



DEVELOPMENT OF THE SKILLS OF STUDENTS TO AVOID TYPICAL ERRORS WHEN PERFORMING CUTTING AND CUTTING

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Annotation. This article describes methodological recommendations on the mistakes made by students in cutting and cutting and their impact on learning the subject.

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Introduction

Nowadays, education is one of the broadest areas of human activity and the attitude to all types of education has changed in Uzbekistan, as in most countries of the world. Today's education is considered as the main, leading factor of the state's development. The reason for such attention is that young people, as the most important value and main capital of modern society, should be able to search for new knowledge, acquire it and make non-standard decisions. Therefore, in the current era, education plays a decisive role in the development of individuals and society.

It is known that one of the important conditions for preventing non-mastery is to create a public opinion about the mastery of each student in the group, that is, the group. This is achieved by mutual support in the group, good discipline, and active involvement of students, especially low-achieving students, in graphic work.

There should always be strictness against the students who are talking about their classmates and trying to get unworthy grades. A teacher can have more influence on some students by relying on the common opinion of the group members and forcing them to study seriously.

In order to prevent failure, the direct teacher should learn well the typical mistakes made by the students. Observations show that clippings and cuts the following mistakes that can be made by students in the drawing during the teaching process there is:

Technical in the drawing section:

- in the drawing, they make lines of the same type with different thicknesses;
- the distance between the bars and the sizes of the bars in dash and dash-dotted lines they do not keep;



- standard font to the line of letters and numbers and Non-compliant with GOST they do;
- letters and they do not maintain equality of distances between numbers;
- circles are first drawn without crossing the central lines ;
- they awkwardly place images on drawing paper ;
- instead of keeping the dimensions as they are in a drawing done at one scale or another in an enlarged or reduced ratio ;
- they pass connecting arcs without finding connecting points ;
- connecting lines between a straight line and a circular arc do not draw smoothly;
- they violate the rules of running a pencil over a drawing, in which first straight lines, from it and then they draw circular arcs;

In the projection drawing section:

- Students in the first stages of cutting and cutting often three in the drawing is perceived as an image of three different objects, and projection pay attention to contact;
- despite the fact that it is enough to cut and cut in one or two views to determine the shape of the detail , perform redundant images of details;
- they incorrectly distribute the dimensions in three views (projection), often all they put the dimensions in one or two projections ;
- they break the projection connection between views;
- they incorrectly choose the main view of the depicted detail ;
- they put the diameter and radius symbols incorrectly ;
- incorrectly draw the axes of the ellipse in the isometric projection ;
- when making a detailed sketch, they do not maintain the proportion between some of its elements;
- when cutting, without crossing out only the part of the detail that has been cut they also cross out the outer part;
- they perform a haircut like a cut or vice versa;
- they separate the view of the detail and the cut with a visible contour line ;
- when cutting, they leave lines behind the cutting plane;
- considering the appropriateness and non - repetition of placement of o -values in views not see;
- When adjacent shafts, kegal, bulging ribs are subjected to cross-cutting, their outline their contours;
- the cut selected for the "front view" is projected onto the remaining views .

Mechanical engineering drawing department:

- in the cuts on the assembly drawing, one detail is drawn in different **directions** ;



- incorrectly determine the scale for the working drawing ;
 - they misrepresent the groove in the hole ;
 - incorrectly mark the carvings in the drawing ;
 - they show the border of the groove with dashed lines;
 - in cuts and cuts, they do not continue the line of the groove on the shaft to the line of the outer diameter ;
- Also, most students will not have a clear idea of the following knowledge:
- they cannot distinguish studded joints from bolted joints;
 - cannot always analyze a set of bolted joints (how basic cannot determine that it is made up of details);
 - what compounds are separated and a clear idea of which ones are inseparable they can't;
 - they cannot always determine which details are included in the fixing details;
 - they have difficulty in answering what service a puck has in a bolted joint;
 - they cannot always correctly determine the function of the key ;
 - have difficulty telling where rivet joints are used;
 - that it is not necessary to separate all the details of this or that item into details they do not know;
 - when dividing into details , when connecting the dimensions of the adjacent elements of joint details they suffer;
 - students in a number of cases, some detail drawings are adopted in the assembly drawings they repeat the conditions (placement of the main view and clippings , the number of views and others).
 - they do not know how to use reference books;
 - they have difficulty **in** making simple schemes, etc.;

In the construction drawing department:

- they do not know the difference between construction drawings and engineering drawings;
- they cannot clearly imagine the order of reading **construction** drawings ;

The question arises, if not everyone in the group can learn , then what should the teacher do? In this case , it is necessary to determine the reasons for low mastery and take necessary measures to correct it depending on its nature. Usually, teachers experiences include individual assignments, extra - curricular activities , counseling , etc. Extra work with students can be one of the activities that prevent students from not mastering the fannio and end the existing non - mastery. It is known that it is easier to prevent malabsorption than to fix it .

