System of Complex Tasks in Forming Students' Concepts About Design Elements

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ABSTRACT

Through this article, the general secondary education graphic assignments on the teaching and design of topics related to the design of drawing subjects of schoolchildren are presented to students with instructions that give positive results on the structure and assignment of drawing subjects by the teacher. In the formulation of concepts about design elements, readers are given factors that must be taken into account in the creation of a complex system of tasks and in the formulation of this complex system of tasks. Scientific methodological developments on the advantages of shaping the system of complex tasks on design elements in shaping the concepts of graphic knowledge and creative design in students are presented.

Keywords: design elements, complex assignments, sequence of assignments, student creativity, design elements, visual graphic aspects, imagination, comparison, traceability, personal creativity.

Introduction. The purpose of introducing the subject of drawing as a subject taught in our general education schools is to provide students with graphic knowledge and information on drawing standards, as well as to form personal creative thinking skills and spatial imagination in students. Today, this subject is taught as a subject for 8th-9th grade students of general secondary schools. that their career aspirations are taken into account.

In this regard, many textbooks and literature have been prepared for drawing students to acquire graphic knowledge, and on the basis of these textbooks, the teaching of the subject is still being carried out today. But in spite of these works, due to the fact that there are many problems in mastering this subject and forming the ability to think creatively, students in drawing classes of general secondary schools are taught creative design by subject. requires research on the creation of a complex task system.

Literature analysis. To create a system of complex tasks for teaching design elements to students in drawing classes, T. Riksiboyev "Methodology of teaching engineering graphics subjects in higher education" [1], which is organized for teaching the subject given in the textbook the applications of models and methods were studied and templates were obtained on the basis of relevant conclusions. For example, on the basis of learning the methods of using the basic concepts of drawing geometry to form the spatial imagination of students on the subject based on simple problems related to the subject of the numbered points, it is widely used in the construction of sequences of complex tasks, which are created in teaching the design elements of students of general education schools. . D. U. Sobirova, A. T. Azimov, V. T. Mirzaraimova, V. N. Karimova's "Drawing geometry and engineering graphics" study guide [2], E.I. Roziyev's "Geometric and projection drawing" study guide [3], correct the sequence of graphic tasks It was determined how important it is to develop students' spatial imagination through modeling and to develop their creative design skills. In addition, by

studying a number of pedagogic and methodological literatures, A. Kholikov "Pedagogical skill" textbook for higher educational institutions [4] and several other literatures, the methods of organizing and conducting training sessions are studied. as a result, positive methods were created.

Research methodology. The 8th-9th grade students of several general secondary schools were selected as a sample field for the article. In addition, these experiences were used to organize students' creative design activities in drawing classes and to avoid the usual teaching methods in teaching design elements, and to focus on the development of new methods by the teacher based on the classroom environment and the colorful conduct of classes. must There are several aspects that the drawing teacher should pay attention to in the lesson, and they include the following [5].

Pedagogical and psychological features of teaching elements of creative design - the role and importance of the drawing teacher in teaching students to creative design in general secondary schools is incomparable. in organizing, it is necessary not only to be able to give students graphic knowledge on these topics, but also to give examples related to this topic through things that students may encounter in their lives [6]. In doing so, it helps the student to understand this topic and improve spatial imagination skills. By connecting the given example, creating an encouraging situation for the problematic situation in the lesson and covering all the students to solve this problematic situation, including the student who is not interested in the lesson, by asking about this problem or what is your opinion about it, all the students to the problematic situation will have to weigh.

When creating such problematic situations in the lesson, the teacher must focus on the graphic aspect, design, ease of use, economic aspect, and the social life aspects of a number of students. This has a good effect on the student's psychology and creates self-confidence, perseverance, thinking, personal opinion and many other psychological aspects, and also stimulates the formation of spatial imagination and personal creativity. can take.

Pedagogical features of creative design activity - the drawing teacher of a general secondary school, in the process of teaching students about creative design issues, are considered the characteristics of a pedagogue, and they include the following [7].

Pedagogical skill - the ability to organize lesson processes to form creative design activities in students.

Pedagogical etiquette is to respect the individuality of the student, respect and take into account the opinion of the student, to create an opportunity for the student to express himself, to gently correct the student's mistake when forming creative design activities in students. 'nalting and hakozaos.

Pedagogical image is to look at neatness in dressing and to create the student's ideal personal appearance.

Working with a blackboard - when working on a blackboard, try not to cover the work you are doing with your body as much as possible and to draw lines qualitatively, to draw different lines using colored chalks.

These aspects were studied during the experiment and these aspects proved themselves during the experiment and gave good results.

Analysis and results. It is known that in order to perform each activity or an activity related to the activity, one must have the necessary knowledge and skills related to this activity or the activity to be performed. If the performer of this activity does not have the necessary knowledge and skills for the work he wants to do, the action will become just an action. That is, it will not be possible to get any interest or the expected result from it.

Therefore, before teaching creative design to students of a general secondary school, it is necessary to first of all provide students with the necessary graphic knowledge and skills. It is necessary to train GOST and O'ZDSt in making the drawings and formalizing them, which are necessary for carrying out creative design work. We divide graphic knowledge and skills for students in creative design activities into two conditional ones: methodological graphic knowledge and practical graphic knowledge. Why we chose to divide these graphics

knowledge and skills into two is because we know that since drawing is being taught to an 8th grader for the first time in school, these students will initially learn to write in the same way as they were taught to write in 1st grade. we need to get acquainted with the necessary drawing materials and teach how to use them when making a drawing. We called this process methodological graphic knowledge [8]. At the next stage, we will be able to teach practical work with the help of these materials, that is, we will be able to teach how to make drawings. We called this process practical graphic knowledge.

