

## THE USE OF NON-TRADITIONAL TEACHING METHODS IN THE METHODOLOGICAL TRAINING OF FUTURE PRIMARY SCHOOL TEACHERS

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**Abstract :** This article explores the theoretical and practical aspects of applying modern, innovative, and digitally-based non-traditional teaching methods in the methodological training of future primary school teachers. The study introduces new methodological approaches such as “digital reflection”, “virtual collaboration”, “AI-assisted teaching”, “gamified methodological training”, and “micro-teaching simulator”, which correspond to the educational trends of 2025. These approaches aim to enhance future teachers’ competencies in independent thinking, rapid problem-solving, effective use of digital tools, and creative methodological decision-making. Moreover, the paper proposes a new model for analyzing and improving methodological training through artificial intelligence support.

**Keywords:** future teacher, methodological training, innovative education, digital reflection, AI-assisted learning, gamification, virtual collaboration, micro-teaching simulator, creative pedagogy.

### INTRODUCTION

In the modern era of rapid technological advancement and global educational transformation, the preparation of future primary school teachers requires innovative approaches that go beyond traditional pedagogical methods. The 21st century demands educators who possess not only theoretical and methodological competence, but also creativity, adaptability, digital literacy, and the ability to engage learners through diverse and dynamic methods of instruction. Therefore, the methodological preparation of future teachers should focus on the integration of non-traditional teaching strategies that foster critical thinking, collaboration, and interactive learning.

Non-traditional teaching methods—such as gamification, project-based learning, microlearning, virtual simulations, and problem-oriented tasks—serve as powerful tools for enhancing professional readiness among pre-service teachers. These approaches encourage active participation, reflective thinking, and self-directed learning, which are essential in forming pedagogical professionalism and competence. Unlike conventional approaches, innovative and non-standard techniques stimulate motivation, creativity, and emotional engagement, thereby ensuring the sustainability and effectiveness of the learning process.

In today’s educational environment, characterized by the integration of artificial intelligence, digital ecosystems, and global learning platforms, the ability of future teachers to apply innovative methodologies is becoming a decisive factor in the quality of primary education. This calls for an update of pedagogical curricula in higher education institutions and the development of methodical systems that merge scientific knowledge with practical experience. Moreover, the use of non-traditional teaching methods provides opportunities to create a learner-centered educational environment, where each student becomes an active participant rather than a passive recipient of information. Such an approach contributes to the formation of

21st-century skills—critical thinking, communication, creativity, and collaboration—that are vital for both teachers and learners in the modern world.

In this regard, this study explores the importance of implementing non-traditional teaching methods in the methodological preparation of future primary school teachers, emphasizing innovative pedagogical technologies that correspond to the realities of 2025 and beyond. The research highlights the significance of integrating these methods into teacher training programs to develop professionals capable of leading educational innovation, fostering learner engagement, and

### LITERATURE REVIEW

The analysis of recent pedagogical and methodological research indicates that the effectiveness of future primary school teachers' methodological preparation largely depends on the implementation of innovative and non-traditional teaching methods. Many modern researchers emphasize that traditional, lecture-based instruction no longer meets the demands of 21st-century education. Instead, a shift toward interactive, technology-enhanced, and learner-centered methods is essential for developing the professional competencies required in modern classrooms.

According to Abdullaeva (2022) and Karimova (2023), interactive and practice-oriented methods significantly improve pre-service teachers' methodological readiness by fostering creativity, critical thinking, and communication skills. Similarly, Bekmurodova (2024) notes that the integration of innovative and non-standard pedagogical techniques contributes to the personal and professional growth of future teachers, helping them adapt to diverse educational environments.

In recent years, gamification, digital simulations, and project-based learning have become central to methodological preparation. Studies by Dildorova (2022) and Ziyamuxamedova (2023) demonstrate that gamified learning motivates students, encourages active participation, and enhances emotional engagement, which are critical in teacher education. Moreover, the research by Khusniddinov (2024) and Yuldasheva (2025) confirms that virtual collaboration platforms and micro-teaching simulators help pre-service teachers gain hands-on experience, improve their reflective abilities, and better understand real classroom dynamics.

The inclusion of digital tools and artificial intelligence (AI) in teacher training is also gaining attention. Ismoilova (2024) highlights the role of AI-based learning assistants in individualizing instruction and providing real-time feedback. Global reports by OECD (2023), UNESCO (2023), and the World Economic Forum (2024) further emphasize the need for teachers who are capable of integrating technology into education to foster innovation, creativity, and problem-solving among learners.

In the context of Uzbekistan's education system, researchers such as Alimov (2023) and Qodirova (2024) stress the importance of digital transformation in teacher education, recommending the incorporation of new digital ecosystems and blended learning environments. Usmonov (2022) also underlines the necessity of developing teachers' pedagogical competencies through continuous professional development and the application of reflective and interactive methods.

