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ANALYSIS OF METHODS FOR DEVELOPING STUDENTS' CREATIVE THINKING ABILITY OF DRAWING

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ABSTRACT: The article is about the advantages of loading from graphic programs and the methods used in the course of the lesson in the development of creative thinking of drawing students.

KEYWORDS: Graphic program, projection, Paint, Auto CAD, CorelDraw, 3DsMAX, Kompas3D, Observation method, Problem method, Experiment method.

INTRODUCTION

Living in an information society opens the way to unlimited and confident communication, full and effective use of technical and technological opportunities, development of intellectual ability and various perspectives in the future.

Modern technologies are of great importance not only in creating data, but also in their management, processing and, most importantly, in the use of computers, including ensuring that they can become a compulsory and indispensable assistant in our lives.
Today, modern information technologies have become an integral part of the education system and even a factor determining its future development stage. The use of modern information and communication technologies in the educational process aids individual approach, taking into account the abilities of students. There are many programs that serve to prepare materials for organizing such trainings.

It is essential to use modern technologies in the educational process, because the modern strategy of pedagogical education is to some extent mandatory. It is necessary to be ahead of the current needs of students of higher education, to anticipate the leading trends in its development. Today, we are given the opportunity to effectively use devices with various technical capabilities, in particular, computer programs that facilitate and speed up transfer, which are considered very important in the process of education and teaching, a lot of programs used in language learning, and similar innovative technologies. Teaching methods should be applied and widely used in every field and direction of education. It activates the process of assigning knowledge to students,

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assimilation of knowledge by them, increases the productivity of educational work, and facilitates the work of the teacher. Students will have the opportunity to work independently with the given material, easily overcome the difficulties in mastering it, learn a lot of information in a short time, and at the same time improve their computer proficiency.
Special research methods are used in teaching drawing to students, in particular, scientific and methodical literary analysis, study and generalization of best practices, observation, conducting surveys, modeling, experimental studies, etc.

The use of computer programs in the teaching of drawing helps to improve the ability of students to easily read and write a drawing. In higher educational institutions students are taught graphic programs using different programs in order to create animations. There are Paint, (CAD) AutoCAD, CorelDraw, 3DsMax, Kompas3D, and other programs.

First of all, when using graphic programs in drawing classes, the pedagogue should have theoretical and practical knowledge and skills about these programs. They are required to be able to use them freely and properly adapt the process of graphic education to science, and use various methods by the pedagogue.

It is known from the engineering graphics that the designer or researcher, in a certain direction, first describes about a technical device or a process of model, and then put the image created in the imagination. Although these images are based on a rectangular projection method, they are done by hand in sketch form without the help of drawing tools. It is observed that the reason is that the student first possesses the skill of drawing correctly. Moreover, the student acquires the ability to imagine these drawings dimensionally. Therefore, in this regard, first of all, the method of "observation" is used from the methods of scientific research.

As it was mentioned, in the teaching of "Drawing" development of the student's dimensional imagination and independent thinking skills is one of the main tasks of teaching this subject. That's why teachers use various teaching tools (models, visual posters, computer tools) to form students' dimensional imagination. At the moment, the teacher faces a number of problems in teaching "Drawing". Dimensional imagination means to have a complete understanding of the shape, size, appearance, situation, and characteristics of the depicted object, drawing, item, detail, etc. Dimensional imagination is understood as the human imagination, the ability to visualize the drawings, details, etc., and put them on paper. Higher education institutions have certain experiences in teaching drawing using computer technologies.

However, due to the lack of sufficient scientific research on the methodology of developing students' dimensional imagination based on multimedia computer technologies, there is a need to develop electronic resources in the teaching of "Drawing" that can be used in the practice of graphic education and to implement them in the educational process. In the process of teaching using traditional methods, there is not enough time to fully explain the planned topic at the

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specified time. It is possible to find a solution to these problems by gradually teaching students how to perform various operations in computer graphics programs in order to expand their dimensional imagination and build their creativity using various methods. And through this method, the problem of learning both the theoretical and practical part of drawing can be solved quickly and easily by using modern technology tools.

Graphic Design Software is also a largely practical course, where practice is an important link in the entire learning process. It can be said that in the process of teaching the use of graphics programs, the teacher only guides and, most importantly, allows the students to really understand the computer, and the student expresses his thoughts in the process, in some point student makes an independent decision. It requires both the student and the teacher to spend a lot of time and practice. Students get acquainted with the various functions and menus of software. And this process takes place by itself with the experimental and observational methods of scientific research. In practice, teachers are required to actively guide students, teach them to solve their problems in a timely manner, and approach them individually. At this point, the pedagogue uses two methods to improve the students' creativity, i.e. first by making drawings by hand in the traditional way, then by making drawings using computer graphic programs. Naturally, performing drawings in computer programs has a significant effect on improving creativity. Computer graphic programs show their positive aspects in experiments in all fields, especially in the field of education, as they facilitate the performance of creative work, provide convenience in working with creative projects, and ensure human-computer cooperation in the process of generating new ideas.

