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DIDACTIC POSSIBILITIES OF DIGITAL TECHNOLOGIES IN DEVELOPING CREATIVE ABILITIES OF FUTURE TECHNOLOGY TEACHERS

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Annotation: This article analyzes the didactic possibilities of digital technologies in developing the creative abilities of future technology teachers. The issues of forming students' independent thinking, creative approach, and innovative competencies through the effective use of digital tools in the educational process are highlighted. Furthermore, the importance of digital educational resources, interactive platforms, and modern pedagogical technologies in the teacher training process is revealed. The research results demonstrate the effectiveness of using digital technologies in improving the professional training of future technology teachers. The article is enriched with methodological recommendations aimed at developing creativity in the educational system.

Keywords and concepts: digital technologies, creative abilities, future technology teachers, didactic possibilities, digital learning environment, innovative education, interactive teaching methods, pedagogical competence, creative thinking, modern educational technologies.

Introduction: Today's rapid digitalization of society requires fundamental changes in the educational system. The widespread introduction of digital technologies into the educational process is elevating the professional training of future specialists to a new level. Particularly, in the process of training technology teachers, developing their creative abilities is considered one of the pressing pedagogical issues. Because in modern educational conditions, a teacher is required not only to possess subject knowledge but also to have creative thinking, an innovative approach, and digital competencies.

Digital technologies have broad didactic possibilities for individualizing and making the educational process interactive, as well as for activating students' independent and creative activities. The use of electronic educational resources, virtual laboratories, multimedia tools, and online platforms is of great importance in shaping the creative thinking of future technology teachers. Through these tools, students acquire skills in solving problematic situations, carrying out design activities, and developing innovative ideas.

At the same time, the purposeful and systematic use of digital technologies in the educational process not only increases pedagogical effectiveness but also serves to develop the professional competencies of future teachers. This article analyzes the didactic possibilities of digital technologies in developing the creative abilities of future technology teachers and highlights the pedagogical conditions for their application in the educational process.

Literature Review: The issue of introducing digital technologies into the educational process and increasing their pedagogical effectiveness has been reflected in the scientific research of many local and foreign scholars. Among foreign pedagogical scientists, M. Prensky put forward the concept of the "digital generation" and substantiated the importance of a learning environment organized on the basis of digital technologies in developing students' creative and critical thinking. Furthermore, R. Mayer's research on multimedia learning theory has

scientifically proven that the purposeful use of digital tools enhances students' deep assimilation of knowledge and their creative approach.

Regarding the development of creative abilities, the works of scholars such as E. Torrens and J. Guilford are of particular importance. In their research, creativity is interpreted as an individual's ability to find unconventional solutions in problematic situations and generate new ideas. These scholars emphasize that problematic tasks, free thinking, and a creative environment are important factors in developing creativity. It has been shown that these approaches can yield more effective results when combined with digital technologies.

The scientific works of Uzbek scholars such as N. Muslimov, Sh. Sharipov, and R. Juraev serve as important sources on issues of teacher training in the field of technology and vocational education [1]. Their research substantiates the necessity of using practice-oriented education, project activities, and modern pedagogical technologies in developing the professional competencies of future teachers. Additionally, Sh. Sharipov in his research emphasizes that innovative and creative approaches in technology education serve to enhance the creative potential of teachers.

The scientific views of V. Bespalko, V. Klarin, and E. Polat on the issue of digital educational technologies deserve special attention. They have scientifically substantiated that digital learning tools, distance education, and interactive methods serve to develop the independent and creative activity of learners. E. Polat's research shows that the integration of the project method and information and communication technologies is effective in shaping creative thinking.

At the same time, the literature review shows that in existing scientific works, the issues of digital technologies and creativity have been studied separately, and their didactic possibilities specifically for developing creative abilities in future technology teachers have not been sufficiently systematically researched. This situation indicates the need for in-depth scientific study of this topic and the development of new pedagogical solutions [2].

Research Methodology: This research is aimed at identifying and substantiating the didactic possibilities of digital technologies in developing the creative abilities of future technology teachers. The research methodology was developed based on systematic, competency-based, person-centered, and activity-based approaches. These approaches enable the integration of creative thinking and digital competencies in the process of professional training for future teachers.

