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DIDACTIC OPPORTUNITIES FOR DEVELOPING STUDENTS' COGNITIVE AND METACOGNITIVE ACTIVITIES

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Annotation: This article analyzes the didactic possibilities of developing students' cognitive and metacognitive activity. The importance of cognitive and metacognitive skills in the educational process, their impact on students' independent thinking and self-management skills are studied. This article contributes to scientific discussions aimed at increasing student activity and developing their ability to acquire independent knowledge in 21st century education.

***Keywords*:** Cognitive activity, metacognitive strategies, didactic opportunities, independent learning, educational technologies, innovative pedagogy, 21st century skills, active learning

INTRODUCTION

The modern education system is not only focused on providing students with ready-made knowledge but also on developing their independent thinking abilities. In particular, the formation of cognitive (perception) and metacognitive (self-awareness and self-regulation) skills is considered an essential component of the educational process. Cognitive activity includes a student's ability to receive, analyze, synthesize, and logically process information. Metacognitive activity, on the other hand, refers to an individual's ability to understand their own knowledge and learning strategies, effectively utilize them, and regulate their learning processes. These aspects encourage students to engage in independent learning, think critically, and make effective decisions in real-life situations.

With the development of pedagogy, various methods for enhancing students' cognitive and metacognitive activities have emerged. In particular, modern pedagogical technologies, interactive methods, problem-based learning, reflective approaches, and project-based work can be used to improve the learning process. These methods encourage student engagement, foster creative and independent thinking, and help deepen knowledge acquisition. Therefore, this article analyzes the didactic possibilities of developing students' cognitive and metacognitive activities, as well as the effectiveness of modern educational technologies.

To improve the higher education system in the Republic of Uzbekistan, the Cabinet of Ministers adopted resolution No. 824 on December 31, 2020[1]. The Regulation “On the procedure for implementing the credit-module system in the educational process of higher education institutions,” approved as Appendix 1 to this resolution, places special emphasis on modern teaching methods and the enhancement of the assessment system. Specifically, Clause 31 of Chapter 6 states that assessment must fully reflect students' level of mastery, incorporating various evaluation methods such as written, oral, practical work, projects, portfolios, and examinations. To ensure the implementation of this resolution, several key initiatives have been undertaken in Uzbekistan’s higher education institutions. These include: aligning assessment criteria with international standards under the credit-module system, introducing electronic portfolios to systematically analyze and record students' academic performance, expanding the use of active and innovative assessment methods, including project-based work, independent research, and practical assignments, and utilizing modern technologies and

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distance learning platforms to enhance students' independent learning skills. All these efforts contribute to shaping the higher education process in line with contemporary trends, not only facilitating knowledge acquisition but also expanding opportunities for the development of students' cognitive and metacognitive activities.

The article explores the impact of innovative pedagogical approaches on students' cognitive activities, their role in the teaching and assessment process, and their effectiveness. The research findings will provide key conclusions on enhancing students' engagement in the learning process, developing their independent learning abilities, and fostering the essential skills required in 21st-century education.

LITERATURE REVIEW AND METHODS

The development of cognitive and metacognitive activities is one of the most pressing topics in modern pedagogy and psychology. Research in this field has shown that effectively managing students' perception processes plays a crucial role in enhancing their learning efficiency. The works of renowned scholars such as J. Bruner, L. Vygotsky, and J. Piaget laid the foundation for an in-depth study of cognitive processes and their significance in education. According to them, increasing student engagement in the learning process and developing their logical thinking and problem-solving skills enable deeper knowledge acquisition.

Research on metacognitive abilities has been extensively covered in the works of scholars such as J. Flavell[2] and A. Brown[3]. They emphasize that metacognitive processes allow students to understand and regulate their knowledge and abilities, as well as apply effective learning strategies. This, in turn, enhances their capacity for independent learning.

Modern literature also presents numerous studies on the didactic possibilities of developing cognitive and metacognitive skills. For instance, scholars such as R. Marzano[4] and D. Kuhn[5] highlight that interactive methods, project-based learning, problem-based approaches, and the use of modern technologies can improve students' cognitive processes. These methods not only help students acquire knowledge but also enable them to develop their skills and apply them in real-life situations.

