

RESEARCH ARTICLE

Theoretical Foundations Of The Development Of Divergent Thinking In Students In A Digital Educational Environment

Xomidova Nodira Toyirjon kizi

The Teacher of Korean International University, Uzbekistan

VOLUME: Vol.06 Issue02 2026

PAGE: 40-41

Copyright © 2026 European International Journal of Multidisciplinary Research and Management Studies, this is an open-access article distributed under the terms of the Creative Commons Attribution-Noncommercial-Share Alike 4.0 International License. Licensed under Creative Commons License a Creative Commons Attribution 4.0 International License.

Abstract

This article analyzes the theoretical foundations of the development of divergent thinking in students in a digital educational environment. The study highlights the psychological and pedagogical content of the concept of divergent thinking, its inextricable connection with creativity and creative activity. Also, the didactic possibilities of the digital educational environment, the mechanisms for the development of creative and independent thinking of students based on constructivist, cognitive, and socio-constructive approaches are revealed. The article substantiates the organization of the educational process based on digital technologies, interactive platforms, and projects as important factors in the formation of divergent thinking. The research results serve to improve the digital educational environment in higher educational institutions and increase the creative potential of students.

KEY WORDS

Digital educational environment, divergent thinking, creativity, innovative education, digital pedagogy, student.

INTRODUCTION

In the current conditions of globalization and digital transformation, the requirements for the education system are significantly increasing. The innovative development of society, the need to train competitive personnel have made the development of the intellectual and creative potential of the individual in the educational process a priority task. Especially in higher educational institutions, the formation of students' independent thinking, creativity, and the ability to take an unusual approach to problems is of great importance. One of the concepts closely related to these aspects is divergent thinking.

Divergent thinking was introduced into scientific circulation in the second half of the 20th century by J. P. Guilford, who expresses a person's ability to develop multiple, diverse, and

original solutions to problem situations. Guilford contrasts divergent thinking with convergent thinking. In the scientific literature, the fluency, flexibility, originality, and richness of details of thoughts are indicated as the main indicators of divergent thinking. Fluency of thought means the student's ability to quickly and many ideas in solving a problem, while flexibility means the ability to analyze the same problem from different points of view. Originality is associated with finding unusual, rare solutions, while richness in detail represents the ability to develop and deepen an idea. These components are important in increasing the creative activity of the student in the educational process.

The digital educational environment, which is being formed as a modern educational space, creates wide opportunities for

the development of divergent thinking. The digital educational environment includes electronic educational resources, distance learning platforms, virtual laboratories, interactive programs, multimedia tools, and systems based on artificial intelligence. From the point of view of the cognitive approach, divergent thinking is inextricably linked with the enrichment of the student's thinking strategies and the development of metacognitive skills. With the help of digital technologies, problem situations are modeled, virtual experiments are organized, and the possibility of making decisions based on alternative scenarios is created. As a result, the student learns to solve the problem in various ways.

According to the socially constructive approach, knowledge is formed in the process of social communication. The digital educational environment strengthens the exchange of ideas between students through online forums, video conferences, team projects, and collaborative platforms. This leads to the emergence of different views and ideas, contributing to the development of divergent thinking. Also, the development of divergent thinking is closely related to the concept of personality-oriented education. In the digital educational environment, with the help of adaptive technologies, each student can be provided with appropriate tasks, which realizes their creative potential. Scientific sources emphasize that problem-based learning, project-based learning, and research-oriented approaches are effective tools for developing divergent thinking. Activities such as virtual projects, the development of startup ideas, and the creation of digital products in the digital environment activate the student's independent and creative thinking. In addition, the process of reflection is also an important component of divergent thinking. Through electronic portfolios, blogs, and online diaries, students analyze their activities, draw conclusions, and formulate new ideas. This process increases the depth of the student's thinking and strengthens their creative approach.

CONCLUSION

In conclusion, the development of divergent thinking in students in the digital educational environment has a solid theoretical basis, which is based on the combination of psychological and pedagogical approaches. Divergent thinking is an important factor in the development of the student's creative potential, preparation for innovative activity, and formation as a competitive specialist. Therefore, the

purposeful organization of the digital educational environment is one of the urgent tasks of modern education.

REFERENCES

1. Abdullaeva M.M. Pedagogik tafakkur va kreativlik asoslari. – Toshkent, 2018.
2. Guilford J.P. The Nature of Human Intelligence. – New York: McGraw-Hill, 1967.
3. Torrance E.P. Torrance Tests of Creative Thinking. – Lexington, 1974.
4. Raxmonov A.A. Raqamli pedagogika asoslari. – Toshkent, 2021.
5. Piaget J. The Psychology of Intelligence. – London, 1972.
6. Runco M.A., Acar S. Divergent thinking and creative potential. – Creativity Research Journal, 2012.
7. Vygotsky L.S. Mind in Society. – Cambridge, 1978.
8. Yo'ldoshev J.G. Ta'lim jarayonida innovatsion texnologiyalar. – Toshkent, 2019.
9. Xodjayev B.X. Pedagogik texnologiyalar va kreativ ta'lim. – Toshkent, 2020.
10. Ismoilova D.R. Talabalarda ijodiy tafakkurni rivojlantirish metodikasi. – Toshkent, 2022.