

# TRANSFORMATIVE EDUCATION APPROACH BASED ON DEVELOPING FUTURE TEACHERS' PEDAGOGICAL CREATIVITY COMPETENCE TECHNOLOGY

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## Abstract

This article is dedicated to studying the technology for developing future teachers' pedagogical creativity competence based on the transformative education approach. Pedagogical creativity is defined as the teacher's ability to create innovative approaches, develop new ideas, and solve pedagogical problems effectively during the educational process. The study analyzed the creative thinking levels of a sample group consisting of 111 teachers. The results showed that 27% of the participants had an average level of creative thinking, 38% had a high level, and the remaining participants demonstrated a low level of creative thinking. The study also explored the importance of the transformative education approach in developing pedagogical creativity and its application in practice. The article emphasizes the necessity of implementing modern technologies and methodologies to enhance pedagogical creativity competence. Furthermore, recommendations for developing creative thinking in the education system are provided.

## Introduction

In modern education systems, pedagogical creativity plays a significant role in enhancing teachers' professional activity and the effectiveness of the educational process. Pedagogical creativity refers to a teacher's ability to apply their knowledge and skills in innovative ways, develop new approaches, and improve the educational process. This competence helps not only in the development of the teacher's internal creative abilities but also in discovering effective teaching methods for students.

The transformative education approach focuses on understanding the processes of change and development, shaping students' creative and critical thinking abilities. The importance of this approach in the education system lies in introducing teachers to modern pedagogical methodologies and the implementation of new approaches and technologies. The main goal of transformative education is to foster mutual understanding, exchange of ideas, and collaboration between students and teachers during the educational process.

Developing future teachers' pedagogical creativity competence is crucial in preparing teachers who meet the demands of modern education. In this context, the technology for developing



pedagogical creativity plays a key role in promoting innovative thinking and the development of new pedagogical ideas and methods.

This article discusses the importance of the transformative education approach in identifying and developing future teachers' pedagogical creativity competence, examining methodological approaches, and analyzing the technology used. The study analyzed test results from 111 teachers, and the findings highlight the necessity of applying effective technologies in developing pedagogical creativity.

### Literature Review

A number of researchers and scholars have worked in the field of pedagogical creativity and transformative education approach. This literature review helps in understanding the role and significance of transformative education in developing pedagogical creativity and its impact on teacher training.

### Pedagogical Creativity and Its Development

Pedagogical creativity refers to a teacher's ability to adapt to changes, innovations, and new challenges in the educational process. To develop this, it is necessary for teachers to possess creative and critical thinking skills, as well as the ability to develop new pedagogical approaches and methods. One of the key researchers in this field is J.P. Guilford, who conducted numerous studies on measuring and developing creative thinking. He evaluated creative thinking across several dimensions, including flexibility, originality, fluency, and elaboration. This methodology has become the primary tool for identifying pedagogical creativity.

Additionally, E. Paul Torrance developed the Torrance Test of Creative Thinking (TTCT), which is one of the most widely used tools for measuring creative thinking. Torrance emphasized that pedagogical creativity develops not only through external factors but also through internal motivation and personal interests. His work also discusses not only general approaches to creative thinking but also individual characteristics of teachers and how they implement innovations in the educational process.

### Transformative Education Approach

The transformative education approach is focused on changing the educational process and promoting mutual understanding and learning between students and teachers. **Jack Mezirow**, a key figure in transformative education, advocated for helping students change their thinking patterns and develop critical thinking skills. According to Mezirow, transformative education enables students to acquire new knowledge and also reconsider their existing worldviews. This approach plays a crucial role in developing pedagogical creativity competence, as teachers' ability to implement new methods and effectively teach students is based on this very approach.

### Pedagogical Creativity and Transformative Education

Several studies have explored the connection between pedagogical creativity and the transformative education approach. Thinkers such as John Dewey and Vygotsky emphasized



the importance of developing creative thinking within the educational process. Dewey explained how a teacher's approach plays a key role in shaping students' creative thinking. Vygotsky, on the other hand, emphasized the significance of social and cultural contexts in developing creative thinking, arguing that the educational environment pushes students to rethink and generate new ideas.

