ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-515-x, Impact Factor: 9.23

American Academic publishers, volume 6, issue 02,2026

Journal: https://www.academicpublishers.org/journals/index.php/ijai

DEVELOPING STUDENTS' CREATIVE ABILITIES BASED ON THE PEDAGOGICAL POWER OF THE DIGITAL EDUCATIONAL ENVIRONMENT (IN THE EXAMPLE OF TEACHING TECHNOLOGY)

Kulboyeva Dilnoza Abdugufurovna
Associate Professor (PhD) of JDPU

Abstract: The article analyzes the pedagogical potential of the digital learning environment and its potential for developing students' creative abilities in the process of teaching technology. The study highlights the issues of increasing students' creative thinking, independent decision-making, and interest in practical activities through the effective use of digital tools. It also substantiates the impact of pedagogical conditions created in the digital learning environment on educational effectiveness.

Keywords: digital learning environment, pedagogical potential, creative abilities, technology education, innovative approach.

Entry Today, the digitalization of the education system has become a global trend, which serves to improve the quality and efficiency of education. Especially in technology, the use of digital learning environments creates ample opportunities for students to develop creative thinking, problem-solving, projecting, and design skills. Therefore, the organization of technology classes based on a digital learning environment is an urgent pedagogical problem. The concept and content of the digital educational environment A digital learning environment?? is a single pedagogical space created on the basis of information and communication technologies, electronic resources, online platforms and interactive tools. This environment supports effective student-teacher communication, independent learning, and creative activity. The digital learning environment in technology classes includes the following components:

electronic educational resources (video, animation,

3D models) are provided;

virtual laboratories and simulators; design and design programs;

online education platforms and LMS systems. Advantages of a digital learning environment in technology classes The digital educational environment in the teaching of technology has the following pedagogical advantages: Activation of creative activity ?? digital design programs and modeling tools allow students to put their creative ideas into practice. Individualized learning ?? Students have the opportunity to independently perform tasks that match their interests and abilities. Visual and interactive education makes it easy to explain complex technological processes through animation and simulations.

Development of project activities ?? Effective organization of project development, presentation and evaluation in the digital environment. Role in the development of creative abilities of students The digital learning environment is an important factor in the development of students' creativity in technology classes. In the process of working in a virtual environment , students will: independent decision-making; creating new ideas; solving the problem based on different solutions; skills for improving the project. And this not only develops their

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 02,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

technological literacy, but also their creative thinking. The use of digital learning environment in technology classes allows to organize the educational process based on modern requirements.

Digital tools serve to develop students' creative, technological, and design competencies. Therefore, the systematic and targeted introduction of the digital educational environment in the teaching of technology is an important pedagogical task. In the context of globalization and digitalization, the organization of the education system based on modern technologies is one of the most pressing issues. The pedagogical potential of the digital learning environment is particularly important for the development of creative abilities of students. The introduction of digital tools in the process of teaching technology enriches the content of education, activates the practical and creative activities of students.

In the process of research, methods such as analysis, observation and comparison of pedagogical literature, survey, experimental work and statistical analysis were used. Through these methods, the impact of the digital learning environment on the creative abilities of students was studied. The study found that technology classes in a digital learning environment can boost students' creativity. In particular, the use of interactive platforms, digital projects, virtual laboratories and multimedia resources develop independent thinking of students. In a digital environment, students first learn to independently solve problem situations, design and project activities, and put creative ideas into practice. And that's what's going to drive the practical and creative nature of technology.

Methodology of research In the education system, it is important that students not only acquire theoretical knowledge, but also be able to put their creative ideas into practice. Especially in the process of teaching technology, one of the most important pedagogical tasks is to train students to go from creating an idea to implementing it as a real product or project. Teaching how to put creative ideas into practice develops students' independence, responsibility, and innovative thinking. Project-based learning has an important pedagogical role in teaching how to put creative ideas into practice. Students come up with an idea based on a problem situation, go through the planning, material selection, and final product creation phases. This process is effectively implemented in technology classes in the following areas:

• visual modeling of the idea (sketch, sketch, model);

• testing through practical experiments;

• collective discussion and analysis;

• presentation of the final product. As a result, students' creativity increases, theoretical knowledge is inextricably linked with practical activities.

Development of creative abilities of students through design and project activities One of the most important pedagogical tasks in education is to develop the creative potential of students. In this process, design and project activities allow students to combine conceptual thinking with practical activities. In technology, in particular, design-based classes help to develop students' creative thinking, aesthetic thinking, and engineering imagination. During the study, the following methods were used: analysis of pedagogical and methodological literature, observation of design and design activities, experimental work, analysis, generalization and conclusion of educational projects. These methods allowed us to determine the impact of design

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 02,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

and project activities on the creative development of students. You need to analyze the research and the discussion process. The study found that technology classes that are organized around design and project activities significantly increase students' creativity. During the project, students go through the stages of identifying a problem, developing an idea, choosing a design solution, working with materials, and creating a finished product.

The main pedagogical possibilities of design and project activity are:

• bringing creative ideas to a visual and practical form;

• developing skills in solving problematic situations;

• forming a culture of teamwork and communication;

• harmonious development of aesthetic and technical thinking. This process links students' theoretical knowledge with practical activities. Design and project activities are an effective means of developing students' creative abilities in the teaching of technology. The design activities organized on the basis of the project serve to form independent thinking, practical skills and innovative approach of students. The systematic introduction of this approach into educational practice will improve the quality of education. Conclusion In conclusion, the pedagogical potential of the digital learning environment is an important factor in the development of students' creative abilities in the teaching of technology. Targeted and systematic use of digital tools will increase the effectiveness of education. Implementation of this approach will create the basis for the modernization of the educational process.

Used literature

1. UNESCO. Digital Learning in Education. – Paris, 2022.
2. Xodjayev B.X. Pedagogik texnologiyalar. – Toshkent, 2021.
3. Muslimov N.A. Texnologiya ta'limi metodikasi. – Toshkent, 2020.
4. Salimova Z. Raqamli ta'lim muhitining didaktik imkoniyatlari // Pedagogika jurnali, 2023.
5. Kulboyeva D.A. Formation of creativity of primary school students. //International journal of social scieces & Interdisciplinary research. ISSN:2277-3630. India. Impact factor(SJIF:2022):7.429. Vol.11, №10. October 2022. p. 93-95. https://www.gejournal.net/index.php/IJSSIR/article/view/967
6. Qulboyeva D. Pedagogical basis for the development of creativity in primary class students. // "Results of modern scientific research" international scientific and current research conferences. USA. January 30, 2023. p. 156-158. https://orientalpublication.com/index.php/iscrc/article/view/1088.
7. Kulboyeva, D. (2020). Boshlangich sinf oquvchilarning ijodiy qobiliyatini shakllantirishda texnologiya fanining ahamiyati. *Boshlang'ich ta'limda innovatsiyalar*.