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PSYCHOLOGICAL FEATURES OF STUDENTS' THINKING PROCESS AND ITS IMPACT ON THE QUALITY OF EDUCATION

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Annotation. This article analyzes the psychological characteristics of the formation of the thinking process in students and its impact on the quality of Education. It is argued that thinking as the highest form of human consciousness manifests itself in theoretical, analytical-synthetic, critical and creative approaches. The student period is the most important stage in the development of thinking, during which such skills as deep mastery of knowledge, independent and critical thinking, solving problem situations, a creative approach are formed. The effective course of these processes will serve to improve the quality of education, make students succeed in future professional activities. The article also highlights the theories of psychologist scientists and the importance of the development of thinking in the educational process on a scientific basis.

Keywords: thinking process, student, quality of education, psychological characteristics, analytical thinking, critical thinking, creative thinking, independent reading, motivation

Today, the activity, independent thinking and creative approach of students in the educational process are of particular importance. The development of society, scientific achievements and the rapid flow of information require a high level of activity from human thinking. Therefore, the study of thinking processes in students, the analysis of its development characteristics and impact on the quality of education is one of the urgent issues of modern pedagogy and psychology.

From a psychological point of view, thinking is the highest form of human consciousness, the process of indirect and generalized reflection of the environment. In the studies of such scientists as S.L. Rubinstein, L.S. Vygotsky, J. Piaget, thinking is interpreted as the main criterion of personality development. The student period is the stage of the most active development of thinking, during which theoretical, analytical-synthetic, critical and creative forms of thinking are further strengthened. This process plays an important role not only in the assimilation of knowledge, but also in its application in practice.

The quality of education is understood as the extent to which the knowledge, skills and qualifications acquired by a student meet modern requirements and standards. The quality of education is directly related to the development of students' thinking. A student whose thinking is independent, critical and creatively developed understands knowledge deeply, can apply it in various situations, and can find a new approach to problematic situations. From this point of view, the scientific study of students' thinking processes, determining their impact on the quality of education, as well as revealing the psychological characteristics of this process are of great scientific and practical importance. This article is devoted to this issue and analyzes the specific features of the thinking process in students and its impact on educational effectiveness.

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In psychology, thinking is considered the most complex and highest level of activity of the human mind. Through it, a person indirectly, generalizedly reflects reality and on this basis creates new knowledge, ideas and decisions. According to L.S. Vygotsky, thinking is formed in a social environment, in the process of communication, and develops through education. S.L. Rubinstein interprets thinking as a unity of the processes of analysis, synthesis, comparison and generalization.

The student period is considered the highest stage of development of thinking. During this period, a person's scientific worldview is formed, theoretical thinking, independent conclusions, reasoning and critical assessment skills develop. J. Piaget's research noted that student age corresponds to the "formal-operator" stage of thinking, in which a person is able to perform logical operations with abstract concepts.

Thinking is the highest level of cognitive process of the human mind, which allows us to understand the essence of phenomena, events and objects in the external environment, to understand their interrelationships. The student period is the most important stage in the development of thinking. Because it is during this period that a person develops the ability to think logically, generalize concepts, solve problem situations and make creative decisions.

Psychologists (L.S. Vygotsky, J. Piaget, A.N. Leontyev) argue that the development of thinking processes is formed through activity and communication in the educational process. Students enrich their thinking by analyzing, comparing, generalizing, and identifying cause-and-effect relationships while mastering new knowledge.

J. Piaget's theory of cognitive development plays an important role in the stages of thinking. According to him, students between the ages of 17 and 22 are in the formal operational stage, where they are able to perform complex logical operations, formulate hypotheses, and draw theoretical conclusions.

Also, in B. Bloom's taxonomy of approximate learning objectives, the stages of thinking consist of the processes of knowing, understanding, applying, analyzing, synthesizing, and evaluating, and these stages indicate the intellectual development of students.

Stages of the formation of the thinking process in students

- -The development of the thinking process occurs in several stages:
- -The stage of knowledge acquisition. At this stage, the student hears, reads new information and forms initial concepts.
- -Analytical-synthetic stage. The acquired knowledge is deeply analyzed, generalized, and interconnected. At this stage, the student also understands interdisciplinary connections.
- -Independent thinking stage. The student is able to apply their knowledge to real-life situations, learns to make independent decisions and approach problems creatively.
- -Creative thinking stage. In this stage, new ideas, innovative approaches, and creative thoughts emerge.

The role of the teacher and the educational environment is important in these processes, and encouraging students to think independently accelerates their intellectual development.

Factors influencing the development of thinking in students

A number of internal and external factors influence the effective development of the thinking process in students:

Internal factors: the student's intellectual potential, interest, motivation, self-confidence, level of attention and memory.

External factors: educational environment, teacher's pedagogical skills, use of interactive methods, participation in group work, use of modern technologies and information sources.

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From a psychological perspective, motivation and a positive emotional environment are of great importance in developing students' thinking. Because a motivated student is more active in the learning process, more inclined to independent thinking and creative approaches.

The process of thinking arises due to a person's need for knowledge, the desire to expand and deepen his knowledge of the surrounding world and life. The thinking of a thinking person is the perception and knowledge of an object, a characteristic feature of the thinking process. A person thinks about the things he perceives. Therefore, concepts think about a whole class, a group of things, that is, they become the object of thinking. There can be no dry thinking that is not based on something. Analysis, synthesis, comparison, abstraction and generalization, classification and systematization are the main types of mental operations.

It is through thinking that we are able to know the essence of things and phenomena in the material world. Therefore, direct perception, perception, imagination, and indirect thinking play an important role in knowing the world.

Thinking is a high form of human mental activity. Through thinking, we reflect in our minds things and phenomena that cannot be directly reflected with our sense organs. In general, there are internal relationships and laws between things and phenomena in the external environment that cannot be seen with the eye or heard with the ear. We learn about these internal relationships and laws through thinking. Therefore, thinking is the reflection of the most important connections and relationships between things and phenomena in our minds.

Conclusions

Studies and analyses show that the thinking process in students is the basis of their ability to acquire, process, and apply knowledge. The effectiveness of the thinking process directly affects the quality of education. Because the more developed thinking is, the more inclined the student is to think analytically, make independent decisions, find the right way out of problem situations, and show a creative approach.

From a psychological perspective, thinking is directly related to cognitive processes such as attention, memory, perception, and imagination, and is effectively developed through their harmonious functioning. Therefore, the development of thinking is not limited to providing knowledge, but is carried out by increasing the student's personal activity, encouraging independent thinking, and strengthening motivation.

References:

- 1. G'oziyev E. Umumiy psixologiya. Toshkent: O'zbekiston, 2010.
- 2. G'oziyev E. Psixologiya tarixi. Toshkent: Universitet, 2015.
- 3. Karimova V.M. Psixologiya. Toshkent: Oʻqituvchi, 2012.
- 4. Xodjayeva D. Pedagogik psixologiya. Toshkent: Noshir, 2018.
- 5. Ziyayeva F. Tafakkur va shaxs rivoji. Toshkent: Fan, 2016.
- 6. Raxmonqulova D. Talabalarda ijodiy tafakkurni rivojlantirish asoslari. Toshkent: Innovatsiya-Ziyo, 2021