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MODERN PEDAGOGICAL APPROACHES TO DEVELOPING CRITICAL THINKING IN STUDENTS

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ABSTRACT. In the conditions of the information society, the development of students' critical thinking skills has become one of the most important tasks facing higher education. Today, every specialist is required not only to acquire knowledge but also to possess the skills to analyze, evaluate, and apply it in practice. This article aims to identify modern pedagogical approaches that contribute to the development of students' critical thinking and to analyze their effectiveness. The research was organized in a comprehensive manner, including theoretical analysis and elements of pedagogical observation. As a result of the research, a comprehensive classification of modern pedagogical approaches aimed at developing critical thinking was developed, and mechanisms for integrating them into the higher education process were proposed. The research results contribute to the development of practical and methodological recommendations for teachers. The main conclusion is that the effectiveness of modern pedagogical approaches depends on their comprehensive and systematic application in the educational process.

Keywords: critical thinking, modern pedagogy, higher education, pedagogical approaches, interactive methods, problem-based learning, constructivist approach.

INTRODUCTION

In the modern information society, the rapid growth and diversity of information require individuals not only to acquire knowledge but also to critically analyze, select, and evaluate it. Today, every specialist must be able to independently solve problems encountered in professional activities, compare different viewpoints, and make well-grounded decisions. Therefore, one of the main tasks of the higher education system is to train specialists who possess independent thinking and critical reasoning skills (Halpern, 2000; Paul & Elder, 2019).

Educational reforms carried out in the Republic of Uzbekistan, particularly the Law "On Education" and the Concept for the Development of Higher Education until 2030 approved by the Presidential Decree No. PF-5847 dated October 8, 2019, emphasize the formation of students' independent and comprehensive thinking as one of the priority directions (President of the Republic of Uzbekistan, 2019). This requires teachers to apply methods and technologies that actively involve students in the learning process rather than relying on traditional teaching methods (Gulyamova, 2023; Mamatmurotov, 2025a).

The problem of critical thinking has been widely studied in world pedagogy and psychology. Among foreign researchers, J. Dewey defined critical thinking as a "conscious process of reflection involving the examination and justification of ideas," while D. Halpern interpreted it as "goal-oriented, logical, analytical, and evidence-based thinking" (Halpern, 2000; Dewey, 1933). In addition, the works of T. Chatfield, I. Zagashev, S. Zair-Bek, and D. Shakirov provide detailed explanations of technologies for developing critical thinking (Chatfield, 2019; Zair-Bek, 2011; Zagashev, 2003).

Among local scholars, studies conducted by G.N. Gulyamova, D. Samatova, N. Yangibayeva, and A. Ziyoviddinova analyze the pedagogical foundations of critical thinking, its role in the educational process, and methods for its development (Gulyamova, 2023; Samatova, 2024; Yangibayeva, 2025; Ziyoviddinova, 2025). In particular, D. Samatova studied the development of students' analytical abilities and independence through problem-based learning, scientific projects, and research activities (Samatova, 2024).

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Existing scientific research and practical observations indicate that efforts to develop students' critical thinking in higher education are still not sufficiently effective. In many higher education institutions, traditional reproductive teaching methods still dominate, which hinders the development of students' independent and critical thinking skills. The systematic application of modern pedagogical approaches and comprehensive evaluation of their effectiveness remain unresolved issues.

The purpose of this study is to identify modern pedagogical approaches that contribute to the development of students' critical thinking and to analyze their effectiveness.

To achieve this goal, the following tasks were defined:

To analyze the essence and structural components of the concept of critical thinking;

To identify modern pedagogical approaches aimed at developing critical thinking among students;

To study the possibilities and mechanisms for applying these approaches;

To analyze the effectiveness of these approaches in the higher education process.

METHODOLOGY

The research was organized comprehensively and included theoretical-analytical approaches and elements of pedagogical observation. The study was conducted during the 2023–2024 academic year at Termez State Pedagogical Institute.

At the initial stage, scientific and pedagogical literature related to the topic was analyzed, after which the practical application of the identified pedagogical approaches was examined.

The following research methods were used:

Analysis of scientific and pedagogical literature – to study the state of the problem and determine the essence of critical thinking;

Comparative analysis – to compare different pedagogical approaches and their effectiveness;

Generalization – to formulate conclusions and recommendations based on the findings;

Pedagogical observation – to monitor the practical implementation of interactive teaching methods.

