



METHODOLOGY FOR DEVELOPING CRITICAL THINKING OF PRIMARY EDUCATION STUDENTS

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Abstract: In this article, there are opinions based on scientific analysis about the methodology and methods of developing the critical thinking of future elementary school students in the process of higher education.

Key words: Primary education, methodology, model, critical thinking, objectivity, Integration skills, design.

Introduction.

Having reviewed various sources and analyzed them, we found that the content of the concept of critical thinking of future primary education teachers is the teacher's thinking, which is pedagogical facts and events that are taken into account when solving pedagogical situations and problems. involves evaluating the thought process that leads to conclusions about. Thinking process is a mental and practical activity. Based on this definition and studying the works of famous foreign and domestic authors, a model for developing critical thinking of future primary education teachers was developed.

The study of the problem of critical thinking shows the need to develop sufficiently important criteria and indicators that allow to assess the level of its manifestation. In the psychological and pedagogical literature, as mentioned above, attempts have been made to emphasize such indicators. Scholars have generally considered criticality to be a quality of intelligence. When talking about evaluation, A. I. Lipkin, L. A. Rybak focused on the quality of criticality such as objectivity, S. I. Veksler still included significance, concreteness. A. S. Bayramov considered the depth of the student's access to the essence of the recognized object, the method of solving the problem and the essence of the approach to the object of knowledge as critical indicators.

An analysis of studies devoted to the identification of pedagogical conditions that help to solve specific educational problems shows that most scientists distinguish 3 main groups:

- **personal** (behavior, activity, communication, personal qualities of subjects of the educational process, psychological foundations of the educational process);
- **information** (educational content; cognitive bases of the pedagogical process);
- **technological** (forms, tools, methods, techniques, stages, methods of organizing educational activities; procedural methodological bases of the educational process).

The question of the technological conditions for the formation of critical thinking is problematic because there are different opinions. If we consider the point of view of foreign researchers, R. Paul believes that it is necessary to teach criticality by opposing the opinion of other scientists, while M. Russell, criticality in people is determined by the presence of certain

stable innate norms, standards in their minds, they say. According to W. Stern, the ability to suggest (a quality opposite to criticality) depends on age.

However, many studies have shown that in certain educational conditions, when a special task is set to stimulate the development of certain qualities, students can show higher forms of mental activity. There are different approaches to the problem of determining pedagogical conditions for the formation of critical thinking.

The first approach reflects the formation of critical thinking in the process of identifying, correcting and rejecting errors. In the work of A. S. Bayramov, pictures and texts were used as presented material, the logical structure of their content contributed to the manifestation of criticality. In addition, three types of instruction are specially designed to guide students to solve critical problems, problem situations, and put them in a position where they need to demonstrate independence and criticality and activate their thinking. The first type of instructions only formed the task set before the students; the second type of instructions revealed the possibility and conditions for students to show intellectual criticality; the third type of instructions focused students' attention on individual shortcomings, inconsistencies in the texts.

Thus, various approaches to the formation of critical thinking were based on the active activities of future elementary school teachers. Researchers associate the formation of criticality as a quality of thinking mainly with the mastery of learning activities such as monitoring and evaluation. However, the range of skills that make up the essence of critical thinking is much broader and includes not only the skills of monitoring and evaluation.

Some authors associate the formation of critical thinking as personal characteristics with mastering the structure of educational activities. S. I. Veksler, A. I. Lipkina, L. A. Rybak studied the problem of formation of critical thinking in the educational process. A. S. Bayramov, D. Jumaliyeva talk about the need to include educational exercises and instructions in the educational process. G. I. Bizenkov, I. A. Ivanova considered the problem of forming morally critical thinking in extracurricular materials. V. M. Sinelnikov, V. S. Koneva considered the problem of formation of critical thinking as personality traits in educational activities. David Wood and B. Russell identified what they described as a set of thinking skills:

Focusing abilities: selection of information, elimination of all that is irrelevant in this particular situation-problem identification: needs, contradictions, explanation of unclear situations, setting goals: direction and goal determination;

The ability to gather information: clarifying and observing the information necessary for the thinking process, obtaining information using one or more sensory systems, formulating questions, finding new information through questions;

Organizational skills: effective use of information - comparison, i.e. similarities and differences between or among objects, classification, grouping and labeling objects according to their characteristics, representation: changing the form of information, but not its essence ;

Analytical skills: explain existing information by examining its parts and relationships - identify attributes and components, identify features or parts of something, identify relationships and concepts, identify methods that contain elements, identify main ideas . Identifying the main element, such as the hierarchy of main ideas in the message or organizing reasons, identification errors, misstatements or other errors can be identified and corrected;



Integration skills: communication and combination information-gathering: effectively integrate information into a coherent statement; reconstruction: changing existing knowledge into new information.

