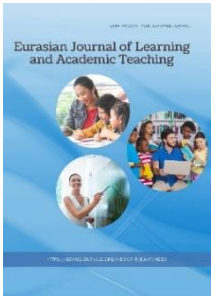

Information and Communication Technologies in Education

Velieva Susanna

Jizzakh branch of the National University of Uzbekistan

ABSTRACT

The effective use of information technology in the learning process is an important factor in the organization of the educational process. The use of information technology at different stages of the lesson activates mental processes: perception, attention, memory, thinking. Explaining new material using presentations as a source of educational information optimizes the learning process. Thus, the use of information technology in education has ample opportunities. The constant growth of the level of information and communication technologies entails an increase in potential opportunities for educational purposes, which in turn are successfully implemented and used in practice.

Keywords: Information Technology, Factor, Presentation, Development, Cognitive Abilities, Perception, Attention, Memory, Thinking, Practice.

One of the main lines of development, in accordance with the criteria of the new State Educational Standard, is the use of current information technologies based on the principles of problematic nature, the activation of creative thinking, and the construction of professional competence. The appropriate use of information technology in the learning process is a critical component of educational process organization. The following didactic options illustrate why using ICT in the educational process is beneficial:

- development of educational motivation of trainees;
- expansion of opportunities for independent creative activity in the study and systematization of educational material;
- instilling the skills of self-control and self-correction of one's own mistakes;
- development of cognitive abilities.

The use of information technology at different stages of the lesson activates mental processes: perception, attention, memory, thinking. Explanation of new material using a presentation as a source of educational information and a visual aid optimizes the learning process. Visual representation of definitions, block diagrams, programs and their executions, presentation of moving visual images as a basis for conscious mastery of scientific facts ensures effective assimilation of new knowledge and skills. The use of slide presentations in the educational process allows you to:

- integrate hypertext and multimedia into a single presentation, making the presentation of educational material bright and convincing;
- the combination of oral lecture material with a slide show allows you to focus visual attention on particularly significant moments of the educational material;
- combine educational material (lectures, interactive reference materials, etc.) in the form of presentation programs and use them for independent work;
- to intensify the assimilation of educational material and conduct classes at a qualitatively new level.

The possibilities of information technologies as a tool of human activity and a fundamentally new means of teaching lead to the emergence of new methods, tools, organizational forms of control and their more

intensive implementation in the educational process. Controlling tasks in disciplines implemented with the help of information technologies can be aimed at identifying the following knowledge:

- knowledge of definitions, fundamental concepts of a section, topic;
- knowledge of rules, algorithms, laws, formulas;
- knowledge related to solving problems on the topic;
- knowledge of facts, basic provisions, principles, practical applications.

Controlling tasks in information disciplines implemented with the help of information technologies can be of various levels of complexity:

- simple recognition tasks;
- tasks performed according to a formula, algorithm, rule, pattern;
- tasks of a problematic nature.

The use of information and communication technologies in the process of monitoring the knowledge of students, their skills in disciplines gives the following advantages:

• a high degree of visibility during control, which contributes to an increase in interest in the very subject of study, control and evaluation;

• automation of carrying out, evaluation of results, summarizing the results of control procedures;

• the possibility of multiple performance of control tasks in order to assimilate knowledge.

The use of information technology has many-sided possibilities in research activities. In the classroom with the generalization and systematization of knowledge and methods of activity, you can perform design and creative work using Internet resources. This type of work develops creative, research abilities, increases activity, creates conditions for self-expression, allows you to intensify the educational process, activate cognitive activity, and increase the effectiveness of the lesson. The Internet quickly found application in science, education, communications, the media, including television, advertising, trade, and other areas of human activity. The first steps to introduce the Internet into the education system showed its great potential for its development. At the same time, they also identified the difficulties that need to be overcome for the widespread use of the Web in educational institutions. This is a significantly higher cost of organizing training compared to traditional technologies, which is associated with the need to use a large number of technical (computers, modems, etc.), software (learning technology support) tools, as well as the preparation of additional organizational and methodological aids (special instructions for students and teachers, etc.), new textbooks and manuals, etc.

