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PEDAGOGICAL MECHANISMS FOR IMPROVING COGNITIVE ACTIVITY IN PRIMARY SCHOOL STUDENTS

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Abstract: This article discusses modern mechanisms for increasing the cognitive activity of primary school students, developing logical thinking, memory and attention in them. It also analyzes the importance of using interactive methods and game technologies in the lesson process.

Keywords: cognitive activity, cognitive development, motivation, problem-based learning, interactive methods, primary education.

Main Part

The primary school period is one of the most important stages in a person's life, as it is during this time that the foundation for a child's attitude toward learning and intellectual potential is formed. The modern education system requires not only providing ready-made knowledge to students but also teaching them to independently search for information, analyze it, and apply it in practice.

When studying the cognitive activity of primary school students, it becomes evident that this concept is interpreted differently across various academic sources. In pedagogical terminology dictionaries, cognition is defined as:

the level of mastery of educational material presented to students during the learning process;

the process of studying, understanding, and mastering reality and its objective laws.

Thus, in the process of cognitive activity, the student assimilates the provided knowledge and comprehends the surrounding reality. It is well known that the external world around us has numerous properties and characteristics. For example, objects differ in color, taste, smell, hardness or softness, texture, temperature, and other features. These various characteristics are perceived through our sensory organs and reflected in our consciousness.

External stimuli constantly affect our senses, resulting in different sensations. For instance, the effect of light rays on the eyes produces visual perception; air vibrations of varying intensity affect hearing; particles entering the nasal cavity create the sense of smell; physical contact with objects generates tactile or pressure sensations.

Children's cognitive activity is a unity of sensory perception, theoretical thinking, and practical activity. It emerges at every stage of education and develops continuously. Cognitive activity is reinforced through students' social interactions and various types of learning activities. At the same time, completing specific learning tasks plays a crucial role in expanding students' cognitive abilities.

In the process of studying academic subjects, it is necessary to generalize acquired knowledge and form skills and competencies through interdisciplinary connections. Observations show that in the education systems of developed countries, the integration of

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science and technology is rapidly progressing. In such conditions, improving interactive teaching strategies based on modern educational principles becomes essential.

It is important to incorporate theoretical and practical knowledge about the laws of nature and society into the educational content, ensure interdisciplinary integration, and develop necessary competencies. Training creative specialists capable of achieving these goals is considered a priority of continuous education systems.

In this regard, primary education institutions should analyze curricula and textbooks, ensure continuity between subjects, and organize pedagogical processes toward active information exchange.

The President of the Republic of Uzbekistan, Shavkat Mirziyoyev, in his speech dedicated to Teachers' Day on September 30, 2020, emphasized:

"Educating our children as independently thinking individuals, equipped with modern knowledge and professions, having a strong life position and true patriotism, is a matter of great importance for us."

Improving students' cognitive activity is one of the key issues in modern pedagogy. Its relevance is determined by the need to search for and develop effective methods and tools. Solving this problem requires not only strengthening the theoretical level of educational materials but also consistently teaching students cognitive methods.

Pedagogical Mechanisms for Improving Cognitive Activity

Improving cognitive activity in primary school students is achieved through the following interconnected mechanisms:

1. Motivation Formation Mechanism

Cognitive activity begins with a need. If a student lacks interest in a subject, cognitive processes weaken.

Sense of success: Even small achievements should be encouraged to build confidence.

Relevance to real life: Linking topics to everyday situations (e.g., explaining mathematics through shopping examples).

2. Problem-Based Learning Mechanism

Students should not wait for ready answers but search for solutions independently. Questions like "Why?" and "How?" stimulate inquiry and develop analytical and synthetic thinking skills.

3. Use of Game Technologies

For young learners, play remains a leading activity. Didactic games such as "Who is faster?", "Chain," and "Field of Miracles" help students master complex material in an engaging way. Games also increase attention and reduce fatigue.

4. Information and Communication Technologies (ICT)

Visualization plays a crucial role in cognition. Colorful slides, animations, and interactive boards help information stay in visual memory. This is especially useful for understanding abstract concepts such as space or natural phenomena.

Additional Recommendations for Teachers

To improve lesson effectiveness, teachers should:

Apply a differentiated approach (assign tasks according to students' abilities);

Use group work to develop social and collaborative skills;

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Apply mnemonic techniques to strengthen memory.

Conclusion

Improving cognitive activity in primary school students is a systematic process. The proper application of the above mechanisms not only enhances students' knowledge but also fosters independent thinking and creativity.

The main goal of modern education is not merely to provide knowledge but to develop a need for acquiring knowledge.

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