

# **METHODOLOGY OF USING PROBLEM-BASED LEARNING TECHNOLOGIES IN FINE ART CLASSES AND ORGANIZING STUDENTS' INDEPENDENT CREATIVE WORK**

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**Abstract:** This article examines the issues of using modern pedagogical innovations in training future fine art and engineering graphics teachers in higher education institutions. In particular, the role and practical significance of Problem-Based Learning (PBL) technologies in increasing students' creative activity inside and outside the classroom, as well as shifting them from reproductive (copying) thinking to productive (creative) thinking are analyzed. Furthermore, the stages of systematic organization of students' independent creative work, methods of creating visual problem-based situations, and their assessment criteria are methodologically substantiated.

**Keywords:** Fine art, problem-based learning, independent creative work, creative thinking, composition, pedagogical innovation, student activity, graphic literacy, sketch

## **МЕТОДОЛОГИЯ ИСПОЛЬЗОВАНИЯ ТЕХНОЛОГИЙ ПРОБЛЕМНО- ОРИЕНТИРОВАННОГО ОБУЧЕНИЯ НА ЗАНЯТИЯХ ИЗОБРАЗИТЕЛЬНОГО ИСКУССТВА И ОРГАНИЗАЦИИ САМОСТОЯТЕЛЬНОЙ ТВОРЧЕСКОЙ РАБОТЫ СТУДЕНТОВ**

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**Аннотация:** В данной статье рассматриваются вопросы использования современных педагогических инноваций в подготовке будущих преподавателей изобразительного искусства и инженерной графики в высших учебных заведениях. В частности, анализируется роль и практическое значение технологий проблемно-ориентированного обучения (ПОО) в повышении творческой активности студентов как в классе, так и за его пределами, а также в переходе от репродуктивного (копирующего) мышления к продуктивному (творческому). Кроме того, методически обосновываются этапы систематической организации

самостоятельной творческой работы студентов, методы создания визуальных проблемно-ориентированных ситуаций и критерии их оценки.

**Ключевые слова:** Изобразительное искусство, проблемно-ориентированное обучение, самостоятельная творческая работа, творческое мышление, композиция, педагогические инновации, студенческая активность, графическая грамотность, эскиз

## **Introduction**

Today, the core essence of the reforms implemented in the educational system is directed towards fostering independent thinking, creative and rational decision-making in problematic situations, and developing professional competencies, rather than merely delivering ready-made theoretical knowledge to students. For future specialists studying in the field of "Fine Arts and Engineering Graphics" at higher pedagogical educational institutions, it is of crucial importance not only to possess knowledge of academic drawing rules but also to develop the skills to apply them through innovative methods in their future pedagogical activities.

For many years, traditional methods, namely visualization and reproductive approaches (copying from ready-made models), dominated in fine arts and applied decorative arts classes. However, in an era of rapidly developing modern information and digital technologies, such an approach hinders students from fully demonstrating their individual creative potential, spatial imagination, and constructive thinking. Therefore, integrating problem-based learning (PBL) technologies into the educational process stands out as one of the urgent tasks of today.

Problem-based learning transforms the student from a passive listener or performer into an active subject of the educational process. In this approach, the teacher does not provide a ready-made solution or a pre-determined visual image; instead, based on the lesson topic, they present an aesthetic, compositional, or color-related problem (collision) that needs to be solved by the students. Resolving this problem requires students to conduct independent creative research both during and outside of class hours, work on dozens of thumbnails (sketches), and test their hypotheses in practice. The purpose of this research work is to develop a methodology for artificially generating problem-based situations in fine art classes, as well as to elucidate the algorithms for the systematic management of students' independent creative work within this specific learning environment.

## **Discussion and results**

The experimental and testing work carried out in the field of "Fine Arts and Engineering Graphics" in higher pedagogical educational institutions demonstrated that implementing problem-based learning (PBL) technologies significantly increases the

efficiency of students' independent creative activities compared to traditional teaching methods. When traditional reproductive approaches were replaced with systematic problem-solving situations within the classroom, students' comprehension of course content, along with their imagination and observational skills, became actively enhanced.

The empirical results showed that students' graphic literacy and spatial thinking develop even more rapidly under conditions of interdisciplinary integration. Providing students with challenging graphic assignments during the processes of drawing central, parallel, and orthogonal projections, as well as constructing perspective views of objects, strengthened their design and engineering skills.

