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## **DEVELOPMENT OF CRITICAL THINKING OF FUTURE PRIMARY SCHOOL TEACHERS IN THE PROCESS OF PROFESSIONAL TRAINING**

### **Summary**

The article presents an understanding of critical thinking as one of the most important skills of a modern person of the XXI century, as well as the place and role of the higher education system in the process of its formation. The need for future primary school teachers to master critical thinking is due to the social demands of society, because the teacher plays an important role in the formation of critical thinking of students. The article contains the interpretation of the concept of "critical thinking" from the standpoint of humanities and social sciences: philosophy, logic, psychology, pedagogy, etc., presents the features of critical thinking; its structure is presented: it is the value orientations of the individual; knowledge - general, professional and related to the awareness of the problem and information processing; the ability to build effective communication; high-level thinking skills.

The development of critical thinking of future primary school teachers in the process of professional training should be based on such scientific approaches as systemic, competence-based, personality-oriented, activity-based, axiological, acmeological.

The development of critical thinking of higher education applicants is carried out in the process of professional training through the mastering of basic and elective educational components, in particular the discipline "Technologies of critical thinking", the passage of various types of educational and industrial practices, the formation of skills to solve professionally oriented problems in conditions of uncertainty and is based on the reflection of educational activities.

The technology of development of critical thinking of future primary school teachers is presented, which is implemented in the educational process of Ivan Franko Zhytomyr State University. This technique consists of three stages: actualization-analytical, awareness, reflexive.

**Keywords:** critical thinking, systematic approach, competence approach, personality-oriented approach, activity approach, axiological approach, acmeological approach, technology of forming critical thinking of future primary school teachers

### **Introduction**

Information technologies have a significant impact, sometimes destructive, on social and personal consciousness in modern society. Therefore, the problem of critical thinking development is becoming increasingly important.

The World Economic Forum has recognized critical thinking as one of the most important skills of a modern person of the XXI century, which is the ability to find, analyze and evaluate information from various sources, resistance to manipulative influences of the media and society, making informed decisions, finding effective ways to solve problems [1].

The task of modern higher education is not only to provide relevant professional knowledge, but in the conditions of life in the information society to prepare a primary school teacher who deeply knows and understands his role in society, is able to creatively use the acquired knowledge in practice, critically evaluates what has been achieved. Therefore, it is of great importance to increase the efficiency of learning and the quality of knowledge, the formation of life and professional competence of modern youth, by means of innovative technologies and active teaching methods, including the technology of critical thinking.

Considerable attention to the development of critical thinking is paid in the legislation of Ukraine dedicated to educational issues, namely the Law of Ukraine "On Education", the Concept of Education Development in Ukraine for the period 2020-2025, the Concept of the New Ukrainian School, etc.

According to the concept of the New Ukrainian School, critical thinking is one of those cross-cutting skills that every student must master along with ten key competencies that form the basis for the formation of a Ukrainian school graduate as a holistic, comprehensively developed personality, a patriot with an active civic position, an innovator capable of changing the world around him. And this is possible only with the participation of a teacher who himself has the skills of critical thinking [4].

### **Aims, subject and method of research**

The aim of the study is to substantiate the need for the development of critical thinking of future primary school teachers in the process of professional training and to present the appropriate pedagogical technology.

The subject of the study: the process of developing critical thinking of future primary school teachers in the process of professional training.

Research methods: systematic and comparative analysis of theoretical and methodological, scientific, methodological, psychological and pedagogical literature; generalization of theoretical data; study of the experience of introducing innovative technologies in the educational process of higher education institutions.

### **Research results**

A modern teacher has not only to analyze and use pedagogical experience, but also to think ahead to ensure that the educational process meets the needs of society. The formation of critical pedagogical thinking of the future teacher is one of the possible ways to solve educational problems.

The problems of critical thinking development are the object of research of many humanities and social sciences: philosophy, logic, psychology, pedagogy, etc. Thus, in the works of A. Binet, J. Dewey, J. Piaget, A. Stern and others, the problem of critical thinking is considered from the standpoint of psychology. The pedagogical scientific space dealt with this problem by S. Voropay, O. Korzhuyev, K. Korsak, T. Oliynyk, O. Pometun, V. Popkov, Y. Stezhko, A. Tyaglo, M. Sheremet and others [6], [8].

Thus, the work "Didactics of Higher School" by A. Korzhuev, V. Popkov [10] presents the concept of "critical thinking style of students" - the level of formation of skills and abilities of reflective and evaluative activity. The authors identified the following features:

Based on the analysis of the results of scientific research on the problem of critical thinking, recognizing the powerful impact of modern information and communication technologies on humans, we confirm the idea of the importance of the skill of a modern person to think critically and be media literate. Critical thinking can be seen as an analytical attitude to information influence, resistance to manipulation

We note the contradiction between the requirements of modern society for primary school teachers and the focus of their professional training on the formation of relevant

competencies, however, the insufficient focus of the educational process on the development of future primary school teachers' high-level thinking skills (analysis, synthesis, comparison, generalization, systematization, etc.).

