CURRENT RESEARCH JOURNAL OF PEDAGOGICS
(ISSN –2767-3278)
VOLUME 04 ISSUE 11 Pages: 50-55
SJIF IMPACT FACTOR (2021: 5. 714) (2022: 6. 013) (2023: 7. 266)
OCLC – 1242041055
Publisher: Master Journals

Journal Website: https://masterjournals.com/index.php/crjp

Research Article

PERFECTING THE METHODOLOGY OF USING GRAPHIC SOFTWARE IN TEACHING DRAWING

Submission Date: November 01, 2023, **Accepted Date:** November 05, 2023,
Published Date: November 09, 2023
Crossref doi: https://doi.org/10.37547/pedagogics-crjp-04-11-09

Ozodboyev Ismoil Odilboyevich
Teacher Of The Department Of "Engineering And Computer Graphics", Chirchik State Pedagogical University, Uzbekistan

ABSTRACT

Developing new tools to enhance imaginative conception and creative activity in the field of computer graphics, computer graphics is a subject directly related to the computer, therefore, the use of computer technologies as a pedagogical tool in the teaching process.

KEYWORDS

Graphic programs, aspect, methodology.

INTRODUCTION

The methodology of using graphic software in teaching the art of drawing can be interesting and beneficial for students. Graphic programs are considered an important part of drawing, hence learning and explaining them help to develop students' abilities in drawing. The methodology of using graphic software helps students to find the best direction and achieve positive results in the field of drawing.

Developing new tools to enhance imaginative conception and creative activity in the field of computer graphics, it is relevant to use the capabilities of advanced graphic software. Because computer graphics is a subject directly related to the computer, therefore, the use of computer technologies as a pedagogical tool in the teaching process expresses the solution to the problem of successful two-sided education. In teaching the subject "Engineering computer graphics", along with the above-mentioned methods and tools to develop students' creative activity in the subject, it consists of using the modeling tool of graphic programs and thus, first of all, developing students' interest in the subject and

CURRENT RESEARCH JOURNAL OF PEDAGOGICS
(ISSN –2767-3278)
VOLUME 04 ISSUE 11 Pages: 50-55
SJIF IMPACT FACTOR (2021: 5. 714) (2022: 6. 013) (2023: 7. 266)
OCLC – 1242041055
Publisher: Master Journals

creating a basis for their complete mastery of knowledge in this field.

In teaching the art of drawing, it is very important for students to understand graphic software first. Students should learn programs like AutoCad, 3dsMax, Photoshop, CorelDRAW, and others. These programs give students the opportunity to learn how to create and use different types of drawings.

Implementation of graphic software in practice.

Learning to work with graphic software. In teaching the art of drawing, students learn to work with graphic software and to create drawing products. It helps to develop their professional skills and is considered important in the field of drawing. Students learn to represent features, work with shapes and colors.

The methodology of using graphic software helps to develop students' learning and experiences. Students demonstrate their learning through practical exercises, showing different aspects of drawing.

Drawing is one of the sciences that have faced changes in technology and technology. Innovations in this field make it important to learn and teach drawing. This requires the effectiveness of teaching the art of drawing and the assimilation of education.

Several years of research have shown successful learning and teaching of the use of graphic software in drawing among students. By teaching drawing practices through graphic software, practical exercises can be created to learn, assimilate, and develop experiences.

The methodology of using graphic software provides good opportunities to develop students' creative abilities in teaching the art of drawing. In this methodology, students should learn to understand graphic software, learn the important aspects of drawing through practical exercises, learn and assimilate working with graphic software, and develop their experiences.

- The main tasks of the methodology of using graphic software are:
- Support students in understanding graphic software;
- Prepare students to learn the important aspects of drawing through practical exercises;
- Give students the opportunity to understand different graphic software;
- Teach students to learn, assimilate, and develop their experiences by working with graphic software.
- Thus, the methodology of using graphic software in teaching the art of drawing is important for developing students' creative abilities.

Thus, the method of using graphic programs in the teaching of drawing is important for the development of students' creative abilities. Figure 1-2.