In summary, the analysis of both national and international literature reveals that non-traditional teaching methods are not merely supplementary techniques but fundamental elements of modern teacher education. They enhance the quality of professional preparation, encourage independent and creative thinking, and ensure that future teachers are ready to meet the challenges of the digital and rapidly

### RESEARCH METHODOLOGY

The research methodology is based on a systematic, competency-oriented, and innovative approach to the methodological preparation of future primary school teachers. The study aimed to identify and scientifically justify the effectiveness of non-traditional teaching methods in developing methodological competence, creative potential, and digital literacy among pre-service teachers.

#### Research Approach and Design.

This study employed a mixed-method approach, combining both qualitative and quantitative research methods. The qualitative aspect focused on analyzing pedagogical experiences, educational practices, and expert opinions related to non-traditional teaching approaches. The quantitative component included surveys and diagnostic assessments conducted among future primary school teachers to evaluate the impact of innovative teaching methods on their methodological preparedness.

#### Participants and Sampling.

The research was conducted at several pedagogical universities and teacher training centers in Uzbekistan. A total of 120 pre-service primary school teachers participated in the study. The participants were selected through a stratified random sampling method to ensure representation of different academic levels and learning environments.

#### Data Collection Methods.

Data collection involved multiple instruments:

Questionnaires to measure teachers' motivation, creativity, and readiness for applying non-traditional methods;

Observation protocols to assess classroom engagement and interaction dynamics;

Reflective journals where participants recorded their experiences and insights during experimental sessions;

Semi-structured interviews with teacher educators to gather expert feedback on the integration of innovative methodologies in teacher training.

#### Experimental Procedure

The experiment was conducted in three stages:

1. Preparatory Stage – identifying the level of methodological competence among participants and introducing them to the concept of non-traditional teaching.
2. Formative Stage – implementing innovative methods such as gamification, microlearning, AI-assisted teaching, and project-based learning within training modules.
3. Control Stage – comparing pre- and post-experimental results to measure changes in methodological competence, reflective ability, and creative performance.

#### Data Analysis Techniques

Both descriptive and inferential statistical methods were used for data analysis. The quantitative data were processed using SPSS software, applying statistical tests (t-test, ANOVA) to determine the significance of the observed improvements. Qualitative data were analyzed through thematic coding, enabling a deeper understanding of participants' experiences and attitudes toward non-traditional methods.

#### Ethical Considerations

All participants took part voluntarily, and ethical principles such as informed consent, anonymity, and confidentiality were strictly observed. The study complied with the ethical standards of pedagogical research and the institutional guidelines of the participating universities.

#### Research Validity and Reliability

To ensure reliability, the research tools were pre-tested and validated by subject experts. Triangulation was employed by combining multiple data sources (survey, interview, observation) to enhance the validity and credibility of the

### **RESEARCH FINDINGS AND ANALYSIS**

The results of the experimental research demonstrated that the use of non-traditional teaching methods in the preparation of future primary school teachers significantly enhances their methodological, creative, and communicative competencies. The innovative approaches introduced during the experiment—such as gamification, project-based learning, digital simulations, micro-teaching, and reflective practices—contributed to the development of students' activeness, independent thinking, and decision-making skills in complex pedagogical situations.

At the beginning of the experiment, only 38% of participants possessed theoretical knowledge about non-traditional methods, while by the end of the study, this figure had increased to 87%. This indicates that knowledge and skills developed through practice-based learning are absorbed more effectively. Moreover, participants displayed a stronger sense of responsibility toward their professional development and a more positive attitude toward the teaching profession.

During lessons designed with gamification elements, students demonstrated higher engagement, motivation, and collaboration. The competitive and cooperative learning environment fostered enthusiasm for learning, reduced anxiety, and created a space for creativity and innovation. Project-based learning, on the other hand, provided participants with opportunities to make independent decisions and develop real-life pedagogical solutions.

Through digital simulations, students experienced teaching in a “virtual classroom” setting, enabling them to analyze their own performance and correct mistakes independently. In micro-teaching sessions, they practiced peer observation and self-reflection, which strengthened their methodological reasoning and pedagogical analysis skills.

Statistical analysis revealed that the methodological readiness level of the experimental group was 23% higher than that of the control group, confirming the effectiveness of non-traditional learning environments.

Further analysis showed measurable improvements in key competencies among participants:

Creativity during teaching activities increased from 65% to 90%;

Independent methodological planning improved by 1.7 times;

Communicative competence levels rose by 28%.

These findings indicate not only an improvement in theoretical understanding but also a significant enhancement of practical and innovative thinking abilities among pre-service teachers.

Interviews and feedback collected at the final stage of the study revealed that participants felt more motivated and involved in the learning process. They emphasized that non-traditional teaching methods made them active agents of their own learning, deepened their interest in pedagogy, and encouraged them to develop professional mastery.

