INTERNATIONAL MULTI DISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
eISSN 2394-6334 Impact factor: 7,854 Volume 12, issue 10 (2025)

PRINCIPLES AND METHODS OF ORGANIZING AND TEACHING DRAWING LESSONS

Achilov Nurbek Norboy ugli
Associate professor of the department of
Engineering and computer graphics of
Chirchik state pedagogical university.
n.achilov@cspi.uz

Abstract: This article discusses the principles and methods of organizing and teaching drawing lessons within the modern educational process. It focuses on the effective implementation of interactive methods, innovative pedagogical and information technologies, and the integration of practical, visual, and oral methods in teaching. The study highlights the importance of individualized approaches, spatial imagination, and technical understanding in developing students' creative and professional competencies.
Keywords: Practical method, visual method, interactive learning, projection concepts, geometric understanding, drafting education, innovation.

Introduction

The methodology of teaching any academic subject generally consists of three key components: conceptual framework, methodological system, and evaluation of effectiveness. In the context of secondary education, the teaching of technical drawing to 8th and 9th-grade students requires a pedagogical approach adapted to their cognitive development, practical experience, and interests. At this stage, learners consciously strive for goal-oriented knowledge acquisition, which demands that teachers design each lesson carefully based on its objectives, structure, and instructional outcomes. The success of a lesson depends on previously acquired knowledge and skills, as well as the presentation and assimilation of new material.

Methods

Educational research identifies several types of lessons—introductory, reinforcement, review, and combined (integrated) types. In the teaching of technical drawing, the combined lesson format is most commonly applied, where theoretical explanations and practical exercises are conducted concurrently. The practical component helps to consolidate knowledge, enhance students' use of learning materials, and develop independent work habits.

The modern teaching process emphasizes interactive learning, innovative approaches, and information technologies. Traditional methods often positioned students as passive recipients of ready-made knowledge, while innovative methods promote active engagement, critical thinking, and problem-solving. In this context, the teacher assumes the role of facilitator, guiding students' independent inquiry and supporting their intellectual and creative development.

In the teaching of technical drawing, three fundamental instructional methods are identified: oral, visual, and practical. Each method plays a unique role in developing students' understanding of geometric and projection principles.

1. Oral Methods: These include the teacher's explanation, guided discussion, and verbal clarification of key concepts. The teacher's ability to clearly and logically convey new material is essential for maintaining student engagement and comprehension.

2. Visual Methods: Posters, 3D models, computer graphics, and virtual simulations are employed to strengthen spatial perception. Visualization assists learners in understanding geometric structures and relationships.

3. Practical Methods: Students independently complete drawings, sketches, and projection exercises to apply theoretical knowledge in practice. This hands-on activity solidifies their technical drawing skills and spatial awareness.

Results and Discussion

The study found that drawing lessons play a crucial role in shaping students' spatial thinking, precision, and creativity. Teachers often encounter challenges in explaining unfamiliar terms and concepts related to projection, geometry, and technical design. Therefore, the classification and gradual introduction of these terms are essential for effective learning.

Technical drawing terminology can be divided into three major conceptual groups: geometric concepts, projection concepts, and technical concepts. This categorization allows the teacher to introduce terminology systematically and methodically, considering students' readiness and comprehension levels.

Interactive learning methods—such as question-based teaching, visualization, and digital modeling—have proven effective in enhancing students' engagement and understanding. Posing specific questions like 'How is the cutting plane positioned?' or 'What is the next step in constructing this projection?' encourages analytical thinking and reinforces conceptual retention.

Furthermore, digital tools such as AutoCAD and 3D modeling software significantly expand the possibilities for visualization and simulation. These tools not only modernize the teaching process but also prepare students for professional application in engineering and design fields.

Conclusion

In conclusion, the success of drawing instruction depends on the teacher's methodological competence, ability to engage students, and application of interactive and visual teaching techniques. Adapting teaching methods to students' developmental characteristics and combining theoretical and practical components ensure a more comprehensive understanding of drawing concepts. Using didactic games, innovative tools, and real-world models enhances students' creativity, spatial reasoning, and technical literacy. Ultimately, continuous professional development of teachers and the integration of modern educational technologies are critical for improving the quality and effectiveness of drawing education.

References:

1. Shaydulloyevich, B. K. (2020). Increasing students' graphic literacy through teaching the sciences of drafting and descriptive geometry. European Journal of Research and Reflection in Educational Sciences, 8 (4), Part II, 75-78.
2. Ugli, Kukiev Boburmirzo Bahodir. Problem-based learning technology in teaching auxiliary projection techniques. Journal of Critical Reviews, 917-921.
3. Achilov Nurbek Norboy o'g'li (2020). Pedagogical and psychological fundamentals of formation of space imagination and creative ability in students. European Journal of Research and Reflection in Educational Sciences, 8 (4), Part II, 38-40.
4. Achilov Nurbek Norboy o'g'li (2020). The use and importance of the three-dimensional features of the AutoCAD program in drawing projects in public schools. European Journal of Research and Reflection in Educational Sciences, 8 (3), Part II, 189-192.
5. Achilov N.N. Chizmachilikda oddiy qirqimlar bajarish orqali o'quvchilarning fazoviy tasavvurini shakllantirish. Муғаллим ҳәм үзлуксиз билимлендириў илимийметодикалық журнали №2 2020 ISSN 2181-7138.
6. Kokiyev Boburmirzo Bahodir o'g'li (2020). Present-day problems of drawing science. European Journal of Research and Reflection in Educational Sciences, 8 (4), 203-205.
7. Kokiev Boburmirzo Bahodir o'g'li (2020). The importance of pedagogical techniques in teaching assistive design. European Journal of Research and Reflection in Educational Sciences, 8 (2) Part II, 182-185.

8. Kukiev, B., O‘g‘li, A. N. N. & Shaydulloyevich, B. Q. (2019). Technology for creating images in AutoCAD. European Journal of Research and Reflection in Educational Sciences, 7.
9. Murodov Sh.K., Ko‘kiyev B.B., Obloqulova L.G‘. Yaqqol tasvirlar qurishda qiyshiq burchakli aksonometrik proyeksiyalardagi o‘zgarish koeffitsientlarining o‘zaro bog‘liqligi. Buxoro Davlat Universiteti Ilmiy Axboroti 2/2019.
10. Achilov Nurbek Norboy Uglu (2020). Methods of Using Game Technologies in the Development of Lesson Effectiveness and Creative Abilities in Drawing Lessons. International Journal of Psychosocial Rehabilitation, 24 (05), 4111-4119.
11. Xalimov Moxir, Achilov Nurbek, Bekqulov Qudrat, Xo‘jaqulov Elbek, Ko‘kiyev Boburmirzo. Chizmachilik va chizmageometriya fanlarida burchak topishning ba’zi usullari. Fizika-Matematika Fanlari Jurnali, 4-son, 1-jild, ISSN 2181-0656.
12. Achilov Nurbek Norboy o‘g‘li, Bekqulov Qudrat Shaydulloyevich, Ko‘kiyev Boburmirzo Baxodir o‘g‘li & Jumayev Isroil Omandovlat o‘g‘li (2020). Methods of developing creative abilities in children. European Journal of Research and Reflection in Educational Sciences, 8 (10), Part II, 151-153.