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# PEDAGOGICAL STRATEGIES FOR DEVELOPING CRITICAL THINKING IN SCHOOLCHILDREN IN A DISTANCE EDUCATIONAL ENVIRONMENT

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#### **Abstract**

The article discusses methods for developing critical thinking in schoolchildren in the context of distance learning. The main difficulties that students and teachers face when using traditional methods in an online format are analyzed, and the need to introduce active methods, such as debates, case methods and project activities, is substantiated. Based on a questionnaire and experimental study, pedagogical approaches that contribute to the formation of critical thinking in students are identified. The results of the study show that interactive methods and technologies integrated into distance learning increase the level of analytical and evaluative abilities of schoolchildren. Recommendations for teachers on the effective use of these methods in online learning are developed.

**Keywords**: distance learning, critical thinking, schoolchildren, pedagogical methods, interactive technologies, active teaching methods, project activities, online education.

#### Introduction

In recent years, distance learning has become a vital part of the educational process worldwide. This learning format, which actively employs digital technologies and online resources, opens up new opportunities for education but also requires students to develop skills in independent thinking, the ability to analyze information, and a critical approach to educational material. Developing critical thinking skills, including the abilities to analyze, evaluate, and make independent decisions, has become a crucial task, particularly in distance learning, where students interact with information independently and need to recognize its credibility and significance.

Traditional teaching methods, which focus on memorization and knowledge reproduction, are often insufficient in distance learning, where students have greater freedom and responsibility for their learning. Many students struggle with navigating the flow of information and often cannot effectively assess its content. This highlights the need for approaches that will promote the development of critical thinking as a key element of independent and effective learning.

The purpose of this study is to identify pedagogical methods and technologies that contribute to the development of critical thinking among school students in a distance learning environment. The main task is not only to assess existing approaches but also to develop recommendations for their integration into distance learning.

We hypothesize that active teaching methods, such as debates, case studies, and project-based learning, when integrated into distance learning, will positively impact the development of



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critical thinking in students, enhancing their abilities in analysis, self-assessment, and critical perception of information.

#### Methods

#### Literature Review.

The study begins with an analysis of existing research on critical thinking development and the specifics of its formation in a distance learning environment. Publications focusing on methods such as interactive technologies, critical reading, independent material analysis, and discussion-based learning, as well as studies describing the role of critical thinking in the educational process as a whole, were reviewed.

#### **Research Methods.**

## The following methods were selected for the study:

- 1. Questionnaire conducted among teachers and students. The questionnaire included questions related to the methods used, the level of critical thinking, and the difficulties encountered in the distance format.
- 2. Experiment conducted using active teaching methods (debates, case studies, project-based learning). The aim of the experiment was to assess how these methods influence the development of critical thinking in school students.
- 3. Statistical analysis the results of the questionnaire and experimental work were statistically analyzed to determine the impact of active methods on critical thinking indicators.

## Data Processing.

The questionnaires and experiment results were analyzed using statistical methods. The significance of differences between the control and experimental groups was assessed to determine how effectively active teaching methods contribute to the development of critical thinking.

#### Results

## Questionnaire Analysis.

The results of the survey showed that most teachers recognize the importance of critical thinking but face difficulties in fostering it in a distance learning environment. Students noted that in the distance format, they often encounter the need to analyze information independently but experience a lack of critical comprehension skills.

#### **Experimental Data**

During the experiment, students who participated in classes using active methods, such as debates and case studies, showed significantly higher results in terms of critical thinking criteria compared to the control group. The use of interactive methods promoted active student engagement in the learning process, which facilitated the development of skills in critical analysis and self-assessment.



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# **Comparative Analysis**

The comparative analysis showed that in the experimental group, where active methods were applied, students demonstrated more developed skills in analysis, evaluation, and argumentation than in the control group, where traditional distance learning methods were used. This confirms that interactive teaching methods do indeed contribute to the development of critical thinking.

## **Discussion**

#### **Interpretation of Results**

The results indicate that using active teaching methods in distance learning positively impacts the development of critical thinking in school students. Methods that require active student involvement, such as debates and project-based learning, help students develop analytical and evaluative skills, which are the foundation of critical thinking.

# Limitations and Challenges.

The study revealed certain limitations, including the influence of external factors such as student motivation and technical capabilities for distance learning. Additionally, the level of teacher preparation for using interactive methods in an online format remains a critical factor, as many educators face difficulties in integrating these methods into a digital environment.

Based on the results obtained, several recommendations can be made for teachers and educational institutions:

- 1. Incorporate interactive work formats such as debates, project-based learning, and case analysis into distance learning to foster the development of critical thinking.
- 2. Provide additional training for teachers on methods for developing critical thinking in an online learning environment.
- 3. Create and support online platforms and resources that facilitate opinion exchange, discussions, and collaborative work among students, which positively affects their critical thinking.

# Conclusion

This study confirmed that distance learning, when using active methods, can contribute to the development of critical thinking in school students. Methods that require independent analysis, argumentation, and information evaluation help students develop the skills necessary for critical reflection and independent decision-making.

The results of the study are important for teachers and educational institutions operating in a distance learning environment. Integrating active teaching methods into the digital educational environment promotes deeper material comprehension and fosters a critical approach to information perception among students, which is a relevant task in modern pedagogy.

In the future, it is essential to continue studying the impact of various teaching methods on critical thinking in blended and online learning environments, as well as to develop more detailed recommendations for integrating interactive technologies into the educational process.



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