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THE ROLE OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY IN EDUCATION

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Annotation

The purpose of teaching computer science and information technology to students is to teach them how to use modern computer techniques and technologies, to develop skills in working with modern computer software. It consists of teaching students how to use modern computer technology effectively and how to apply newly developed software to various sectors of the economy. The science of informatics and information technology relies on a number of disciplines that form the basis of various disciplines. It is closely related to the disciplines that serve as the basis for various specialties.

Keywords: Informatics, information technologies, market economy, modern science, competitive, training.

XXI century - the century of engineering and technology. Yes, the name was not given in vain. Environmental events have stimulated interest in its study. This interest has been followed by unprecedented discoveries in the field of science. Surprising news is being created day by day. The novelty and uniqueness of information and communication technologies is that, in terms of human development, they can penetrate into almost all areas of human activity, and can be used for an unlimited number of places and purposes.

Such information and communication technologies allow us to overcome obstacles in the process of human development with unprecedented efficiency in three areas:

1) Overcoming obstacles in the way of acquiring knowledge. The use of information is important for shaping human potential for learning. If education leads to the development of cognitive skills, information will be needed to provide a meaningful aspect of the knowledge acquisition process. The Internet and the World Wide Web are the same information retrieval channels for people from all walks of life.

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2) Removes barriers to social life. The ability to communicate with the world through the Internet has enabled the spread of many global civic initiatives in recent years. For example, feedback in the education system.

3) Removes barriers to economic growth. ICT and related industries and the education system are the fastest growing sectors. New information technologies dramatically expand access to information and communication. E-mail, e-libraries - sites provide unlimited opportunities for the education system, break down any barriers, provide access to educational and scientific information from anywhere in the world.

Information and educational activities. The globalization of education - from seminars to terrorism and religious extremism - has increased the importance of information and educational opportunities.

New information technologies allow science and education to be linked to closer and more effective channels, such as the delivery, replenishment, and reassessment of accumulated knowledge.

Today, science is the main, dominant tool for the development of the education system. This has changed the importance of science in the education system, which has not always been the case with advanced information technology.

Society creates a new scientific structure, which is associated not only with the development of science itself, but also with the system of education and training. There are now about 2.5 billion unique publicly used web pages on the Internet, with 7.3 million new ones added every day.

At the same time, these innovations, in particular, various gadgets, devices and devices are becoming an integral part of human life. Effective use of them is a topical issue today. In this regard, the thorough study of the subject "Modern computer hardware and software" in Uzbekistan, along with the knowledge of theoretical materials, serves as a skill in the pedagogical activity of students.

Students will learn about the interrelationships and methodological interrelationships of science with other disciplines in the curriculum and the methods of teaching teaching in practice.

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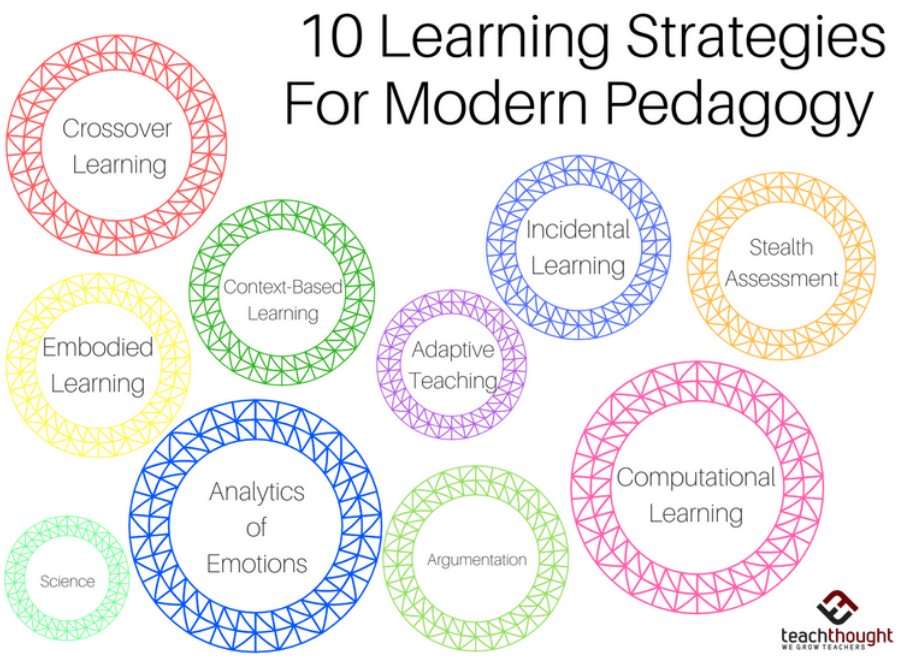

