European Science Methodical Journal
ISSN (E): 2938-3641
Volume 2, Issue 11, November- 2024

INTERACTIVE METHODS AS A TOOL FOR EFFECTIVE INDEPENDENT LEARNING

Shakhnoza Pakhriddinovna Begzatova
Chirchik State Pedagogical University, Uzbekistan

Abstract:

The article discusses interactive teaching methods as an effective tool for improving the quality of the educational process. An overview of key approaches is provided, including methods of active learning, the use of game techniques and quest methods.

Keywords: Case method, quest method, role-playing games, group work.

ИНТЕРАКТИВНЫЕ МЕТОДЫ КАК ИНСТРУМЕНТ ЭФФЕКТИВНОГО САМОСТОЯТЕЛЬНОГО ОБУЧЕНИЯ

Бегзатова Шахноза Пахриддиновна
Чирчикский государственный педагогический университет, Узбекистан

АННОТАЦИЯ

В статье рассматриваются интерактивные методы обучения как эффективный инструмент повышения качества образовательного процесса. Приводится обзор ключевых подходов, включая методы активного обучения, использование игровых техник и квест-методов.

Ключевые слова: кейс-метод, квест-метод, ролевые игры, работа в группах.

Introduction

In modern university education, there is a clearly noticeable tendency to increase the role of independent work of students and shift the focus from the teaching process to the learning process. In the context of the transition to a competence-based approach, it requires the formation of students' necessary skills and abilities for independent work, as well as fostering a culture of independent activity.

Independent work is considered today as an important form of learning organization, which contributes to the search and analysis of information, understanding of educational material, as well as the development of a creative approach. It covers both classroom activities and extracurricular activities, including a variety of cognitive activities and interactive teaching methods. In addition, such work helps to develop analytical thinking, the ability to plan study time, control its distribution, and rationally organize your academic work.

Thus, independent work based on the use of interactive teaching methods is an important element of the educational process that stimulates students' activity, independence and interest

in learning. Interactive methods such as case studies, quests, discussions, role-playing games and project activities make independent work more diverse and effective, contributing to the development of critical thinking, analytical abilities and collaboration skills.

LITERATURE ANALYSIS AND METHODOLOGY

Researchers note that interactive methods stimulate cognitive activity and promote deeper learning (Clark et al., 2020). According to the authors, such approaches activate critical thinking, allow you to develop problem-solving skills and creativity. In his work, Smith (2019) emphasizes that elements of interactivity, such as discussion forums, simulations and games, increase students' interest in independent work, as well as strengthen their responsibility for the result.

An important aspect of interactive methods is their flexibility and diversity. According to a study by Li and Zhou (2021), approaches such as the case study method, project-based learning and the use of interactive technologies make it possible to adapt learning to the individual needs of students. For example, online platforms such as Moodle or Google Classroom provide ample opportunities for organizing collaboration and interactive tasks, which is especially important in the context of distance learning.

Moreover, the use of digital technologies in interactive teaching methods is becoming an integral part of the educational process. Research shows that the introduction of multimedia elements such as videos, infographics and interactive modules contributes not only to a better understanding of the material, but also to the development of digital literacy (Petrova, 2022).

Summing up, it can be noted that interactive teaching methods play a key role in organizing students' independent work. They contribute to the development of a wide range of skills, motivation for learning and deep learning of the material. Nevertheless, for their successful use, it is important to take into account the individual needs of students and competently integrate the methods into the educational process.

Interactive teaching methods in independent work are approaches that focus on the active involvement of students in the learning process through interaction with the material, with each other and the teacher. Their goal is to make learning more effective, interesting and personally meaningful.

The key feature of interactive methods is the emphasis on students' independence and responsibility. For example, instead of simply cramming information, students analyze situations, look for solutions, ask questions and share their findings. This contributes to a deeper understanding of the material and strengthens the motivation to learn.

An important part of such methods is the use of different technologies. They help to organize teamwork, visualize complex concepts and adapt the learning process to individual needs. They make students' independent work more flexible, exciting and productive, turning the learning process into an active search for new knowledge and skills.

Let's consider an example of one of the interactive teaching methods that can be effectively used in students' independent work.

The quest "Journey through the Laws of Physics" is an exciting way to learn the basics of mechanics through practical tasks that allow students to find answers on their own and apply the laws of physics in real life. Below is a detailed quest plan:

The objectives of the quest:
• Introduce students to the basic laws of mechanics through active tasks.
• Develop teamwork, critical thinking and problem-solving skills.
• Increase interest in studying physics.

Preparing for the quest:
• Number of participants: students are divided into teams (3-5 people each).
• Location: The quest can be organized in the classroom, in the courtyard or outdoors.
• Stations: Create 5-6 themed stations, each dedicated to one of the laws of mechanics.
• Materials: prepare balls, rulers, springs, inclined planes, rubber bands, sticks and other necessary tools.
• Hints and Clues: At each station, participants receive a hint that helps them find the next point.

