COMPETENCES FOR DEVELOPING STUDENTS' DESIGN SKILLS IN TECHNOLOGY SCIENCE LESSONS

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Abstract: *This article comprehensively covers the topic of competencies for developing students' design skills in technology lessons. Effective methods are shown to help students make independent decisions and strengthen their creative skills based on innovative approaches through such competencies as problem solving, positive thinking, and the formation of technical and design knowledge. The article shows the role of technology in the development of design and its important role in preparing students for future technological changes.*

Keywords: *technology, design skills, project-based learning, creative thinking, information technology, problem solving, teamwork.*

INTRODUCTION

One of the most important tasks in today's education system is to educate students as independent, creative and innovative thinkers. Technological and social changes taking place around the world are increasing the need for design in all areas of human activity. Therefore, special attention is paid to the development of design skills in the educational process. Design is the ability to create new and original ideas, find unconventional approaches and solve problems in innovative ways, and is one of the competencies necessary in the modern education system. Technology lessons are of particular importance in this process. This article highlights the main directions, methods and techniques for developing students' design skills in technology lessons. The purpose of this study is to identify opportunities for developing students' design skills in technology lessons, to study and analyze approaches to organizing this process.

Main part. The relationship between technology and design is inseparable. Technology is of great importance in providing students with practical skills and developing their design skills. This subject helps students to create their own ideas, find new technical solutions, and develop creative projects. Students' design skills are expressed not only in creating artistic ideas, but also in changing their approaches to solving systemic problems.

Technology in developing design skills includes two main aspects: first, it provides students with the opportunity to learn and use new, advanced technologies, and second, it forms students' creative and thinking abilities with the help of these technologies. In technology, students are given the opportunity not only to master mathematical and physical skills, but also to apply this knowledge in practice and develop design solutions. Methodological approaches are used in the development of design competencies.

These methods are effective means of forming students' creative thinking abilities. Project-based learning: Through this method, students apply their knowledge to practice and create various technical solutions.

Project-based learning also allows students to use teamwork, responsibility, and innovative approaches to problem solving.

Through project programs, students demonstrate their design skills in solving practical tasks. Problem-based learning: In this approach, students analyze real-world problems and develop creative approaches to solving them. Problem-based learning develops students' analytical thinking, critical analysis, and decision-making skills. Interactive methods allow students to actively participate in the lesson process. Through brainstorming, role-playing, and group activities, students learn to openly express their ideas, consider problems from different perspectives, and work collaboratively with others.

Technology and information technology are closely related. Modern information technologies and digital tools play an important role in the development of design in technology. Computer programs, 3D modeling, electronic resources and Internet technologies help students realize their creative ideas. Through these tools, students develop their skills in creating practical projects, learning new technologies and developing innovative solutions. Modern programs in technology, such as CAD (computer-aided design) programs, the use of 3D printers and other high-tech technologies, allow students to transform their ideas into objects. This expands the creative potential of students and develops their technical thinking.

Pedagogical approaches play an important role in the development of design competencies in lessons. The following approaches are effective in guiding students to design thinking:

Analysis of problems and finding innovative solutions. to present students with real and real-life problems, to analyze them and encourage them to develop design solutions. This can strengthen students' thinking and develop their creative abilities. Teamwork and cooperation are important in developing design by giving students the opportunity to work in groups, encouraging them to think collectively and make creative decisions.

Interdisciplinary approach: the interdisciplinary approach is of great importance in developing design competencies. The integration of technology with other disciplines expands the scope of students' knowledge and helps them create new creative ideas.

Conclusion. The development of design competencies in technology lessons not only provides students with practical skills, but also develops their ability to think creatively and create innovative solutions. Therefore, strengthening the importance of technology in the educational process, innovative organization of lessons not only increases the creative potential of students, but also helps them develop at the level of modern society. Full use of the creative potential of technology creates a solid foundation for future innovative development.

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