Fig 1.Innovative Learning Strategies For Modern Pedagogy

Learning in informal settings, such as museums and after-school clubs, can link educational content with issues that matter to learners in their lives. These connections work in both directions.

Learning in schools and colleges can be enriched by experiences from everyday life; informal learning can be deepened by adding questions and knowledge from the classroom. These connected experiences spark further interest and motivation to learn.

An effective method is for a teacher to propose and discuss a question in the classroom, then for learners to explore that question on a museum visit or field trip, collecting photos or notes as evidence, then share their findings back in the class to produce individual or group answers.

These crossover learning experiences exploit the strengths of both environments and provide learners with authentic and engaging opportunities for learning. Since learning occurs over a lifetime, drawing on experiences across multiple settings, the wider opportunity is to support learners in recording, linking, recalling and sharing their diverse learning events.

The study of methodological science prepares students to independently and consciously address issues of teaching and educating students, as well as to continue the independent study of the theory and practice of education, to read

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newly published methodological literature, equips you with the skills needed to structurally evaluate and generalize your writing experience.

Incidental learning is unplanned or unintentional learning. It may occur while carrying out an activity that is seemingly unrelated to what is learned. Early research on this topic dealt with how people learn in their daily routines at their workplaces.

For many people, mobile devices have been integrated into their daily lives, providing many opportunities for technology-supported incidental learning. Unlike formal education, incidental learning is not led by a teacher, nor does it follow a structured curriculum, or result in formal certification.

However, it may trigger self-reflection and this could be used to encourage learners to reconceive what could otherwise be isolated learning fragments as part of more coherent and longer-termm learning journeys.

Computational thinking is a powerful approach to thinking and problem solving. It involves breaking large problems down into smaller ones (decomposition), recognizing how these relate to problems that have been solved in the past (pattern recognition), setting aside unimportant details (abstraction), identifying and developing the steps that will be necessary to reach a solution (algorithms) and refining these steps (debugging).

Such computational thinking skills can be valuable in many aspects of life, ranging from writing a recipe to share a favorite dish with friends, through planning a holiday or expedition, to deploying a scientific team to tackle a difficult challenge like an outbreak of disease.

The aim is to teach children to structure problems so they can be solved. Computational thinking can be taught as part of mathematics, science and art or in other settings. The aim is not just to encourage children to be computer coders, but also to master an art of thinking that will enable them to tackle complex challenges in all aspects of their lives.

Embodied learning involves self-awareness of the body interacting with a real or simulated world to support the learning process. When learning a new sport, physical movement is an obvious part of the learning process. In embodied learning, the aim is that mind and body work together so that physical feedback and actions reinforce the learning process.

Technology to aid this includes wearable sensors that gather personal physical and biological data, visual systems that track movement, and mobile devices that respond to actions such as tilting and motion.

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This approach can be applied to the exploration of aspects of physical sciences such as friction, acceleration, and force, or to investigate simulated situations such as the structure of molecules.

For more general learning, the process of physical action provides a way to engage learners in feeling as they learn. Being more aware of how one's body interacts with the world can also support the development of a mindful approach to learning and well-being.

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