CURRENT RESEARCH JOURNAL OF PEDAGOGICS
(ISSN –2767-3278)
VOLUME 04 ISSUE 11 Pages: 50-55
SJIF IMPACT FACTOR (2021: 5. 714) (2022: 6. 013) (2023: 7. 266)
OCLC – 1242041055
Publisher: Master Journals

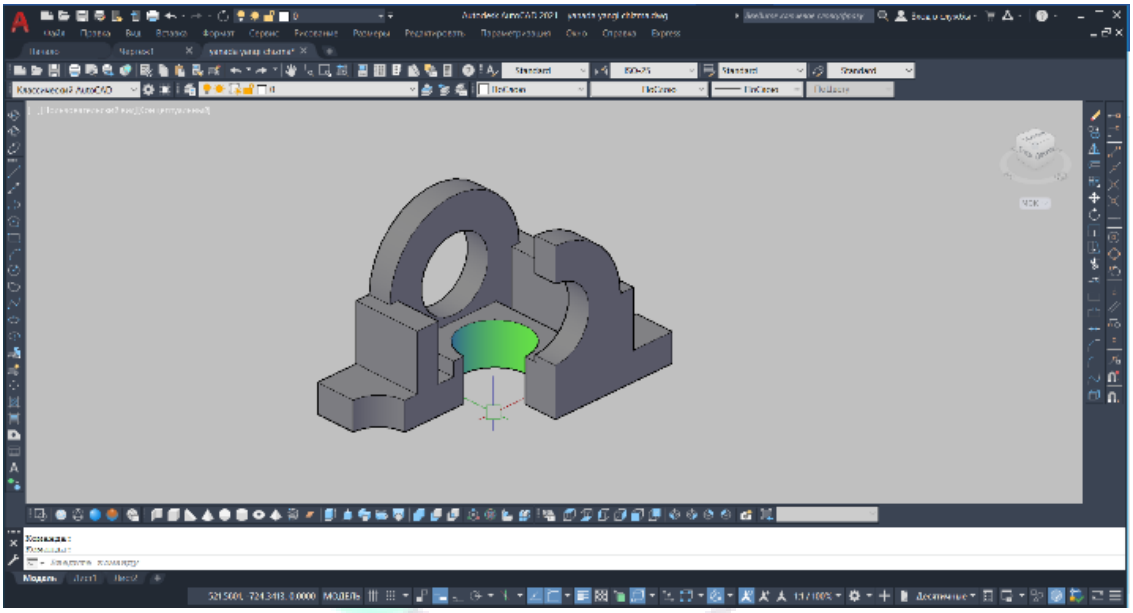

Figure 1

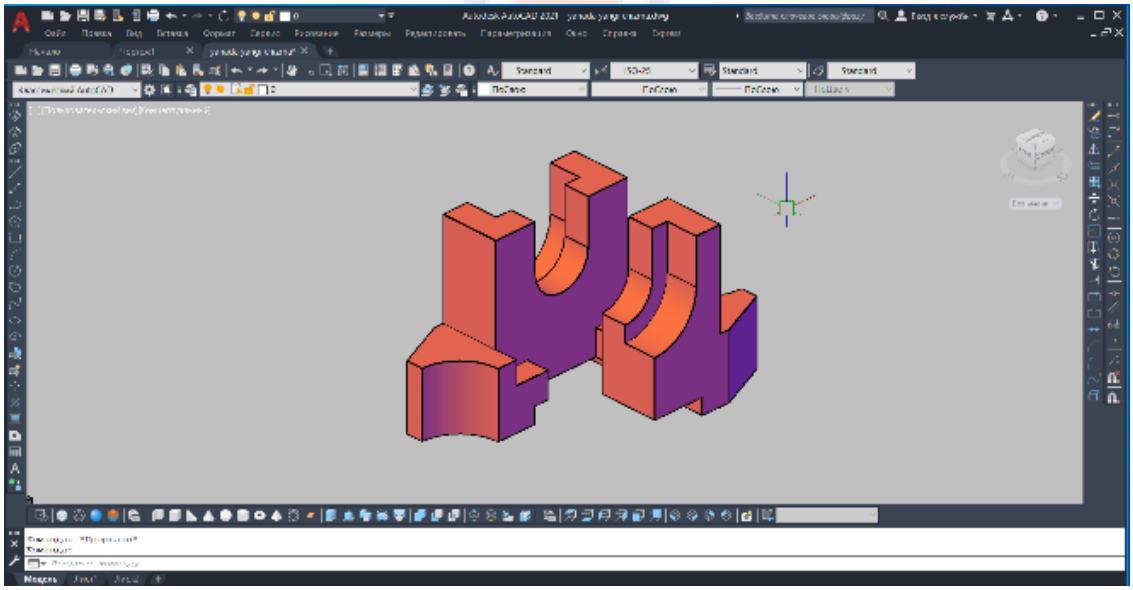

Figure 2

The use of computer technologies is important not only for teachers, but also for students in mastering the science of "Computer graphics", completing graphic assignments, processing, preparing for control test assignments, and creating a presentation consisting of new materials on the topic of independent work. is one of the tools.

Automated design is the automatic preparation of construction design documents, which are then used in any production and checked for compliance with the requirements of the manufactured product.

