International Journal of Pedagogics
(ISSN – 2771-2281)
VOLUME 04 ISSUE 09 PAGES: 104-109
OCLC – 1121105677

Publisher: Oscar Publishing Services

Journal Website: https://theusajournals.com/index.php/ijp

Research Article

STEPS TO TEACH STUDENTS TO DESIGN CLOTHES IN SPECIAL PROGRAMS OF 3D MAX TECHNOLOGY

Submission Date: Sep 20, 2024, **Accepted Date:** Sep 25, 2024,
Published Date: Sep 30, 2024
Crossref doi: https://doi.org/10.37547/ijp/Volume04Issue09-20

Gofurova Aziza Xidirnazar kizi
Jizzakh State Pedagogy University, Assistant, Uzbekistan

ABSTRACT

In the article, the stages of training using special programs of 3D technology in teaching the students of the direction "clothing design" in the teaching of specialized subjects and designing clothes, as well as recommending innovative technologies based on the characteristics of the subject along with interactive methods that serve to improve the quality of the lesson, organizational pedagogical conditions for using them in the course of the lesson, and information on the procedure for improving the teaching process are given.

KEYWORDS

Stage, process, innovation, interactive, computer, education, training, 3Dmax, special program, technology, design, plate, method.

INTRODUCTION

Socio-economic and cultural changes in modern society require a qualitative study of the problems of developing creative abilities in preparing future specialists for professional activities at all levels of education.

Such changes taking place in the educational system require the development of new methods and methods that serve to increase the quality of education, pedagogical technologies, and training of personnel capable of solving professional problems on this basis. Based on this, the use of special programs of digital technologies in teaching seems to be a relevant and demanding direction for the pedagogical process with the ease of implementing the pedagogical process and sharing skills with students.

International Journal of Pedagogics
(ISSN – 2771-2281)
VOLUME 04 ISSUE 09 PAGES: 104-109
OCLC – 1121105677
Crossref doi Google Scholar WorldCat MENDELEY
Publisher: Oscar Publishing Services

In order to improve the teaching process and improve the quality of education in higher educational institutions, the use of special programs of computer technologies, together with interactive methods, forms the psychological characteristics of the student, as well as the ability to quickly absorb information and develop speech culture and management skills.

The use of interactive methods is based on the mutual cooperation of teachers and students in the educational process in order to acquire knowledge, skills, competences, and certain moral qualities. Interactive methods that serve to improve the teaching process and improve the quality of the lesson are based on collective thinking. The uniqueness of these methods is that they are implemented only through the joint activity of the pedagogue and the student.

The use of innovative technologies along with interactive methods in education serves to improve the teaching process. This creates the need for technical means of teaching and computer technologies. This need requires professors and teachers to know modern technologies and have the skills to use them correctly and appropriately in their professional activities.

It is necessary to pay special attention to the selection of educational methods in the organization of training sessions, especially practical sessions, in the development of constructive design competence of future specialists in higher educational institutions. Information and communication thinking as a criterion for the formation of personal qualities of professional importance in the study of the interdisciplinary educational module based on the meaningful unity and connection of the subjects in the curriculum blocks and the system of tasks related to design and design, the level of development of educational activity is determined. Based on this, it is necessary to recommend teaching methods that include innovative technologies for the teaching of specialized subjects [1].

Today, innovative technologies of teaching are closely connected with special programs of computer technologies. There are several programs of innovative teaching technologies using 3D Max technology for clothing design.

Informing students about new design methods, tools, and opportunities in this technology and implementing these methods and approaches will help design students develop their skills in 3D Max technology and prepare them for a successful design career.

Analyzing the possibilities of integrating clothing design into the main subjects of the curriculum, we should turn to the subjects of fine art, painting, composition, and clothing design. Recommending the use of computer graphics in almost all areas of design is based on the development of design education as well as scientific and methodological approaches to the complex use of computer graphics in the professional training of designers.

Designing a design using 3D Max technology on a computer is a more complex level of learning technology.

