

## PEDAGOGICAL APPROACHES TO FORMING ANALYTICAL THINKING SKILLS IN PUPILS

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**Abstract.** *In this article, the necessity of forming analytical thinking skills in students, its theoretical foundations, analytic, i.e., pedagogical interpretation of analytical thinking, psychological approaches to this problem, the role of problematic situations in the formation of analytical thinking in students, the importance of questions and dialogue, directions, parameters of analytical thinking formation, points of view in this direction views are analyzed. The article serves as a resource of special scientific value for the scientific and pedagogical community, teachers, authors of programs and textbooks, and researchers.*

**Keywords:** *analytical thinking, creative thinking, problem situations, questions, dialogue, point of view, teacher, student, independence of thought, subject-subject, subject-object relations, problem questions.*

In the psychology of thinking and the theory of problem-based education, teaching students to think analytically is gaining special relevance. On the basis of the development of the theory of problematic situations, the need to present new forms and methods of teaching students to think analytically is growing. Today, most experts promote creative problem solving. Specific aspects of this problem are directly related to situations of thinking about problems. When thinking about a creative approach to problems, it is necessary to dwell on problematic situations. It is also necessary to dwell on the result and process indicators of the productive solutions of this problem. When thinking about the objective and subjective aspects of creative problems, the novelty of the obtained results should be taken into account that the personal contribution of students in finding solutions is of particular importance. Analytical, that is, analytical activity of students is directed to the search for new knowledge. Analytical activity is primarily a product of analytical thinking. Analytical, that is, analytical thinking, is explained in the “Encyclopedia of Pedagogy” as follows: “a concept that means analytical study of pedagogical reality, phenomena and processes, their evaluation and expression of one's point of view. Analytical thinking makes it possible to understand the essence of pedagogical events and processes. At the same time, analytical thinking makes it possible to propose new ideas by analyzing generally recognized ideas in the field of pedagogy. Analytical thinking forms the skills of having one's own point of view, being able to defend it, critically analyzing and evaluating the opinion of others, without blindly following generally accepted ideas”.

The influence of problematic situations on individual thinking is a very complex pedagogical phenomenon. Understanding the mindset of a person is primarily assessed by solving problem situations. The theoretical interpretation of the concept of problem situations was put forward by S.L.Rubinstein. In the process of finding solutions within the subject-object relationship, the object appears as thought-provoking tasks. Situations that arouse interest in students are of particular importance when interactions in this process are faced with tasks that encourage the individual to think. The first stage of the thinking process is problem situations. It

is only when the student has a need to understand something that he begins to think. Thinking is usually done when problems and questions arise, when there is surprise or misunderstanding, when conflicts arise. Problem situations engage students in the thinking process. Completing the tasks is the completion of the thinking process. The main component of the thinking process is the motivated emotional part, which involves students in the process of solving tasks. The idea of developing the theoretical basis of thinking on problematic situations was put forward by the well-known expert A.M.Matyushkin.

A.M.Matyushkin was one of the first to identify the psychological structure of problematic situations. At the same time, he also defined the laws that are relied upon to provide solutions to these problems. According to A.M.Matyushkin, the psychological structure of problematic situations embodies three parts:

1. Knowledge needs. This need directs the reader to search for the unknown.
2. Intellectual and personal capabilities of a person. These possibilities are the basis for solving problems.
3. To discover new unknown things.

A.M.Matyushkin proposed three ways of finding solutions to problematic situations. The first branch is management of motivational, emotional areas of thinking. This means setting students tasks that require thinking and ensuring their activity in the process of finding a solution to them, that is, creating cognitive activity. In this process, the first step of completing tasks is important.

Within the second network, the intellectual and creative capabilities of students are of particular importance. The concept of productivity of thinking is important in realizing the intellectual potential of students. It is directly related to the manifestation of cognitive activity in learners. As a result, students will have creative research motives. This is how the idea of creative talent was born. The main author of this idea is A.M.Matyushkin. The creative talent of the person goes back to the research point of view. The basis of the research point of view is the motive of knowledge, the idea of an in-depth approach to solving problems. The basis of talent is the creative capabilities of a person. In this process, cognitive motivation takes a leading place. Its main features are research activity and a desire to create. This concept has received its rationale in many studies. For example, E.I.Sheblanov proposed to interpret talent as a psychological system, and N.B.Shumakova was able to research the problem of general talent of students. From the pedagogical point of view, the problems of talent, logical, independent, critical thinking are expressed in the works of R.Safarova, J.Musaev, G.Akramova, O.Korakhanova.

The third strand focuses on researching issues related to the development of students' ability to discover news. The approach of relying on the social experience of a person as a factor of discovering new knowledge in problematic situations is put forward.

Solving problems based on social experience requires students to have analytical thinking skills. Finding solutions to problematic situations for students is a complex didactic task, which cannot be done without analytical thinking. Analytical thinking can be used to find ways to overcome difficulties in finding solutions to problematic situations. There is a need to search for new knowledge based on the analytical study of past and present experiences. Analytical thinking is manifested as a mechanism that creates cognitive activity in students and directs them. Dialogue as a method of creative thinking is a means of overcoming difficulties in finding creative solutions to problematic situations. In the dialogue process, the individual's thinking enters subject-object,

subject-subject relations. At this point, one can think about the dialogic thinking of the person. In this process, educational tasks appear as an object of thinking. In the process of dialogue, different points of view that provide a solution to the problem are presented. In this process, creative solutions to specific problems are found. In order to find a creative solution, students should acquire analytical thinking skills. The dialogic nature of student thinking requires an interlocutor or listener. Only then, students will be able to express their thoughts through words. Therefore, teachers should try to create an environment of intellectual dialogue during the educational process.

Z.Kholmatova's research sought a solution to the problem of bringing elementary school students into a dialogue environment, while N.B.Shumakova's research revealed the importance of questions, answers and solutions to them.

In the learning process, questions appear as expressions of problematic situations. At first, subjects of the educational process are addressed separately. It is approached first from the point of view of ontogenetic development, then from the point of view of self-relation. Experts have identified two types of students' cognitive activity based on questions and methods of solving them.

1. Problematic type of cognitive activity. Students are asked questions. These questions are aimed at conveying the nature of the problem to the students. Students are asked questions, and they find answers to them independently.

2. The practical aspect is described. Students are asked questions of a formal nature to answer. It ensures that the questions have a clarifying nature, and the students try to answer independently.

Teachers should be familiar with the mechanisms of supporting the cognitive activity of elementary school students and be able to use it in their place. Because cognitive activity serves the systematic development of creative thinking in students. As a result, students will acquire analytical thinking skills in order to find independent solutions to problems and approach them creatively. The parameters of finding creative, independent solutions to problems require students to think analytically. For this, students should know the nature of problematic situations well. Because finding solutions to problematic situations requires students to think analytically.

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