It should be highlighted that the use of the Internet in education is still in its early stages. There is a process of gaining experience, looking for ways to improve education quality, and experimenting with new ways to use ICT into various educational activities. Difficulties in mastering ICT in education arise from a lack of not only a methodological foundation for their use in this area, but also a methodology for developing ICT for education, forcing teachers to rely solely on personal experience and the ability to empirically search for ways to effectively use information technology in practice.

The fact that the conventional approach of developing and implementing modern ICT is founded on ideology adds to the difficulty of incorporating them.The complexity of introducing modern ICT is also determined by the fact that the traditional practice of their development and implementation is based on the ideology of creating and using information and telecommunication systems in completely different areas: communications, the military-industrial complex, aviation and astronautics. Adaptation of ICT to a specific field of application is carried out by specialists from design bureaus and research institutes who have extensive experience in the development of such equipment and, therefore, well understand the purpose of systems and their operating conditions.

In modern education, there are no such specialized research structures, they are just beginning to be created. For this reason, there is a "gap" between the possibilities of educational technologies and their real application. An example is the still existing practice of using a computer only as a typewriter. The situation is complicated by the fact that information technologies are rapidly updated: new, more efficient and complex ones appear, based on artificial intelligence, virtual reality, multilingual interface, geographic information systems, etc. The way out of this contradictory situation can be the integration of technologies, that is, such a combination of them that will allow the teacher to use technical means that are understandable to him, certified and adapted to the learning process, in classes and lectures. The integration of ICT and educational technologies should become a new stage in their more effective implementation in the education system.

The global introduction of modern technologies in all areas of activity, the development of new communications and the creation of a highly automated information environment have become not only the first step towards the formation of an information society, but also the beginning of the transformation of the traditional education system. The main factor determining the feasibility of reforming the existing education system is the need to respond to the main challenges that the 21st century has made for humanity:

- the need for the transition of society to a new development strategy based on knowledge and highly efficient information and telecommunication technologies;
- the fundamental dependence of our civilization on those abilities and personality traits that are formed by education;
- the possibility of successful development of society only based on genuine education and effective use of ICT;
- the closest connection between the level of well-being of the nation, the national security of the state and the state of education.

The creation and development of the information society (IS) involves the widespread use of information and communication technologies (ICT) in education. Improving the quality of education, the active and effective implementation of modern ICT in education is determined by a number of factors:

- firstly, it significantly accelerates the transfer of knowledge and the accumulated technological and social experience of mankind not only from generation to generation, but also from one person to another,
- secondly, it allows a person to more successfully and quickly adapt to the environment and ongoing social changes, which gives each person the opportunity to receive the necessary knowledge,
- thirdly, it is an important factor in creating an education system that meets the requirements of the IO and the process of reforming the traditional education system.

The need to introduce ICT into the learning process was noted by international experts in the World Report on Communication and Informatization in 1999-2000, prepared by UNESCO and published at the end of the last millennium by the Business Press agency. In the preface to the report, UNESCO Director-General Federico Mayor writes: “New technologies should contribute to “creating a better world in which everyone benefits from the achievements of education, science, culture and communication”. ICTs affect all of these areas, but perhaps the most positive impact they have on education, as they “open up entirely new ways of teaching and learning”.

A new stage in the global technologization of advanced countries was the emergence of modern telecommunications networks and their convergence with information technology, that is, the emergence of ICT. They became the basis for the creation of the infosphere, since the unification of computer systems and global telecommunications networks made it possible to create and develop a planetary infrastructure that connects all of humanity.

On the way to IE and the introduction of ICT in education, three stages can be distinguished:

- initial, associated with the individual use of computers, mainly for the organization of the education system, its administrative management and storage of information about the management process;

- modern, associated with the creation of computer systems, the Internet and the convergence of information and telecommunication technologies; - the future, based on the integration of new ICTs with educational technologies (OT).

