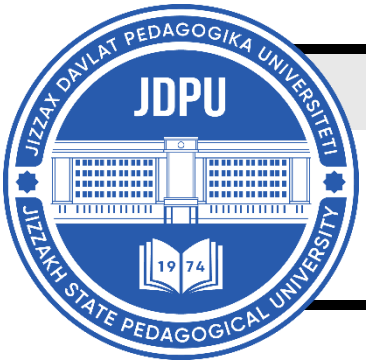
DOI: https://doi.org/10.37547/mesmj-V6-I5-07 Pages: 60-67

MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



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THE ESSENCE AND ANALYSIS OF DIFFICULTIES IN THE FORMATION OF CREATIVE THINKING IN PRIMARY SCHOOL STUDENTS

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ABOUT ARTICLE

Key words: primary school students, creative thinking, critical thinking, STEAM approach, divergent thinking, creative methods, cognitive development.

Received: 10.08.25
Accepted: 12.08.25
Published: 14.08.25

Abstract: This article provides information on the current problems in the formation of creative thinking in primary school students, the difficulties that students face in developing creative thinking and the reforms being implemented as a solution to these difficulties, as well as reforms aimed at developing creative thinking in primary school.

Introduction

Creative thinking refers to the ability to approach problems in innovative ways, imagine novel possibilities, and generate original ideas. The primary school stage is crucial for fostering this skill, as it is during this period that a child's thinking system and worldview begin to form [1]. Moreover, creative thinking encompasses solving problems in non-traditional ways, developing original ideas, imagination, and critical thinking. Cultivating this ability at the primary level is essential because it lays the foundation for future intellectual development. This process contributes to shaping the younger generation's capacity for independent thinking, creative problem-solving, and the adoption of innovative approaches. Creative thinking is a cognitive process that involves generating new, original, and valuable ideas or solutions. It transcends traditional modes of problem-solving by encouraging novelty, flexibility, and divergent perspectives. In educational and professional contexts alike, creative

thinking is increasingly recognized as a vital 21st-century skill, essential for innovation, adaptability, and progress[2]. Creativity is commonly defined as the ability to produce work that is both novel (original) and appropriate. Creative thinking, as a subset of creativity, includes mental processes such as imagination, ideation, and evaluation. According to Guilford, one of the pioneers in creativity research, creative thinking is largely associated with divergent thinking—the capacity to generate multiple possible answers to a problem.

- Key features of creative thinking include:
- Fluency: the ability to produce numerous ideas;
- Flexibility: the capacity to shift perspectives or approaches;
- Originality: the production of unique or rare ideas;
- Elaboration: the capacity to develop and refine ideas in depth[3].
- Analysis of Relevant Literature.

The Law of the Republic of Uzbekistan "On Education" and the Presidential Decree PQ-4119 "On Additional Measures to Improve the System for Monitoring the Quality of Education" [4] emphasize the need to update educational content and integrate creative approaches. Uzbek scholar Jamol Jalolov argues that teachers should possess not only deep subject knowledge but also innovative pedagogical methods. In Russia, the cognitive development of primary school students has been analyzed by psychologist Robert Semyonovich Nemov. Similar processes are considered essential in CIS and European countries, though various challenges and approaches exist. The diverse individual characteristics and developmental stages of students aged 6–10 complicate their engagement in creative activities. American psychologist Joy Paul Guilford defined creativity as “divergent thinking,” describing it as the ability to produce multiple solutions to a problem [5]. The Componential Theory of Creativity posits that creativity depends on domain-relevant skills, creativity-relevant processes (such as risk-taking and tolerance for ambiguity), and intrinsic motivation. Similarly, Sternberg's Triarchic Theory of Intelligence includes creative intelligence as a distinct form, emphasizing adaptability, novelty, and insightful problem-solving[6]. In the field of education, fostering creative thinking has become a central goal, particularly in the development of curricula and instructional methods. Creative thinking helps learners solve problems independently, express themselves innovatively, and adapt to changing environments. Studies suggest that classroom environments that encourage open-ended questions, student autonomy, and interdisciplinary learning can significantly enhance students' creative capacities[7]. Programs like the Torrance Tests of Creative Thinking (TTCT) have been widely used to assess and support the

development of creative potential among students[8]. Moreover, educational theorists emphasize that creativity is not limited to artistic subjects; it is relevant across disciplines, including science, mathematics, and language learning[9].