Therefore, all students should be sufficiently supervised at the very beginning of teaching cutting and cutting in the subject of drawing. The most sensitive part of pedagogical work is students sometimes the teacher himself ignores the misappropriation and does not take the necessary measures to correct it. In addition to training when they come for example ,



projection to drawing about tasks execution , in the drawing section and read forty and that 's it such as for students who don't know organize will be done . Among such students because of lessons those who left too enters. In addition training usually individual to the character have, their not mastering the content and methods reasons directly connected. For example, a student spatial imagination good not developed given two projection according to the third projection wow haircut in execution many made mistakes. In this case, the student should be given a model of the detail together with the drawing.

Students who always work at a slow pace may also fall into the category of low-achieving students. With such students , it is necessary to bring them to master science at that slow pace . them cannot be accused of haste or lack of perception. Otherwise, it leads to extinguishing the student's interest in science . It is necessary to strive for students to show activity in additional classes and learn part of the educational material by themselves under the guidance of the teacher.

But the teacher does not always have time to conduct additional training with students who do not learn . In such cases, a good learner of science it will be necessary to attach to students with low mastery . Observations show that this kind of support is mutually beneficial, with strong students helping their peers while simultaneously consolidating what they have learned . In addition, such work allows for the growth of friendship and camaraderie among students .

In short, the typical errors in cutting and cutting observed in students are the reason for not being able to learn the subject well , reduce interest and self -confidence. To prevent such mistakes, to use warning questions , to develop the ability of students to find their mistakes independently , to achieve good mastery of knowledge .

REFERENCES

1. I. Rahmanov. Drawing . T. " Uzbekistan " publishing house, 2010.
2. I. Rahmanov . Teacher 's book. T. " Teacher " publishing house for 8th grade , 2010.
3. E. Roziyev, A. Ashirbayev. Methodology of teaching engineering graphics . T. Publishing House "Yangi Asr Avlodi", 2010.
1. Uralovich TF Conducting classes on fine arts based on information and communication technologies //International Engineering Journal For Research & Development. - 2021. - T. 6. - S. 3-3.
2. Toshpulatov F. USE OF GEOMETRIC PATTERNS AND THEIR TYPES FROM ELIMINATIONS OF DRAWING AND APPLIED ART IN ARCHITECTURAL FACILITIES // Fiziko - tekhnologicheskogo education _ - 2022. - T. 1. – no. 1.
3. Toshpulatov FU, Norkhochkarov REO, Makhmudova XNQ The connection of folk art with the science of drawing //Academic research in educational sciences. - 2021. - T. 2. – no. 2. - S. 138-142.
4. Toshpo'latov FU et al. Games that develop children's interest in professions based on game technologies //Science and Education. - 2021. - T. 2. – no. 4. – S. 487-491.
5. Toshpulatov FU, Norkochkarov REO, Mahmudova HNQ THE RELATIONSHIP OF FOLK APPLIED ARTS WITH THE SCIENCE OF DRAWING //Academic research in educational sciences. - 2021. - T. 2. – no. 2.

6. Tashimov NE, Toshpulatov FU Activating Students in Building Intersection Line by Quadratic Transformations Method //www. auris-verlag. de.-2018. - 2018.
7. Toshpulatov F. PRACTICAL RELATIONSHIP OF THE SCIENCE OF DRAWING WITH NATURAL PHENOMENA // Fiziko - tekhnologicheskogo education _ - 2022. - T. 1. – no. 1.
8. Toshpulatov FU, Turopova RB Games that develop children's interest in the profession based on game technology //Science and Education. - 2021. - T. 2. – no. 4. – S. 487-491.
9. Urolovich TF DRAWING SAMPLES OF PATTERNS WITH CONNECTING ELEMENTS USING APPLIED ART ELEMENTS IN DRAWING LESSONS //Eurasian Journal of Law, Finance and Applied Sciences. - 2022. - T. 2. – no. 2. - S. 158-162.
10. ON TEACHING THE DEPARTMENT OF CONSTRUCTION DRAWING TO STUDENTS // Mejdunarodnaya conference academic nauk _ - 2022. - T. 1. – no. 15. - S. 18-23.
11. Urolovich TF et al. DEVELOPMENT OF INDEPENDENT LEARNING ACTIVITY OF STUDENTS IN THE PROCESS OF DRAWING GEOMETRY EDUCATION //Eurasian Journal of Law, Finance and Applied Sciences. - 2022. - T. 2. – no. 2. - S. 279-283.