PSYCHOLOGICAL AND PEDAGOGICAL FOUNDATIONS OF DEVELOPING CREATIVE THINKING IN FUTURE TEACHERS

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Abstract. This article examines the psychological and pedagogical foundations of developing creative thinking among future teachers. In modern education, creativity is considered one of the most important professional competencies because it enables teachers to organize innovative educational environments and effectively adapt to changing pedagogical conditions. The research analyzes the influence of psychological factors such as motivation, emotional stability, independent thinking, communication skills, and cognitive flexibility on the formation of creative competencies. The article also highlights the pedagogical importance of interactive teaching methods and innovative educational technologies in strengthening creativity among future specialists. The findings show that integrating psychological and pedagogical approaches creates favorable conditions for improving professional competence and creative activity in teacher education.

Keywords: pedagogy, psychology, creative thinking, future teachers, professional competence, motivation, innovative education, cognitive flexibility, pedagogical technologies, psychological development.

Introduction. The modernization of education and the rapid transformation of social relations require teachers who are capable of independent thinking, innovation, flexibility, and effective communication. Modern schools and higher educational institutions no longer need specialists who only transfer theoretical knowledge to students. Instead, society requires teachers who can organize interactive educational

environments, motivate learners, solve pedagogical problems creatively, and adapt to constantly changing educational conditions. Therefore, creativity has become one of the most important competencies in professional teacher training.

The development of creative thinking is closely connected with both pedagogical and psychological factors. Pedagogy studies the methods, technologies, and organizational conditions necessary for effective teaching and learning, while psychology explains the cognitive, emotional, motivational, and behavioral processes influencing personality development. Integrating these two fields allows researchers and educators to understand how creative competencies are formed and how future teachers can develop innovative professional skills.

Psychological studies show that creativity depends on factors such as motivation, imagination, emotional stability, self-confidence, divergent thinking, and communication abilities. At the same time, pedagogical research emphasizes the role of interactive teaching methods, collaborative learning, project-based activities, and innovative educational technologies in stimulating creativity. Thus, the formation of creative thinking requires both psychological readiness and supportive pedagogical conditions.

In teacher education, creativity is especially important because teachers influence not only academic achievement but also students' intellectual, emotional, and social development. Creative teachers are more successful in organizing engaging lessons, encouraging students' independent thinking, and creating positive classroom environments. They are also more capable of adapting teaching methods according to students' individual characteristics and educational needs.

However, traditional educational approaches focused mainly on memorization and reproduction of information often limit creative activity among students and future teachers. In many cases, learners become passive participants in the educational process and have limited opportunities to express independent ideas or solve problems

creatively. Therefore, modern pedagogical reforms increasingly emphasize innovative educational technologies and student-centered learning approaches.

The purpose of this article is to analyze the psychological and pedagogical foundations of developing creative thinking among future teachers and to determine the factors influencing the formation of creative professional competencies.

Materials and Methods. The research was conducted using theoretical and qualitative analysis of scientific literature related to pedagogy, psychology, creativity, and teacher education. Modern psychological theories and pedagogical approaches concerning creative thinking development were comparatively analyzed.

The study applied descriptive, analytical, and comparative research methods. Scientific publications, pedagogical manuals, psychological studies, and educational experiences connected with creativity development in higher education institutions were used as the main theoretical sources of the research.

Special attention was given to the analysis of psychological factors influencing creativity, including motivation, emotional stability, communication skills, self-confidence, and cognitive flexibility. Pedagogical conditions supporting creativity development through interactive teaching methods and innovative educational technologies were also examined.

Results and Discussion. The analysis demonstrated that the development of creative thinking among future teachers depends on the interaction of psychological and pedagogical factors. One of the most important psychological factors influencing creativity is motivation. Students with strong intrinsic motivation demonstrate greater interest in educational activities, actively participate in discussions, and show higher levels of independent thinking. Motivation stimulates intellectual curiosity and encourages future teachers to search for innovative solutions during professional activities.

Cognitive flexibility was identified as another essential factor determining creativity. Creative individuals are capable of analyzing problems from different perspectives and generating multiple solutions for the same task. Such abilities are especially important in teaching because educational situations often require flexible decision-making and adaptation to students' needs. Future teachers with developed cognitive flexibility are more capable of organizing student-centered and innovative learning environments.

The study also showed the important role of emotional stability in creative professional development. Educational activities often involve stress, responsibility, and communication difficulties that may negatively influence creativity and professional confidence. Students with developed emotional self-regulation skills are better able to maintain productivity and creative thinking in challenging situations. Positive emotional states increase openness to new ideas and support active participation in collaborative learning activities.

Self-confidence significantly influences the development of creative thinking as well. Future teachers who believe in their abilities are more willing to express original opinions, experiment with teaching methods, and participate actively in practical educational activities. Fear of criticism or failure may limit creative expression and reduce professional initiative. Therefore, psychologically supportive educational environments are necessary for encouraging creativity among students.

Communication skills and social interaction were also identified as important components of creative professional development. Interactive educational activities such as group discussions, debates, project-based learning, and role-playing methods create opportunities for exchanging ideas and improving collaborative thinking. Through communication with peers and teachers, students develop broader perspectives and strengthen critical and analytical thinking abilities.

From a pedagogical perspective, the research confirmed that innovative teaching technologies contribute significantly to creativity development. Traditional lecture-based approaches often reduce students' activity and limit opportunities for independent learning. In contrast, interactive methods such as brainstorming, problem-solving tasks, case studies, multimedia technologies, and collaborative projects stimulate intellectual activity and strengthen creative competencies.

Project-based learning was found to be especially effective because it allows students to apply theoretical knowledge in practical situations. Such activities improve responsibility, communication skills, analytical thinking, and creativity simultaneously. Similarly, role-playing methods help future teachers develop imagination, empathy, and communication competencies necessary for professional success.

The integration of psychological and pedagogical approaches creates favorable conditions for developing creative thinking among future teachers. Psychological support strengthens students' self-confidence and emotional stability, while pedagogical technologies provide opportunities for active participation and independent learning. Educational institutions that combine these approaches are more successful in preparing competitive and innovative specialists capable of adapting to modern educational demands.

The findings also indicate that creativity should not be considered only an individual characteristic but rather a professional competency that can be developed through systematic educational work. Teachers who possess creative thinking abilities are more capable of motivating students, organizing effective learning environments, and introducing innovations into the educational process.

Conclusion. The research demonstrated that the development of creative thinking among future teachers depends on the integration of psychological and pedagogical factors. Motivation, cognitive flexibility, emotional stability, self-

confidence, communication skills, and reflective thinking were identified as essential psychological conditions influencing creativity development.

The study also confirmed that innovative pedagogical approaches and interactive teaching technologies significantly contribute to strengthening creative competencies among students. Educational environments encouraging independent thinking, collaboration, experimentation, and emotional support create favorable conditions for professional and personal development.

Therefore, higher educational institutions should pay special attention to integrating psychological and pedagogical approaches in teacher training programs. Developing creativity among future teachers contributes not only to professional competence but also to improving the overall quality of education and preparing specialists capable of responding effectively to modern social and educational challenges.

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