Research Methodology.

What factors currently hinder the development of creative thinking among primary school students in Uzbekistan? This study examines the reforms being implemented to enhance and refine students' creative thinking. Traditional pedagogical approaches used in Uzbekistan's general education schools primarily focus on memorization. This emphasis impedes the development of creativity. Fostering creative thinking in students is a growing educational priority, in alignment with 21st-century skills development. Various pedagogical methodologies have been adopted to stimulate creativity, emphasizing student-centered learning, problem-solving, and interdisciplinary approaches. In Uzbekistan, recent reforms in the education system have increasingly emphasized the development of learners' creative and critical thinking skills. The National Curriculum for General Secondary Education (2020) explicitly outlines creativity as a key competency to be fostered in students. To achieve this, several methodologies are used in primary and secondary schools:

Interactive Learning Methods: Techniques such as brainstorming, role-playing, discussions, and case studies are promoted in classrooms to activate student engagement and encourage divergent thinking[10].

Project-Based Learning (PBL): This approach allows students to work on real-world problems, helping them apply knowledge creatively and collaboratively. In Uzbek schools, especially in urban areas, teachers are encouraged to integrate PBL in subjects like literature, technology, and art[11].

Integration of National Values and Creativity: Educational programs often incorporate local cultural elements (e.g., folklore, crafts, music) into learning tasks to nurture imagination while preserving national identity[12].

In contrast, foreign education systems—particularly in countries like Finland, South Korea, the United States, and the UK—have long institutionalized creativity-enhancing strategies through curriculum design and teacher education. The following methodologies are widely adopted:

Inquiry-Based Learning (IBL): Students learn by posing questions, investigating solutions, and constructing new understanding. This method promotes curiosity and problem-solving[12].

Design Thinking: Especially prevalent in the U.S. and some European countries, design thinking is a structured approach to innovation that involves empathizing, defining problems, ideating, prototyping, and testing. It encourages students to be creative problem-solvers[13].

STEAM Education (Science, Technology, Engineering, Arts, Mathematics): This interdisciplinary framework integrates the arts into STEM fields to promote imaginative thinking and creative expression It is used extensively in schools across the U.S., Australia, and South Korea.

Montessori and Reggio Emilia Approaches: In early childhood education, these methods support creativity through exploration, autonomy, and open-ended tasks. They are widely practiced in Europe and North America[14].

Flipped Classrooms and Blended Learning: These modern approaches leverage technology to provide students with flexible, personalized learning opportunities that often include creative, project-based activities outside the classroom[15]. When information is only memorized and not applied in practice, it not only stifles creative thinking but also results in students storing information passively without analysis or synthesis, reducing its real-life applicability. Moreover, many educators lack the skills necessary to implement pedagogical innovations, making it difficult to promote creativity among students. Teacher training and the adoption of online and interactive methods are necessary. A shortage of resources and equipment also presents a barrier; while traditional learning materials are available, technologies and didactic tools required for modern creative pedagogy are lacking. For instance, implementing the STEAM approach requires infrastructure and educational resources, which are often insufficient. Though methods such as interactive training and problem-based learning exist, they are not widely adopted on a large scale. Artistic activities such as visual arts, theater, and drama are used minimally in classrooms [16]. Additionally, large class sizes make it challenging to encourage individual creative expression. In many schools, classes consist of 30–35 students, limiting the teacher's ability to work individually with each pupil. Creative methods also require more time, which can hinder curriculum completion.

Analysis and Results.