A complex of theoretical and empirical methods was used during the research process. Theoretical methods included analysis, comparison, generalization, and systematization of pedagogical, psychological, and methodological literature. Through this, the scientific-pedagogical essence of the concepts of digital technologies and creative abilities was revealed, and their interrelationship was determined. Empirical research methods included pedagogical observation, interviews, questionnaires, diagnostic tests, and pedagogical experimental work [3].

The research was conducted with the participation of students studying in the "Technology Education" field of higher education institutions. During the experimental process, classes were organized based on digital education platforms, electronic educational resources, virtual laboratories, and elements of project-based and problem-based learning. Special criteria and indicators were developed in the study to determine the creative abilities of future technology teachers. These were assessed based on the level of creative thinking, approach to problematic situations, independent decision-making, and the ability to propose innovative ideas. The obtained results were compared through initial and final diagnostics.

Mathematical-statistical methods were used in processing the research results [4]. The analysis of the obtained data made it possible to determine the effectiveness of the educational process organized on the basis of digital technologies in developing the creative abilities of future

technology teachers. This methodology serves to ensure the scientific validity, reliability, and practical significance of the research.

Analysis and Results: During the research process, the impact of educational sessions organized on the basis of digital technologies on the development of creative abilities in future technology teachers was analyzed. The experimental work was carried out with the participation of students studying in the "Technology Education" field of higher education institutions. Control and experimental groups were established in the study, and the level of development of creative abilities in them was determined through initial and final diagnostics.

The results of the initial analysis showed that the creative abilities of the students were at low and average levels. The majority of students tended to choose standard approaches in problematic situations and did not show sufficient activity in proposing innovative ideas. This situation indicated that digital technologies were not being used sufficiently in the process of training technology teachers, specifically aimed at developing creativity [5].

In the experimental group, the educational process was organized on the basis of digital education platforms, electronic educational resources, virtual laboratories, 3D modeling software, and project-based and problem-based learning methods. Students' independent research, teamwork, and creative activities were activated during the sessions. As a result, the skills of creative thinking, unconventional approaches to problematic situations, and developing innovative ideas significantly developed in the students of the experimental group.

According to the results of the final analysis, it was determined that creative abilities in the experimental group had risen to a high level, while changes in the control group were relatively slow. The results of the mathematical-statistical analysis confirmed the effectiveness of the educational process organized on the basis of digital technologies in developing creative abilities. An increase in students' interest in independent decision-making, problem analysis, and creating innovative projects was observed.

The obtained results show that the purposeful and systematic use of digital technologies has significant didactic possibilities in developing the creative abilities of future technology teachers. Especially, combining digital tools with project activities, problem-based learning, and interactive methods ensures high efficiency. Based on the results, scientific-practical conclusions were developed on the widespread introduction of digital technologies into the process of training future technology teachers, organizing educational sessions focused on creativity, and improving the digital didactic environment.

Conclusion and Recommendations

The results of the conducted research showed that digital technologies have significant didactic possibilities in developing the creative abilities of future technology teachers. The purposeful, systematic, and pedagogically grounded use of digital tools in the educational process activates students' creative thinking, shapes their unconventional approach to problematic situations, and increases their interest in innovative activities. During the research, it was found that sessions organized on the basis of digital technologies had a positive effect on developing future technology teachers' skills of independent decision-making, implementing project activities, and developing creative ideas [6]. The obtained results confirm that the didactic possibilities of the digital learning environment have higher efficiency compared to traditional teaching methods.

Based on the results of this research, the following recommendations are put forward: firstly, it is advisable to develop and introduce special educational modules aimed at using digital technologies in the process of training technology teachers; secondly, it is necessary to pay special attention to developing student creativity by combining project, problem-based, and interactive teaching methods with digital tools in the educational process; thirdly, it is necessary to improve the criteria for assessing future teachers' digital and creative competencies and

introduce modern assessment tools into the diagnostic process; fourthly, it is recommended to strengthen the system of professional development for professors and teachers on the use of digital educational resources and platforms.

In conclusion, the effective use of the didactic possibilities of digital technologies is of great importance in developing the creative abilities of future technology teachers, improving their professional training, and training competitive pedagogical personnel that meet the requirements of modern education.

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