

## METHODOLOGY FOR REALIZING STUDENTS' INDIVIDUAL POTENTIAL THROUGH THE DEVELOPMENT OF CREATIVITY

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**Abstract:** The development of students' creative abilities and the full realization of their individual potential is a pressing issue in the modern education system. 21st-century society requires specialists who think innovatively and can offer non-traditional solutions. This article analyzes the psychological and pedagogical foundations for developing creativity in higher education, along with modern methodologies and approaches proposed based on scientific research. The article emphasizes an individual approach, detailing the stages of diagnosis, development, and assessment. Consequently, higher education institutions must abandon traditional methods and implement interdisciplinary and technologically integrated methodologies to prepare innovative individuals.

**Keywords:** Creativity, creative thinking, individual abilities, innovative educational technologies, students, pedagogical methodology, project-based learning, reflective learning, digital tools, higher education, Investment Theory of Creativity, curiosity, anti-frustration.

The modern education system must respond to the demands of a rapidly changing world and prepare students for the future. Globalization, technological progress, and economic shifts require individuals to possess new ways of thinking, creative problem-solving, and the ability to adapt to constant change. To successfully address these challenges, **creativity** emerges as a core competency. Creativity is the ability of an individual to generate new, original ideas, apply existing knowledge in non-traditional ways, and solve problems through non-standard solutions. Higher education institutions must create special conditions and implement effective methodologies to unlock and develop the creative potential of their students. Research indicates that the development of creativity contributes not only to individual growth but also to the innovative progress of society. For instance, according to Sternberg and Lubart's **Investment Theory of Creativity**, creativity is based on the interaction of six resources: intellectual abilities, knowledge, thinking styles, personality traits,

motivation, and environment. By developing these resources, students' creativity can be significantly enhanced.

Studies show that creativity is crucial not only in the fields of art or design but also in all types of professional activity. A creative approach is essential for achieving success in engineering, medicine, business, education, and other fields. However, traditional education systems are often based on standardized approaches and do not allow for the full development of students' creative abilities. In many higher education institutions, the transfer and reproduction of information still take precedence, which limits students' opportunities for independent thinking, finding new solutions, and demonstrating their potential. In this regard, developing a methodology for the targeted development of creativity and the realization of individual abilities in students is a critical task. Scientific research confirms that environmental and motivational factors play a significant role in the development of creativity. For example, a **sense of place** in the classroom positively influences students' creativity, which is amplified through relationships with classmates, as such an environment encourages students to freely express their ideas.

The problem of creativity has attracted the attention of many foreign and local scholars. Russian scientists D.B. Bogoyavlenskaya, A.V. Morozov, Ya.A. Ponomarev, and S.L. Rubinshteyn have deeply studied the psychological foundations of creativity and revealed the mechanisms of creative thinking. V.I. Andreev, V.I. Zagvyazinskiy, and V.V. Kraevskiy have developed the theoretical and methodological foundations for developing personal creativity. Among foreign researchers, J.P. Guilford analyzed the structure of creative thinking and introduced the concept of **divergent thinking**. E.P. Torrance created methodologies for measuring creativity and identified various components of creative abilities. K. Robinson emphasized the importance of creativity in education and criticized traditional education systems. T.M. Amabile studied the social and environmental factors affecting creativity. In contemporary research, R. Epstein proposes four core skill sets: recording new ideas, seeking challenging tasks, expanding knowledge, and creating an engaging environment. These skills have been shown to increase students' idea generation by 55%. Furthermore, **curiosity** in the classroom directly impacts creativity, which is enhanced by the desire for knowledge and situational interest. The ability to manage **anti-frustration** acts as a mediator between motivation and creativity.

Contemporary research highlights several effective approaches to developing creative thinking.

The reflective approach is of great importance. Reflection is viewed as a mechanism for activating creative thinking and creativity. Students develop the ability to find creative solutions by analyzing their activities, drawing conclusions from mistakes, and consciously managing their growth. Reflective practice allows students to understand their thought processes, identify their strengths and weaknesses, and develop self-improvement strategies. Scientific studies indicate that reflection enhances the interaction between the **Default Mode Network (DMN)** and the **Executive Control Network (ECN)**, which improves both divergent and convergent thinking.

The project-network approach is widely used. Modern educational technologies ensure the development of creativity based on project activities. In a co-working environment, students have the opportunity to work in groups, exchange ideas, and collectively create innovative solutions. The project method links theoretical knowledge to practical activity, develops skills for solving real-world problems, and fosters results-oriented work. For example, the **Design Thinking** methodology enhances students' creativity through the stages of problem definition, empathy, ideation, prototyping, and testing.

Digital technologies play a crucial role in enhancing students' creative potential. Digital tools and modern software significantly expand creative possibilities. Virtual laboratories, graphic design software, 3D modeling tools, video editing programs, and other digital technologies enable students to visualize their ideas, create prototypes, and realize their creative projects. Digital platforms open up new opportunities for collaborative work, joint remote projects, and global experience sharing. Research confirms that through digital tools, students develop **associative thinking** and **pattern recognition** skills.

Game technologies and gamification elements make the educational process engaging and motivating. Game-format assignments ensure active student participation, awaken a spirit of competition, and strengthen the desire for success. For example, through gamification, students enhance their **anti-frustration** ability, which positively affects creativity.

The environmental factor is also crucial in developing creativity. A psychologically safe and supportive environment is a necessary condition for students to open up, freely express their ideas, and experiment without fear of making mistakes. The role of the teacher also changes—they emerge not as a mere information provider, but as a **facilitator, mentor, and inspirer**. The teacher should encourage students to conduct independent research, stimulate them to try different approaches, and consider

the individual characteristics of each student. Furthermore, an **interdisciplinary approach** is a key factor in developing creativity. Integrating knowledge across different subjects, viewing problems from various perspectives, and developing complex solutions is an essential competency for a modern specialist. Scientific studies show that classes held in a natural environment increase students' innovative thinking, as sunny and green spaces stimulate divergent thinking.

The realization of individual abilities is closely linked to creativity. Every student possesses unique abilities, interests, and talents. A standardized approach does not account for this diversity, and the potential of many students remains untapped. An **individual approach** is vital in the process of developing creativity. This means considering students' different learning styles, ability levels, interests, and personal characteristics. Differentiated assignments, flexible curricula, and personalized development pathways allow each student to maximize their potential. Diagnosis is an important stage for identifying and developing individual abilities. Various tests, observations, the portfolio method, and other assessment tools help determine students' strengths, interests, and developmental needs. Studies confirm that highly motivated students increase their creativity through **anti-frustration**, which strengthens personal competencies.

Developing creativity in students to realize their individual potential is not only a pressing educational task but also a critical factor in securing the future of society. By abandoning traditional methods and implementing an individual approach based on reflective, project-based, digital, and game technologies, higher education institutions can prepare innovative, adaptable, and creative individuals. This process requires continuous monitoring and improvement, but the results are competitive specialists and the sustainable development of society. Scientific research confirms that creativity depends not only on intellectual factors but also on emotional and environmental factors, necessitating a comprehensive approach.

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