INTERNATIONAL JOURNAL OF POLITICAL SCIENCES AND ECONOMICS
Impact Factor (research bib) - 9,78
https://ijmri.de/index.php/ijpse , German international journals company
ISSN 2751-9708

DEVELOPMENT OF CRITICAL COGNITION AND REFLECTIVE ACTIVITY IN CHILDREN

Homidova Gulshoda Baxromjon kizi
Master's student, Fergana State University

O'rinova Feruza O'ljayevna
Associate Professor, PhD in Pedagogical Sciences, Professor,
Fergana State University

Abstract: This study analyzes the theoretical and methodological foundations of developing critical cognition and reflective activity in children. The research highlights the possibilities of forming students' independent thinking, analytical skills, the ability to draw conclusions, and self-assessment competencies through the use of problem-based situations, interactive teaching methods, STEAM technologies, and elements of reflection in the educational process. The research findings contribute to improving the effectiveness of the pedagogical process, enhancing students' cognitive activity, and fostering creative thinking. In addition, mechanisms for improving the quality of education based on innovative approaches are scientifically substantiated.

Keywords: critical cognition, reflection, interactive methods, development, problem-based situation.

Main Part

In today's context, where great attention is being paid to the development of education in our country, profound reforms are also being implemented in the field of preschool education. Since preschool age is scientifically recognized as the most important stage in the formation of human thinking, educating children of this age to become well-rounded individuals is considered a priority task. As emphasized by the President of the Republic of Uzbekistan, Shavkat Mirziyoyev: *"In fact, the role and importance of the preschool education system, which is the most fundamental link in raising our children, cannot be measured by anything. Attention to preschool education creates a solid foundation for the future development of the country."* Numerous reforms carried out in this field serve as proof of these words.

Critical thinking is defined as a process of making informed decisions based on identifying assumptions and different viewpoints and verifying their validity. Critical thinking is an essential skill that helps students solve personal and social problems. Students need cognitive skills to understand concepts, test hypotheses, and draw conclusions. The process of critical thinking is not limited to expressing opinions or synthesizing information; it requires providing well-grounded and logical arguments. As emphasized by scholars, it is not enough for students to acquire critical thinking skills; they must also know how to use them effectively. Critical thinking skills encourage students to think independently and solve problems they encounter at school and in everyday life. Despite the recognized importance of these skills, current practice shows that the expected level has not yet been achieved. For example, studies indicate that the critical thinking skills of Indonesian students remain relatively low.

INTERNATIONAL JOURNAL OF POLITICAL SCIENCES AND ECONOMICS
Impact Factor (research bib) - 9,78
https://ijmri.de/index.php/ijpse , German international journals company
ISSN 2751-9708

In highlighting the practical significance of modern education, STEAM technologies have become one of the most important trends in education systems worldwide. The STEAM approach helps children independently solve real-life problems in the future. Today, STEAM education is developing as one of the leading directions in global education. This approach is based on integrating five fields—science, technology, engineering, art, and mathematics—into a unified educational system. An essential condition of such education is its continuity and the development of children's communication skills in group settings. Working in groups allows children to generate ideas, share them, and engage in discussion. When organizing creative activities, educators should pay special attention to solving problem-based tasks, analyzing problem situations, and creating creative products with educational value.

The growing global demand for human capital has led to the consideration of "intellect and logic" as essential indicators that regulate cultural, educational, and socio-economic relations and serve as criteria for evaluating youth activity. In leading educational institutions worldwide, effective mechanisms for developing students' independent thinking abilities are being implemented through teaching natural sciences, applying integrated interactive educational technologies, and introducing virtual and experimental projects. The President of Uzbekistan, Shavkat Mirziyoyev, has noted: *"If teaching methods at school do not change, neither the quality of education nor the educational environment will change."*

Reflective education can be closely linked with STEAM practices. Through reflection, students develop and acquire strategic competencies, skills, attitudes, and emotions related to their future activities, as well as the initial forms of personal identity. Reflective learning enhances self-awareness, helps identify connections between different scientific fields, and contributes to understanding social and community processes. These aspects form the basis for integrating art and science. Reflection, for example, is aimed at analyzing, formulating, and contextualizing scientific questions and hypotheses during experiments, as well as recognizing and analyzing personal responsibility in active experiential learning. Reflective practices also focus on behavioral, emotional, and social principles to increase students' engagement in the learning process. Reflection can create favorable conditions for defining personal learning pathways, effectively acquiring knowledge, and developing specific competencies.

It should be emphasized that STEAM approaches support individual and group reflection in shaping personal development and civic competencies and assist in making important decisions in complex situations encountered in environmental education.

The term *critical thinking* in international terminology originates from the Greek word *kritikos*, meaning "evaluation," "judgment," "examination," and similar concepts. In this context, "criticism" does not imply blaming but rather intellectual ability, including evaluation, identification, judgment, and the ability to distinguish. The intellectual foundations and etymology of critical thinking date back to ancient times. Approximately 2,500 years ago, elements of this concept can be found in the teaching practices and ideas of Socrates. Socrates developed a new method of questioning that revealed the weakness of people's confidence in their knowledge and included elements of Socratic irony. As noted by scholars, it is not sufficient for students to acquire critical thinking skills; they must also be able to apply them effectively. These skills encourage students to think independently and solve problems encountered in both academic and everyday contexts.

INTERNATIONAL JOURNAL OF POLITICAL SCIENCES AND ECONOMICS
Impact Factor (research bib) - 9,78
https://ijmri.de/index.php/ijpse , German international journals company
ISSN 2751-9708

Reflective practices stimulate learner-centered thinking about how to increase students' participation in their own learning processes, leading to deeper learning outcomes. It is widely recognized that reflective learning positively influences learning outcomes and skill acquisition. Reflective learning—an integral component of reflection—directly affects changes in activities, feelings, emotions, and empathy during experiential learning. Reflection begins with examining one's own activities, ideas, beliefs, and emotions while also considering the processes and mechanisms of various ecological and social contexts. According to widely accepted views, students develop higher-order cognitive processes and enhance self-awareness when they ask questions, identify problems, develop solutions, and create actions, activities, and goals. In ecological and social contexts, reflective learning contributes to high-quality education by carefully guiding and optimizing learning activities.

Conclusion

In conclusion, the development of critical cognition and reflective activity in children requires a continuous and systematic pedagogical process. The implementation of methodological recommendations developed in this area leads to improved educational quality, enhanced creative and intellectual potential of children, and strengthened preparation for independent life in the future.

References

1. Zohidov B.T. *Methodology for Organizing Reflective Activity in Education.* Tashkent, 2020.
2. Facione P.A. *Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction.* California, 1990.
3. Paul R., Elder L. *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life.* New Jersey: Prentice Hall, 2014.
4. Jo'raev R.X., Zunnunov A. *Pedagogical Technologies.* Tashkent: Sharq, 2017
5. President of the Republic of Uzbekistan. *Law on Education.* Tashkent, 2020.