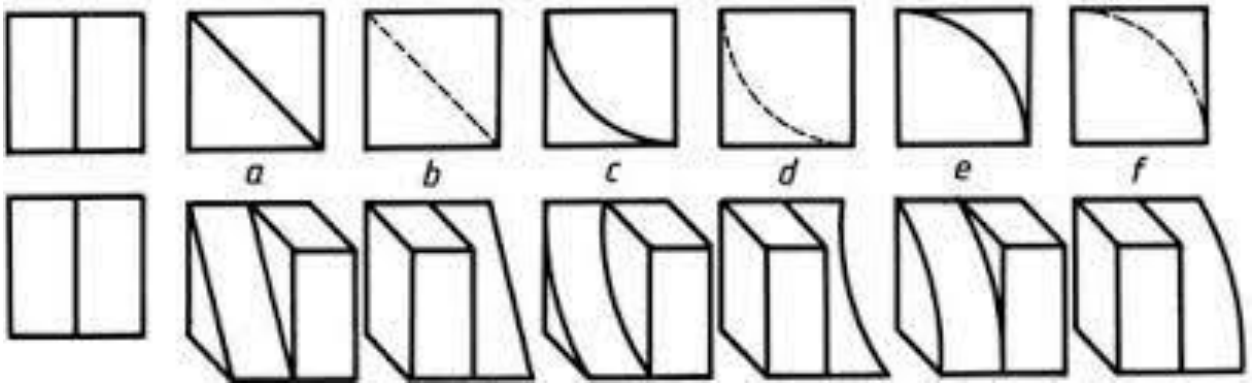

Figure 1. By giving such graphic test tasks, together with improving the personal qualities of students, it helps them to further strengthen their graphic knowledge of graphic design tasks and creative design. It is known that the creation of new products that are needed in society and people's life, or the redevelopment of existing products is called design. When designing such a new product or re-designing an existing product, the designer pays attention to the beautiful appearance, light weight, and quality of the product. In this case, in the product being designed, the designer performs similar operations such as smoothing the corners in a certain radius or diameter R or breaking the corners and opening different holes in the product being created. These are design elements in the drawing [9].

Taking this into account, giving graphic assignments based on the following sequence Before giving the tasks to form students' concepts about design elements, graphic tests are given to find details and their views in order to increase students' spatial imagination. In this case, it can give good results in the emergence of personal qualities such as knowledge of details, imagination, comparison, inquisitiveness in students.

can give positive results in shaping students' concepts of design elements:

- Graphical assignments for the execution of a detailed sketch and technical drawing. The most important thing that the student should learn is the use of measuring tools used to measure the dimensions of the details by himself [10].
- Graphic tasks for designing by changing the shape of the detail.
- Design and build the third view by changing the given views of the detail. In this, the student is required to change the views and dimensions of the given detail as he wishes and to build a third view of this modified detail.
- Reverse design of the existing elements of the given clear image of the detail and make H, V, W views of the designed detail..

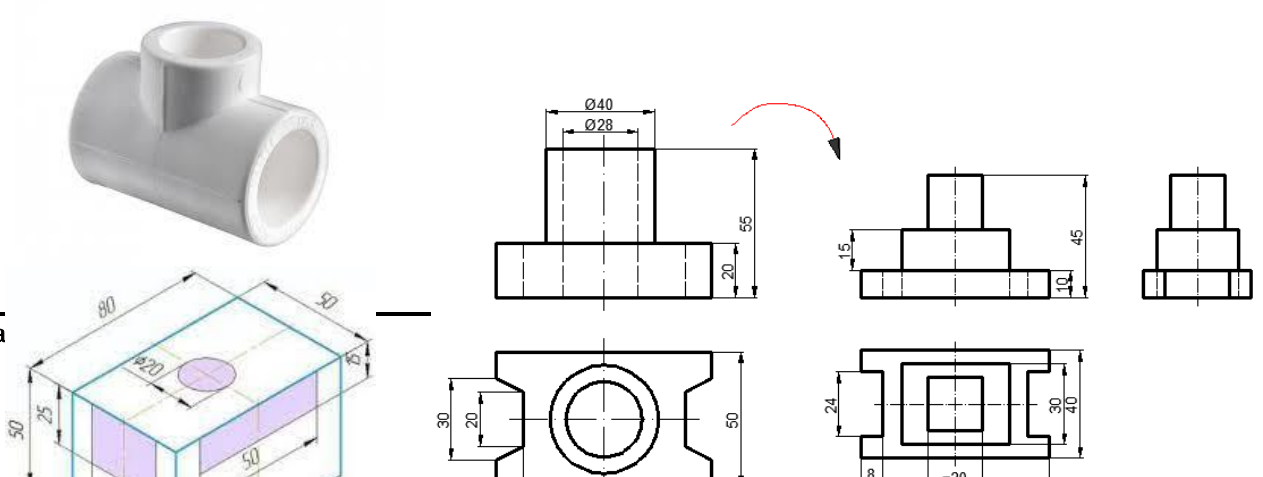

Figure 2.

Conclusions and recommendations. The research conducted on the system of complex tasks in forming students' understanding of design elements showed that this system of tasks has its role and importance in forming the necessary knowledge for students in the field of drawing. In addition to the practical and theoretical knowledge that is given to students in teaching design elements, as well as the specific sequence of starting each work, the graphic tasks that are given to strengthen the acquired knowledge and to form the skills of practical application depending on the structure is important. Because the gradual acquisition of knowledge by the student shows that it can give good results in practice, therefore, in addition to the step-by-step assignments given to the students in the drawing classes, these assignments should also be left to the student's freedom and show the student's creativity. should be taken into account more.

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