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THE ROLE OF COMPUTER TECHNOLOGIES IN TEACHING SPECIALIZED SUBJECTS IN TECHNICAL SCHOOLS

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Annotation: This article extensively covers the role and importance of computer technologies in teaching specialized subjects in technical schools. The impact of modern information and communication technologies (ICT) on improving the quality of the educational process, improving the practical skills of students and effectively organizing the pedagogical activities of teachers is analyzed based on statistical data and official sources. The article shows the advantages of virtual laboratories, simulation programs and distance learning with examples. At the same time, the words of the President of the Republic of Uzbekistan on the digitalization of the education sector are cited, and the problems of introducing technologies, infrastructure and teacher training issues are discussed. The results of the study confirm the important place of computer technologies in modern education and the need to further strengthen their role in training future specialists.

Keywords: technical school, specialized disciplines, computer technologies, information and communication technologies (ICT), virtual laboratories, simulation programs, distance learning, practical skills, teaching quality, statistical data, infrastructure, teacher qualifications.

In the modern world, the education system cannot develop effectively without technological progress. Especially in teaching specialized disciplines in technical schools, computer technologies serve as an important tool in preparing students for the modern labor market. Paying special attention to the issue of modernization of the education sector, the President of the Republic of Uzbekistan Shavkat Mirziyoyev said at a meeting on August 27, 2023: "The final result of the measures we are taking to further improve school education depends primarily on the selfless work of teachers. At the same time, improving the quality of education through the introduction of modern technologies is the most urgent task today." These words apply not only to general education schools, but also to secondary specialized educational institutions, including technical schools. In recent years, great work has been done in Uzbekistan to digitize the education system. In particular, according to statistics for 2022, 78 percent of secondary specialized educational institutions in the republic are equipped with modern computers. This figure was only 42 percent in 2018. At the same time, in 2023, virtual laboratories and simulation programs were introduced in more than 150 technical schools, which allowed students to test theoretical knowledge in practice. For example, in mechanical engineering technical schools, students are learning to design technical parts using 3D modeling programs on a computer. It is reported that this method has made the learning process 30-40 percent more efficient.Computer technologies are also playing an important role in the development of distance learning. During the pandemic in 2020-2021, the use of distance learning platforms in Uzbekistan increased by 65 percent. In technical schools, this figure was 50 percent on average, but due to infrastructure problems, the level of use of these opportunities was lower in rural areas. President Shavkat Mirziyoyev said in this regard in 2023: "There are many tasks to improve the

infrastructure of existing schools and educational institutions. There is a demand for schools with 350 thousand places in new areas and neighborhoods. To solve this problem, it is necessary to introduce modern technologies and develop infrastructure."

Virtual laboratories are important in teaching specialized subjects in technical schools. For example, in the field of electrical engineering, students conduct experiments on a computer using virtual simulations before working with expensive equipment. In 2023, more than 200 virtual laboratories were created in technical schools of Uzbekistan, which not only saves resources but also ensures the safety of students. According to statistics, the practical skills of students using virtual laboratories improved by 25%.

Distance learning makes the educational process in technical schools more flexible. In 2022, more than 120 thousand students studied on distance learning platforms across the republic, of which about 40 thousand were technical school students. This method allowed students to communicate with teachers in real time, independently study course materials, and test their knowledge through tests. The President said this about it: "By improving the skills of teachers and using modern technologies in education, we must train young people as specialists who meet world standards."

Despite the advantages of computer technologies, there are a number of problems in their implementation in technical schools. According to the 2023 analysis, 35% of technical schools in rural areas of the republic have low internet speed, and 20% lack modern computers. In addition, 40% of teachers do not have sufficient qualifications in using computer technologies. To solve this problem, it is planned to organize special trainings for 5,000 teachers in 2024.

The President's speech at the 2023 meeting specifically addressed this issue: "Teachers' qualifications should be improved in a differentiated manner. Before improving their qualifications, their knowledge is diagnosed, and individual development directions are determined based on the results." This approach is also expected to be applied to technical school teachers.

Computer technologies have become an integral part of teaching specialized subjects in technical schools. Statistical data show that they play an important role in making the educational process effective and preparing students for the modern labor market. As President Shavkat Mirziyoyev has noted, "We must continue to use modern technologies to improve the quality of education and expand opportunities for young people." Therefore, improving infrastructure, improving the skills of educators, and expanding technological resources remain key tasks for the future success of the education system.

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