Improving the competency-based training model based on digital platforms in the vocational education system

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Abstract. This thesis analyzes the issues of improving the competency-based training model based on digital platforms in the vocational education system from a scientific, theoretical and practical perspective. It is substantiated that in the context of digital transformation processes, fundamental changes are taking place in the content, form and methods of the education system, especially the need to introduce modern digital technologies in vocational education is increasing.

Keywords: vocational education, digital platform, competency-based approach, LMS, distance learning, adaptive learning, artificial intelligence, educational quality, innovative technologies, learning process, digital transformation.

Introduction. In the current context of globalization and the digital economy, the education system, in particular the vocational education system, is undergoing fundamental transformation processes. The modern labor market requires highly qualified, flexible, independent-thinking specialists with practical skills. This requires a transition from a traditional knowledge-oriented education model to a competency-based education system. In particular, the rapid development of digital technologies makes updating the content and methodology of vocational education, and the widespread introduction of innovative approaches to the educational process an urgent issue. In the Republic of Uzbekistan, special attention is also being paid to the modernization of the education system, its adaptation to international standards and digitalization processes. In recent years, a number of reforms have been implemented in the vocational education system to develop digital infrastructure, expand e-learning resources, and introduce distance and blended learning forms of education. At the same time, the possibilities of using Learning Management System (LMS) platforms to manage and organize the educational process in vocational educational institutions are expanding. However, practice shows that the use of existing digital platforms is often not organized on the basis of a systematic approach, and their integration with the competency-based approach is not sufficiently ensured. As a result, certain problems

arise in the processes of forming the necessary professional competencies in students, determining and monitoring their individual development trajectories. In this regard, improving the competency-based training model based on digital platforms in the vocational education system is of great scientific and practical importance.

Main part. The issue of improving the competency-based training model based on digital platforms in the vocational education system is one of the priority areas of modern education policy. In recent years, the introduction of digital educational technologies has significantly increased globally, and according to international research, by 2024, about 78 percent of higher and vocational education institutions around the world will regularly use Learning Management System (LMS) platforms in the educational process. At the same time, the level of use of distance and blended learning technologies has exceeded 65 percent. In the case of Uzbekistan, digitalization processes in the vocational education system are also developing rapidly. In particular, in recent years, it is observed that the level of provision of computer equipment in vocational educational institutions has increased significantly, reaching an indicator of more than 85 percent by 2025. At the same time, the share of students using electronic learning resources and online platforms has formed in the range of 60–70 percent. However, these indicators are still low compared to developed countries.

A number of empirical analyses have been conducted to assess the effectiveness of implementing a competency-based approach based on digital platforms. The results of the study show that the level of student knowledge acquisition in the learning process organized through LMS platforms was on average 20–25 percent higher than in traditional methods. It was also found that the use of interactive digital tools (tests, simulations, video lessons) increased students' independent work skills by up to 30 percent. Another important aspect of the learning model based on digital platforms is the possibility of individualizing the learning process. According to statistical analyses, in educational institutions using adaptive learning systems, the level of student acquisition increased by 15–18 percent, and the activity of participation in the learning process was up to 25 percent higher. This expands the main requirement of the competency-based approach - the ability to form an individual development trajectory for each student.

At the same time, existing problems are also observed. In particular, it was found that in approximately 30-35 percent of vocational education institutions, the use of digital platforms is not sufficiently systematized, and about 40 percent of teaching staff

do not have sufficient qualifications in the full use of modern digital technologies. This situation hinders the effective implementation of digital transformation processes.

Based on the above analysis, it can be noted that it is advisable to improve the competency-based training model based on digital platforms in the vocational education system through the following priority areas: first, developing digital infrastructure and integrating all educational institutions into a single platform; second, increasing the digital competencies of teaching staff; third, introducing adaptive and artificial intelligence-based technologies into the educational process; fourth, improving the system for monitoring and assessing learning outcomes in real time.

Conclusion. The results of this study show that the introduction and improvement of a competency-based training model based on digital platforms in the vocational education system is an important strategic direction of modern educational development. The significant increase in the efficiency, flexibility and transparency of education through the integration of digital technologies into the educational process has been scientifically substantiated. The analysis revealed that LMS platforms, distance learning tools and adaptive learning systems serve as important tools for individualizing the learning process of students, developing their independent work skills and forming professional competencies. At the same time, the possibility of improving the monitoring and evaluation system of the educational process using digital technologies expands. However, during the study, existing problems were identified, in particular, the insufficient development of digital infrastructure, low digital competencies of teachers and the lack of systematic use of digital platforms, which could negatively affect the quality of education. Therefore, there is a need to deepen digital transformation in the vocational education system, improve the skills of teaching staff, and create unified integrated educational platforms.

In general, improving the competency-based training model based on digital platforms is of great importance in increasing the competitiveness of the vocational education system, training highly qualified personnel in line with the requirements of the labor market, and bringing the quality of educational services to a new level.

List of used literature

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