



"DEVELOPING COGNITIVE ACTIVITY AS A FACTOR IN ENHANCING EDUCATIONAL EFFECTIVENESS."

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<https://doi.org/10.5281/zenodo.15528712>

Abstract. This article analyzes the role and significance of cognitive activity in enhancing the effectiveness of education. Cognitive activity refers to intellectual processes based on actively applying mental functions such as learning, understanding, analyzing, problem-solving, memory, attention, thinking, and creativity. The article examines this concept from both theoretical and practical perspectives, highlighting its stages of development, influencing factors, and application in modern educational processes. The study explores ways to develop students' thinking, memory, attention, and creative abilities, as well as methods to stimulate cognitive activity. It is noted that fostering cognitive activity in the educational process improves the quality of knowledge acquisition and increases students' interest in learning. Additionally, the practical aspects of enhancing cognitive activity through modern pedagogical technologies and methodologies are discussed.

Key words: cognitive activity, educational effectiveness, thinking process, memory, attention, creative ability, pedagogical technologies, educational methodologies, development, students.

The modern educational process is a complex and multifaceted system in which students' level of knowledge acquisition and quality of learning are directly related to their cognitive activity. Cognitive activity is the active use of mental processes such as perception, understanding, analysis, memory, attention, thinking, and creativity. In order to increase the effectiveness of education, it is of great importance to develop this activity in students.

Cognitive activity is a type of mental engagement necessary for receiving, processing, and creating new knowledge. It consists of the following core elements: thinking processes, memory, attention, problem-solving, critical and creative thinking. Each of these elements plays a vital role in helping students deeply and effectively acquire knowledge during the learning process. [1.357]

Cognitive processes are mental functions that enable an individual to perceive and understand the surrounding environment. These include psychological processes such as attention, memory, perception, and thinking. Learning motivation is understood as a set of internal and external factors that drive and encourage an individual to acquire knowledge. Research into the motivations and methods that influence cognitive development is of great significance in the fields of pedagogy and psychology.

The principle of active participation in education holds significant importance, as learning and development are inherently based on activity. The process of educating, developing, and nurturing adolescents is psychologically linked to their active engagement. The key issue in improving the effectiveness and quality of the educational process lies in activating adolescents' learning. Its particular importance lies in the fact that teaching is a reflective and transformative activity aimed not only at perceiving the learning material but

also at shaping the student's attitude toward cognitive activity itself. The dynamic nature of activity is always connected to the subject's own involvement. Solving the issue of increasing the efficiency of the educational process requires a scientific understanding of the conditions and tools-tested in practice-for activating cognitive systems in adolescents. Cognitive activity refers to engagement in learning, acquiring knowledge, and interest in science. The emergence of cognitive activity primarily depends on the child's level of development, experience, knowledge, and the way material that arouses interest is presented. Cognitive activity should be recognized as one of the most important factors in the educational process. Its influence is undoubtedly significant both in creating a bright and joyful learning environment and in intensifying the cognitive engagement of adolescents.

According to the conclusions of some scholars (V.E.Shtaynberg, N.N. Manko, G.K.Selevko, and others), one of the tools for developing adolescents' cognitive activity is logical-semantic models. These models are multifunctional, as they can be used at various stages of learning: when introducing new material, reinforcing it, generalizing and systematizing knowledge, as well as correcting and assessing it. In psychological and pedagogical literature, the concept of "cognitive activity" is explained as follows: the issue of forming cognitive activity arose long ago and remains one of the most pressing issues today. The level of cognitive activity in adolescents determines the effectiveness of solving educational, developmental, and instructional tasks. I.F. Kharlamov defines education as "a purposeful psychological process of organizing and stimulating adolescents' active learning-cognitive activity aimed at developing scientific knowledge, abilities, skills, creative capacities, worldview, as well as moral and aesthetic ideals and beliefs." In defining activity, researchers rely either on its dynamic structural aspect or on its personal component. In the first case, V.A.Petrovsky and V.I. Sekun describe activity as a set of actions determined by the individual. In the second case, K.A.Abulkhanova-Slavskaya, G.S. Kostyuk, and G.I. Shchukina interpret activity as a personal quality, an inseparable property of the subject, based on specific attitudes that enable effective performance of various tasks. This approach determines the level and nature of activity. Cognitive activity in adolescents is both an important factor in development and an indicator of the effectiveness and efficiency of the educational process, as it promotes independence, encourages a research- and creativity-oriented approach to mastering educational content, and is manifested in self-education.[2.60]

