

The Role of Innovative Technologies in the Educational Process

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Annotation: The article describes the stages of development of the education system, methods, the education system of developed countries, the role of international assessment programs in education, teaching processes and their pedagogical basis.

Key words: STEM Innovative technologies, global network, intellectual potential, competence, knowledge and skills.

In the history of the education system, we have witnessed the emergence and implementation of many new innovative technologies. These include television, radio, personal computers, networks, the Internet, mobile communications, satellites, space, nuclear power, and many more. Nowadays, many processes are organized using computers and information systems, and the opportunities to improve quality and efficiency through their use in management, production, training and other processes are expanding. It has become a tradition for people to communicate on social networks and various messenger programs. In addition, students or those who are engaged in science can get acquainted with the latest developments and inventions in science and industry through the Internet.

Today, most users can access news and other educational materials not only from books, textbooks, newspapers and magazines in the traditional way, but also from the global network more quickly and easily. At the same time, the flow of information is increasing, and there is a need to sort it out and select only the information that is needed. In addition, a number of scientific studies have been conducted on the automation of many production and other processes, and on robotic tasks that can be performed by humans and do not require intellectual capacity or may be hazardous in the process. Many sources on the Internet have published research on the future development of the labor market, and it is expected that some professions will disappear in the next 15-20 years or demand for them will decrease sharply, and vice versa. Undoubtedly, the implementation of most processes and services in the future through the Internet, information systems and related solutions will require our young people and students of today's schools (higher education institutions) to acquire information competence for the XXI century. In the meantime, a number of countries are implementing solutions to build the knowledge, skills and competencies that will be needed in the educational process in the near future. For example, in the Russian Federation, independent and supervised work, textbooks on computer science are also published for primary school students. There are also Lego MINDSTORMS Education collections on the subject of "Technology" and a set of textbooks, manuals and workbooks on "Robotics based on technological solutions". In addition, vocational guidance tests for students in grades 8, 9, 10 and 11 in the section "My future profession" have been published, which will help schoolchildren to choose their future careers and develop the necessary knowledge and skills. In Belarus, youth creative centers, ie extracurricular activities, develop students' knowledge and skills in information and communication technologies, robotics, programming, databases, software and computer engineering. and skills development.

Compact equipment in the "Technology" classroom of the secondary school in Valmera, Latvia As part of the pilot project "Learning for the Future" under the auspices of UNESCO, all classrooms are equipped with Promethean interactive panels and personal computers connected to the Internet at the teacher's workplace. In addition to computers, Arduino Lego kits are available in the Informatics classroom. In most developed countries (USA, China, Israel, Finland, Australia, Malaysia, Germany, France, Italy, Austria, etc.) and in some CIS countries (Russia, Kazakhstan) a

relatively new direction in education - STEM (Science - natural) Science, Technology, Engineering, Mathematics, and Mathematics. STEM training programs can develop basic skills and competencies that can be applied in real life, such as building and launching a space rocket model, designing and viewing a bridge model, refining oil and separating fractions, assembling and operating robots, and more. This will help students to study the natural and exact sciences in more depth, increase their interest in science and science, and develop engineering competencies by mastering modern technologies. Students develop not only curiosity and interest in the practical application of promising technologies, but also ideas, desires and goals for programming and process automation, robotics, nano and biotechnology.

In the STEM direction, the National Strategy for the Implementation of the National STEM School Education Strategy for 2016-2026 in Australia was adopted, while in Kazakhstan it was introduced in 2016 in some gymnasiums and lyceums. In Russia and Belarus, STEM programs and technology solutions are being introduced in general secondary and out-of-school education.

This year, the President of the Republic of Uzbekistan has adopted a number of decrees and resolutions aimed at reforming and developing the public education system. This means that the study of international experience and the introduction of the best and most effective solutions into practice can yield the expected results.

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