The practice of using AutoCAD program in the process of teaching drawing showed the compliance of using graphic programs as part of primary graphic education in higher education institutions. At the same time, it should be noted that the use of graphic drawings to solve educational problems at the initial stage of higher education helps to form stable skills in the use of modern information technologies in solving the problems in production, and creates various conditions for training a modern IT specialist for industries.

REFERENCES

1. 1.Дилшодбеков, Шохбоз Дилшодбек Угли, & Юлдошова, Дилором Сайдулло Кизи (2022). ТЕХНОЛОГИЯ ОБУЧЕНИЯ ИНЖЕНЕРНОЙ ГРАФИКЕ И ЕЕ РАЗВИВАЮЩИЕ ФУНКЦИИ. Oriental renaissance: Innovative, educational, natural and social sciences, 2 (Special Issue 4-2), 760-767. doi: 10.24412/2181-1784-2022-4-2-760-767
2. 2.Arifjanov, A., Rakhimov, K., Abduraimova, D., Babaev, A., & Melikuziyev, S. (2020, June). Hydrotransport of river sediments in hydroelelators. In IOP Conference Series: Materials Science and Engineering (Vol. 869, No. 7, p. 072003). IOP Publishing. DOI 10.1088/1757-899X/869/7/072003

Published: December 15, 2022 | Pages: 111-116

3. Raximov, K., Babaev, A. R., & Abduraimova, D. (2019). THEORETICAL FOUNDATIONS FOR DETERMINING KINEMATIC PARAMETERS OF A JET UNIT. Journal of Tashkent Institute of Railway Engineers, 15(4), 20-23.
4. 4.Kozim, M., Zilola, F., & Sanjarbek, S. (2019). DETERMINATION OF THE PARAMETERS OF THE DEFAULT ISOMETRIC VIEW USING METHOD OF RECTANGULAR AUXILIARY PROJECTION. European Journal of Research and Reflection in Educational Sciences Vol, 7(12), 2.
5. 5.Malikov, K. G. (2020). Theory and practice of construction of axonomertic projects. European Journal of Research and Reflection in Educational Sciences Vol, 8(9), 101-107.
6. 6.Jabbarov, R. (2019). Formation of Fine Art Skills by Teaching Students the Basics of Composition in Miniature Lessons. International Journal of Progressive Sciences and Technologies, 17(1), 285-288. doi:http://dx.doi.org/10.52155/ijpsat.v17.1.1424
7. 7.Jabbarov, R., & Rasulov, M. (2021). FURTHER FORMATION OF STUDENTS' CREATIVE ABILITIES BY DRAWING LANDSCAPES IN PAINTING. Збірник наукових праць ΛΌГОΣ. https://doi.org/10.36074/logos-30.04.2021.v2.09
8. Rustam Ravshanovich, J. (2021). Formation of Creative Abilities of Students by Teaching the Genre "Landscape" of Fine Arts. Spanish Journal of Society and Sustainability, 1, 1-8. Retrieved from http://sjss.indexedresearch.org/index.php/sjss/article/view/1
9. 9.Jabbarov, R. (2021). Sharq uyg'onish davri yetuk san'atkori buyuk miniatyurachi musavvir Kamoliddin Behzod ijodi ta'sirida yuzaga kelgan o'ziga xos yo'nalish. Jamiyat Va Innovatsiyalar, 2(5/S), 59–67. https://doi.org/10.47689/2181-1415-vol2-iss5/S-pp59-67
10. 10.Jabbarov Rustam Ravshanovich. (2022). TASVIRIY SAN'ATDA MANZARA KOMPOZITSIYASINI O'QITISH ORQALI TALABALARNING IJODIY QOBILIYATLARINI RIVOJLANTIRISH. International Journal of Philosophical Studies and Social Sciences, 2(4), 145–153. Retrieved from http://ijpsss.iscience.uz/index.php/ijpsss/article/view/335
11. 11.Жаббаров, Р. Р. (2022). РАНГТАСВИР АСАРЛАРИНИ ЎРГАНИШДА ҚАЛАМТАСВИР НАЗАРИЯСИ ВА ҚОНУНИЯТЛАРИ. ZAMONAVIY TA'LIM: MUAMMO VA YECHIMLARI, 1, 163-167.
12. 12.Maxkamova, S., & Jabbarov, R. (2022). Axborot – kommunikatsion texnologiyalaridan foydalanib tasviriy san'at ta'limi samaradorligini oshirish metodikasi. Zamonaviy Innovatsion Tadqiqotlarning Dolzarb Muammolari Va Rivojlanish Tendensiyalari: Yechimlar Va Istiqbollar, 1(1), 27–29. Retrieved from https://inlibrary.uz/index.php/zitdmrt/article/view/5097
13. 13.Muslimov, S. N. (2019). The role of personality-oriented education in the development of professionally-graphic competence of future teachers of technological sciences. Scientific Bulletin of Namangan State University, 1(6), 442-445.
14. 14.Valiyev A'zamjon Nematovich. (2022). METHODICAL INSTRUCTIONS FOR TRIMETRIC PROJECTIONS. Conferencea, 19–24. Retrieved from https://conferencea.org/index.php/conferences/article/view/717
15. 15.Valiyev A'zamjon Nematovich. (2022). METHODICAL RECOMMENDATIONS FOR DETERMINING THE VISIBILITY OF GEOMETRIC SHAPES IN PERSPECTIVE DRAWINGS. Conferencea, 25–30. Retrieved from https://conferencea.org/index.php/conferences/article/view/718

