

THE USE AND IMPORTANCE OF THE THREE-DIMENSIONAL FEATURES OF THE AUTO CAD PROGRAM IN DRAWING PROJECTS IN PUBLIC SCHOOLS

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ABSTRACT

This article provides an overview of the three-dimensional capabilities of the Auto CAD software and its implications in the projection drawing department of general education schools. The article also provides two-dimensional and three-dimensional information.

Keywords: Appearance, Design, Education, Engineering, Construction, Drawing, Space, and Size.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

Automated learning programs help the teacher organize the learning process and help students master the science. They have the benefits of speeding up the learning process, making the teaching materials more simple and clear.

The development of science and technology is in great demand for various fields of human activity, human knowledge, technical culture, and polytechnic education.

As the Greek wise Plato said, "Let us not confine our children's knowledge and morals to our own knowledge and morals, but to prepare them for the future, because they are not our own, they are the people of the future."

Today, the introduction of new information and computer technologies into the field of education requires the improvement of teaching process, that is, modernization of the learning process, among other subjects, in Fine Arts and Engineering Graphics. Because new and modern e-learning tools have great potential, they can be used to improve the effectiveness of e-learning. Not only will this improve the quality of teaching and save students' time, however. All teachers of higher education are responsible for solving these problems positively and creatively¹.

Autodesk is currently an international standard for automatic CAD design. Auto CAD has been around for more than 20 years, but automated design is still popular. Auto CAD is an excellent and popular software that enables you to create high quality schemes and drawings of any type. It will also help you to get the most out of your users' creative abilities. That is why millions of professionals, scientists, engineers and students use the Auto CAD system in the field of automation of design.

The use of AutoCAD differs from any visual materials and posters, with the use of drawing, machine drawing and construction drawing and the ease of use in several disciplines. Therefore,

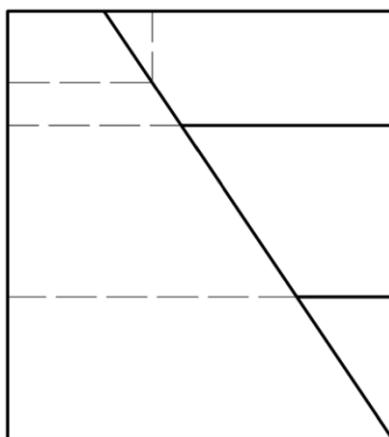
¹ Kukiev, B., O'g'li, N. N. & Shaydulloyevich, B. Q. (2019). Technology for creating images in autocad. *European Journal of Research and Reflection in Educational Sciences*, 7 (12), 49-54.

the use of information technology, which is one of the most pressing issues of our day, will have a significant impact on the development of these disciplines and the effectiveness of the lessons.

Depending on the finished drawing, the details will be as detailed as the description. As you carefully examine the details of the plot, it becomes more and more accurate. The process of reading the drawing will help you to become better at drawing. Enables better visualization of space and better understanding of all the drawings, and enhances the ability of the reader to read the drawing more quickly.

Reading drawings is a complete picture of the shape of a piece of detail and its constructive features, reading the dimensions of the drawing, and learning which part belongs to them. In addition, reading the drawing helps identify the material, its material, and the scale of the drawing.

The most difficult part of reading a drawing is to visualize the overall shape of the image. The more complex the details, the more difficult it is to draw and visualize. To do this, you need to learn how to analyze as many drawings as you can.



Often the details are drawn in two forms. To read such drawings is done by drawing a clear picture of the detail in the drawing or drawing a third picture².

Determine the third appearance, based on two views

Below (Figure 1), two screens are shown as options for the graphical task. Students are asked to find a third view based on two of them. From this observation, we can be sure that when this option was given to students, the students had a hard time doing the task and some were not able to complete the task at all. As a result, we need to give our students the right direction and look for the best solution. This has been done from the public to the private to solve this problem.

