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The Importance of Using Graphic Programs in The Formation of Visual Arts Skills of General Education School Students

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Abstract: The second stage of the national personnel training program will be completed in New Uzbekistan. During the past period, new State educational standards were developed and approved for general secondary, specialized secondary, vocational and higher education types. The issue of educating people who are loyal to the idea of national independence, who have sufficient intellectual potential, who can think independently and think based on the modern achievements of science, as well as the training of competitive, highly qualified personnel, requires the creation of new methods of acquiring knowledge.

Keywords: Cybernetics, informatics, video technology, interactive methods, innovative technologies, imitation.

Introduction: Today, getting knowledge from specialized subjects by students is also a form of meeting their demand for information. The daily increase of information, the expansion of the field of its application in the development of our society led to the emergence of various sciences. In particular, cybernetics, informatics and information technologies can be included among them. Today, the use of computer graphics programs is one of the important tasks in teaching students about the creative process in drawing geometry classes. One of the non-traditional types of lessons is teaching using an electronic study guide created by computer graphics programs in

drawing geometry classes of higher education institutions.

In recent years, the use of various types of computer graphics programs in teaching most subjects in the educational system has become widely popular. Computer graphics programs greatly help the teacher in organizing the educational process, and the students in mastering the subject. With their help, there will be opportunities with advantages such as speeding up the progress of the educational process, explaining educational materials with the help of simpler and clearer images. Today, the use of computer graphics programs is becoming one of the main methods of education in forming the knowledge and skills of students.

To date, no automated learning programs (ATD) have been created using technical tools (EHM) from drawing geometry and drawing sciences. Below we will focus on the role and importance of computer graphics programs and methods of using them in the educational process.

Based on ATD, education is viewed as a complex dynamic system and is based on a cybernetic approach. Management of this system is carried out by the teacher sending commands to the student (using a computer and other audio and video technical means) and establishing student-teacher communication. That is, the educational process is monitored simultaneously with the participation of the teacher (assessment) and the student (self-assessment).

ATDs are based on the following principles:

• information is transmitted in small amounts;

• a control task is carried out to check the assimilation of each offered amount of information;

• answers to questions for self-control;

• an instruction is given depending on the correctness of the answer.

In practice, there should be a section that allows the teacher to choose one of the linear or branched types of ATD or to use them simultaneously. In the linear type of ATD, students process and assimilate all the amounts of educational information in the order of the sequence of transmission. Networked ATD is intended to allow the student to choose an individual path in learning integrated educational information. In this case, assimilation of information depends on the level of preparation. In both cases, the communication between the student and the teacher is carried out with the help of special tools (various programmed educational manuals, computers). The advantage of this form of education is determined by the possibility of obtaining complete and continuous information about the level and quality of learning the curriculum.

In ATD, there is no problem of matching the pace of education to the individual capabilities of the student. Because every student works according to his own schedule. The second advantage is explained by the saving of the teacher's time spent on information transfer, as well as the increase in time devoted to self-learning of the material and continuous control of its results. Widespread introduction of ATD is related to material supply. Currently, it is difficult to fully provide the entire educational process with specially programmed textbooks, sets of graphic tasks, control tasks in the test method. The main drawback of this form of education is excessive reference to the student's memory.

Using modern computer technologies, directing students to the creative process in the course of the lesson, and organizing classes in an interactive way based on the new pedagogical technologies of transitioning on the basis of graphic programs in the course of the lesson, multimedia and presentation based on computer programs that are interesting for students during the lesson it is necessary to organize lessons using tools.

The following requirements must be met in order to use a computer in drawing and drawing geometry classes:

• students must have computer skills;

• before drawing on a computer, they are required to acquire at least the basics of projection literacy;

In order to solve the problems faced by the educational system in the innovative processes taking place at the present time, we need people who are able to absorb new information and evaluate the knowledge they have acquired, who make the necessary decisions, who are independent and think freely. Therefore, the role and importance of modern teaching methods - interactive methods, innovative technologies in the educational process of educational institutions is incomparable. Innovative technologies are the introduction of innovations and changes in the pedagogical process and the activities of teachers and students, and interactive methods are mainly used in its implementation.