Activity (from latin activus – active) is an internally (psychologically) or externally (physically) directed action governed by a consciously recognized goal. The social meaning of activity is defined by its orientation and motivation. According to this criterion, activity is divided into positive and negative types. Positive activity, when combined with deep competence, leads to outcomes of high social significance. The opposite of this is passivity. Cognitive activity is a quality of adolescents' learning activity. It is manifested in their attitude toward the content and process of education, in their desire to effectively acquire knowledge and skills, in mobilizing moral and volitional efforts to achieve goals, and in their ability to comprehend information. Activity is a form of an individual's active interaction with the surrounding world, a motivated set of naturally interconnected actions and sequential behaviors aimed at achieving specific tasks of social importance. Cognitive activity is defined as an active state expressed through adolescents' aspiration for learning, their mental effort, and their voluntary exertion in the process of assimilating knowledge. The physiological basis of cognitive activity lies in the inconsistency between the current situation and past

experiences. There are three levels of cognitive activity: repetition, interpretation, and creativity. [3.72]

Repetition is the process that enables the recall and assimilation of certain knowledge, materials, and mental actions. Repetition involves establishing conceptual connections between words in a text based on their meaning, uncovering new relationships within the essence of objects and phenomena, and serves as a means by which a person activates certain methods of activity. Interpretation is manifested as the ability to direct specific knowledge, materials, and mental actions toward goals and to convey them to a wider audience. It involves delivering given material to the public based on the surrounding environment, objects, and situations. Creativity is the ability of a person to make creative decisions, comprehend, and generate fundamentally new ideas. In everyday life, creativity reveals itself as the ability to achieve goals resourcefully, to use the environment, objects, and situations in unconventional ways, and to find solutions in seemingly hopeless situations. In a broader sense, creativity refers to the skillful and precise resolution of problems using non-specialized tools or resources. It also implies the capacity for bold and non-standard solutions to problems.[4.93]

Perception is the acquisition of knowledge and the understanding of the laws of the objective world. Cognitive activity is an active state of the individual, characterized by a desire to learn, mental effort, and the manifestation of voluntary actions during the process of acquiring knowledge. These include the reproductive level, interpretative level, and creative level of cognitive activity. Cognitive activity is one type of activity that involves acquiring knowledge, learning independently, and developing the skills and competencies to apply the acquired knowledge in practice. According to the definition provided in the modern pedagogical dictionary and as emphasized by E.S. Rapacevich, cognitive activity is a property of the student's personality. It is manifested in a positive attitude toward the content and process of learning, in the effective assimilation of knowledge and methods of activity at the right time, and in the mobilization of moral and volitional efforts to achieve educational and cognitive goals.

In T.P. Mikhnyevich's dissertation research, the structure of cognitive activity is represented as a set of the following components:

- Motivational (distinguished by the presence of cognitive motives);
 - Content-based (refers to the presence of knowledge, primarily the key ideas and concepts of the learning material, and the degree to which the student has mastered this material);
 - Procedural (characterized by the acquisition of methods of cognitive activity, i.e., learning skills and mental operations);
 - Emotional (refers to the positive emotional background of cognitive activity).
- [5.110]

Cognitive activity, as a pedagogical-psychological phenomenon, is a dual, interrelated process: on the one hand, it is a form of the student's self-organization and self-awareness, on the other hand, it is the result of the teacher's specific efforts to organize the student's cognitive activity. At the same time, it should not be forgotten that the ultimate outcome of the teacher's efforts is the transfer of specially organized activity to the student. In other words, both types of cognitive activity are closely interconnected.

There are several key factors in enhancing cognitive activity:

1. **Motivation** – A student's internal and external interest and desire to learn stimulates their mental activity.
2. **Pedagogical approaches** – The use of interactive, problem-based, and project-based methods in education helps increase cognitive activity.
3. **External environment and social factors** – A supportive learning environment, collaboration among students, and effective communication with the teacher enhance efficiency.
4. **Individual characteristics** – Each student's abilities, type of memory, and approach to learning also influence the development of cognitive activity.

The following methods are considered effective for developing cognitive activity in the educational process:

- ✓ Problem-based learning – Developing thinking skills through questions and tasks that encourage student engagement.
- ✓ Project-based learning – Reinforcing knowledge through practical and creative activities.
- ✓ Interactive technologies – Using multimedia, computer programs, and online resources to enhance focus and strengthen memory.
- ✓ Critical thinking exercises – Building skills in argumentation, problem analysis, and solution finding.
- ✓ Teaching cognitive strategies – Instructing students in mental techniques such as memorization, analysis, and synthesis.[6.228]

In summary, the cognitive learning process involves the active participation of cognitive processes in receiving and processing external information, regardless of its source, as well as the effective use of advanced teaching methods and tools based on the theories of cognitive psychology. Furthermore, these learning processes not only support the continuous professional development of the teacher but also accelerate the learning process, enhance student engagement, and coordinate teacher-student relationships. The main goal of cognitive learning processes is to ensure that each learner fully understands and comprehends the received information. Developing cognitive activity is one of the essential factors in modern education. To improve the quality of education, increase students' interest in acquiring knowledge, and foster them as independent and critical thinkers, it is necessary to apply appropriate pedagogical approaches and technologies. By stimulating cognitive activity, the effectiveness of education can be significantly improved.

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