In Russia, Nemov's analysis of cognitive development in primary school students emphasizes intellectual thinking as the highest form of cognition, formed on the basis of imaginative thinking. However, nearly 55% of Russian students reportedly show a lack of confidence and motivation when completing creative tasks, which is attributed to the

dominance of traditional teaching methods. In Kazakhstan, the “Nazarbayev Intellectual Schools” initiative has improved creative engagement to some extent, but traditional methods still dominate. In Finland, project-based learning allows individual student characteristics to be considered, thus enhancing creative skills. In the UK, the “Creative Curriculum” emphasizes cognitive diversity, but the pressure of standardized testing limits creative activity. Studies in Uzbekistan show that nearly 60% of primary school students display low self-confidence when completing creative tasks. Russian education is largely standardized, focused on testing and assessment. Research by Amabile and Hennessey indicates that highly test-oriented environments suppress creative thinking [17]. Kazakhstan has attempted to integrate creative approaches through the “Altynsarin” education program, but progress is slow due to resource shortages and inadequate teacher preparation [18]. In Finland, over 80% of students improve their creative skills through collaborative problem-solving in project-based learning environments [19]. In the UK, initiatives under the “National Curriculum” aim to promote creativity, but financial constraints and testing pressure hinder project implementation [20]. In Uzbekistan, although the PQ-4119 decree emphasizes content modernization, implementation remains slow. Project-based learning is not yet widespread, primarily due to resource limitations and insufficient teacher training. Russia’s 2020 Ministry of Education decision includes professional development for teachers, but lacks modules specifically focused on creativity [21]. Kazakhstan has established “Centers for Pedagogical Excellence,” yet many trainings still rely on traditional methods [16]. Finnish teachers receive high-level professional training and are taught to use methods such as project-based learning and the “Creative Problem Solving” (CPS) model [22]. In the UK, the “Teach First” program enhances teachers’ ability to apply creative methods, though resource limitations continue to pose challenges. Jalolov notes that teachers should possess deep knowledge as well as skills in innovative pedagogical techniques. In Uzbekistan, teacher training courses are organized based on the Cabinet of Ministers’ 2019 Resolution No. 243, but creativity-focused modules are still lacking. In Russia, parents often prioritize academic achievement, viewing creative activity as secondary. In Kazakhstan, cultural traditions hinder creative development, as parents focus more on test performance. In contrast, Finnish parents are actively involved in the educational process, encouraging student participation in projects, which has been shown to increase self-confidence by 30%. In the UK, the socio-cultural context partially supports creative activities, though economic inequality limits equal access for all students. In Uzbekistan, many families emphasize academic performance, viewing creative activity as secondary. As Richards and

Rodgers point out, “Developing students’ creative thinking requires considering their cultural and social context” [23].

Conclusion and Recommendations.

In 2023, Uzbekistan piloted the STEAM approach in “Technology” classes, resulting in a 25% increase in students’ creative skills. Based on the Ministry of Public Education’s 2023 Order No. 124, the STEAM approach should be further expanded. In line with PQ-4119, training programs for teachers should incorporate the “4C Model” (collaboration, creativity, cognition, communication). Drawing on Finland’s experience, involving parents in the educational process could enhance student motivation. Cooperation programs between families and schools should be developed based on Uzbekistan’s Law “On Education.” Presidential Decree PQ-5712 highlights the need to equip schools with modern educational tools [24]. In conclusion, the challenges of developing creative thinking among primary school students in CIS and European countries are similar, with traditional teaching methods, limited resources, and socio-cultural factors playing significant roles. Uzbekistan’s legal framework—through the Law on Education and decrees PQ-4119 and PQ-5712—provides a foundation for these reforms. International experiences such as Finland’s project-based learning, Russia’s “Skolkovo” initiative, and the UK’s “Creative Curriculum” can serve as valuable models. Systematic implementation of innovative approaches like STEAM, the 4C Model, and CPS, along with improved teacher training and enhanced parental involvement, will contribute to the development of creative thinking. These measures will help align Uzbekistan’s education system with international standards and boost the global competitiveness of the younger generation.

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