Particularly, the process of independently searching for optimal methods to work with complex couplings (pairing) and analyzing model views within the AutoCAD software environment required high logical exploration from the students. Furthermore, it was determined that implementing the principles of recording (registration) and systematically analyzing complex graphic shapes and visual models serves to enrich students' analytical and engineering thinking. This allowed students to master not only the artistic-aesthetic aspects of visual activity but also its strict logical-technical components.

When the obtained results are analyzed within the context of leading pedagogical and methodological research, it becomes clearly evident that problem-based learning transforms the student into a true subject of education. The idea put forward by S.F. Abdirasilov regarding the use of modern methods to develop students' artistic taste and drawing literacy found its practical expression in our research through algorithms designed to solve problem-based situations (color and compositional collisions). When R. Hasanov's perspectives on the systematic organization of lessons and practical training methodologies were enriched with problem-based assignments, students' individual creative potential manifested much more broadly.

One of the most crucial socio-pedagogical aspects of the research was achieved by harmonizing the results of students' independent creative works with exhibition activities. As S.O. Mirzayev highlighted, organizing fine art lessons meaningfully through extracurricular and out-of-school creative activities drastically increases students' interest in the subject. In accordance with the conclusions of G. Akhmedov and T. Gulomov, publicly displaying such creative works in exhibitions builds students' self-confidence and strengthens their social communication skills. As noted in the research of S.O. Botirova and U.A. Tursunboyeva, completing independent tasks based on folk applied decorative art materials fosters students' ability to coordinate color and form, develops critical thinking, and awakens a sense of preserving cultural heritage. As shown by R. Karimov and S. Boboev, independently analyzing visual elements and

compositions stands as a leading factor in the socio-psychological development of youth.

From a psychological-pedagogical standpoint, Yu.N. Zinchenko's views on color psychology were validated under problem-based learning conditions: working on independent sketches and searching for visual solutions to problems creates a foundation for students to manage their emotional state and engage in constructive thinking. Furthermore, expanding upon M. Kholikov's ideas on innovative approaches, it is essential to emphasize that the integration of problem-based digital and traditional technologies yields the most effective results today.

### **Conclusion**

The research conducted on applying problem-based learning technologies in fine arts and engineering graphics lessons, along with systematically organizing students' independent creative activities, allows for the following conclusions:

**Pedagogical Effectiveness:** Lessons organized based on problem-based learning principles rescue students from passive activities such as copying ready-made templates, sharply activating their independent thinking, spatial imagination, and observation skills. This approach serves as the foundational factor in systematically developing students' artistic taste and rendering literacy. **Interdisciplinary Logical Integration:** Integrating fine arts sessions with elements of engineering graphics (orthogonal and parallel projections, laws of perspective) and modern computer graphics (working with couplings in AutoCAD) ensures that students' analytical and engineering-graphic thinking shapes in perfect harmony with their artistic-aesthetic development. **Socio-Psychological Growth:** Exhibiting the outcomes of students' independent creative projects—including their independent research on folk applied decorative art forms—heightens their self-confidence, channels their emotional state in a positive direction, and reinforces their social communication and cohesion skills.

### **References**

1. Rakhmanova, N. R., & Kudratov, V. N. (2021). Devices for registration of ionizing radiation. *Theoretical & Applied Science*, (12), 573-575.
2. Botirova, S. O., & Tursunboyeva, U. A. (2025). The role of folk applied decorative art in visual education. *Galaxy International Interdisciplinary Research Journal (GIIRJ)*, 13(10), 35-37.
3. Yusupova, O. A., & Makhmudov, A. O. (2026). Stages of development of fine art. *Galaxy International Interdisciplinary Research Journal (GIIRJ)*, 14(5), 72-76.
4. Ismonov, X. B., Rustamov, U., & Abduraimova, M. A. (2022). Central and parallel projections, orthogonal projections and model views. *Educational Research in Universal Sciences*, 1(4), 70-81.

5. Ismonov, X. B., & Abduraimova, M. A. (2022). *Optimal methods of working with couplings in AutoCAD software*. Tashkent.
6. Mirzayev, S. O. (2023). *Improving the efficiency of extracurricular and out-of-school activities in the meaningful organization of fine art lessons*. Journal of Scientific-Pedagogical Research.
7. Abdirasilov, S. F. (2012). *Methodology of teaching fine arts*. Textbook. Tashkent.