Quest Stations:
Station 1: Gravity and Free Fall
• Task: Drop objects of different weights (for example, a ball and a book) from the same height. Mark the time of the fall.
• Questions:
o What is the role of gravity in this experiment?
o Why are objects falling at the same speed?
• Hint: "Gravity affects all bodies equally, regardless of their mass."
Station 2: The Law of Inertia
• Task: Place the ball on an inclined plane. Change the angle of inclination and watch the speed of the ball.
• Questions:
o How does the speed of the ball change when the tilt changes?
o How does this relate to the law of inertia?
• Hint: "Inertia is the property of a body to maintain rest or even motion if it is not affected by forces."
Station 3: The Law of Action and Counteraction
• Task: Use springs or toy rockets to launch a rocket. Watch her move.
• Questions:
o What action causes the rocket to move?
o What is the opposition?
• Hint: "Every action causes an equal and opposite reaction."
Station 4: The Law of Conservation of energy

• Task: Build a catapult out of rubber bands and sticks. Launch a small object and measure the flight distance.
• Questions:
o How is potential energy converted into kinetic energy?
o How to increase the flight distance?
• Hint: "Energy is transformed, but does not disappear."
Station 5: Elastic collisions
• Task: Push two balls of different sizes together. Watch their movement after the collision.
• Questions:
o What is the speed of the balls after the collision?
o How does the law of conservation of momentum work in this case?
• Hint: "The momentum is maintained if the system is not affected by external forces."

Completing the quest:
1. After passing through all the stations, the teams gather in one place.
2. The obtained results and new knowledge are discussed. The teams share their findings.
3. The quest organizer summarizes the results, summarizes the key physical laws and explains their practical application.
4. Awarding of prizes (certificates, souvenirs).

Discussion
Advantages of the approach:
• Entertaining: learning turns into a game.
• Practice: Students see how physical laws work in life.
• Teamwork: The quest develops cooperation and communication skills.
• Diversity: physics becomes understandable and interesting through experiments.
Interactive learning methods, such as quests, play an important role in increasing students' interest in the learning process and building their sustainable knowledge. The quest "Journey through the Laws of Physics" demonstrates how through play and practical tasks, you can effectively develop key skills, including critical thinking, teamwork and the ability to solve problems.
This approach combines theoretical knowledge and its practical application, making the study of complex concepts such as the laws of mechanics accessible and exciting. In addition, the quest helps students to see the connection between physical laws and everyday life, which strengthens their motivation to learn and desire to explore the world around them.
During the study of interactive teaching methods, it was found that they play an important role in the modern educational process, providing deep learning of the material and the development of key skills among students.

CONCLUSION

The main results of the study can be distinguished as follows:

• Active participation of students: Interactive methods such as discussions, role-playing games, case method and project work contribute to the involvement of students in the learning process. This allows you not only to assimilate theoretical knowledge, but also to effectively apply it in practice.

• Developing analytical and critical skills: Using interactive approaches helps students improve analytical skills, critical thinking and problem solving skills. Students learn to work with information, analyze it, draw conclusions and argue their ideas.

• Formation of cooperation skills: group work and active discussions contribute to the development of communication and interaction skills, which is an important element of successful professional and educational activities.

• Efficiency and motivation: The use of interactive methods makes the learning process interesting and focused on the needs of students, which increases motivation to learn and contributes to better results.

As a result of the integration of interactive methods, learning becomes more effective, focused on the practical application of knowledge and preparing students for future professional activities. These approaches make it possible to create an educational environment conducive to active involvement and comprehensive personal development.

References

1. Берендяева, Л.А., & Конева, И.В. (2015). Особенности применения интерактивных методов в преподавании дисциплин естественнонаучного цикла. Электронный научно-методический журнал Омского государственного аграрного университета, 105-109.
2. Косолапова, М.А. (2007). Технологические подходы в организации профессиональной подготовки к педагогической деятельности в высшей школе. Томский государственный педагогический университет. Томск: издательство, 177 с.
3. Зеер, Э.Ф., Павлова, А.М., & Сыманюк, Э.Э. (б.г.). Модернизация профессионального образования. Деп. в ИНИОН РАН, № 60426.
4. Кононец, А.Н. (2008). Педагогическое моделирование: новые вопросы. В Инновационные подходы к организации образовательного процесса в современном техническом вузе (сборник методических трудов, под ред. Л.П. Лазаревой, с. 22-31). Хабаровск: Издательство ДВГУП
5. Гимадиева, Э., Ситдикова, Д.Р., & Шишмагаева, О.А. (2021). Веб-квест при обучении теме «case-study». Международный научно-исследовательский журнал, 40-41.
6. Рубцов, Н.С. (2019). Обучение через игру: методические рекомендации. Образование через игру, 6-9.
7. Сафонова, Л.Ю. (2015). Методы интерактивного обучения: кейс-метод (разбор конкретных производственных ситуаций). Интерактивное обучение, 14-15
8. Ковалев, С.А., & Лебедева, Т.Г. (2015). Интерактивные методы обучения в системе высшего образования. Образование и наука, 17(1), 56-67.