

## 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](mailto:b.kukiev@cspi.uz)

### ABSTRACT

This article provides a few examples that can be solved by auxiliary projection techniques in organizing drawing geometry classes. There are also a few tutorials and tutorials on how to organize your lessons.

**Keywords:** Technology, projection, positioning, metric, frontal, horizontal, projection, creative, plane, dot.

### INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

The ongoing reforms in our country are the result of the initiative of the President of the Republic of Uzbekistan, Shavkat Miromonovich Mirziyoyev.

President of the country Shavkat Miromonovich Mirziyoyev in his Address to the Parliament in 2020, 'We have begun to reform all areas of education. Where there is no knowledge, there is backwardness, ignorance, and misguidance. Needs education and higher education. The best inheritance is good upbringing.' [1]

- I say to our people, 'It's time to fix our mistakes in education.' As the Orientalists say, 'The greatest wealth is intelligence and knowledge. The greatest legacy is good upbringing. The greatest poverty is ignorance.' [2] He proposed to reform the sector and revise education laws, and the proposal to double state grants in higher education once again underlined the importance of this education.

According to the Decree of the President of the Republic of Uzbekistan dated July 27, 2017 № PP-3152 "On the establishment of the Chirchik State Pedagogical Institute in Tashkent region", primary school teachers of preschool, school and out-of-school educational institutions To meet the needs of teachers, especially in specific subjects and foreign languages, to provide educational institutions in districts and rural areas with highly qualified pedagogical staff, and to establish a system of training of highly qualified pedagogical personnel in accordance with international standards and to improve the quality of education.

The Strategy of Action for the Five Priorities of Development of the Republic of Uzbekistan for 2017-2021 states that concrete mechanisms for improving the quality of life of our people are identified, and that this strategy should attract attention not only of our people, but of the world community. that it has become an important document." [3]

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

Pedagogical technology is the product of the development of modern didactics and pedagogy. It can be seen as a new step in achieving a higher level of practical tasks in all

existing and refined areas of pedagogy [11]. Pedagogical technology is most closely related to the learning process (ie, the activities of the teacher, the student), its content, tools, methods and forms. Pedagogical Technology is a set of general pedagogical skills that are required for both a teacher's teaching and a non-teaching activity. The purpose of auxiliary projection is to simplify graphical solution of positional and metric problems, as well as other ways of changing complex drawings. The practical importance of auxiliary projection method is that it can be solved through a single operation or a simple solution to a problem that involves multiple actions. There are two ways to determine the intersections and invisible parts of the ABC and DEF triangular planes.

The first method is a P (PH, PV) frontal projection plane, such as FD ( $F'F''$ ,  $F''D''$ ), for the intersection of ABC and DEF triangular planes. The PV frontal traverse of the P plane crosses the  $\Delta ABC$  plane  $A''C''$  at  $1''$  and  $A''B''$  at  $2''$ . Hence,  $P \cap \Delta ABC \rightarrow 12$ . The horizontal projection of the  $1'2'$  axis of the intersection of 12 intersections is made using a connecting line that cuts  $F'D'$  at the point  $T'$ . The frontal projection of the point  $T''$  is found.  $T(T', T'')$  refers to the intersection of the triangular plane ABC and DEF. Now the horizontal projection plane Q (Q, QV) is passed through the AC ( $A'C'$ ,  $A''C''$ ) side of the  $\Delta ABC$  plane. The QH horizontal trace of the transmitted Q plane intersects the DEF plane  $E'F'$  at  $3'$  and  $E'D'$  at  $4'$  points. So  $P \cap \Delta DEF \rightarrow 34$ . The frontal projection of the  $3'4'$  intersection line is made using a connecting line that cuts  $A''C''$  at  $N''$ . Find the horizontal projection of the point N'. The points  $T(T', T'')$  and  $N(N', N'')$  are intertwined and form a cross-section of TN ( $T'N'$ ,  $T''N''$ ) (solution and transfer of individual colors. it is recommended to draw). TN ( $T'N'$ ,  $T''N''$ ) is the intersection of the  $\Delta ABC$  and  $\Delta DEF$  planes (Figure 1).

The second method. We can see that it is possible to reach an intersection of the  $\Delta ABC$  and  $\Delta DEF$  triangular planes by means of an optional ED ( $E'D'$ ,  $E''D''$ ), for example (Figure 2). A student who has learned how to handle problem 1 will continue to work in method 2 without any hesitation. Such positionality and metric issues encourage students to engage in creative activities. Students who have a full understanding of the practical value of auxiliary projection techniques will be able to use time effectively in the Olympiads [12]. Using this method, they can earn honorable positions at the Olympics, and the examiners may be able to get an extra score on their options. The main reason why most students do intermediate or graphic work is that they do not know the subject well enough or that they have less hours.