One of the most interesting and, at the same time, complex areas in digital technology is 3D Max technology, which is widely used in the development of design projects. This technology requires a special level of spatial thinking developed with artistic and

International Journal of Pedagogics
(ISSN – 2771-2281)
VOLUME 04 ISSUE 09 PAGES: 104-109
OCLC – 1121105677
Publisher: Oscar Publishing Services

creative activity because all objects and symbols are created, modeled, and placed in virtual space.

It should be noted that the whole block of modeling computer programs can be divided into two options: editors for working with 2D graphics and 3D programs that are systematized based on their practical importance in the design direction.

The projection process is accompanied by an active transition from one projection window to another, from one observation point to another. The coordinate method is used to describe a three-dimensional space scene and object. But three-dimensional computer modeling cannot be considered without considering other types of computer graphics (Figure 1).

The learning process should be divided into levels of complexity to allow students to identify their potential and abilities in this area. L.Ya.Nodelman proposes a distribution by levels of training in computer graphics. [3] Based on this, it is possible to propose the optimal combination and distribution of the types of study of this subject. Figure 2 shows the process of learning computer graphics, which is divided into three steps.

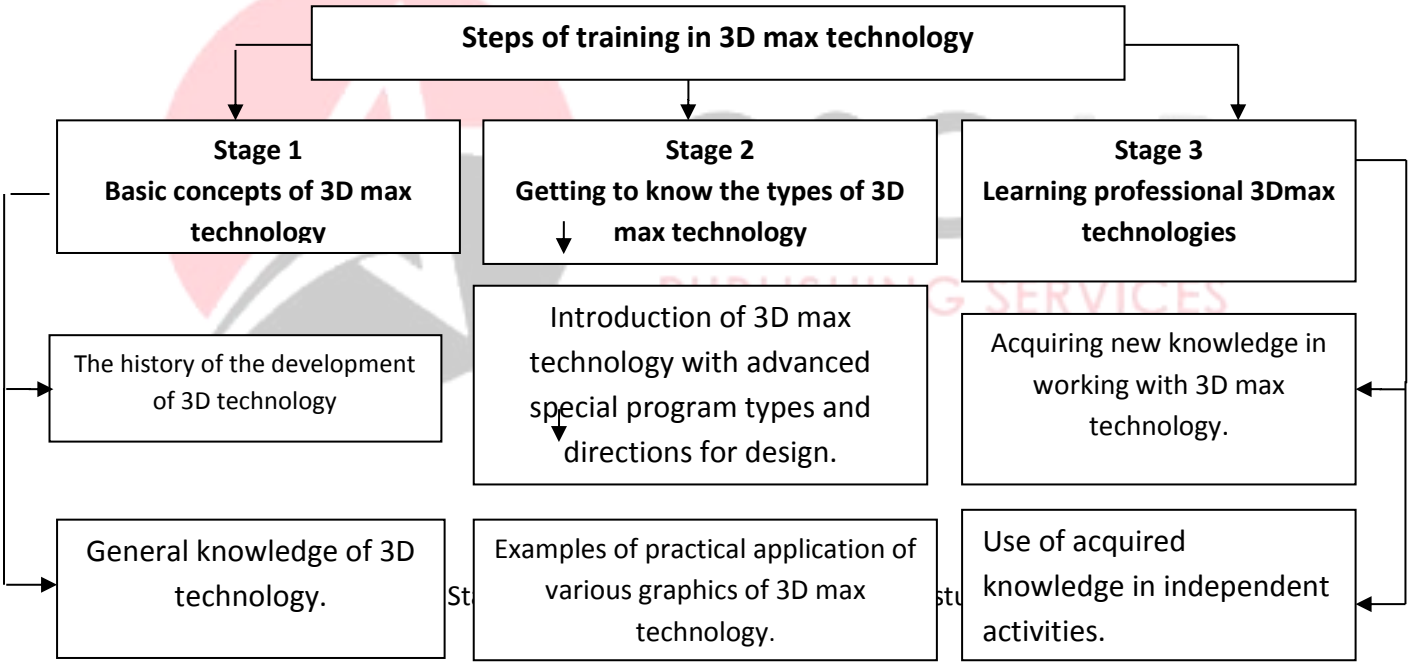

Figure 2. Stages of teaching computer graphics to students

Students need to master the basic concepts of 3D Max technology at the first stage. This should be the basis for learning the next stages of this course. At this stage, designer-students are given the necessary general knowledge of 3D Max technologies for design.