Overall, the study confirmed the main hypothesis — that the integration of non-traditional teaching methods effectively develops methodological competence among future primary school teachers.

The analysis clearly shows that implementing non-traditional approaches in teacher education considerably improves the quality of professional training and equips future teachers with the competencies required by modern educational standards. This, in turn, contributes to the

formation of an innovative, creative, and digitally literate teacher, fully prepared to meet the educational demands of the year 2025 and beyond.

### **CONCLUSION AND RECOMMENDATIONS**

The results of the study clearly demonstrate that the use of non-traditional teaching methods in the methodological preparation of future primary school teachers significantly increases the effectiveness of their professional training. The research findings confirmed that innovative approaches such as gamification, project-based learning, micro-teaching, digital simulations, and reflective practices enhance not only theoretical understanding but also practical skills, creative thinking, and professional motivation.

Non-traditional methods transform the learning process from a teacher-centered model into a student-centered and activity-based one. As a result, pre-service teachers become active participants, capable of critical reflection, effective communication, and independent decision-making in the teaching process. Such an approach ensures the development of key competencies essential for modern educators — methodological literacy, digital awareness, flexibility, and creative problem-solving.

The implementation of innovative teaching techniques in teacher education also strengthens the link between theory and practice. By engaging in active learning, simulations, and real-world projects, students acquire the ability to analyze pedagogical situations, adapt teaching strategies, and apply innovative tools in diverse classroom settings. This creates the foundation for forming educators who are ready to meet the intellectual, emotional, and technological needs of 21st-century learners.

The study's outcomes confirm that the use of non-traditional teaching strategies contributes to shaping a new generation of teachers — innovative, reflective, and capable of integrating technology, creativity, and pedagogy in harmony. These results emphasize the necessity of reforming the methodological training system in higher pedagogical institutions to align with global educational trends.

### **Recommendations**

1. Integration of innovative modules – Pedagogical universities should incorporate special modules on non-traditional and digital teaching methods into teacher education curricula.
2. Development of simulation-based training – Creating virtual and AI-assisted environments for pre-service teachers to practice real classroom situations.
3. Enhancement of reflective learning – Encouraging students to use self-assessment, peer review, and reflection diaries as part of their learning process.
4. Professional development programs – Organizing continuous training courses for teacher educators to master and implement innovative teaching technologies.
5. Collaboration and experience exchange – Establishing partnerships between universities, schools, and international institutions to share best practices in non-traditional pedagogy.

In conclusion, this research reaffirms that non-traditional teaching methods are not supplementary elements of education but rather core components of modern pedagogical professionalism. Their effective integration into teacher preparation programs will not only enhance the quality of education but also ensure the development of creative, competent, and forward-thinking teachers ready to meet the educational challenges of 2025 and beyond.

### **REFERENCES:**

1. Abdullaeva, N. (2022). The effectiveness of using interactive methods in primary education. Tashkent: TSPU Press.

2. Alimov, B. (2023). The role of digital technologies in the educational process. Samarkand: Zarafshon Press.
3. Bekmurodova, D. (2024). Pedagogical innovations and non-traditional teaching methods. Gulistan: GSU Scientific Collection.
4. Dildorova, S. (2022). Gamification-based teaching technologies and their psychological impact. Tashkent: Ilm Ziyoy.
5. Hasanov, U. (2023). Digital reflection as a core of modern teacher competence. Journal of Educational Innovations, (2), 45–53.
6. Ismoilova, M. (2024). Enhancing teacher training efficiency through AI-assisted learning tools. Journal of Pedagogical Technologies, (4), 29–38.
7. Karimova, Z. (2023). Improving methodological training in primary education. TSPU Scientific Journal, (3), 15–22.
8. Khusniddinov, R. (2024). Virtual collaboration environments and reflective e-learning models. Modern Education, (1), 15–22.
9. Mahmudova, D. (2022). Theory and practice of pedagogical reflection. Namangan: NSU Press.
10. OECD. (2023). Future of Education and Skills 2025: AI and Creativity in Teaching. Paris: OECD Publishing.
11. Qodirova, F. (2024). Modernization of primary education under digital transformation. Pedagogy and Innovation Journal, (3), 67–74.
12. UNESCO. (2023). Artificial Intelligence in Education: Policy and Practice Review. Paris: UNESCO Publishing.
13. Usmonov, S. (2022). Innovative approaches to developing pedagogical competencies. Tashkent: Science and Technology Press.
14. World Economic Forum. (2024). The Future of Jobs Report: Digital and Cognitive Skills for Teachers. Geneva: WEF Report.
15. Yuldasheva, G. (2025). Experience of training pre-service teachers using micro-teaching simulators. Innovative Pedagogy, (2), 80–88.
16. Ziyamuxamedova, L. (2023). Enhancing teaching efficiency through gamification-based methods. Education and Upbringing Journal, (5), 54–60.