Overall, the literature review indicates that fostering cognitive and metacognitive abilities is essential for increasing student engagement in the learning process, enhancing their independent thinking, and strengthening their problem-solving skills. The effective use of modern didactic methods and technologies provides significant opportunities in this regard.

RESULTS AND DISCUSSION

The results of research on the development of students' cognitive and metacognitive activities indicate that effectively managing these processes can significantly enhance students' engagement and efficiency in the learning process. Developing cognitive abilities strengthens students' logical thinking, analytical skills, synthesis of information, and problem-solving capabilities. Meanwhile, metacognitive abilities enable them to understand, plan, and monitor their own knowledge and learning process. The integration of these two aspects further fosters students' independent thinking and learning skills.

In the modern education system, developing students' cognitive (knowledge acquisition) and metacognitive (awareness of knowledge) activities is one of the most critical tasks. This process plays a crucial role in improving students' ability to acquire knowledge effectively, shaping their independent thinking skills, and preparing them to solve real-life problems. Didactic opportunities serve as the primary means of facilitating this process.

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Didactic opportunities for developing cognitive activity. Cognitive activity is the process of acquiring knowledge, analyzing, synthesizing, and applying it in practice[6]. To develop cognitive skills in students, the following didactic methods and tools are recommended:

1. Interactive methods: Problem-based situations, discussions, and teamwork are interactive methods that engage students' attention, developing their logical thinking and problem-solving skills.
2. Multimedia tools: Using electronic textbooks, video materials, virtual laboratories, and other digital resources can help students achieve a deeper understanding of knowledge.
3. Practical assignments: Practical exercises, project work, and research allow students to apply theoretical knowledge in practice.
4. Connection and integration: Demonstrating the internal and external connections within a subject can enhance students' ability to establish interdisciplinary links.

Didactic opportunities for developing metacognitive activity. Metacognitive activity refers to a student's ability to monitor their own thinking process, make strategic plans, and evaluate their own performance[7]. To develop metacognitive skills, the following didactic approaches are effective:

1. Self-assessment: It is essential to provide students with opportunities to analyze and assess their own activities. Methods such as writing reflections, analyzing test results, and identifying their own mistakes can be used.
2. Strategic planning: It is important for teachers to teach students how to choose and apply learning strategies. For example, goal-directed reading, techniques for extracting and summarizing information.
3. Individualization of teaching: Developing teaching plans that adapt to each student's learning style, interests, and abilities helps foster their self-regulation skills.
4. Providing feedback in the learning process: Regular constructive feedback from the teacher helps students identify ways to improve their activities..

Effectiveness of didactic opportunities. Effective use of didactic opportunities enhances students' knowledge quality and intellectual potential. The simultaneous development of cognitive and metacognitive skills transforms students into active learners, turns them into independent learners, and fosters their ability to engage in lifelong self-development[8].

As a result, using didactic tools and methods to develop cognitive and metacognitive activities in modern education is one of the key factors in improving students' learning effectiveness. This contributes to elevating the educational process to an innovative and high-quality level.

CONCLUSION

Developing students' cognitive and metacognitive activities is a fundamental requirement of modern education, aimed at making the learning process more effective. Cognitive skills provide students with the ability to apply theoretical knowledge to practice, analyze problems, and find solutions. Metacognitive activity, on the other hand, enables them to monitor their own thinking processes, choose learning strategies, and assess their own performance[9].

The use of didactic opportunities plays a crucial role in this process. Innovative approaches, such as interactive methods, multimedia tools, teamwork technologies, and project-based learning, increase students' engagement and improve the quality of their knowledge. Constructive feedback provided by the teacher, along with individualized approaches, helps students fully demonstrate their potential. As a result, students develop the skills to acquire knowledge independently, act successfully in real-life situations, and continually strive for self-development. This fulfills one of the main goals of modern education — the formation of a well-rounded individual.

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