### **Developing Pedagogical Creativity in Uzbekistan**

In Uzbekistan, there is a growing emphasis on developing pedagogical creativity within the education system. Scholars such as G'oziyev, Shoumarov, and Davletshin have conducted numerous studies on fostering pedagogical creativity. Their work stresses the need for innovative teaching technologies and modern methodologies to enhance creative thinking. Furthermore, the application of the transformative education approach in Uzbekistan's education system is seen as a significant factor in developing pedagogical creativity.

### **Research Methodology**

The goal of this study is to identify and analyze the technology for developing future teachers' pedagogical creativity competence based on the transformative education approach. Empirical and sociological methods have been used to explore effective methodologies for developing pedagogical creativity. A sample group of 111 active teachers was involved in the research. The study focused on measuring creative thinking levels and analyzing the effectiveness of the pedagogical creativity development technology based on the gathered data.

The main methodological approach of the research was based on a quasi-experimental design, with the creative thinking levels of teachers measured through various indicators. The Torrance Test of Creative Thinking (TTCT) was used as the first measurement tool, evaluating teachers' creative thinking based on flexibility, originality, elaboration, and fluency. Additionally, the research explored the influence of the transformative education approach through the analysis of teachers' practical creative approaches and methods.

Empirical methods such as testing, observation, surveys, and interviews were employed in the research to assess the creative thinking levels of the participants. Surveys were provided to the teachers, asking about their use of creative approaches in the classroom and their opinions on transformative education. Interviews were also conducted with selected teachers to gather more in-depth information on their pedagogical methodologies and attitudes toward creative thinking and transformative education.

Statistical analysis techniques were used to process the data. Descriptive statistics helped to summarize the teachers' creative thinking levels and categorize them into high, average, and low levels. This analysis highlighted the differences in creative thinking and the role of the transformative education approach in developing pedagogical creativity. Additionally, comparison analysis was conducted to compare the creative thinking levels and the impact of the transformative education approach.



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**Results**

The results of the study confirmed the importance of the transformative education approach in developing pedagogical creativity. Creative thinking levels of the 111 participating teachers were measured using the Torrance Test of Creative Thinking (TTCT). The results indicated that 38% of participants demonstrated high-level creative thinking, 27% showed average-level creative thinking, and the remaining 35% exhibited low-level creative thinking.

**Flexibility (Adaptability) Results**

The results showed that teachers with high-level creative thinking demonstrated a variety of responses, providing detailed and expanded ideas. 38% of participants showed high flexibility, offering multiple responses to questions. Teachers with average-level creative thinking (27%) presented a few responses but faced difficulties in fully expanding their ideas or generating new ones. Teachers with low-level creative thinking (35%) often provided only one response, and their ideas were more conventional and limited.

**Originality Results**

Teachers with high levels of creativity (40%) generated unique and innovative ideas, successfully approaching pedagogical situations with new perspectives. Teachers with average-level creativity offered some new ideas, but tended to rely on conventional approaches. Teachers with low-level creativity often repeated existing methods and struggled to come up with original solutions.

**Elaboration Results**

Teachers with high creative thinking abilities successfully expanded their ideas and developed them further, providing in-depth analysis. 38% of the teachers in the high-level group enriched their responses with additional details and thorough elaboration. Teachers with average-level creativity occasionally expanded their ideas but struggled to do so comprehensively. Teachers with low creativity provided brief, underdeveloped ideas.

**Fluency Results**

Teachers in the high-level group quickly generated multiple responses, demonstrating fast thinking and creativity. 38% of these teachers quickly produced many creative responses, which successfully passed the test. Teachers with average creativity sometimes generated responses quickly but often produced general or simple ideas. Teachers with low creativity were slow and uncertain in their responses.

**Conclusion**

The results of the study demonstrate that the transformative education approach plays a crucial role in developing pedagogical creativity. The findings indicate that teachers with high levels of creativity successfully generate new ideas and innovative approaches, while those with average creativity face challenges in fully implementing creative thinking. Teachers with low creativity tend to rely on conventional methods and struggle with generating new ideas.



The results underline the importance of applying modern pedagogical technologies and methodologies in developing pedagogical creativity. The transformative education approach not only helps develop teachers' creative thinking but also enhances their ability to offer new methods and approaches to students.

These findings emphasize the need for the transformative education approach to be applied effectively in the education system to boost creative thinking in teachers and encourage the use of innovative teaching methods.

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