One of the main tasks of the professional training of future primary school teachers, on which the success of improving the modern education system in Ukraine depends, is the formation of pedagogical thinking, characterized by a high level of analysis of pedagogical situations, synthesis, forecasting of the educational process, reflection and allows the teacher to organize their actions accordingly in order to purposefully solve the problems of teaching and educating students.

The works of V. Sukhomlynsky draw attention to the fact that critical thinking is an active attitude to the phenomena of the surrounding life, the desire to learn and know, systematic, that is, purposeful selection of objects of knowledge, concepts, conclusions, flexibility, independence, criticality. The definition of the term "critical thinking" in Ukraine is given in the "Concept of Civic Education and Upbringing in Ukraine", developed by the project "Education for Democracy in Ukraine" [2]: "Critical thinking is the ability of a person to overcome the tendency to unambiguously dogmatic perception of the world, the ability to analyze a problem from different sides, to use information from different sources, distinguishing objective fact from subjective opinion about it, logical deduction from biased assumption or prejudice.

This is the ability of a person to adequately determine the causes and preconditions of the problems existing in his life, the willingness to make efforts to overcome them in practice, not just rhetorically,

Critical thinking, according to L. Terletska, has such characteristics as insight, consistency, independence, flexibility, speed, strategic thinking [7]. E. Polat in the pedagogical theory of developmental learning presents the following features of critical thinking: analytical, associative, independent, logical, systematic.

Based on the features of the professional activity of a modern primary school teacher, critical thinking should be characterized by awareness, independence, reflexivity, purposefulness, validity, controllability, self-organization.

H. Tsioma [9] interprets critical thinking as an intellectual process of applying high-level thinking skills (analysis, synthesis, generalization, systematization, subjective and objective evaluation of information through experience, reasoning, communication and reflection), which involves clarity, accuracy and coherence of thoughts and the relevance and fairness of conclusions.

D. Chaffee identified the signs that can be used to recognize a person who thinks critically:

- openness to other opinions, that is, the ability to listen carefully to other views, to evaluate different ways of overcoming the problem;

- competence - the desire to substantiate one's opinion with the help of real facts and knowledge of the case;

- intellectual activity - demonstration of intellectual initiative in confrontational situations, indifferent perception of events;

- curiosity - ability to penetrate into the essence of information sources; - independence of thinking - lack of fear of disagreement with the group, inability to uncritically follow the opinions of others

- ability to discuss - attentive attitude to opposing opinions, ability to put forward ideas that unite;

- insight - the ability to penetrate into the essence of the issue, the phenomenon of information, not to be sprayed on small details;

- self-criticism - understanding the peculiarities of one's thinking [11].

The development of the relevant features of critical thinking will be more effective if the appropriate scientifically based pedagogical technology is used in the educational process.

The structure of critical thinking of a specialist is the value orientations of the individual; knowledge - general, professional and related to the awareness of the problem and information processing; ability to build effective communication; high-level thinking skills.

The development of critical thinking of future primary school teachers in the process of professional training should be based on such scientific approaches as systemic, competence-based, personality-oriented, activity-based, axiological, acmeological.

The system approach considers the development of critical thinking of students in the process of professional training as a holistic system that has a goal, objectives, components and focus on the result - a graduate with developed critical thinking, able to promote its development in primary school students.

The competence approach focuses on the formed competencies of the future teacher and the relevant program results of his/her professional training. The information and communication competence is the ability to navigate in the information space, use open resources, information, communication and digital technologies, operate them in professional activities.

The personality-oriented approach to the development of critical thinking focuses on the appropriate interaction between teacher and student in the educational process.

Critical thinking is independent, individual for each student. The teacher helps to learn to analyze information independently, to argue their own opinion in the process of interaction with classmates (group work, debates, discussions, analysis of written works and scientific articles, etc.)

From the standpoint of the activity approach, the basis for the development of critical thinking of future primary school teachers in the process of professional training is an activity that promotes the development of an active attitude of the subject of learning to reality, aimed at developing high-level thinking skills and takes place in clearly defined conditions of educational activity.

The axiological approach to the formation of critical thinking of future primary school teachers is based on understanding the essence and social nature of values, provides for the formation of a humanistic position of the teacher, value-dialogue interaction of all subjects of the educational process.

The acmeological approach to the development of critical thinking is aimed at personal and professional self-realization of the graduate, the desire to acquire new knowledge and improve the acquired skills throughout life.

The development of critical thinking of higher education applicants is carried out in the process of professional training through the mastering of basic and elective educational components, in particular the discipline "Technologies of critical thinking", the passage of various types of educational and industrial practices, the formation of skills to solve professionally oriented problems in conditions of uncertainty and is based on the reflection of educational activities.

An important condition for the development of critical thinking is its independence. Students should have freedom of choice in thoughts, judgments, expressions of their own views. In conditions of such freedom, they will be able to make the most of their intellectual potential and master the skills of adequate perception, objective evaluation and competent processing of information, formulation of reasoned judgments.