ICTs have an active influence on the process of education and upbringing, as they change the pattern of knowledge transfer and teaching methods. At the same time, the introduction of ICT into the education system not only affects educational technologies, but also introduces new ones into the education process. They are associated with the use of computers and telecommunications, special equipment, software and hardware, information processing systems, as well as with the creation of new learning and knowledge storage tools, which include electronic textbooks and multimedia; electronic libraries and archives, global and local educational networks; information retrieval and information reference systems, etc. ICT models are currently being developed, and some of them are successfully applied in the education system.

Thus, the use of information technology in education has ample opportunities. The constant growth of the level of technology in the computer industry entails an increase in the potential for educational purposes, which in turn are implemented and used in practice.

References:

1. Всемирный доклад ЮНЕСКО по коммуникации и информации, 1999-2000 гг. – М. – 2000. – 168 с.
2. Raipovna V. S. A Comparative-Contrastive Analysis in Teaching Grammar of a Foreign Language (On the Example of the English Perfect) //CENTRAL ASIAN JOURNAL OF LITERATURE, PHILOSOPHY AND CULTURE. – 2021. – Т. 2. – №. 10. – С. 10-13.
3. Образование и XXI век: Информационные и коммуникационные технологии. – М.: Наука, 1999. – 191 с.
4. Raipovna V. S. Foreign Experience in Digital Educational Technologies //EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION. – 2021. – Т. 1. – №. 2. – С. 152-154.
5. Открытое образование – объективная парадигма XXI века / Под общ. ред. В.П. Тихонова. – М.: МЭСИ, 2000. – 288 с.
6. Велиева С. Р., Бавбекова А. Э. МОТИВАЦИЯ И МЕТОДЫ ЕЕ ПОВЫШЕНИЯ В ПРОЦЕССЕ ПРЕПОДАВАНИЯ РУССКОГО ЯЗЫКА КАК ИНОСТРАННОГО //БАРҚАРОРЛИК ВА ЕТАКЧИ ТАДҚИҚОТЛАР ОНЛАЙН ИЛМИЙ ЖУРНАЛИ. – 2022. – С. 8-11. http://sciencebox.uz/index.php/jars/article/view/1433
7. Романов А.Н., Торопцов В.С., Григорович Д.Б. Технология дистанционного обучения в системе заочного экономического образования. – М.: ЮНИТИ-ДАНА., 2000. – 303 с.
8. Ибрагимова, Д.Ш. Методы страноведческого подхода и использование словарей в изучении иностранных языков в техническом вузе [Текст] / Д.Ш. Ибрагимова // Молодой ученый. – 2016. – №3. – С. 829–832
9. Яковлев А.И., Береговой Г.Т., Василец В.М. и др. Моделирование систем полуавтоматического управления космических кораблей / Под ред. А.И. Яковлева. – М.: Машиностроение, 1986. – 280 с. Xalik
10. Shamsiddinovna I. D. Discourse As A Linguistic Aspect For Communication //ТАЪЛИМ ВА РИВОЖЛАНИШ ТАҲЛИЛИ ОНЛАЙН ИЛМИЙ

ЖУРНАЛИ. – 2021. – Т. 1. – №. 5. – С. 214-217.

11. Велиева С. Методика Кейс-Стади При Обучении Русскому Языку Как Иностранному //Актуальное В Филологии. – 2021. – Т. 3. – №. 3.
12. .Shamsiddinovna, I. D. . (2022). Modern Methods of Teaching English in Construction Institution. European Journal of Life Safety and Stability (2660-9630), 14, 82-86. Retrieved from http://www.ejlss.indexedresearch.org/index.php/ejlss/article/view/459
13. Раиповна, В. С. . (2021). Использование Интерактивных Методов При Обучении Учащихся, Слабо Владеющих Русским Языком. ИЖТИМОИЙ ФАНЛАРДА ИННОВАЦИЯ ОНЛАЙН ИЛМИЙ ЖУРНАЛИ, 1(6), 75–79. Retrieved from http://www.sciencebox.uz/index.php/jis/article/view/530