

PAPER

DEVELOPMENT OF CREATIVE THINKING COMPETENCIES OF FUTURE PRIMARY SCHOOL TEACHERS BASED ON INNOVATIVE TECHNOLOGICAL TASKS

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Abstract

This article analyzes the development of creative thinking of future primary school teachers based on innovative technological tasks from a scientific and theoretical perspective. The concept of creative thinking, its role in pedagogical activity, and the effectiveness of innovative approaches in the educational process are examined. The importance of technology-based tasks in developing independent, critical, and creative thinking competencies of future teachers is substantiated. The research findings contribute to improving the quality of teacher training in the primary education system.

Key words: creative thinking, innovative technologies, technological tasks, primary education, future teacher, pedagogical competence.

INTRODUCTION

In the context of contemporary societal development, the processes of globalization and the rapid advancement of digital technologies are imposing new qualitative demands on the education system. In particular, the preparation of pedagogical professionals who possess innovative thinking and are capable of applying creative approaches in

their practical activities is emerging as one of the most pressing tasks of modern education. Primary education represents the foundation of individual development; therefore, the creative thinking of teachers working at this stage plays a crucial role in fostering pupils' independent thinking, problem-solving abilities, and creative engagement. From this perspective, improving the mechanisms for developing creative thinking among future

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primary school teachers especially through the organization of the educational process based on innovative technological tasks constitutes one of the priority scientific and pedagogical issues in contemporary educational research. This approach serves to elevate teachers' professional preparation to a qualitatively new level.

LITERATURE REVIEW

In pedagogy and psychology, the issue of creative thinking is interpreted as being intrinsically linked to an individual's intellectual development, professional competence, and innovative activity. Scientific studies conducted in this field demonstrate that the content, methods, and technologies of education play a decisive role in shaping the creative potential of future teachers.

According to the concept of divergent thinking proposed by J. Guilford, creativity is defined as the ability to analyze a problem not from a single perspective, but from multiple viewpoints, and to generate several alternative solutions. Within the context of pedagogical activity, this approach serves as a key factor in ensuring teachers' flexibility, methodological autonomy, and readiness for innovative thinking in the instructional process. This theoretical framework constitutes a foundational basis for the integration of innovative tasks into the training of future primary school teachers.

The scholarly works of E. Torrance substantiate the crucial role of the educational environment and specially designed tasks in the development of creative thinking. The researcher argues that creative thinking does not emerge spontaneously; rather, it develops through a purposefully organized educational process that is problem-oriented and conducive to free thinking. This approach enables the activation of future teachers' independent decision-making and creative engagement through innovative technological tasks.

H. Gardner's theory of multiple intelligences conceptualizes creative thinking in relation to an individual's diverse intellectual capacities. Emphasizing the necessity of considering learners' individual creative potential, Gardner scientifically substantiates the possibility of developing creative competencies through a variety of learning activities. This perspective highlights

the effectiveness of employing digital platforms, project-based learning, and practical tasks in the preparation of primary school teachers.

D. Kolb's experiential learning model further supports the notion that creative thinking can be developed through the transformation of knowledge within real-life activities and its application in practice. According to this model, learners are not passive recipients of information but active participants in the learning process. Consequently, the significance of innovative technological tasks in fostering reflective and creative thinking among future teachers is substantially enhanced.

Research conducted by national scholars also places particular emphasis on the development of creative thinking among future teachers. Their academic perspectives interpret educational processes organized on the basis of innovative pedagogical technologies, interactive methods, and a competency-based approach as essential factors in ensuring teachers' professional and creative preparedness. In particular, learning activities grounded in technological tasks are recognized as effective means of promoting independent thinking, creative problem-solving, and professional reflection among students.

Overall, the analyzed scholarly perspectives indicate that the development of creative thinking in future primary school teachers is inherently connected with innovative technological tasks. The systematic integration of such tasks into the educational process contributes significantly to enhancing the effectiveness of pedagogical training.

ANALYSIS AND RESULTS

In instructional sessions organized on the basis of innovative technological tasks, the development of creative thinking competencies of future primary school teachers is carried out in alignment with the content of the Primary Education Pedagogy course. In this process, the integrated application of interactive methods such as project-based learning, problem-based learning, case study, clustering, and brainstorming is considered pedagogically appropriate. These methods contribute to the development of students' abilities to analyze pedagogical situations, generate alternative solutions, and apply them in practical professional activities. Moreover, the use of technological tasks

designed on digital educational platforms, along with visual and multimedia tools, activates students' independent inquiry and supports the formation of creative approaches. As a result, the instructional process is oriented toward transforming students from passive participants into active and creative subjects of learning.

This scientific research is aimed at examining the pedagogical process as a holistic system and employs an integrated set of general scientific, empirical, and specialized pedagogical research methods. At the theoretical stage, the methods of analysis and synthesis were used to conduct an in-depth study and systematic review of scholarly sources related to creative thinking, innovative technologies, and the pedagogical essence of technological tasks. During the empirical phase, pedagogical observation was applied to identify qualitative changes in the learning activities of future primary school teachers, while the comparative method was used to analyze the results of the control and experimental groups. Diagnostic methods were employed to assess the level of development of students' creative thinking, and experimental testing was conducted to verify the validity of the proposed research hypothesis.

Within the framework of the study, innovative technological tasks were developed based on project-based instruction, pedagogical modeling of problem situations, the use of digital educational resources, and the integrated application of interactive exercises. These tasks were designed to activate future teachers' creative thinking and to foster independent and creative approaches to professional pedagogical situations. The results of the experimental work clearly demonstrated that the educational process organized on the basis of innovative technological tasks has a positive impact on the development of creative thinking among future primary school teachers. In the experimental group, the interactive and problem-oriented nature of the learning process led to qualitative changes in students' attitudes toward their professional activities.

Specifically, the formation of creative approaches to pedagogical practice was significantly strengthened, and students' skills in analyzing problem situations and developing non-standard yet effective solutions were enhanced. In addition, students increasingly demonstrated the ability

to make independent decisions, justify their viewpoints, and engage in critical analysis. These outcomes confirm the pedagogical effectiveness of innovative technological tasks in developing professional and creative competencies. The obtained results are consistent with existing theoretical perspectives, indicating that the application of innovative approaches in the educational process constitutes a crucial factor in fostering the creative potential of future teachers.

Based on the research findings, it can be concluded that innovative technological tasks serve as highly effective didactic tools for developing creative thinking in future primary school teachers. Their systematic, goal-oriented, and methodologically well-founded integration into the educational process contributes to the deepening of teachers' professional competencies, the enhancement of creative approaches in pedagogical practice, and the overall improvement of the quality of primary education. This approach provides a solid foundation for preparing future educators as competitive, innovative-thinking professionals who meet the demands of modern education.

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