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INTERACTIVE TEACHING METHODS IN DISTANCE LEARNING: IMPACT ON STUDENTS' SCIENTIFIC ACTIVITY

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ABSTRACT

This article analyzes the importance of using interactive methods in the process of distance learning and their effectiveness. The role of modern technologies and pedagogical approaches in involving students in scientific activities is revealed. The positive impact of interactive methods on the development of students' creativity and independent thinking skills, as well as increasing interest in scientific research, is also highlighted. The article also contains practical recommendations on the use of interactive methods in distance learning.

KEYWORDS

Distance learning, interactive methods, scientific activities, modern technologies, students, innovative education, creativity, independent thinking.

INTRODUCTION

In the conditions of modern globalization, organizing educational processes based on advanced requirements has become one of the urgent issues. Especially today, when distance learning technologies are widely used, opportunities are being created to

bring educational processes to a new level. In this environment, interactive teaching methods play an important role in increasing student activity and forming their scientific skills. Interactive methods not only help to assimilate information, but also teach

students skills such as analysis, exchange of ideas and use in scientific activities.

In a distance learning environment, it is important to ensure effective cooperation between teachers and students, as well as create favorable conditions for their mutual communication. Organizing the educational process in interactive forms in order to increase interest in scientific research is one of the requirements of modern education. This article analyzes the effectiveness of interactive methods in distance learning and their impact on students' scientific abilities.

This study used a number of scientific and methodological approaches to study the impact of interactive teaching methods on students' scientific activity in the distance learning process. The methodology includes the following main stages:

Theoretical analysis: The existing scientific and methodological literature on distance learning and interactive teaching methods was studied, the principles of effective use of interactive methods and their potential for developing students' scientific activity were analyzed.

Practical observations: The practical experience of distance learning in higher education institutions was studied. Lessons using interactive methods were observed, and their impact on student interest,

activity, and involvement in scientific activity was determined.

Surveys and interviews: Surveys were conducted among students and teachers, and feedback on the use of interactive methods in the distance learning process was collected. The level of interest in students' scientific activity and active participation in lessons were assessed. The results of interactive methods were compared with other teaching methods, and their effectiveness was analyzed based on statistical data.

Based on the results of the study, practical recommendations were developed to increase the effectiveness of the use of interactive methods in distance education. This methodological approach made it possible to obtain scientifically sound conclusions in determining the effectiveness of interactive teaching methods in distance education and studying their impact on students' academic activity.

Literature analysis

A review of the literature on distance education and interactive teaching methods shows that research in this area covers a wide range of aspects. Research on distance education technologies confirms that modern digital tools help to effectively organize the educational process. In particular, in the context of the pandemic, this approach has gained particular

importance for the education system. The following areas are especially recognized in scientific sources on interactive teaching methods: The organization of active dialogue between the student and the teacher helps to increase interest in scientific activities. Also, through interactive methods, students actively participate in the lesson process, exchange ideas and participate in discussions.

Digital tools and platforms: Distance learning platforms such as Moodle, Microsoft Teams, Zoom are considered the main tools that provide interactivity in the educational process. These platforms allow students not only to acquire knowledge, but also to demonstrate their knowledge.

The literature also emphasizes that the use of interactive methods is effective in increasing students' interest in scientific research. It is recommended to use methods such as performing problem-based tasks, creating research-based projects, and analyzing scientific articles. Based on the analysis of the literature, it is concluded that for the effective use of interactive methods in the distance learning process, it is necessary to properly use technological platforms and develop special strategies that increase students' interest in scientific activities. This article is aimed at analyzing these problems and proposing solutions.

Discussion:

As a result of studying the effectiveness of interactive teaching methods in the process of distance learning and their impact on students' scientific activity, a number of important conclusions were identified.

First, interactive teaching methods encourage students to actively participate in the lesson process. Students have the opportunity to freely express their opinions by participating in various discussions. These methods help students to think independently and develop problem-solving skills in scientific activities. Studies have shown that in lessons where an interactive approach is used, students feel free and tend to actively discuss scientific issues.

Secondly, technological platforms and tools are important for the effective implementation of interactive methods. Platforms such as Zoom, Microsoft Teams and Moodle have made it possible to introduce interactive elements into the learning process. This serves to develop interaction between students and jointly form knowledge. However, it has also been observed that the wrong choice or use of technological tools can reduce efficiency.

Third, interactive methods not only increase students' interest in scientific activities, but also develop their social and communication skills. Team projects, research-based assignments, and work on problem issues help students develop teamwork and joint problem-solving skills.



However, some limitations have also been identified. Students' inexperience in using technological tools or problems with the technical infrastructure can reduce the efficiency of some interactive methods. Also, the technological and methodological training of teachers is an important factor.

On this basis, the following measures were noted for the successful use of interactive methods in distance learning: improving the technological infrastructure, conducting special training for teachers, and providing support materials for students. It is also necessary to develop strategies aimed at adapting and improving interactive methods in order to further involve students in scientific activities.

Distance learning plays an important role in the modern education system and requires remote collaboration between teachers and students in the learning process. The use of interactive teaching methods in this process is important in increasing the effectiveness of the learning process.

Specific features of interactive teaching

Interactive teaching ensures the involvement of students as active participants in the learning process. This method is based on the following principles:

1. Interaction: Active communication between the teacher and students.

2. Activity: Active participation of students in the learning process.

3. Reflection: Analysis and practical application of the learned knowledge.

Possibilities of using interactive methods in distance learning

1. Virtual group training: Conducting group discussions and seminars via video conferencing platforms.

2. Online tests and quizzes: Using test systems designed to assess knowledge in real time.

3. Project approach: Developing teamwork skills in students by involving them in participating in group projects.

4. Forums and blogs: Use of special forums and blogs for exchanging ideas.

Advantages

- Strengthens student communication.
- Students can freely express their opinions.
- Provides cooperation in a remote environment.
- Develops skills in using new technologies.

Disadvantages

- Dependence on technical equipment and Internet resources.



- Lack of sufficient technical skills among some students.
- Risk of decreased student motivation in remote communication.

Interactive methods in distance learning allow to improve the quality of education. However, to ensure the effectiveness of these methods, it is important to take into account technological capabilities and the psychological readiness of students. In the future, the effectiveness of the educational process and student activity can be further increased by expanding interactive methods in distance learning.

CONCLUSION

This study has proven that interactive methods are an effective tool for involving students in scientific activities in the process of distance learning. Interactive methods play an important role in increasing student activity, directing them to independent thinking, problem analysis and the use of innovative approaches. Also, technological tools, as an integral part of interactive teaching, play a major role in strengthening the dialogue between the teacher and the student. The results of the study show that the following factors are important for the successful implementation of interactive methods:

Development of technological infrastructure and effective use of distance learning platforms;

Strengthening the technological and methodological skills of teachers;

Development of tasks and projects that attract students to scientific research;

Creating a motivating and supportive environment for students in distance learning. In conclusion, interactive methods in the process of distance learning not only improve the quality of the educational process, but also allow students to actively engage in creative thinking and scientific activity. In the future, further improvement of these methods and development of new methods of their use will remain one of the pressing issues.

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