



THE IMPACT OF INTERACTIVE METHODS ON ASSOCIATIVE THINKING IN PRIMARY EDUCATION

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ABSTRACT

The article examines the theoretical and methodological significance of interactive teaching methods in developing associative thinking within primary education. The psychological and pedagogical essence of associative thinking is analyzed, and its role in the cognitive development of primary school students is substantiated. The specific features of interactive methods in the educational process are explored, particularly their role in enhancing students' cognitive activity, identifying relationships between concepts, and forming generalization skills, based on scientific sources. Furthermore, the mechanisms for developing associative thinking through interactive approaches such as group work, problem-based learning, and game technologies are revealed. The research findings demonstrate that interactive methods contribute to the development of students' creative and critical thinking and promote conscious and systematic knowledge acquisition.

Primary education plays a decisive role in the formation of an individual's thinking. It is during this period that students' cognitive processes, including sensation, perception, memory, and thinking, actively develop. Associative thinking, as an essential component of the thinking process, enables the generation of new knowledge through understanding internal connections between concepts, images, and phenomena, identifying similarities and differences, and establishing cause-and-effect relationships. Modern pedagogical research indicates that primary school children predominantly demonstrate visual and concrete thinking, and they assimilate information largely through associations [1; 45–52]. Therefore, organizing the educational process in a way that fosters associative thinking is of particular importance.

In recent years, the use of interactive teaching methods has become widespread in education. Interactive methods transform students from passive listeners into active participants, organizing learning based on cooperation, communication, and independent inquiry. Research shows that the effectiveness of interactive approaches is higher than that of traditional reproductive teaching methods [2; 112–118]. These methods help students not only acquire knowledge but also develop skills in analysis, comparison, generalization, and

application in new situations. In particular, interactive methods significantly influence associative thinking by encouraging students to actively search for and construct relationships between concepts.

The development of associative thinking is psychologically linked to a child's experience and activity. When students compare new information with prior knowledge, they identify similarities and differences and establish internal connections. Scientific literature emphasizes that creative approaches and interactive tasks enhance cognitive flexibility and accelerate the process of generating new ideas [7]. In this context, the teacher acts not as a transmitter of knowledge but as a facilitator and organizer. Students are given opportunities to freely express, discuss, and justify their opinions.

The influence of interactive methods on associative thinking manifests through several mechanisms. First, during group and pair work, students exchange ideas, complement each other's thoughts, and create new associations. Studies indicate that cooperative learning significantly enhances creative and critical thinking [3; 77–89]. Second, problem-based situations encourage students to connect existing knowledge with new contexts, thereby increasing cognitive flexibility and strengthening associative links [5]. Third, interactive methods based on game technologies correspond to the natural needs and psychological characteristics of primary school children. Through play, children think in images, establish symbolic connections, and demonstrate creativity. Analyses of play-based learning models show increased idea-generation activity among students [4].

When interactive methods are applied, students do not passively receive ready-made information but independently process learning material. For example, during cluster mapping activities, related ideas are systematized around a central concept, helping students identify internal relationships between concepts. In the "brainstorming" method, students generate the maximum number of ideas within a short time, which enhances the speed of associative thinking. Through the "INSERT" technique, students compare new information with prior knowledge while working with texts, engaging in internal analysis. As a result, knowledge becomes interconnected and systematized.

International research confirms the positive impact of interactive teaching methods on critical and creative thinking indicators [6; 210–218]. In lessons organized using interactive approaches, students learn to justify their opinions, provide arguments, and draw conclusions. This process creates favorable conditions for the development of associative thinking. An integrative approach to teaching enables students to identify connections between different subjects, resulting in systematic and holistic knowledge formation [9]. In primary education, such an approach significantly broadens students' cognitive activity.

Moreover, the psychological effectiveness of interactive methods has been noted. Students develop self-confidence, verbal activity, and social communication skills [8]. These factors directly influence associative thinking, as free expression and communication generate new connections. Interactive methods also make it possible to consider students' individual characteristics and develop each learner's unique thinking style.

Analysis shows that systematic use of interactive methods accelerates the formation of associative thinking in primary school students, ensures conscious and durable knowledge acquisition, and fosters creativity. However, the effective implementation of such methods

depends on the teacher's methodological competence and careful lesson planning. By widely introducing interactive approaches into the educational process, it is possible to enhance students' intellectual potential and nurture independent and creative individuals.

In conclusion, interactive methods in primary education serve as an effective means of developing associative thinking. They increase students' cognitive activity, facilitate the identification and generalization of relationships between concepts, and enrich the educational process. The use of interactive methods based on modern pedagogical approaches represents an important factor in improving the quality of primary education.

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