

PSYCHOLOGICAL AND PEDAGOGICAL ASPECTS OF DEVELOPING CRITICAL THINKING SKILLS OF STUDENTS IN HIGHER EDUCATION INSTITUTIONS

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***Abstract.** In this article, the psychological and pedagogical aspects of the development of critical thinking skills of students of higher education organizations are widely covered. At the same time, the analysis of the concept of "critical thinking" and the stages of critical thinking are presented.*

***Keywords:** critical thinking, motivation, understanding, thinking, reasoning and proving.*

INTRODUCTION. In the modern social reality and the context of the digital economy, the development of critical thinking skills has become a necessary attribute in preparing individuals for life in a civil society, social cooperation, and the overall functioning of society. This attribute is important for various aspects such as developing ideas and visions that reflect the team's ultimate goals, networking, collaboration, joint activity, communication, formation of a moral and psychological environment within the team, leadership, development of new methods, independent decision-making, and training of specialists with general and professional skills necessary for flexibility, initiative, and teamwork. From this perspective, the development of critical thinking skills within the framework of universal and professional competencies serves as the object of research.

LITERATURE ANALYSIS. To broadly justify the content of our research, we have studied research works from the Republic, the CIS, and foreign countries that focus on developing critical thinking skills among students in higher education institutions. It has been established that the generalisation of the theoretical and methodological foundations of this problem and the development of critical thinking skills among students in higher education institutions is a socio-pedagogical necessity.

F.O. Khodjiyeva justified the need to creatively combine ideas and opportunities in mental activity, concentrating and reanalyzing information [4]: the mental preparation of students is crucial for acquiring critical thinking skills, determining their own opinions, stabilising their confidence, and implementing pedagogical situations aimed at fostering collective critical thinking among students of a certain class.

R.R. Mambetkarimov conducted research on the pedagogical aspects of developing analytical thinking in students. The author improved the pedagogical possibilities of developing analytical thinking by using interactive educational content that aims to foster free thinking in individuals. This approach is based on the inductive integration of creativity and factors related to national pride, as well as the provision of information security for creative thinking [2].

Kh.Kh. Nekboyev, through research on improving the professional-critical approach of future teachers based on media education, achieved the development of a professional-critical approach in preparing students for pedagogical professional activities within the media education

environment. This was done by demonstrating students' abilities to acquire a profession, foster creativity, and adopt a critical approach [3].

G.R. Akramova studied the problem of improving the system of preparation for social relations by focusing on the development of critical thinking in students. The author believes that the process of developing critical thinking skills among students is carried out by prioritising social and creative activities in cooperation and gradually determining the effectiveness of thinking strategies and activating critical observation skills [4].

The analysis of scientific, methodological, and pedagogical sources related to our research problem revealed that the development of scientific-pedagogical and psychological conditions for the development of critical thinking has been the subject of foreign research. Many researchers consider the following competencies as the most relevant for ensuring the effective implementation of professional and social activities among specialists: finding and using information effectively, problem-solving, making informed decisions, working effectively in groups, communication, leadership, intercultural communication, and analytical and critical thinking skills.

Early research on critical thinking was conducted by the American theorist-scientist and educator John Dewey, who defined this process within the discourse of reflective thinking as "...the active, consistent, and careful consideration of any idea or assumed form of knowledge" [7].

American educator Robert Ennis, a prominent theorist of the concept of critical thinking, defines it as "the process of making thoughtful decisions about what to do and what to believe" [5]. Ennis emphasises that a critical thinker should possess certain training and skills, such as assessing the reliability of sources, argumentation, and drawing reasonable conclusions [6].

American scientist David Klooster has focused on a particular aspect of the genesis of critical thinking and formulated the following opinion: "critical thinking occurs when new, already understood ideas are tested and evaluated" [8]. Klooster highlights five aspects of the problem: independent thinking (forming assessments and beliefs independently of others), motivation, asking questions and understanding the problems to be solved, supporting decisions with reasonable arguments (argumentation), and social thinking and polemics.

Russian pedagogue Sergiusz Hessen notes the following aspects within the didactic-philosophical discourse of the problem: determining the laws of the cognitive process, attitude towards the process of searching for truth, self-directedness of the cognitive process, and development of necessary thinking qualities [9].

Analysing current trends in educational development, M.V. Klarin goes beyond the rationalist, intellectual framework of thinking. Klarin emphasises the importance of a clear statement of the problem, sequential review of complex wholes, manifestation of sensitivity and understanding of other people's feelings, and the application of critical thinking abilities in real-life situations [10].

