EURASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES
Innovative Academy Research Support Center
IF = 7.906 www.in-academy.uz

ANALYSIS OF ADVANCED FOREIGN AND NATIONAL EXPERIENCES IN THE DEVELOPMENT OF CREATIVE ACTIVITY

Qarshiboyev Davron Valijon ogli
Master's student at the Nizami National Pedagogical University of Uzbekistan, in the field of Theory and Methodology of Education and Training (Primary Education).
https://doi.org/10.5281/zenodo.15527070

ARTICLE INFO

Received: 20th May 2025
Accepted: 26th May 2025
Online: 27th May 2025

KEYWORDS

Creative activity, foreign experience, national approach, creative thinking, education, innovative methods.

ABSTRACT

This article analyzes advanced foreign and national experiences related to the development of creative activities. In particular, it examines programs, methods, and environments aimed at supporting creativity in education in advanced countries such as the USA, Finland, Japan, and South Korea. Additionally, it explores the work being done in the education system of Uzbekistan to develop creative potential, existing approaches, and national experiences. The role of teaching methodologies that promote creative thinking, problem-based learning, project-based activities, the STEAM approach, and other modern technologies is highlighted. Based on the analysis, possibilities for adapting foreign experiences to the national context, practical recommendations, and prospective directions are identified. This work serves as a valuable resource for educators, researchers, and participants in the education system.

INTRODUCTION

The issue of developing creative activity in the modern education system is one of the urgent problems. Today, each country, when developing its innovative development strategy, considers creativity and the pursuit of innovation as the main value. The formation of students' creative thinking in the educational process, the development of their personal potential, the ability to think critically and independently approach problem situations has become one of the important directions of pedagogical activity. This article analyzes the experience of countries with advanced education systems in the world and the work being carried out in Uzbekistan to develop creative activity.

In the period of sharp growth of scientific and technical progress (the second half of the 20th century), when science, technology, and engineering were developing at a rapid pace, when science developed more than in the entire history of mankind during the life of one generation, the traditional system of education (including modern traditional education) reached the end of its life. Since the pace of development of the current generation is much higher than that of the previous ones, the traditional system of education has become an obstacle to development. In such conditions, progress can only be achieved on the basis of the

full realization of the existing capabilities of each person. The volume, diversity, tendency to acquire information and the sufficiency of means create the necessary conditions for the organization of effective individual and independent learning. In order to accelerate learning, it is necessary for the teacher's attitude towards the student to change from a "leader" to his "partner".

Education in our country has undergone and is undergoing a complex process of implementing comprehensive reforms and restructuring. The intended goal of them is to democratize school activities, develop humanistic principles, and on this basis, comprehensively update and further improve the content, form and methods of educational work. Renewed education in the full sense means a new way of thinking, a sound mind.

In the current era, along with the dignity, prestige and authority of education, its performers must also have initiative, dedication and business acumen. Success in education is often on the side of those who act boldly. Bold action is due to courage. And courage can be given to a person by school science and enlightenment, as emphasized by the classic representative of Uzbek national pedagogy, Abdulla Avloni.

LITERATURE ANALYSIS AND METHODOLOGY

Foreign scholars such as E. Segen, J. Demor, O. Dekroly, T. Kollen, R. Biker-White, D. Zubeyde, B. Chrissi Ioannou, M. Morris, N. Goldman, E. Bezani Chloe have studied the development of aesthetic competence of students through art, and the development of creative thinking in children through theater pedagogy. Preparing children for school is a very complex process and requires parents to know a lot. It is advisable to start preparing children for the fine arts from their early years. Because the earlier children are engaged in goal-oriented activities, the faster they will gain the necessary experience. The issue of developing creative activity has been considered one of the priority areas in education in recent years. Scientific research conducted in different countries, experiences in educational practice, literature created on methods and technologies for teaching creativity serve as an important theoretical and practical basis in this regard. Below is an analysis of national and foreign literature in this area.

The psychological and pedagogical foundations of creativity and creative activity have been studied in depth by several authors. In particular:

G. Altshuller - substantiated the structure and stages of development of creative thinking through TRIZ (Theory of Creative Problem Solving). His work "Fundamentals of Creative Thinking" is the basis for the systematic study of creative activity.