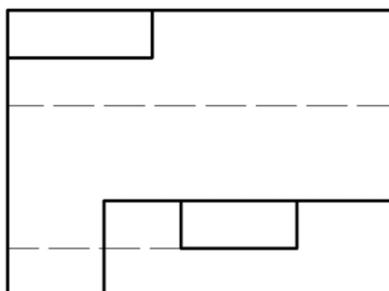
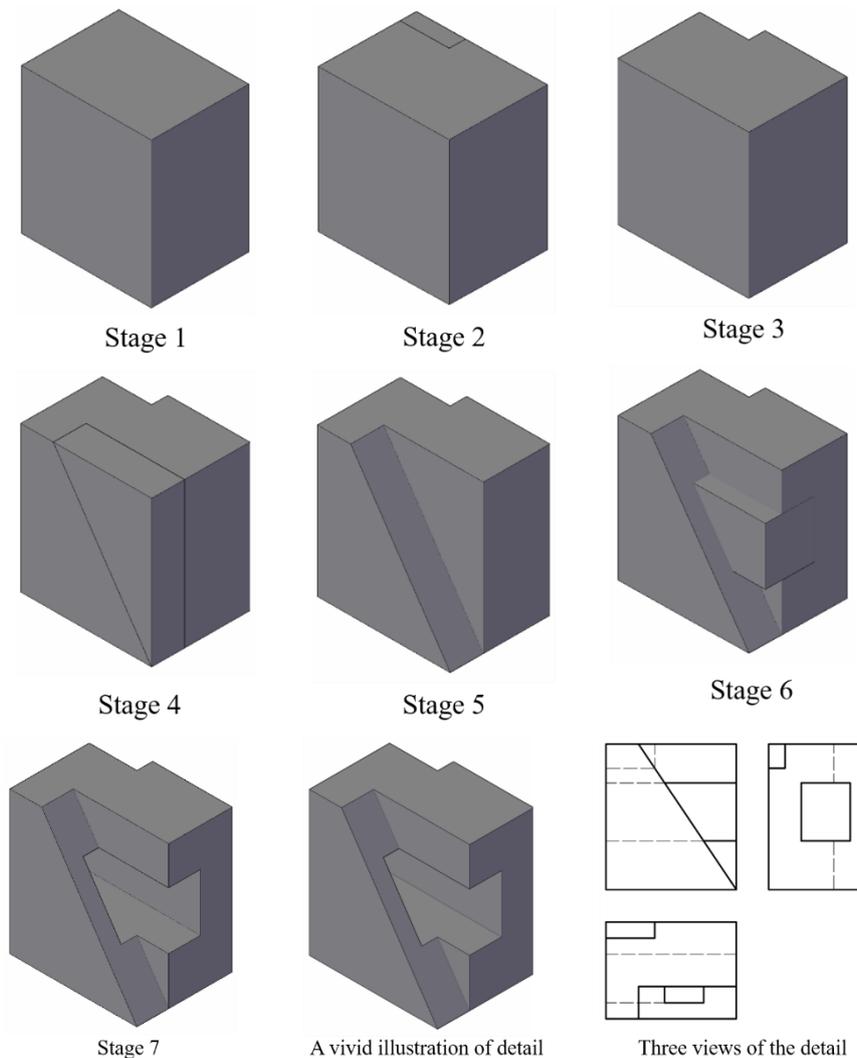


Figure 1

To do this, first draw two prism through its dimensional dimensions, namely the entire height, length and width. Then, using these two views, prism is drawn from the upper right corner of the detail. Then a triangle-shaped prism is drawn from the front of the left side. The rest of the work is done in the same sequence. Then the final result is that the third appearance of the detail can be imagined and done exactly without mistakes.

² A. Ashirboev. Drawing (for professional colleges). Tashkent New Edition. 2008.



This way of finding the missing third form, based on the two illustrations of detail, that is, going from private to private, helps the student to freely solve the problems that arise during these graphical actions. In addition, the accuracy of the solution is higher and more accurate than before.

That is why we can see this if we pay attention to the views of our great thinkers. From the views and considerations of Musa al-Khwarizmi and Abu Nasr Farabi, it is clear that in order to grow space images, we must first visualize the drawing and its appearance. Failure to refer to a drawing during each work sequence may result in different errors.

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