In the second stage, he directly introduces advanced types and directions of 3D Max technology. This stage is important in terms of general professional training. A modern specialist working with 3D Max technologies should be able to use this knowledge in his

International Journal of Pedagogics
(ISSN – 2771-2281)
VOLUME 04 ISSUE 09 PAGES: 104-109
OCLC – 1121105677
Crossref doi Google Scholar WorldCat MENDELEY
Publisher: Oscar Publishing Services

professional activities. And as we noted above, at the current stage of the development of society, the professional development of a designer is impossible without the use of computer technologies.

And finally, the third stage. Here the student learns to use graphic editors of professional 3D Max technology in his work. At this level, it is important to instill the knowledge necessary for students to self-identify and learn professional packages. 3D Max technology does not stop developing, and many new professional graphics editors appear every year. The main task of the teacher in teaching this stage is not only to teach students to use existing knowledge but also to teach them not to be afraid to experiment with new ones.

It is wise to start learning three-dimensional modeling on the computer in the third stage. An advanced version of two-dimensional graphics is 3D graphics, which is more complicated from the point of view of technical learning, and without learning the first two levels, it is very difficult for a student to move to work with three-dimensional computer modeling.

In the course of the research, attention was paid to the effective use of interactive methods in lectures and practical sessions, taking into account their characteristics. In this, first of all, interactive methods with the ability to provide theoretical knowledge and strengthen this knowledge and provide the expected result were chosen for lectures and practical training:

With the help of 3D Max technology, it is possible to improve the teaching process of specialization subjects in the direction of "design" in the following order [5].

1. Integrating 3D Max technology into curricula: Integrate 3D Max technology into design major requirements, curricula, and science programs. Using this program will help students acquire basic and advanced skills in the subject. Assignments and projects given to students during training should be designed to use 3D Max technology to create and visualize their own design projects.

2. Practice-based learning: it is very important to give students the opportunity to apply their acquired knowledge in practice by giving practical exercises in the lessons. Organizing practical training and master classes where students can directly work with design in 3D Max technology helps to develop their practical skills and improve their results. It is recommended to use practice-based methods in teaching design students in 3D Max technology.

3. Projects and exercises: It is very useful to prepare projects and exercises to teach students how to design in 3D Max technology. For this, it is necessary to organize project work that requires the use of 3D Max technology to create real design projects. These organized projects and exercises allow students to consolidate their acquired knowledge in practice. For example, in 3D Max technology, exercises such as working with an avatar, creating a model, animating, applying materials and textures, creating illustrations and lighting effects, and giving an animated state to an object will help to improve the skills and abilities of students.

4. Individual approach: It is very important to provide students with an individual, work-oriented approach to teaching design in 3D Max technology and to evaluate their acquired knowledge levels with grades. Assessing and providing feedback to students is a factor in improving their knowledge, skills, and performance.

International Journal of Pedagogics
(ISSN – 2771-2281)
VOLUME 04 ISSUE 09 PAGES: 104-109
OCLC – 1121105677
Crossref doi Google Scholar WorldCat MENDELEY
Publisher: Oscar Publishing Services

This helps them identify their mistakes and correct them. Individual approach in 3D Max technology allows to provide additional support to students in strengthening their acquired knowledge. Additional help can be obtained from online resources and study materials. Because there are many online resources, video tutorials, and study materials to help students learn 3D Max technology. It is recommended that students be encouraged to use these resources for independent study and practical lessons.

5. Corporate training: It is recommended to use corporate training methods for teaching design students in 3D max technology. Teaching students to work in groups allows them to help each other and share their knowledge with others. This method helps to increase the work efficiency of students and develop their ability to work in a team.

6. Using real life examples: It is important to use real-life examples in teaching design students in 3D max technology. Giving students real-life design tasks, projects and exercises, involving them in solving real-life design tasks, for example, allowing them to design famous people from their clothes, using elements of traditional clothes, is very useful.