E.P. Torrance - developed methodologies for assessing creativity. The Torrance tests determine the level of creative thinking of students. In his research, he emphasizes students' abilities to imagine, develop ideas, and expand their thinking.

J. Guilford - considered divergent thinking, that is, approaching a problem from several points of view, to be the basis of creativity. His “A Structure of Intellect” model is used in the development of creativity.

Kh. T. Tokhtasinov and Sh. A. Khojaev emphasize the importance of the teacher’s methodological approach and the relevance of the lesson content in the development of creative thinking.

Research and practical methodological recommendations on creative activity conducted in foreign countries are divided into the following main areas:

Ken Robinson's "Out of Our Minds: Learning to be Creative" discusses how the education system suppresses creativity. The author emphasizes that schools are killing creative thinking, but this situation can be overcome with innovative teaching.

Howard Gardner's "Multiple Intelligences" theory shows that creativity is formed through various mental abilities (visual, musical, physical, verbal, etc.).

Mark Runco developed methods for assessing and cultivating creativity. His book "Creativity: Theories and Themes" contains strategies for identifying and developing students' creative potential.

Pasi Sahlberg – "Finnish Lessons: What Can the World Learn from Educational Change in Finland?" discusses how Finland has created an environment for developing students' creativity. Teacher freedom, individual approach, and problem-based learning are important factors in this.

Cave, Peter – "Education Reform in Japan" contains ideas on how to integrate creative activities into the traditional teaching system. He says that in Japanese schools, practical assignments provide ample opportunities for personal experience and the development of new ideas.

In South Korea, many scientific articles teaching Smart Learning technologies, including the work of Sung Joon Park, are noteworthy.[2; 1154, 1158-b]

Research aimed at developing creative activity has also been activated in the Uzbek education system in recent years. The following literature is among them:

M.Q. Jo'rayev - in his work "Pedagogical Technologies" he talks about innovative methods and methods for forming creative thinking. The author deeply analyzes methods that stimulate creativity in the work of teachers.

Z. Kurbanova - recommends using such methods as "Problem learning", "Thinking on the Clash", "Contextual learning" in creative educational processes.

T. Sobirov - studied the issues of developing creativity in preschool education. He proves that creative potential is formed in children based on imagination and emotional intelligence.

"Organization of the creative educational process in Uzbekistan: theory and practice" (monograph) - this resource covers the experience of developing creativity in experimental schools, circles and interactive methods in Uzbekistan.

Methodological guides created for teachers in the development of creative activity are also among the important literature. They describe the lesson plan, sample exercises, creative tasks and assessment criteria. For example:

"Technologies for developing creativity" (Methodological guide, TDPU, 2021)

"Organization of lessons based on the STEAM approach" (XTV, 2022)

"Methods for assessing creative thinking skills" (TTJPI, 2020)

These literatures are useful for practicing teachers to identify and develop the creative potential of students in the lesson process.

The analyzed literature shows that the following main aspects are important in the development of creative activity:

1. A person-centered approach - it is necessary to choose methods that are appropriate for the interests and abilities of the student.

2. Innovative methods - project-based learning, problem-based learning, STEAM and digital technologies are effective tools.

3. New forms of assessment - open tasks, portfolios and self-assessment systems should be used to determine creativity, not standard tests.

4. Teacher training - teachers should have methods that develop creative activity through methodological manuals and advanced training courses.

5. Adaptation of foreign experience - the experience of the USA, Finland and other countries can be integrated in accordance with the conditions of Uzbekistan.

When studying national and foreign literature on the development of creative activity, an opportunity is created to more deeply understand the role of the education system in this regard. Each literature provides its own unique approach, methods, and recommendations. The important thing is to use these literatures to create a creative learning environment that serves the comprehensive development of students' personalities. [3; 8,14-b]

RESULT

Creative activity is the process of creating new, original and practical ideas that rely on human thinking, imagination, emotions and social experience. Creativity plays an important role in human activity in various fields, especially in the educational process, as this aspect ensures the student's independent thinking, free expression of their ideas, and solving problems with a unique approach. Therefore, the formation of creative activity is considered one of the main tasks of education.

