THE POSITIVE IMPACT OF DIDACTIC TASK-GAMES ON STUDENTS' THINKING IN CHEMISTRY LESSONS

Shirinova G. B.
Baku State University, Baku, Azerbaijan
yunisbehman@outlook.com

This article analyzes the mechanisms by which the use of didactic task-games in chemistry lessons influences students' cognitive development. It emphasizes how game methods stimulate students' analytical and creative thinking, enhance interest and motivation while reinforcing scientific knowledge with practical skills. The research demonstrates the positive impacts of employing game technologies in practical educational processes.

In the modern era, new methods and approaches are required to enhance student engagement and cognitive skills within the education system. Particularly in a subject like chemistry, filled with abstract concepts, didactic games serve as an effective tool, enabling students to grasp and apply information more easily. The use of such approaches in chemistry lessons fosters greater student involvement in the learning process and strengthens their ability to link scientific concepts to practical experiences. This article aims to explore the role of didactic games in education and their positive effects on students' thinking and creativity. Additionally, it highlights the necessity of using didactic game methods against the backdrop of advancements in contemporary educational technologies. The implementation of innovative approaches in education and the expanding application of student-centered teaching principles increase the relevance of didactic game methods. Contemporary educational demands focus on developing students' exploratory thinking and creative skills, making the use of game-based tasks essential. The objective of this article is to investigate the impact of using didactic games in chemistry lessons on students' thinking and creativity, and to evaluate the effectiveness of these methods in the teaching process. The application of didactic games introduces dynamism into the teaching process, enhancing students' ability to grasp chemistry knowledge more easily and convert it into practical skills. This approach provides teachers with the opportunity to increase student motivation and make lessons more engaging.

The research proposes the development of specific game methods tailored for chemistry and suggests improvements to their implementation mechanisms. Additionally, it offers new assessment tools to evaluate the impact of game-based tasks on learning outcomes. The use of didactic games in education is grounded in several educational theories that emphasize active learning and student engagement. Constructivist theory, for example, posits that learners construct knowledge through active involvement and experiences, making games an ideal method for facilitating this process. Vygotsky's social development theory highlights the importance of social interaction in learning, which aligns with the collaborative nature of many didactic games. Moreover, Bloom's taxonomy of learning domains supports the use of games to achieve higher-order thinking skills, such as analysis, synthesis, and evaluation. By incorporating these theoretical frameworks, didactic games not only make learning more engaging but also deepen students' understanding and retention of complex scientific concepts.

The use of didactic games in chemistry lessons significantly strengthens students' cognitive skills, while increasing interest and motivation in the learning process. The application of this method is regarded as one of the innovative approaches that promotes creative and analytical thinking in the education system. The results show that lesson models incorporating game elements not only enhance students' achievement levels but also foster self-confidence and effective communication skills within a team. This experience opens new perspectives for teachers to improve teaching strategies and ensures the continuous growth of students' academic achievements.