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THE IMPORTANCE AND RESULTS OF INNOVATIVE TECHNOLOGIES IN THE EDUCATIONAL PROCESS

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Annotation: It is known that in the process of teaching physics in secondary schools, the fundamentals of scientific worldview, logical thinking, intellectual intelligence and the necessary knowledge, skills, and abilities are formed in students to continue their education. In secondary special educational institutions, this pedagogical phenomenon continues and is further developed in the process of teaching physics. Because the main goal of the physics program is to provide fundamental knowledge of general physics on the basis of general education: to show that physical theory is a generalized form of information about observations, experiments and phenomena; and by emphasizing the importance of physics in technology, technique, medicine, and personal life, it is to arouse interest in this science and create a basis for continuing its study.

Аннотатsiя: Известно, что в процессе обучения физике в общеобразовательной школе у учащихся формируются основы научного мировоззрения, логического мышления, интеллектуального интеллекта и необходимые знания, умения и навыки для продолжения образования. В средних специальных учебных заведениях это педагогическое явление продолжается и получает дальнейшее развитие в процессе обучения физике. Потому что основная цель программы по физике – дать фундаментальные знания по общей физике на базе общего образования: показать, что физическая теория – это обобщенная форма сведений о наблюдениях, экспериментах и явлениях; а подчеркивая значение физики в технике, технике, медицине и личной жизни, — вызвать интерес к этой науке и создать основу для продолжения ее изучения.

Introduction: Radical improvement of the quality of teaching in schools, vocational colleges, academic institutions and higher education institutions of our country through the wide introduction of electronic textbooks and multimedia new information, communication and pedagogical technologies into the educational process, modernisation of the extensive laboratory base of educational institutions. institutions It is necessary to strengthen the equipment of educational laboratories, computer equipment, and further develop an effective system of material and moral incentives. Translated with DeepL.com (free version) [1].

Of course, education is a product of consciousness. But at the same time it is the most important factor determining the level of consciousness and its development, that is, forming and enriching the spirituality of the people. Therefore, it is impossible to develop spirituality without changing the system of education and, on this basis, consciousness. We should not forget that the foundation of our future is created in educational institutions, in other words, the future of our nation depends on the education of our children today.

Education cannot be separated from education, education from education - this is the Eastern view, the Eastern philosophy of life. Reflecting on this, one can recall the deeply meaningful words of Abdullah Awlani: “Education is for us a matter of life, death, salvation, destruction, happiness or catastrophe”

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In terms of the scale and substance of our tremendous work in the field of education in recent years, we have created a solid foundation for achieving our noble intentions, building an unrivalled life, and the spiritual growth of our youth and the entire nation. Modern society is commonly referred to as the information society. The basis for the development of this society is the creation of computer and telecommunication technologies and the collection, processing, transmission and storage of related information, and in this system the personality becomes one of the backbones of the information society.A characteristic feature of education at the present stage is the rapid growth of the volume of information and the need to increase the speed of its processing and assimilation.

Changes in the education system lead to a dramatic change in the methodology of teaching physics. The teacher should fully understand the essence of physical processes and phenomena, explain and master their essence in a new way during the lesson. teaching technologies - multimedia complexes and virtual laboratories have become one of the main requirements of modern education. According to foreign researchers, computerised teaching technology is implemented in the following 3 variants:

1. Inbound technology - the computer is used in separate sections of science, studying the subject or fulfilling didactic tasks.
2. main technology - science is carried out entirely with the help of a computer.
3. monotechnology - realisation of the educational process, teaching and control is carried out with the help of computers. [2, 3]

The main purpose of using computer-based learning technologies is to develop skills in working with information, to develop intellectual abilities, to independently search for and find optimal solutions, and to activate research activities.

The use of integrated information environment in education makes it possible to form a learning system that supports the educational process and distance learning methods from the teaching and methodological side and fully meets the needs. This, in turn, makes it possible to increase the efficiency of the educational process, create conditions for independent work of students, conveniently and easily organise the information environment depending on the form of learning. High efficiency of display media is related to the physiological characteristics of a person who receives information and stores it in memory. These characteristics, according to research, are as follows: the perceptive capacity of the visual analyser is hundreds of times greater than the receiving capacity of auditory analysers, 90% of information from the surrounding world a person receives through vision. The amount of knowledge acquired through sight is three times the amount of knowledge acquired through hearing alone. That is why the expressions ‘It is better to blink once than to hear a hundred times’ and ‘The eye is more sensitive than the ear’ are widespread. If, in addition, a person realises an event by hand (through the sense organ) and comes to conclusions on the basis of analysis, the possibility of storing such information in memory is even greater. [4,5,6] The purpose of information technology is to produce information that is designed to enable a person to analyse it and make decisions based on it.Today, when thinking about information technology, many people use the synonyms ‘new’, ‘computer-based’ or ‘modern’. New information technology means information technology that uses personal computers and telecommunication facilities and has a ‘user friendly’ interface for the user's work. [7]

In short, didactic principles that exist in the requirements for software and pedagogical tools are new, psychological and ergonomic (human physical capabilities) that increase the effectiveness of teaching and use of computer programmes created for distance

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learning students. need to be filled with means. Modern computer tools develop in them independence and thinking, providing an opportunity for virtual study of laboratory classes in distance learning. [8]

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