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USING COMPUTER TECHNOLOGIES IN EDUCATION "DESCRIPTIVE GEOMETRY"

***Abstract**: This article discusses the use of computer technology in the formation of "descriptive geometry"*

***Keywords:** computer, textbook, electronic resources, situation, task, geometry*

ИСПОЛЬЗОВАНИЕ КОМПЬЮТЕРНЫХ ТЕХНОЛОГИЙ В ОБРАЗОВАНИИ " НАЧЕРТАТЕЛЬНАЯ ГЕОМЕТРИЯ"

***Аннотация:** В данной статье рассматривается использование компьютерных технологий в образовании "начертательная геометрия"*

***Ключевые слова: :** компьютер, учебник, электронный ресурсы, ситуация, задача, геометрия*

At present, the development of working conditions in the sectors of the economy is changing the qualification requirements for specialists. therefore, the introduction of effective teaching methods in the training of specialists who meet the requirements of time is very important. the role of information technology in the training of highly qualified, competitive staff with modern knowledge is crucial. The use of information technology in a wider range of teaching processes is one of the most widely used and effective tools in the world." descriptive geometry" is one of the main subjects in the preparation of future designers, artists or graphics specialists. Because this fan is directly linked to graphics, use of computer technology in teaching it can lead to good

results. the computer structure and capabilities are inherently an easy way to work with graphics.

Especially, in modern computer technologies, such facilities are highly organized. this article discusses and analyzes the use of information technology in teaching descriptive geometry. In the teaching process, in particular, the teaching of " descriptive geometry " can be widely used in the following areas of information technology:(1) improving the quality of teaching materials;(2) individualization of teaching process;(3) operational monitoring and objective assessment of the acquisition;(4) adapt the learning process to the reader;(5) to create independent learning opportunities, to introduce distance learning.these directions will be discussed separately.(1) computer technology serves to visualize and improve the quality of teaching materials. first of all, various computer graphics are used.

These programs include adobe photoshop and corel draw. Because adobe photoshop is designed to handle "raster" graphics, it is used to graphically process educational materials and fill them with necessary visual elements. Graph elements are based on raster or dot hole. Also, this program is used in the processing and improvement of the previous materials. Using the corel draw computer graphics software you can create perspective drawings and images. for example, while using the "projection" or "creating perspective oval", corel draw software enhances the visibility and accuracy of the curriculum.(2) Computer technology can be very effective in individually differentiating teaching. For example, consider the use of computer networks in the learning process. By using a local computer network, students can independently monitor their learning levels along with the transfer of individual teaching materials. For example, when teaching a point perspective, each student can have several exercises that are different from one another through a computer network.

Example. A is the point on the plane, and the point V is in the space above the plane d measurement unit. Prospective A and B points (Figure 1).

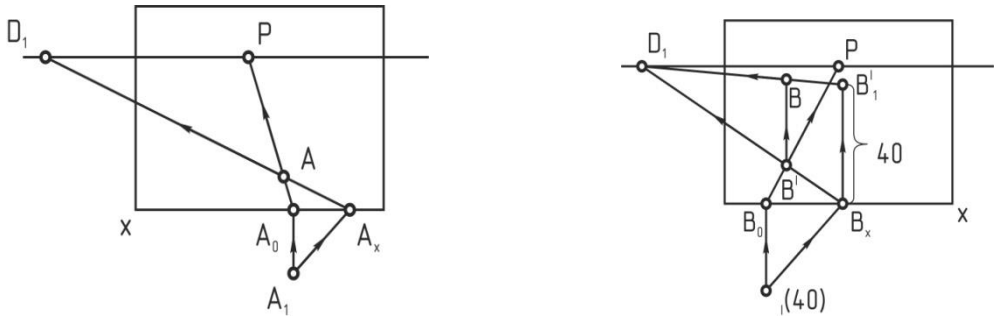

Figure 1. Creating a perspective perspective.In this example, each level of reader will be different. The pupil uses computer graphics software to accomplish his / her example. The tutor monitors the exercise and gives the necessary advice.Practical exercise (Laboratory exercise). Determine the true length of the AV line in the general case given in descriptive geometry (Figure 2). In this exercise, the assignment to each student is different. For example, the distance from the cut to the picture may be different. Also, the angle between the straight line on the incision and the angle between the card and the cut may vary in perspective.

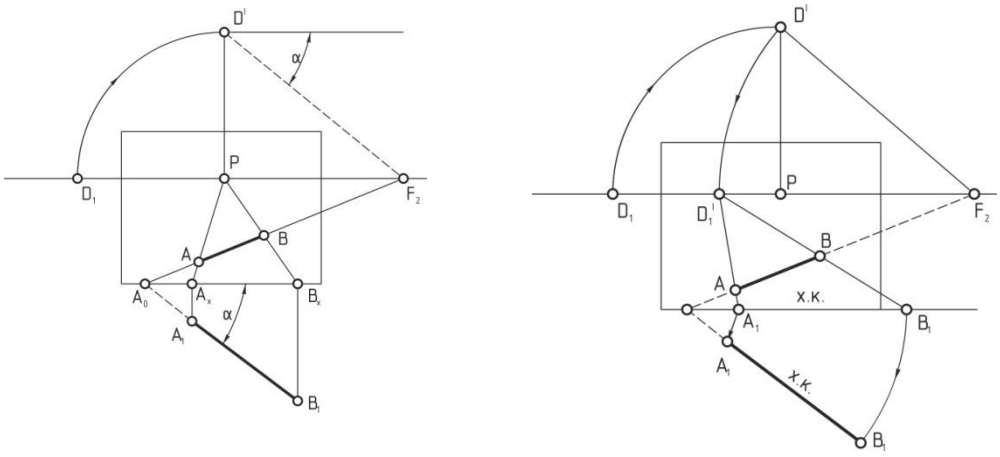

Figure 2. Finding the true length of the AV line in the general case given

Homework assignments are given electronically to students. The pupil will use computer graphics while performing the exercises, and will present the result electronically to the teacher. The exercise is performed independently by

the pupil. The tutor delivers advice on how to exercise.(3) In the above examples, the teacher will have an opportunity not only to observe, but also to quickly monitor and evaluate the learning process. At the training course, students take up to 6 practical exercises and each exercise is evaluated in a 15-point rating (one out of 6 exercises is 10 points). The evaluation criteria are given in the table below.

The use of computer technologies in the organization of interactive and midterm examinations and processing of results will help to automate the assessment process, increase objectivity. Today, many interactive computer testing programs are being used effectively. For example, in the e-Manual for the Perspectives of the Persistent Creator [1] there is a test program available. Using this program, you can quickly and interactively detect perspective topics. However, rating scores that the student collects from all scrutiny are stored in the database for evaluation and, together with the final evaluation, constitute a joint rating estimate.(4) Computer technology allows the student to manage the learning process in a flexible manner. In the ebook, [1] above, it is possible to approach the student himself or the teacher according to the level of the apprentice's learning. The sequence of learning materials, the transition from one topic to the next, and the settings for the control test program are selected individually and provide the learning process flexibility.(5) descriptive geometry creates opportunities for independent learning of computer technologies, provides the basis for the introduction of distance learning. The electronic guide [1] created by Mulli can fully support these opportunities.

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