Critical thinking of future teachers is considered primarily as one of the aspects of reflection - a quality that plays a crucial role in the process of choosing, regulating and evaluating their own pedagogical actions. The teacher uses theoretical methods of cognition in order to analyze knowledge, its structure and content, controls his/her actions, including mental ones, monitors the logic of his/her own thought, realizes the contradictions that cause the

movement of thought and specific actions, carries out a dialectical approach to the analysis of the situation, taking into account the positions of different participants in the educational process, etc. Critical thinking necessarily involves both positive and negative evaluation in one form or another. This assessment of the thinking process itself, the course of reasoning that was taken into account when making a decision, and the result - the correctness of the decision, successful or unsuccessful actions of the teacher.

Revealing the content of the technology of forming critical thinking of students, N. Maksymenko emphasizes its important features:

- 1) subjects of learning are equal among themselves;
- 2) students openly discuss this or that issue, learn not only about each other's ideas, but also about personal reasoning - argumentation of ideas;
- 3) the teacher is a facilitator, he/she only advises, models the thinking process, supports students, demonstrates how to think critically, formulates ideas of reasoned thinking, encourages respect for different points of view, questions conclusions and knowledge both his/her own and others and encourages students to work critically in the same way, gives advice more for the purpose of correcting their activity than criticizing or evaluating it;
- 4) there is an atmosphere of search and openness;
- 5) an educational environment is created where students feel safe and free;
- 6) the educational space is built in such a way as to make cooperation and communication easy and natural;
- 7) work on the development of critical thinking should be carried out not only in the classroom, but also when performing independent work or individual tasks and provide for constant search, mental stress of future specialists;
- 8) expectation of ideas, expression of opinions in any form, their range can be unlimited, and hypotheses can be diverse, non-trivial;
- 9) appreciation of the opinions of others, the realization that in order to find the optimal solution to the problem it is very important to listen to all the opinions of interested people in order to be able to finally formulate their own opinion, which can be adjusted in collective activity;
- 10) belief in the strength of the student, support of his/her active position in learning to achieve the goal of real satisfaction from gaining knowledge, which stimulates the desire to think outside the box, critically. The author believes that under such conditions, future teachers turn into individuals capable of discovering new ideas and information throughout their lives and transforming it into practical skills and abilities [3].

The technology for the development of critical thinking of future primary school teachers is implemented in the learning process when studying both compulsory and elective educational components and consists of three stages: actualization-analytical, awareness, reflective.

At the actualization-analytical stage, students self-analyze their knowledge and experience. This process activates memory and thinking about understanding and assimilation of new knowledge. Students are asked to recall what they know about the issue, how they understand certain facts, rules and principles. Thus, the acquired knowledge is brought to the level of consciousness and becomes the basis for learning new ones, information is rethought, and an effective connection between existing and new knowledge is created in the memory. Thus, personal knowledge passes to the level of self-awareness, own "scheme" for thinking about a certain topic or idea is formed.

The second stage is awareness - assimilation of the content, which involves direct acquaintance of the student with new information through listening to lectures, studying the text, watching a movie, performing an experiment, etc. The teacher stimulates students to analyze, synthesize, compare.

The third stage is comprehension (reflection). At this stage, students comprehend new material, adapt new concepts in their own knowledge system.

The technology at this stage changes in the personal and professional spheres of future specialists, in particular, the formation of critical thinking, enrichment of value orientations, development of moral qualities of attentive, caring attitude to children, responsibility, sense of duty, pedagogical tact, etc.

The presented structure of the content of the technology allows to focus on the enrichment of the personal and semantic sphere, relationships, experiences and awareness of the values of the teaching profession, the development of pedagogical abilities. Against the background of ethical, intellectual experiences, the clash of different opinions, views, positions, general pedagogical, scientific, pedagogical and methodological knowledge, various options for solving professionally oriented pedagogical tasks and cognitive tasks, the student is involved in the analysis, evaluation and selection of personally significant content of pedagogical education.

When studying according to the method of critical thinking development, students have to go through three stages in mastering the material, as each of them reflects the corresponding link in the learning process: perception → comprehension → application. The technology of critical thinking development allows students to simultaneously and more effectively form a



number of key competencies. First of all - the "ability to learn", that is, the ability to acquire knowledge independently. Students learn to organize their work to solve actual problems and achieve the desired result, acquire skills of self-control, self-esteem, self-improvement. Cooperation of future teachers with each other and with the teacher contributes to the formation of social competence. Students learn to jointly identify problems and goals of activities, to cooperate effectively, to be proactive and responsible for decision-making, to reasonably overcome disputes. Cooperation with the teacher and their friends allows you to consistently, overcoming difficulties, go to the goal.

### **Conclusions**

The development of critical thinking of future primary school teachers is thus ensured by a set of conditions, namely:

- 1) learning objectives should meet the social order of society for primary school teacher training and the goals of personal and professional growth of each student;
- 2) the content of training is presented in a rational combination of basic and elective educational components in the educational and professional program "Primary Education", the study of the discipline "Technologies of critical thinking" by students;
- 3) introduction of technology for the development of critical thinking;
- 4) effective combination of forms of learning (individual, group, collective), the importance of independent work of students;
- 5) control and self-control of the process of critical thinking development, which involves group and individual reflection (analysis, self-analysis, self-evaluation, self-criticism).

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