In our opinion, these effective tools were critical thinking development program. Its authors are American teachers D. Steele, K. Meredith, C. Temple and S. Walter. The structure of the methodological tool proposed by the authors is coherent and logical, as its stages correspond to the natural stages of the cognitive activity of a person.

To date, this international training program has been recognized as one of the 25 recommended practices for crisis prevention and peacebuilding around the world. Designed to support active learning and critical thinking, the project operates in 30 countries on four continents and supports the continuous professional development of teachers worldwide. The main goal of the project is to help teachers change the way they work in the classroom, active research, formation of perspectives, problem solving, critical thinking, collaborative learning, alternative assessment methods, thinking.

The project offers a unique set of learning methods, as a result of which the student can participate more actively in classes. The unique feature of organizing the educational process based on this three-stage model is that during the educational process, the student himself forms this process based on real and clear goals, he has the opportunity to independently monitor the directions of his development. He determines the final result.

The taxonomy of pedagogical goals developed by the American scientist B. Blum is widely used in world pedagogical practice. The author classifies learning objectives according to the areas of activity of the student.

Basically, pedagogical goals are formed in the cognitive sphere, in which B. Bloom emphasizes several levels. Bloom also distinguished several types of questions and systematized the possible types of questions according to the components of cognitive activity. In the table below, we present the correlation of the level of cognitive behavior with the types of questions on Bloom's taxonomy above.

Like other taxonomies, Bloom's taxonomy is hierarchical because higher levels of knowledge depend on the acquisition of basic knowledge and skills at lower levels.

When teachers provide opportunities for students to process information in a unique way, it leads to them turning to different types of learning. The deeper students get into an idea, the better they remember it, remember it longer and use it several times in the future, which leads to the formation of thinking such as critical thinking. Having studied different approaches to the formation of critical thinking, we identified the third group of conditions reflected in the structural model of the formation of critical thinking. It is based on the process and includes methods, forms, methods, tools of this process, including traditional and non-traditional methods. Also, we have developed several author's methods and methods to form critical thinking based on ethnopedagogical materials.

Summarizing the material presented on the problems of forming critical thinking, we can say the following:

1. The thinking of future primary education teachers has great potential and underutilized resources. One of the main tasks of psychology and pedagogy is to reveal these reserves to the end and make learning more effective on this basis;
2. The most important point in the training of future primary education teachers is the transition to independent selection and understanding of information;

3. Pedagogical conditions are external conditions that have a significant impact on the development of the pedagogical process, consciously built by the teacher to one degree or another. In order to determine the pedagogical conditions that help the formation of critical thinking, the science of pedagogy relies on the experience of psychologists who have studied the formation of critical thinking from different positions;

4. In the science of pedagogy, there are several main approaches to the formation of critical thinking of future primary education teachers.

The first approach reflects the formation of critical thinking in the process of identifying, correcting and rejecting errors.

A second approach is to teach students to write reviews.

The third approach is the formation of critical thinking in two stages.

The fourth approach - the formation of critical thinking as a personal trait is carried out by students at the same time as they master the structure of educational activities.

For the effectiveness of the process of developing the critical thinking of future primary education teachers, the following are necessary:

- ❖ to know the nature of critical thinking of a person and its pedagogical concept;
- ❖ to know the criteria of the level of formation of critical thinking and to be able to determine it according to the indicators using the well-known methodologies and the methods proposed by us;
- ❖ to know the model of development of critical thinking of future primary education teachers, its purpose, content and methods of each separate stage;
- ❖ being able to use forms of cognitive activity that contribute to the most effective development of critical thinking;
- ❖ to have traditional methods and methods of organizing students' educational activities, as well as methods developed by us;
- ❖ to have the technology of organizing educational activities based on the three-stage model of the thinking process (stimulation, realization of value, reflection);
- ❖ Being able to analyze students' actions and own actions based on Bloom's taxonomy;
- ❖ striving to create a learning environment that provides a conducive learning environment.

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