CURRENT RESEARCH JOURNAL OF PEDAGOGICS
(ISSN –2767-3278)
VOLUME 04 ISSUE 11 Pages: 50-55
SJIF IMPACT FACTOR (2021: 5. 714) (2022: 6. 013) (2023: 7. 266)
OCLC – 1242041055
Publisher: Master Journals

Construction - separate textual and graphic design documents system development. Modeling of drawings and schemes using the latest graphic software tools, this process involves the use of modern information technologies. Designing construction documents to the extent that they can achieve a precise result cannot be achieved without the use of 2D and 3D computer graphics modeling tools. There are various forms and means of developing students' creative activity in a particular subject, which are used in the educational process. Examples of them include:

Pedagogical control tools are a tool for controlling students' knowledge and determining indicators of mastery and providing a correct and reasonable assessment of their knowledge. They have oral and written control questions, test tasks, base word phrases, independent work, experimental tasks.

didactic tools used in the pedagogical process - serve as the main tool for explaining, repeating the topic and using convenient and effective methods and methods during the lesson. These include electronic multimedia manuals, textbooks, training manuals, handouts, etc.

Pedagogical game tools are interactive methods and pedagogical technologies of education that force students to actively participate and think during the lesson.

In the implementation of this process, it is appropriate to develop new tools for developing students' spatial imagination and creative activity in the field of computer graphics. Since computer graphics is a science directly related to the computer, therefore, the use of computer technologies as a pedagogical tool in the educational process represents a solution to the problem of two-way successful education. In the teaching of engineering computer graphics, along with the above-mentioned methods and means of developing the creative activity of students in science, the use of modeling tools with the possibility of graphic programs and through this, first of all, the development of students' interest in science and their knowledge in this regard is to create a foundation for their perfect mastery.

Engineering graphics courses now use advanced technology and teaching methods to complement 3D modeling, design software, and other innovative approaches to basic drafting and drafting techniques. Professors with experience in this field guide students choose hands-on training to introduce them to modern techniques and prepare them for relevant careers in engineering, design and architecture. The advantages of these courses include time and process efficiency and the ability to find inventive solutions for various related fields.

Modeling – it is a method of building a model of various parts and projects in 2D and 3D dimensions and visualizing their spatial appearance. 2D modeling represents a plane model of an object, in which all the constructive functions of the drawing are embodied. Two- and three-dimensional modeling with the capabilities of graphic programs in teaching "Engineering computer graphics" is a means of use in the development of creative activity of students and in the automated activities of specialists of various fields.

2D and 3D models of detail

There are four main ways to model the detail shown in Figure 3, namely: drawing a 2D model of the detail; in the process of growing the base and upper part, it is necessary to perform steps such as performing according to the conditions given in the 2D dimensional model of the part, removing unnecessary parts and giving them colors to distinguish them, and trimming the finished part. Figure 3 shows the 3D model of the detail in a cropped view to clearly show the interior. After seeing a clear image of this detail, the student will

CURRENT RESEARCH JOURNAL OF PEDAGOGICS
(ISSN –2767-3278)
VOLUME 04 ISSUE 11 Pages: 50-55
SJIF IMPACT FACTOR (2021: 5. 714) (2022: 6. 013) (2023: 7. 266)
OCLC – 1242041055
Publisher: Master Journals

have knowledge about what is depicted in a seemingly incomprehensible drawing and will strive to be creative. In this process, all factors come into play in the student at the same time.

The use of modeling tools in the teaching of engineering and computer graphics provides practical help in forming students' purposeful actions in relation to science and revealing their abilities in this field. It is appropriate to plan the practical activities of engineering and computer graphics students based on the following system along with pedagogical tools for students to master the science through the mentioned factors.

