

ABOUT THE USE OF STUDENTS IN GRAPHIC WORK AND COMPUTER TECHNOLOGY USING COMPUTER GRAPHICS

Khurshid Aliqulovich Markayev

Director of Qarshi district vocational school No. 1

Хуршид Аликулович Маркаев

Директор профессионального училища № 1 Каршинского района

Annotation: this article talks about the use of students in graphic work and computer technology using computer graphics. At present, special attention is paid to the formation and development of independent educational activities of students in the subject of computer graphics. It was mentioned that the formation and development of independent educational activities of students in engineering and computer graphics are important in improving the effectiveness of teaching.

Keywords: graphic information, computer graphics, diagram, technology, digital device, models, e-learning technology.

Аннотация: в данной статье рассказывается об использовании студентами графических работ и компьютерных технологий с использованием компьютерной графики. В настоящее время особое внимание уделяется формированию и развитию самостоятельной учебной деятельности студентов по предмету компьютерная графика. Было отмечено, что формирование и развитие самостоятельной учебной деятельности студентов в области инженерной и компьютерной графики имеют важное значение для повышения эффективности преподавания.

Ключевые слова: графическая информация, компьютерная графика, диаграмма, технология, цифровое устройство, модели, технология электронного обучения.

It is indicated that it is relevant to solve the problem of determining the types and forms of independent work aimed at the formation of independent activities of students, the implementation and development of practical drawing tasks.

It consists in teaching students the procedure and rules for computer - aided execution of all types of graphic information performed from engineering and specialist disciplines-images such as drawings, diagrams, groups and schemes in two dimensions or three dimensions.

The issue of forming independent activities of students, preventing them from becoming exhausted in determining the types and forms of independent work aimed at the implementation and development of practical drawing tasks, supporting their interest in studying is an urgent task set before professor teachers.

Obviously, the use of modern information technologies in schools and higher educational institutions leads to the acceleration of the educational process, improving quality and efficiency, the development of logical and theoretical thinking of special students. Especially this autonomy-technology is very relevant for educational institutions. Because in addition to many specialist disciplines, the system of knowledge, skills and qualifications of Future Engineers is not simply computer literacy, but also aimed at free computer control, the use of software suitable for solving the problem posed to the engineer, modern graphic programs and their capabilities, and the rational use of electronic information resources. Today, engineers are required to deeply acquire knowledge not only in their field, but also from modern information technologies. Therefore, it is tasked with teaching students how to perform graphic images on a computer using modern graphics software. Based on the current demand, modern graphics programs, namely PhotoSHOP, CorelDRAW, AutoCAD, need to know how to design primitive-elements of drawing on a computer using programs.

Students can freely perform on the computer the work of creating models of design and technological processes using practical and operational programs and a ready-made Command package. On the basis of the Auto CAD program, training in the subject of "Computer Graphics" is carried out in the form of practical graphic skills based on a sample program approved by the Ministry of higher and secondary special education for the training of Engineers in higher educational institutions. In each practical session, for 25-30 thousand, students are given

theoretical knowledge step by step, which is necessary to draw on a computer screen the structural parts of graphic information primitives, create acceptable options by changing them again and save the images performed on the screen to memory, as well as perform tasks such as extracting them on paper. In the rest of the training, skills and competencies are increased using practical commands such as drawing a drawing on a specialist, taxing them, placing dimensions and tying objects. Geometric knowledge and skills acquired by students in training, strengthening theoretical knowledge and skills and practical skills in the process of performing the given graphic tasks in projection, machine drawing and specialist training.

Modeling allows a holistic study of the object under study, since it will be possible to demonstrate and reproduce an analogue of the systems and processes existing or developed by the researcher, revealing not only the structure, elements, properties, but also the relationships and relationships between elements. The computer imitation model is carried out with the aim of directing the attention of students to some important learned Concept, category, object, providing the opportunity to form and strengthen certain skills in a creative environment. The use of models on different topics allows for interdisciplinary integration of disciplines. Taking into account interdisciplinary connections is a prerequisite for successful learning. The development of students' thinking and worldview depends on how this connection is made. The organization of the educational process on the basis of interpersonal ties helps to involve students in a topic-practical activity, which includes the active acquisition of knowledge, their creative use, the development of cognitive activity and independence, the formation of a scientific worldview.

The computer imitation model combines the most important achievements of various disciplines, using modern information technology as a means of creating, studying and using models in the perception of the surrounding reality.

Laboratory and practical classes are held to study the process in depth. In these lessons, theoretical materials are understood, practical experience and the ability to formulate the Basic Rules of the theory under study are formed and

acquire professional skills. Using the event-graphic approach, it is proposed to use laboratory and practical work, which involves the computer imitation of phenomena and processes of different nature: the movement of a social group; a change in the state of economic reserves at the enterprise in conditions of uncertainty; interactive education; the process of learning and teaching the learning module; scheme of logical functions.

The indicated laboratory-practical works are systematic substantive units that provide a combination of theory and experience, activate the cognitive activity of students, give a characteristic to the theoretical material studied in the lectures and focus on many interdisciplinary problems. However, traditionally, the methods of conducting training do not allow to fully realize their didactic capabilities. Laboratory-practical and lecture classes require a step-by-step transition from an explanatory-illustrative teaching style to a creative one.

Active forms of computer use in the educational process contribute to a deeper study of the content of the material, the effective use of various methods of teaching, the development of logical thinking in students, the implementation of the principle of activity and transparency in reading. The use of active technologies of Education makes it possible to increase the quality of the preparation of subjects of students, helps to expand, deepen and systematize knowledge, develop all levels of thinking skills.

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In conclusion, a multimedia electronic guide created from the subjects serves to increase the effectiveness of the educational process as a visual tool for students.

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