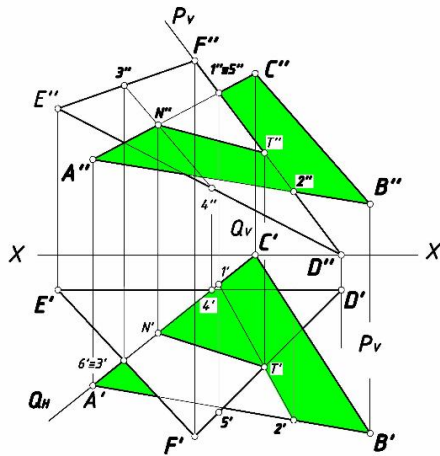


Figure 1. The first method is the problem to be solved.

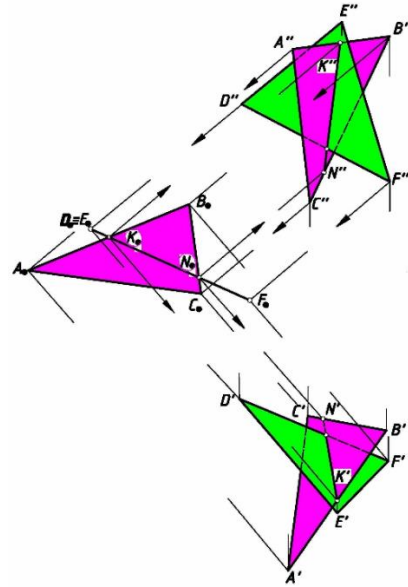


Figure 2. The second problem is the problem.

Using a central projection system to aid the bisector plane, projecting any of the triangle sides can also be projected. It is also possible to solve various posezion problems by projecting the edged surfaces with central and parallel methods to the bissector plane. For example, auxiliary projection technique is more convenient when it comes to identifying the point of the pyramid and the edges of a prism with a straight line. Determining the point of intersection of the pramidane S (a 'b' c ' , a' 'b' 'c' ') with orthogonal projections passing through the second and fourth quarters. can be accomplished by auxiliary projection of the bissector plane (Figure 3). In this case, the S (S ' , S' ') end of the pyramid is taken as an auxiliary projection center. As we know, the projection of the d points on the bissector plane of the straight line d (d ' , d' ') is the d0 and d' 'intersection point D0. The d (d ' , d' ') is selected by the corresponding E point (E' , E' ') for the projection of d0 in the bissector plane of the line. The projection of this point on the bissector plane through the center S (S ' , S' ') is E0. The d0 line connecting D0 and E0 is the projection of the straight line d in the bissector plane. The points A0, B0 and C0 are projected on the bissector plane of the edges of the pyramid through the S (S ' , S' ') ends. Between these points, a projection of the pyramid in the bissector plane forms. The projections of the pyramid with d-d lines are intersected with the projections of the pyramid in the bissector plane, forming the common intersection points K0 and N0. These points are defined by the positions of points K, 'K' and N ' , N' in the orthogonal projection of the line d (d ' , d' '). The intersection points of the pyramid a (a ' , a' ') and a pyramid S (a'b'c' a''b''c' ') are K (K ' , K' ') and N (N ' , N' ') is defined. Based on the conclusions given in the example above, one can draw arbitrary straight line intersections of a given prism in general (Fig. 4). In this case, the projections of the prism edges a, b, and c are the triangles A0B0C0. Given d (d ' , d' '), and a point E (E' , E' ') on the bissector plane in the direction l (l ' , l' '), when projected d0 line is formed. The lines K0 and N0 intersect with the projection of this straight line in the bissector plane of the prism. The orthogonal projections of the points found are in the opposite direction K ' , K''A and N' , N' . It follows from the above assumptions that the OX projection axis is not needed to solve positional problems in the bissector plane.

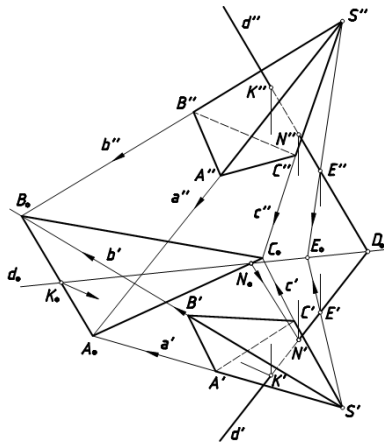


Figure 3. Drawing of a straight line intersecting the Pramida.

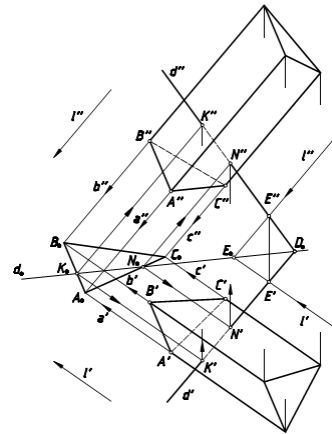


Figure 4. Draw a prism line with a straight line.

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