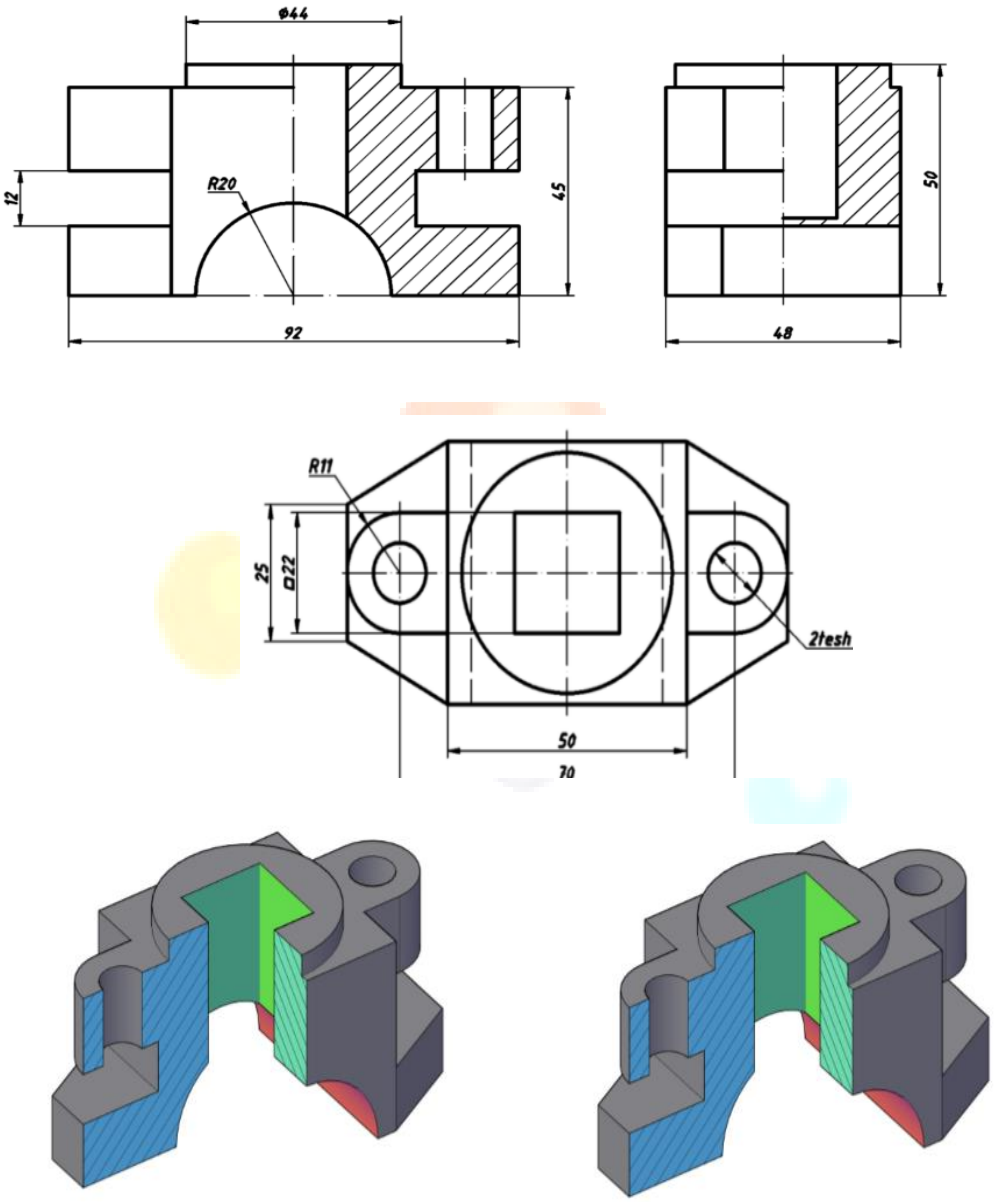

Figure 2

CURRENT RESEARCH JOURNAL OF PEDAGOGICS
(ISSN –2767-3278)
VOLUME 04 ISSUE 11 Pages: 50-55
SJIF IMPACT FACTOR (2021: 5. 714) (2022: 6. 013) (2023: 7. 266)
OCLC – 1242041055
Publisher: Master Journals

REFERENCES

1. Riksiboyev T. "Computer graphics", T.: "Wing of thought". 2012
2. Roziyev E.I., Ashirboyev A.O. "Education of engineering graphics
3. Murodov, Sh.K and others, (2020). Drawing geometry. Textbook for Higher Pedagogical Schools, Tashkent, "Economy-Finance".
4. Kokiyev, B.B. (2020). Present-day problems of drawing science. European Journal of Research and Reflection in Educational Sciences, 8 (4), 203-205.
5. Hayitov. J.M. (2022). Improving students' creativity by teaching engineering graphics with the help of information and communication technologies. Science and education scientific journal. ISSN 2181-0842. VOLUME 3, ISSUE 11.
6. N. Valiyev. Drawing. (geometric drawing). Study guide. - T.:2013.
7. Ozodboyev, I. O. (2022). DRAWING ASSEMBLY DRAWINGS USING AUTOCAD COMPUTER GRAPHICS SOFTWARE. Galaxy International Journal of Interdisciplinary Research, 10(11), 1085-1091.
8. A. Valiyev, A. Abdurakhmonov, F. Alimov, B. Nig'monov "Geometric drawing" TDPU named after Nizomiy, 2008.
9. I. Rahmonov, A. Valiyev, B. Valiyeva Modern technologies of teaching the science of engineering graphics, Navroz T., 2015.