Analysis of foreign experiences

1	The US education system places special emphasis on developing creativity. Projects such as “Creative Classrooms” and “Project-Based Learning” help students develop their creative thinking skills. Schools widely use problem-based learning, group assignments, open discussions, and digital technologies to encourage innovation.
2	The Finnish education system is known for its high results. Here, the development of students’ independent thinking and creative potential is a priority. Special curricula are developed based on an individual approach to each student. Teachers actively use open lessons, experiential learning, problem-based assignments, and project work to develop creativity.
3	In Japan, tradition and innovation are combined in the educational process. Schools pay special attention to encouraging creative activity based on art, technology, and scientific research. The Tokkatsu program promotes personal development, social engagement, and creative thinking of students.
4	South Korean education is widely promoting the development of creative activity based on digital technologies and advanced pedagogical approaches. In schools and higher education institutions, creative thinking is encouraged by involving students in virtual projects through special platforms based on the Smart Education concept.
5	Uzbekistan is also implementing a number of reforms in the field of developing creative activity. Elements of a creative approach have been included in state educational standards, and creativity is being developed in students through

	methodological manuals, STEAM programs, robotics clubs, and the activities of "Young Technicians" centers.

Table 1

Preschool education institutions conduct classes that expand children's imagination and shape their aesthetic worldview through color, shape, and sound. In primary grades, the foundation for creative activity is laid through game methods, dramatization, drawing, and projects.

In schools in Uzbekistan, the creative potential of students is being developed through literature, art, technology, and natural sciences. In particular, creative young people are being identified through the "Young Inventors" contests, science olympiads, and events dedicated to inventions and discoveries.

In higher education institutions, creative potential is being developed through students' independent research, innovative projects, startup ideas, and scientific and practical conferences such as "Student and Science." Interactive classes are being organized to study new technologies using digital platforms.

STEAM is an educational system based on the integration of science, technology, engineering, art, and mathematics. Through this approach, students acquire skills in solving real-life problems, conducting experiments, working in a team, and creating innovations.

The project-based method enhances the creative aspect of education. Students prepare a project based on topics that interest them and implement it in practice. In this process, they develop skills in independent research, information collection, analysis, and presentation.

Problem-based learning is a method that encourages students to think actively, make decisions, and search for new solutions. Through this method, students develop skills in a creative approach to a specific issue.

Digital technologies (interactive whiteboards, AR/VR, online platforms, mobile applications) are expanding the opportunity to involve students in creative activities in a virtual environment. These technologies allow for an individual approach, real-time exchange of ideas, and visualization.

There are a number of problems in the development of creative activity: insufficient methodological training of teachers, high workload, lack of material and technical base, insufficient attention to creativity among parents and society. To solve these problems:

- Organizing advanced training courses for teachers,
- Financing creative projects,
- Providing educational institutions with modern equipment,
- Involving parents and the public.[4; 78,80-b]

DISCUSSION

The rules that contribute to the development of creative activity in students and their mastery of traditional educational standards are as follows:

1. The level of development of the student's goal-oriented abilities was included in the mandatory standards for control and assessment. Individual goal-orientedness of students and their relevant activities in the field of study accounted for more than 20% of the total volume.

2. The mandatory types of student activity planned and controlled by the teacher include: knowledge-related, which provides the conditions for creating creative productivity of activity

by students - the process of creative cognition; scientific and organizational types that allow the student to organize the two previous creative activities.

3. The creative activity of students and the acceptable requirements for it are:

a) fundamental educational objects became the object of the student's creative activity;

b) the volume of the student's personal creativity in the general educational process is 20-25 percent.

d) The ratio of productive and reproductive activity in the general educational process is determined depending on the level of development of the student, the strategy and educational goals of the teacher and the school, but the volume of the student's product should not be less than the volume of educational activity according to his individual program. [5; 61,63-b]

The structure of the educational process depends on what results and in what form they are controlled. It is known that the results of creative activity are of a two-fold nature - external and internal, therefore, the achievements of teachers in education and their internal quality are the subject of control.

The quality of the main characteristic of an educational personality is determined primarily by the result of its internal development. Often, various tests are used to diagnose creative activity. However, a situational approach, that is, diagnostics of students using specially organized or natural educational situations, is more effective. In such cases, the role of diagnosticians is performed by practicing teachers to the same extent as the invited experts, since they rely on their subjective experience.

