, we will consider the process of drafting the subject in a way that is specific to the essence of the subject, while giving some methodological recommendations for modeling. The reader tries to make his model based on a clear image. In the process of modeling, man tries to express concepts directly in the spatial imagination. Below we again look at the graphical tasks that are typical of enriching such a spatial imagination.

It is well known that the peculiarity of the graphic sciences is that the volume of knowledge in the field of drafting is characterized by the harmonization of systematized knowledge related to technology.

The simplest of geometric objects is a cube. Even when viewed from three sides of the cube, it is square in shape.

The frontal and horizontal cornices of the cube are given (Fig. 1).

³ THE IMPORTANCE OF PEDAGOGICAL TECHNIQUES IN TEACHING ASSISTIVE DESIGN Kokiev Boburmirzo Bahodir ogli is a teacher at Chirchik State Pedagogical Institute in Tashkent region b.kukiev@cspi.uz.

⁴ Kokiev, B., Ogli, A. N. N. & Shaydulloyevich, B. Q. (2019). Technology for creating images in autocad. European Journal of Research and Reflection in Educational Sciences, 7

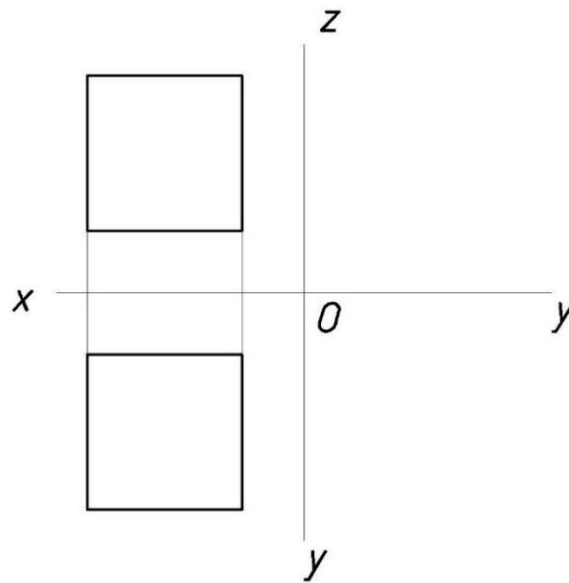


Figure 1

Find the missing projection and clear image. The profile projection of the cube and the drafting sequence of the clear image are shown in Figure 2.

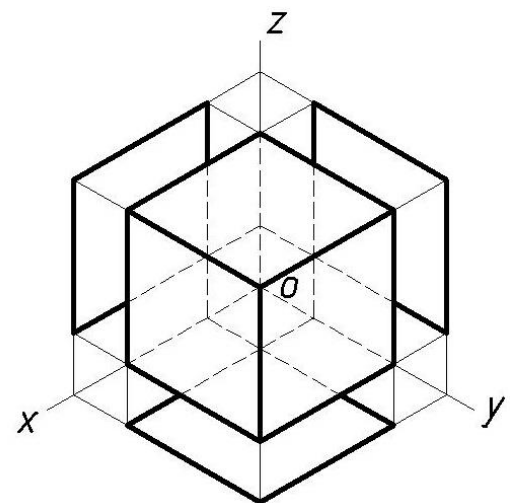
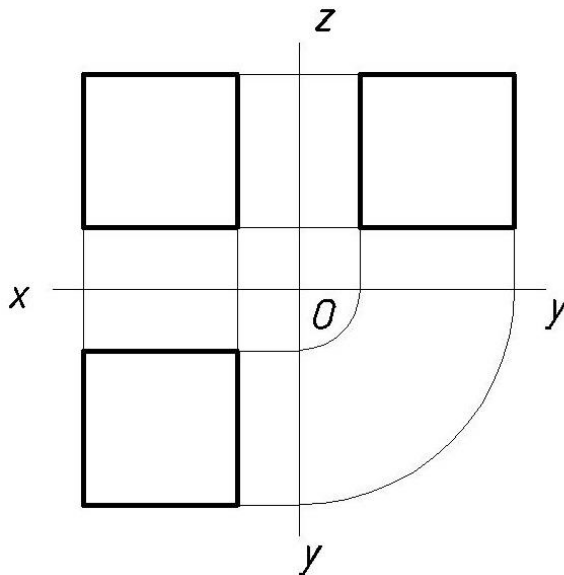