According to researcher A.F. Mamleyeva, critical thinking serves as a motivating factor for independent scientific research, encourages the identification of contradictions in received information, and stimulates the search for new knowledge [11]. In scientific sources, critical thinking is often described as a two-wave movement (Richard W. Paul). The "first wave" of critical thinking is often referred to as "critical analysis," which involves pure, rational thinking that includes criticism.

THE RESULT. From the above, it can be observed that critical thinking involves making clear, reasoned judgments. In the process of critical thinking, ideas must be proven, thoroughly considered, and evaluated. In our research, critical thinking is interpreted as a component of cognitive thinking, encompassing rational, critical, creative, and non-standard thinking. In our view, critical thinking aims at acquiring knowledge and manifests itself in reflection, perception, and evaluation of this knowledge. It is characterised by control, independence, validity, logic, and purposefulness. The analysis of scientific sources and the results of our observations have allowed us to interpret the concept of critical thinking in terms of "discussion," "evaluation," "analysis," "conclusion," and "thinking and expression of opinions."

While the concept of "critical thinking" is often associated with evaluation, it is important to understand its positive aspects. Within the framework of our research, we have clarified the positive possibilities of critical thinking, such as research, discussion, analysis, feedback, and evaluation. Our study of scientific sources on critical thinking and our observations have shown that critical thinking is related to various types of thinking, including creative, abstract, associative, figurative, analytical, and critical thinking. Based on this, the development of critical thinking skills is expected to foster the development of personal qualities such as independence, curiosity, a broad worldview, fairness, flexibility, perseverance, aspiration, readiness to plan, endurance, readiness to correct mistakes, and independent decision-making.

The difference between critical thinking and traditional thinking has been determined when identifying the important aspects of developing students' critical thinking skills in higher education institutions (see Table 1).

Table 1

The Difference Between Critical Thinking and Traditional Thinking

| Student Activity | Critical Thinking | Traditional Thinking |
|------------------|---|--|
| The Goal | Analysis and evaluation of information | Accepting information without deep analysis |
| Ask a Question | Questioning assumptions and evidence | Reliance on personal assumptions and beliefs |
| Evidence | Relying on evidence, reasoning, and data | Relying on traditions, norms, and common beliefs |
| Open-Mindedness | Considering different points of view and accepting new ideas | Opposition to alternative views or ideas |
| Scepticism | Questioning information, looking for flaws and reliable sources | Accepting information without critical evaluation |
| Reflection | Reflecting on your own thought process and assumptions | Relying on habitual responses or conventional thinking |
| Problem Solving | Identifying problems, developing creative solutions, and considering consequences | Relying on tradition or convention to make decisions |

Based on the above considerations, the elements of critical thinking can be defined as follows:

- Critical thinking is independent thinking.
- Information serves as the foundation of critical thinking.
- Critical thinking begins with identifying and formulating the problem that needs to be addressed.
- Critical thinking involves seeking reliable evidence.
- Critical thinking also encompasses social thinking.

The basics of critical thinking can be divided into three stages or phases: motivation, understanding, and thinking (reasoning). The motivation stage marks the beginning of critical thinking, where students' interest is sparked, questions arise, and reasons for acquiring knowledge are formed. Following that, the understanding phase begins, during which students are motivated to search for information. Finally, the thinking stage is the culmination, where students are encouraged to summarise their knowledge, compare it with existing knowledge, evaluate answers to their questions, and formulate new questions if necessary. They are also encouraged to apply their knowledge in problem-solving situations, such as using, discussing, and defending the information they have obtained.

CONCLUSION. Based on the above considerations, critical thinking skills provide students with various opportunities, including:

- Accelerating the thinking process.
- Developing the ability to set goals and independently search for ways to achieve them.
- Cultivating the ability to make independent decisions in problematic situations and find solutions to problems.
- Developing collaborative skills and the ability to work effectively in teams.
- Fostering the ability to form and express independent opinions through observation, comparison, analysis, and interpretation.
- Enhancing communication skills, including the ability to interact with society and individuals and establish effective communication.
- Acquiring the ability to express and substantiate one's opinions.
- Developing information literacy skills.

In conclusion, the mechanism of critical thinking involves reasoning and mental operations related to reasoning, such as setting goals, identifying problems, formulating hypotheses, presenting evidence, justifying arguments, making predictions, and considering alternative viewpoints. These processes contribute to the overall process of reasoning and critical thinking.

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