The object of the research was the educational process aimed at developing students' critical thinking in higher education institutions.

The subject of the research consisted of modern pedagogical approaches, methods, and technologies aimed at developing students' critical thinking.

RESULTS

The theoretical analysis conducted during the research showed that critical thinking is a complex and multifaceted concept that includes both cognitive and affective factors (Facione, 2020; Mamatmurotov, 2024). From a psychological perspective, critical thinking integrates elements such as logical reasoning, analytical thinking, reflection, and creativity. From a pedagogical perspective, critical thinking represents a type of thinking that develops students' active attitude toward knowledge and encourages independent decision-making (Mamatmurotov, 2025a; Xudayberganov, 2025).

The main components of critical thinking were identified as:

Analytical ability – the ability to break down information into components;

Logical reasoning – the ability to identify cause-and-effect relationships;

Systemic thinking – the ability to see phenomena in their interconnections;

Problem identification – the ability to detect and formulate problems;

Evaluation – the ability to determine the validity of evidence;

Reflection – the ability to analyze one's own thinking process;

Affective factors – psychological aspects related to motivation, values, and attitudes (Facione, 2020; Mamatmurotov, 2024; Qalandarova, 2025).

During the study, several effective pedagogical methods aimed at developing students' critical thinking in higher education practice were identified. In particular, the case study method is based on analyzing real-life or professional situations and helps students develop the skills to

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identify problems, analyze available information, and make well-reasoned decisions (Rothinam et al., 2025; Barysheva, 2018). This method enhances students' analytical thinking and teaches them to draw independent conclusions in complex situations.

The debate method also plays an important role in developing critical thinking, as students have the opportunity to present and defend different positions on a particular topic, thereby developing logical reasoning, argumentation skills, and speech culture (Sobirova, 2025; Samatova, 2024).

A systematic literature review conducted by Rothinam N. and colleagues (2025) also confirms the effectiveness of active learning, interdisciplinary approaches, and artificial intelligence tools in developing critical thinking.

DISCUSSION

The research results are consistent with the scientific conclusions of both foreign and local scholars. As noted by Samatova (2024), problem-based learning, scientific projects, and involvement in research activities contribute to the development of students' analytical abilities and independence. Similarly, the theories of foreign scholars such as Halpern (2000) and Chatfield (2019) on the cognitive foundations of critical thinking strengthen the theoretical basis of this study.

The analysis showed that the main advantages of the identified modern pedagogical approaches include:

Development of independent thinking – students learn to conduct independent research and draw conclusions instead of simply accepting ready-made knowledge (Mamatmurotov, 2025b; Xudayberganov, 2025);

Formation of analytical thinking – students' analytical abilities develop through analyzing, comparing, and evaluating information (Qalandarova, 2025; Yangibayeva, 2025);

Improvement of communicative competence – group work, discussions, and debates develop students' ability to clearly express their opinions and listen to others (Sobirova, 2025; Ziyoviddinova, 2025);

Development of reflective abilities – students learn mechanisms of self-development through analyzing and evaluating their own activities (Mamatmurotov, 2024; Zair-Bek, 2011).

However, despite their effectiveness, several problems arise when implementing modern pedagogical approaches in practice:

insufficient teacher training in modern pedagogical technologies;

lack of methodological resources and teaching materials;

traditional assessment systems focused mainly on reproductive knowledge;

students' passivity and difficulties in adapting to active learning methods.

These barriers indicate important challenges. Future research should focus on developing teacher professional development programs and creating methodological guidelines adapted to different disciplines. In addition, aligning assessment systems with critical thinking objectives remains an important pedagogical task.

CONCLUSION

The development of critical thinking is one of the key tasks of modern higher education and has become an essential competence in the information society. This study achieved its objective by identifying and classifying the main modern pedagogical approaches aimed at developing students' critical thinking. These include the constructivist approach, problem-based learning, project-based learning, debate and discussion methods, and reflective teaching technologies.

The study confirms that interactive methods such as case studies, debates, conceptual maps, and Socratic questioning are among the most effective tools for developing critical thinking in higher education practice. Their systematic application significantly improves students' analytical and reflective abilities.

The main conclusion is that the effectiveness of modern pedagogical approaches depends on their comprehensive and systematic application. Integrating different methods within a unified

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framework produces the most effective results. The research findings contribute to improving teachers' pedagogical activities aimed at developing critical thinking.

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