Figure 2

An attempt was made to create a variant of the letters of the Latin alphabet in order to engage the student in science. We use the existing letters of the Latin alphabet almost every day. If we give a task to a student and let him know that the expected result is from the Latin alphabet, then the result will be limited and his interest will increase. This method is similar to the test method. The test has fewer options and the answers are visible, but there are many clear boundaries to the options in this method. The letter A is given in the frontal projection and the letter T in the horizontal projection, and the third letter is given in the profile projection. The reader looks at the letters A, B, D, E, F, N, M in the Latin alphabet and selects the correct sequence of letters. He drew a clear picture of the prism. The letter A is written in blue on the front side, which is visible to the observer. The horizontal T is visible to the observer on the horizontal side, and these two letters are attached inside the prism. From the resulting shape is drawn a letter in the profile plane (Fig. 3 a, b).

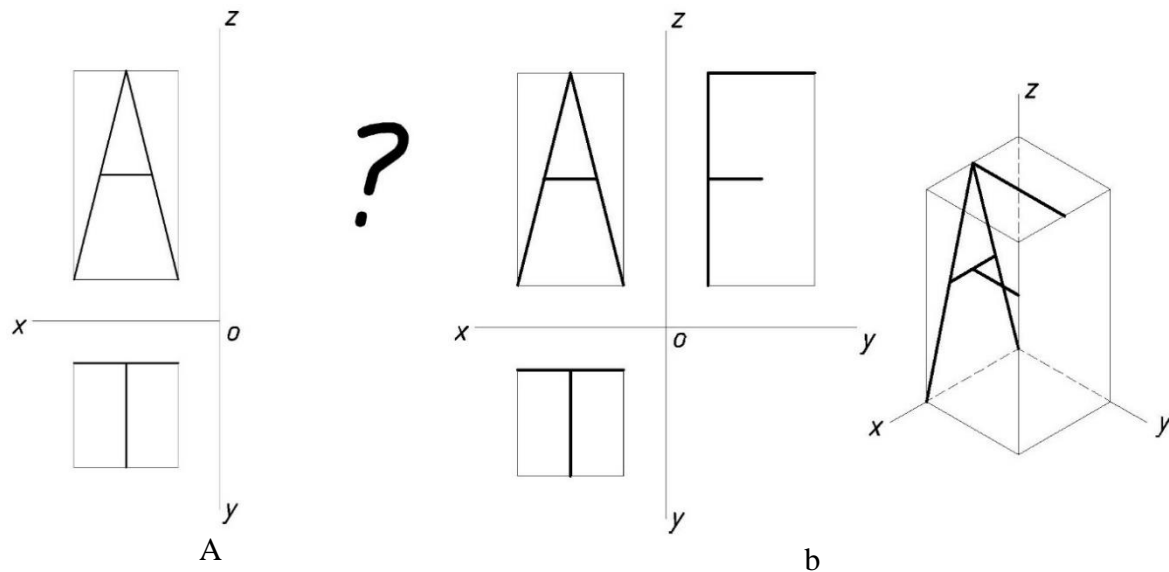


Figure 3 a, b

Giving such examples not only stimulates the student's interest in science, but also encourages them to work independently. The sciences of drafting and descriptive geometry are among the disciplines that develop students' spatial imagination and encourage them to be creative. Before starting any project, first draw its sketch and sketch.

REFERENCES

1. Strategy of actions on five priority directions of development of the Republic of Uzbekistan for 2017-2021 Section IV.
2. G.I. Mukhamedov, U.N. Khodjamkulov INNOVATION CLUSTER OF PEDAGOGICAL EDUCATION: DEFINITION, DESCRIPTION, CLASSIFICATION (scientific brochure) Chirchik "Institute" 2019.
3. THE IMPORTANCE OF PEDAGOGICAL TECHNIQUES IN TEACHING ASSISTIVE DESIGN Kokiev Boburmirzo Bahodir ogli is a teacher at Chirchik State Pedagogical Institute in Tashkent region Page – 182.
4. THE IMPORTANCE OF PEDAGOGICAL TECHNIQUES IN TEACHING ASSISTIVE DESIGN Kokiev Boburmirzo Bahodir ogli is a teacher at Chirchik State Pedagogical Institute in Tashkent region b.kukiev@cspi.uz.
5. Kukiev, B., O'g'li, A. N. N. & Shaydulloyevich, B. Q. (2019). Technology for creating images in autocad. *European Journal of Research and Reflection in Educational Sciences*, 7