

SCIENTIFIC-THEORETICAL APPROACHES TO THE DEVELOPMENT OF
CREATIVE ABILITIES IN FUTURE TECHNOLOGY TEACHERS

Khayitov Jonibek Kholboboyevich

Shahrisabz State Pedagogical Institute

Senior Teacher of the Department of Art Studies,

Doctor of Philosophy in Pedagogical Sciences (PhD)

Shahrisabz, Uzbekistan

E-mail: xayitovjonibek77@gmail.com

Tel: + 998 93 891 85 11

Annotation: This article explores the issues of developing creative abilities in future technology teachers from a scientific-theoretical perspective. The article analyzes the concept of creativity, its importance in pedagogical processes, and methods of forming the creative potential of teachers in the process of teaching technology science. Additionally, methodological and psychological approaches that serve to develop innovative thinking and creative approaches in future teachers, as well as their scientific foundations, are examined. The article provides a theoretical basis and practical recommendations for the effective development of teachers' creative abilities in the educational process.

Keywords and concepts: future technology teachers, creative abilities, creative thinking, innovative pedagogy, pedagogical approach, scientific-theoretical foundations, educational process, teacher potential, methodological approaches, innovative thinking, professional development.

Introduction: In the modern educational process, the creative abilities of a teacher are one of the important factors determining the effectiveness of their professional activity. Future teachers of technology science need not only to possess theoretical knowledge but also to have the ability to apply innovative and creative approaches in practice. The development of creative abilities plays a significant role in enhancing the teacher's professional potential in the educational process, preparing students to work effectively with modern technologies, and implementing pedagogical innovations [1]. From this perspective, researching the scientific-theoretical foundations of forming creative abilities in future technology teachers and identifying effective methods for their application in the educational process is considered a pressing task.

Literature Review: In recent years, the issues of developing the creative potential of teachers have been researched by many scholars in the fields of pedagogy and educational sciences. Research shows that creative ability is the personal potential of a teacher to creatively solve complex pedagogical tasks and strive for the effective application of new methods and educational technologies. Researchers such as T.V. Slastyonina have analyzed in detail the psychological-pedagogical conditions and methods for forming creative thinking in teachers [2]. According to them, developing creative approaches requires incorporating variability, experimentation, communication, and reflection into the educational process.

In scientific literature, the concepts of "creative pedagogy" and "innovative pedagogical competence" are widely discussed. For example, V.A. Slastenin and A.V. Shchukin emphasize the importance of the socio-psychological environment in forming pedagogical innovations in teachers. Their research shows that the development of creative abilities depends not only on individual personal characteristics but also on the organizational-methodological conditions of the pedagogical process [3].

In the literature on improving the qualifications of technology teachers, strategies for teaching innovative methods and pedagogical technologies are also widely covered. For instance,



N.V. Kuzmina focuses on active pedagogical methods, project-based learning, and problem-based teaching in stimulating the creative activity of teachers. These approaches strengthen the ability of future technology teachers to accept and implement new pedagogical ideas. Additionally, several researchers have demonstrated the effectiveness of differential and individual approaches in forming creative abilities. These approaches allow for the development of educational strategies tailored to the individual growth needs of students, which serves to fully unlock the personal creative potential of teachers.

The criteria for assessing creativity in future teachers have also been specifically studied in the literature [4]. For example, G.V. Serikov identifies components such as intellectual flexibility, original thinking, and speed of problem-solving when evaluating the results of creative activity. Overall, existing scientific sources analyze the development of creative abilities from psychological, pedagogical, and methodological perspectives, while also supporting the effectiveness of innovative approaches in training technology teachers. These studies serve as a foundation for the scientific-theoretical basis provided in the article and allow for a deeper study of methods related to developing creative abilities in future teachers.

Research Methodology: In this article, literature was analyzed and existing studies were examined in order to determine the scientific-theoretical foundations for developing creative abilities in future technology teachers. During the research process, the concept of creative ability, its main components, and conditions for development were studied using the analytical method; methodological approaches to forming creative potential in the process of teacher training and innovative pedagogical technologies were systematically reviewed through a systems approach [5]. Furthermore, the results of various studies were compared and generalized, which made it possible to identify effective approaches for developing creative abilities in future technology teachers. Based on the obtained data, a scientific-theoretical model representing the pedagogical and psychological foundations for forming creative abilities was developed using theoretical construction methods. These methodological approaches enable the identification of theoretical foundations for developing creative potential in future teachers and the development of practical recommendations; moreover, the research results can subsequently be reinforced by experimental and empirical studies.

Analysis and Results: Based on the studied literature and scientific sources, a number of theoretical aspects of developing creative abilities in future technology teachers are identified. The research results show that the formation of creative abilities is closely related to the professional potential of teachers, and they need to be capable of accepting innovative pedagogical approaches, effectively implementing new methods and technologies, as well as creatively solving problematic situations. Analyses indicate that active pedagogical methods, project-based learning, working with problematic situations, and an individual approach are the most effective in developing creative thinking [6]. At the same time, the development of creative abilities in teachers is reinforced by psychological and methodological conditions: pedagogical competence, the ability to plan the educational process, and apply innovative methods stand out as the main indicators of creative potential.

As a result, it was determined that scientific-theoretical foundations exist for developing creative abilities in future technology teachers, which serve to enrich pedagogical processes with innovative and creative approaches. Furthermore, the research shows that developing criteria for assessing creativity and formulating recommendations for encouraging creative activity helps to increase the effectiveness of the educational process. In this way, the obtained results make it possible to determine effective directions for the systematic development of creative abilities in future technology teachers.



Conclusion and Recommendation: The research results show that developing creative abilities in future technology teachers enables them to enhance their professional potential and effectively apply innovative approaches in the educational process. Based on the scientific-theoretical analysis, it has been determined that active pedagogical methods, project-based learning, working with problematic situations, and an individual approach are the most effective in forming creative thinking. Furthermore, the development of teachers' creative abilities is reinforced by psychological, methodological, and organizational conditions, which serves to increase their pedagogical competence.

On this basis, the following recommendations were developed for the process of training future technology teachers: it is recommended to expand modules and activities that develop creative and innovative activity in curricula, introduce creative approaches in pedagogical practice, as well as create a system for assessing and encouraging teachers' creative abilities. These measures will enable the systematic development of future teachers' creative potential and make the educational process more effective and modern.

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