

**INNOVATIVE APPROACHES TO IMPROVING STUDENTS'
PROFESSIONAL METHODOLOGICAL COMPETENCES BASED
ON DIGITAL EDUCATIONAL TECHNOLOGIES**

Murodova Khilola Umardulovna

Bukhara State Technical University

Teacher of the Department of Industrial Ecology and Hydrology

khilolamurodova.08@gmail.com

Ibroymova Bahor Iskandar qizi

Student of the Department of Industrial Ecology and Hydrology

bahoribroymova@gmail.com

Abstract. This work studies innovative approaches to the formation and development of students' professional methodological competencies based on digital educational technologies. Today, the global digitalization process requires the widespread introduction of new technologies in the education system. Especially in the field of vocational education, modern digital platforms, virtual laboratories, interactive training, online courses and educational tools based on artificial intelligence play an important role in the development of students' knowledge and skills. The study analyzes the possibilities of using digital tools to help students acquire practical skills in their professional activities faster and more effectively, develop independent learning and critical thinking skills. Also, information is provided on personalized education, adaptive learning systems, gamification, AR augmented reality and VR virtual reality technologies, and blockchain-based certification systems as innovative approaches.

Keywords: Digital educational technologies, professional methodological competence, innovative approaches, virtual learning environments, online learning platforms, artificial intelligence (AI) in education, adaptive learning systems

Introduction. Today's globalization and digitalization processes are deeply penetrating the field of education. The effective use of digital educational technologies is becoming increasingly important in training competitive personnel who meet modern requirements. In particular, organizing the educational process based on innovative approaches in developing students' professional methodological competencies is one of the main factors in improving the quality of education. The capabilities of digital technologies, such as virtual laboratories, artificial intelligence-based learning platforms, online courses and interactive learning tools, allow students to master educational materials more accurately and in-depth. Through innovative approaches, opportunities for strengthening professional skills, increasing independent

thinking and practical experience are expanding. This study analyzes the role, impact and effectiveness of innovative methods in improving students' professional methodological competencies based on digital educational technologies, and provides practical recommendations. In the modern era, the digitalization of the education system is bringing fundamental changes to the educational process. In particular, the introduction of digital educational technologies is becoming an important factor in the development of students' professional training and methodological competencies. As traditional forms of education are enriched with digital tools and innovative technologies, students have wide opportunities for independent mastery of knowledge, the formation of practical skills and professional development. Digital platforms, virtual and augmented reality technologies, teaching with the help of artificial intelligence and gamified learning systems increase the activity of students in the educational process and take the formation of their professional competencies to a new level.

Topic relevance. Currently, the introduction of digital technologies in education has become a global trend. At a time when the need to train competitive, highly qualified specialists is increasing worldwide, the use of innovative approaches to increase the efficiency of the educational process and develop students' professional methodological competencies is extremely relevant. A number of state programs and strategic documents are being adopted in the Republic of Uzbekistan to develop digital education. In particular, within the framework of the "Digital Uzbekistan - 2030" strategy, large-scale work is being carried out to digitize the education system and introduce modern technologies into the educational process. This requires the introduction of modern digital tools, online educational platforms, virtual laboratories and artificial intelligence technologies into the educational process, as well as increasing the professional competence of students. One of the main tasks today is to use digital technologies in an innovative way to ensure that students' professional training meets the requirements of the times, to form their skills in independent thinking, finding solutions in problem situations, and working with modern technologies. Therefore, the topic "Innovative approaches to improving students' professional methodological competencies based on digital educational technologies" is distinguished by its theoretical and practical significance and is one of the current research areas in the field of education. As a result of the development of digital technologies, the field of education is changing rapidly. The modern labor market requires specialists not only traditional knowledge and skills, but also such competencies as digital literacy, rapid adaptability, and innovative thinking. Therefore, the development of students' professional methodological competencies based on digital technologies has become a priority area of education. Today, advanced technologies such as artificial intelligence, virtual and augmented reality, and adaptive

learning systems are being actively introduced into the educational process. This makes it possible to create interactive, personalized, and flexible forms of teaching. Through the use of innovative approaches, students have the opportunity to form the methodological skills necessary for their professional activities faster and more effectively. In Uzbekistan, the digitalization of education and the widespread introduction of innovative technologies have been identified as one of the priority tasks of state policy. The digital education infrastructure is being expanded based on documents such as the "Digital Uzbekistan - 2030" strategy and the "Education - 2030" concept. In this process, the formation of students' professional competencies based on the requirements of the time is an urgent and inevitable need. From this point of view, the study and implementation of innovative approaches to improving students' professional methodological competencies based on digital educational technologies not only increases the quality of education, but also plays an important role in preparing the younger generation for a global competitive environment. In today's era of rapid development of information technologies, the adaptation of the education system to the digital environment is of urgent importance. The formation and development of students' professional methodological competencies using modern digital tools is one of the most important factors in increasing the quality and efficiency of education. An educational model based on innovative technologies equips students not only with theoretical knowledge, but also with practical skills, creative thinking and quick decision-making abilities. In today's global economy, such competencies are more important than ever. Digital platforms, distance learning systems, and online resources are also being widely introduced in the education system of Uzbekistan. Trends such as "Digital Education", "EdTech Innovations", "Lifelong Learning" have become important components of the education strategy of Uzbekistan. Therefore, the issue of developing professional methodological competencies of students based on digital technologies and innovative approaches has not only scientific and theoretical, but also practical significance and is considered an integral and inseparable part of the modern education system.

Conclusion. Today, the introduction of digital technologies into the educational process has become an important factor in equipping students with modern professional and methodological competencies. With the help of digital educational technologies and innovative approaches, students are developing the necessary competencies such as independent thinking, finding creative solutions, and constantly updating their knowledge and skills. The results of the study show that digital platforms, virtual and augmented reality, artificial intelligence-based learning tools, and gamification elements increase the effectiveness of the educational process. Students have the opportunity to strengthen their professional training not only theoretically, but also by developing practical skills. Improving professional

methodological competencies based on digital educational technologies not only improves the quality of education, but also serves to train competitive and innovatively thinking specialists who meet the requirements of the modern labor market. In the future, further development of digital education, widespread introduction of innovative methods and their continuous improvement will greatly contribute to the professional growth of students and the digital transformation of society as a whole.

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