Organization of drawing geometry classes in pedagogical higher educational institutions using graphic programs, formation of an educational environment, and improvement of the quality of education creates the following opportunities:

1. To create a single information space - to direct students to the creative process, to create the necessary conditions for the transition to a qualitatively new level of education, focusing on unifying areas of expertise through modern technologies;

2. Creating a management system for the process of computerization of science subjects - moving to a qualitatively new stage in the organization of education and training of students;

3. It is aimed at improving the qualifications and professional training of teachers, increasing the information culture of students, and helps to move to a qualitatively new stage of organizing lessons on the subject and to provide a methodical educational process;

Until then, in traditional education, students were taught to acquire only ready-made knowledge. Such a method extinguished students' independent thinking, orientation to the creative process, intellectual research, and initiative. One of the new directions of computer graphics is dedicated to the development of methods and principles of creating real images. According to these principles, it should be possible to directly observe the images or record them using optical devices. The need for such images appeared in design, architecture, advertising and other fields. The expansion of the functional capabilities of EHMs laid the foundation for the development of computer graphics and led to the creation of systems providing animation of images. The following three groups of such systems can be distinguished:

- demonstration of processes in chemistry, medicine, astronomy and other fields;

- systems (computer games, etc.) that create the imagination (imitation) of situations in motion;

- systems for preparing images for film and television.

It was in these areas that the main difficulties were encountered in the development of computer graphics. For them, in addition to the high accuracy of the models, there are also high requirements for exposure capabilities.

Today, the interest in increasing the effectiveness of education by using interactive methods (innovative pedagogical and information technologies) in the educational process is increasing day by day. Training conducted through modern computer graphic programs should be aimed at students finding the knowledge they are acquiring, independently studying and analyzing it, and even drawing their own conclusions.

CONCLUSION

Computer graphics means creation, storage, processing of volume models of objects and their demonstration using EHMs. Computer graphics is one of the constantly developing directions among new information technologies. Such development is also visible in the field of technology (graphic stations) and in the field of software tools. Also, this field is becoming a continuous part of today's global engineering education process. In this process, the teacher creates conditions for the development, formation, learning and education of individuals and the team, and at the same time, he performs the task of management and guidance. In such an educational process, the student becomes the main figure.

REFERENCES

I. U. Izbasarov, I.Sh.Suvonkulov, D.E.Omonov., Spatial Imagination and Logical Thinking as a Pedagogical Basis for Teaching Students to Design Nexus : Journal of Innovative Studies of Engineering Science (JISES) Volume: 01 Issue: 04 | 2022 ISSN: 2751-7578 http://innosci.org/ 37 | Page

D. E. Omonov., Conceptual Bases of the Production of Teaching Technologies in Exposure and Practical Training (In the Example of the Engineering Graphics Course) Pioneer: Journal of Advanced Research and Scientific Progress (JARSP) Volume: 01 Issue: 04 | 2022 ISSN: 2751-7551 http://innosci.org 104 | Page

D. E. Omonov., The Role of Engineering Graphics in the Training of "Fine Arts and Drawing" Teachers Pioneer: Journal of Advanced Research and Scientific Progress (JARSP) Volume: 01 Issue: 04 | 2022 ISSN: 2751-7551 http://innosci.org 108 | Page

I. U. Izbosarov, D.E.Omonov, S.Abduvohidova., Stages of Working Thematic Composition in Fine Arts Lessons Pioneer: Journal of Advanced Research and Scientific Progress (JARSP) Volume: 01 Issue: 04 | 2022 ISSN: 2751-7551 http://innosci.org 112 | Page

DILSHOD ESONOVICH OMONOV., Ways to introduce the science of painting to the visual arts using new pedagogical technologies. International journal of philosophical studies and Social sciences ISSN-E: 2181-2047, ISSN-P: 2181-2039 http://ijpsss.iscience.uz/index.php/ijpsss Vol 1, Issue 3 2021

D. E. Omonov., Integration of fine arts and computer technologies in art education of students. MIDDLE EUROPEAN SCIENTIFIC BULLETIN ISSN 2694-9970 Middle European Scientific Bulletin, VOLUME 17 Oct 2021

Omonov Dilshod Esonovich., Spiritual values and their importance in human development. NOVATEUR PUBLICATIONS INTERNATIONAL JOURNAL OF INNOVATIONS IN ENGINEERING RESEARCH AND TECHNOLOGY [IJIERT] ISSN: 2394-3696 Website: ijiert.org VOLUME 8, ISSUE 10, Oct. -2021 199 | P a g e

D. E. Omonov., Improving Conversation Classes on Fine Arts in Secondary Schools. European Journal of Innovation in Nonformal Education (EJINE) Volume 2 |

Issue 2 | ISSN: 2795-8612.

D.E.Omonov., the Role of Graphics in the Training of Teachers of "Fine Arts and Engineering Graphics" European Journal of Innovation in Nonformal Education (EJINE) Volume 2 | Issue 2 | ISSN: 2795-8612.