Published: December 15, 2022 | Pages: 111-116

16. 16.Karimovich, X. M., & Shamsiddinovna, M. F. (2022). TALABALARNING CHIZMA GEOMETRIYA FANIDAN DASTLABKI BILIMLARINI ANIQLASH USULLARI.
17. 17.Xalimov, Moxir Karimovich, & Shokirova, Shahodat Olim Qizi (2022). CHIZMA GEOMETRIYA VA MUHANDISLIK GRAFIKASI FANIDAN TALABALARNING AUDITORIYADAN TASHQARIDAGI MUSTAQIL FAOLIYATINI TASHKIL QILISH VA BOSHQARISH TEXNOLOGIYASI. Oriental renaissance: Innovative, educational, natural and social sciences, 2 (5), 641-652. doi: 10.24412/2181-1784-2022-5-641-652
18. 18.Xalimov, M. K. (2021, December). INNOVATSION YONDASHUV ASOSIDA O'QUVCHILAR FAOLLIGINI OSHIRISH (AKSONOMETRIK PROEKSIYALAR MAVZUSI MISOLIDA). In International journal of conference series on education and social sciences (Online) (Vol. 1, No. 2).
19. 19.Shoxboz, D. (2019). THE ESSENCE OF TEACHING ENGINEERING COMPUTER GRAPHICS AS A GENERAL TECHNICAL DISCIPLINE. European Journal of Research and Reflection in Educational Sciences Vol, 7(12).
20. 20.Ugli, D. S. D., & Ugli, A. B. I. (2022). MODULAR TECHNOLOGY OF TEACHING ENGINEERING COMPUTER GRAPHICS TO FUTURE TEACHERS DRAWING. CURRENT RESEARCH JOURNAL OF PHILOLOGICAL SCIENCES (2767-3758), 3(01), 101-107.
21. 22.Дилшодбеков, Ш. Д. (2021). Muhandislik kompyuter grafikasi fanidan mustaqil ta'limni tashkillashtirish usuli. Инновации в педагогике и психологии, 4(1).
22. 23.Dilshodbekov, S. D. (2021). FOREIGN EXPERIENCE OF TEACHING ENGINEERING GRAPHIC DISCIPLINES BASED ON COMPUTER GRAPHICS. Scientific Bulletin of Namangan State University, 2(2), 445-449.
23. 24.Shoxboz Dilshodbek O'G'Li Dilshodbekov, & Aldiyar Alisher O'G'Li Abdulxatov (2022). MUHANDISLIK GRAFIKASI FANLARINI O'QITISHDA ZAMONAVIY GRAFIK DASTURLARDAN FOYDALANISH METODIKASI. Scientific progress, 3 (3), 7-14.
24. 25.Sh.Dilshodbekov, & M. Norboeva. (2022). CREATIVE THINKING AND WAYS OF ITS DEVELOPMENT. Archive of Conferences, 71-76. Retrieved from https://conferencepublication.com/index.php/aoc/article/view/2184
25. 26.Dilshodbekov Shoxboz Dilshodbek o'g'li, & Xoliqova Nigora Abdujalol qizi. (2022). FAZOVIY TASAVVURNI INTENSIV RIVOJLANTIRISH USULLARI. E Conference Zone, 102–106. Retrieved from http://econferencezone.org/index.php/ecz/article/view/903
26. 27.Валиев, А. Н., Туланова, Д. Ж., & Гуломова, Н. Х. (2018). Современные педагогические и инновационные технологии обучения на занятиях по черчению. Молодой ученый, (3), 183-184.
27. 28.Туланова, Д. Ж., & Гуломова, Н. Х. (2018). Технология и условия проведения дидактических игр в процессе преподавания черчения в вузе. In Образование как фактор развития интеллектуально-нравственного потенциала личности и современного общества (pp. 89-93).
28. 29.Makhkamov, D. A., Chorshanbiev, U. R., & Babaev, A. R. (2022). Laboratory Research of Multiple Flow Movement in Pipelines. Global Scientific Review, 1, 42-46.

Published: December 15, 2022 | Pages: 111-116

29. 30.Rakhimov, K., Babaev, A., Chorshanbiev, U., & Obidjonov, A. (2021). Modification of dispersion systems and its motion in cylindrical pipes. In E3S Web of Conferences (Vol. 264, p. 03026). EDP Sciences.