Diagnostics of educational results, including the level of development of student abilities, is determined by the teacher's subjective "feeling" of the student. The goal is achieved by determining the level of development of students' creative abilities, the conditions for diagnostic educational processes in which the subject of education participates, as well as educational changes in the internal and external world of students, the correlation of the set goals with the results obtained during the planned period. Methods of analyzing and assessing students' educational productivity are methods of monitoring their creative activity.

The student can evaluate each element of educational productivity quantitatively or qualitatively, in terms of points or verbally. The quality of students' knowledge is assessed by the following methods;

a) by the number of creative elements in the answer;

b) by the difference in the elements of the answer;

d) by the novelty of the answer in relation to the work of the student himself or his classmate;

e) by the conciseness and conciseness of the created image, symbol or expression; by the versatility of the possibilities used for the answer;

g) by the practical significance of the results obtained. [6; 157,164-b]

CONCLUSION

In conclusion, it is important to study foreign experiences and adapt them to national conditions for the development of creative activity. It is important to widely introduce methods that stimulate creative thinking in the education system, use innovative technologies, and increase the professional competencies of teachers. Supporting creative activity serves to increase the quality indicators of education, to form a modern, competitive, free-thinking young

generation. We also witness that in each state program, special attention is paid to creative exercises, practical activities, the use of fine arts, artistic arts, national arts and folk oral works, dynamic and role-playing games, and the first manifestations of theatrical art, aimed at developing children's creativity, taking into account their needs, interests, and capabilities. In a word, we emphasize that the development of the methodology for using artistic pedagogy and ART pedagogy in child education is important, as it is continuously continued in the higher grades in this state education system.

In the modern conditions of systematic reform of education in an innovative and integrated way, the problems associated with the training of educators with new professional competencies that respond to the problems of the 21st century are of particular importance. It is important to form acmeological abilities in today's educators, improve their level of professional competence, acquire knowledge on the development of children's creativity in the educational process through artistic pedagogy, ART pedagogy, as well as constantly develop and reveal creative potential.

Today, the main task is to train a teacher who is able and ready to listen to and understand children, has the ability to identify their interests and needs, becomes their assistant and friend, and can effectively use the technologies of artistic pedagogy.

References:

1. O‘zbekiston Respublikasining Qonuni, 23.09.2020 yildagi O‘RQ-637- son. “Ta’lim to‘g‘risida” gi qonun.
2. TurdaliSultonov Barno Abdullaeva, Mamurakhon Toshpulatova, Dilsora Abduvalieva, Aygul Urazimbetova „Psychological And Pedagogical Conditions Of Formation Of Research Competences In Younger Schoolboys” Jour of Adv Research in Dynamical & Control Systems, Vol. 12, Issue-06, 2020. 1154-1158
3. Toshpulatova Mamurakhon „ The Use of Information and Communication Technologies in Mathematics Lessons” The American Journal of Social Science and Education Innovations 2020. С- 8-14 https://doi.org/10.37522/tajssei/Volume05Issue12-02
4. М. И Тошпулатова „ Методика совершенствования профессиональной подготовки будущих учителей начальных классов” SCIENCE AND WORLD 78-80 pp.
5. Burkhonov Sattor Asimovich „ Features Of Teaching Mathematics In Specialized Primary Classes” American Journal of Advanced Scientific Research. 2024. 61-63
6. М.И. Тошпулатова „ БЎЛАЖАК БОШЛАНҒИЧ СИНФ ЎҚИТУВЧИЛАРИНИ ТАЙЁРЛАШДА ИНТЕГРАЦИЯ ЭНГ МУҲИМ ДИДАКТИК ТАМОЙИЛИ СИФАТИДА” SCHOLARб. 2024. С- 157–164.
7. Mohamad J. Alfaker i Saiful Islam j Ali Basem a, Hamdy Mohamed b, Hasan A. Al-Asadi c, Abdul Bariq d, Mamurakhon Toshpulatova e, Merwa Alhadrawi f g h „ Atmospheric Pressure Plasma-treated Polyester Fabrics for Enhanced Oil-Water Mixture Separation” Results in Engineering. 2024. С- 102377
8. Toshpulatova Mamura „ Improving The Methodological Training Of Future Primary Education Teachers Based On An Integrative Approach In An E-Learning Environment” American Journal of Advanced Scientific Research (AJASR) 2024. С- 58-60