7. Use of news: It is very important to use the latest innovations in the field when teaching design students using the tools of 3D max technology. It serves to improve the teaching process and motivate students. For example, showing students vedio lessons on dresses created in special programs of 3D technology and showing them on the catwalk during exposure hours motivates students [6].

Digital technologies are a product of the development of world civilization, so it is necessary for the employees of education and other fields in the country to adapt to the trend of their continuous development, to expand their use in more fields, thereby bringing the level of development of science and technology to a higher level.

The application of digital technologies in higher education in the educational process, ensuring the interdependence between natural-scientific, technical, social sciences and arts, to develop students' individual working abilities, to form the desire for self-improvement, as well as to inform future designers-teachers serves to form the skills to work with

1. The application of design to the educational process with the help of 3D max programs of the proposed digital technologies is really relevant and is able to build the educational process in a completely new way. 3D Max creates the idea that design technologies can absolutely solve all the problems which concern the world of design. Scientific research was carried out on the formation of a scientifically based approach to the introduction of digital technologies in higher education, the drawing up of appropriate conclusions, the study of existing practice, systematization and generalization.

Organization of clothing design and modeling processes using 3D max programs in practical and laboratory training helps to develop creative thinking, independent decision-making and analysis, communication and creativity skills, and independent work skills of designers in higher education.

2. Digital technologies change the nature of students' thinking, change the nature of the educational process for the better and increase the quality of education. Among the design students, the level of improvement

International Journal of Pedagogics
(ISSN – 2771-2281)
VOLUME 04 ISSUE 09 PAGES: 104-109
OCLC – 1121105677
Crossref doi Google Scholar WorldCat MENDELEY
Publisher: Oscar Publishing Services

of design methods in the 3D max technology on the computer is reflected in the theoretical knowledge and practical skills of the students and it sees the results of the students' work. Thanks to working with 3D graphics, the teacher will be able to show a block of information in the form of 3D visual aids on a certain topic in a short time and with minimal effort, which will lead to better learning of the studied material. At the same time, the teaching process is carried out on the basis of an approach focused on individuality and connections are established between educational areas. The professional activity of the future specialist-designer requires universal knowledge in the field of modern computer modeling methods and visualization of multidimensional space. It serves to meet the requirements for training specialists in the field of design. Specializing in the creation of model design based on the Marvelous designer program of 3D max technology, tailoring technology, construction of sewing items allows learning and mastering the subjects of sewing materials.

We considered working in this program from the point of view of clothing modeling, and we came to the conclusion that the choice of Marvelous Designer and CLO 3D, Style3D systems for clothing design is a reasonable choice.

Such methods teach students to search for a problem, independently study and analyze, and even accept conclusions themselves, as well as increase the level of artistic and creative activity of design students and lead to the development of professional competence.

REFERENCES

1. Sablina N. A. Abstract "Razvitie khudojestvenno-tvorcheskoy activitie studentov-designerov sredstami komputernogo 3D modelirovaniya" Moscow, 2015g
2. Trishina S.V. Informatsionnaya kompetentnost kak pedagogicheskaya category [Electronic resource] / S.V. Trishina / http://www.eidos.ru/journal/2005/0910-11.htm. - V nadzag. : Internet magazine "Eidos".
3. Marchenko, M. N. Specialization in computer graphics / software discipline (dlya spetsialnostey 030800 "Fine arts" and 052400 "Design"). - Krasnodar: KubGU, 2002. - 22p.104.
4. Steimark, O.V. Povyshenie kachestva znaniy studentov pedagogicheskogo vuza sredstami tsifrovykh obrazovatelnyx resursov: dis. ... candy. ped. nauk.: 13.00.01 / Steimark Olga Valentinovna. - M., 2011. - 178 p.
5. Gofurova A. Kh., Gofurova S. S. METHODS OF TEACHING PROFILNYX PREDMETOV V OBLASTI PROFESSIONALNOGO DESIGN S ISPOLZOVANIEM 3D-TECHNOLOGY //Economics and society. – 2023. – no. 2 (105). - S. 1367-1373.