

Innovative Technologies as a Development Factor of Primary Class Students on the Base of Information Science

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Abstract: This article describes various methods of teaching computer science and its specific features in elementary grades. Methodological recommendations on the use of innovative technologies in the teaching of computer science in the primary classes of general education schools are presented. It is proposed to improve the quality of lessons with the help of innovative technologies.

Keywords: innovative technology, information and communication technologies, building a logical structure of the lesson, logical thinking, independent work, didactic materials, presentation.

The general pedagogical and didactic requirement for all stages of education is to improve the efficiency of independent work of the student on the basis of software knowledge, imagination and skills, to increase his interest in scientific thinking and academic subjects, to deepen his professional knowledge, during theoretical and practical training is to increase its activity. World pedagogical experience confirms that modern pedagogical technologies have unlimited possibilities to interest students in science and increase their activity in independent work. In order to increase the effectiveness of education, to ensure that the person is at the center of education, and to ensure that young people get independent education, they are well-prepared for educational institutions and, in addition to solid knowledge in their field, they know modern pedagogical technologies and interactive methods. teachers who know the rules of use in the organization of educational and educational activities are needed. For this, it is necessary to arm all subject teachers with new pedagogical technologies and interactive methods and continuously improve their skills in applying the knowledge they have acquired in educational activities. A primary school teacher is responsible for forming children's logical thinking potential, intellectual development, worldview, communicative literacy and self-awareness potential according to the State Education Standard, to be able to think freely, understand others' opinions, they should acquire the skills to express their thoughts fluently orally and in writing. Therefore, in order to eliminate the homogeneity in the educational process of primary classes, to ensure the diversity and color of the teaching process, the creation and implementation of educational and methodological manuals intended for the wide introduction of advanced pedagogical and innovative technologies to do is the demand of the times. At the same time, from the multimedia applications, videos, various prepared during the course of the lesson when the educational process is organized using animated materials, it increases students' interest in the subject in the formation of practical thinking and imagination and provides an opportunity for them to quickly understand. It is also appropriate to arrange musical breaks during the lesson so that students do not get tired and bored. Similarly, the use of didactic games and puzzles in computer science

classes in primary grades further develops students' logical thinking and attention skills. It is also important to teach students the ability to apply the acquired knowledge to solving practical problems with the help of information communication tools. This includes mathematical techniques, measurement, calculation, shape change, making. This is an important factor for the formation of computer skills in students. Informatics skills of students can be divided into: calculation skills, logical thinking skills, geometric imagination skills. Forming the educational process in the primary grades of general secondary schools using information and communication tools. setting issues, determining the content of the practical subject, showing examples of the execution of each individual action, monitoring the execution of each action and action, evaluating whether the issue has been solved or completed) is a continuous, sequential process. Computer-based learning in elementary grades is seen as changing and enriching elements of the subject environment. It is at this age that elementary school students undergo a process of rapid development of the child's mental abilities, and a foundation is created for the development of his intellectual potential. The use of pedagogical, innovative and information technologies in the educational process creates an opportunity to effectively solve the current issues of primary education, including:

1. by making the educational process interesting and productive, the student's motivation to understand the material increases;
2. develop independent work and self-control skills;
3. ensures the effectiveness of the lesson and the learning of each student;
4. overall optimal development is achieved due to the development of thinking, feeling (chuvstva), aspirations (volya), moral imagination of each student;

Active work of all children in the 5th grade is ensured. The application of innovative and information technologies to the educational process can be characterized as a logical and necessary step in the development of the modern information world.

The rapid introduction of computers into the educational process has brought new types and forms of teaching to an unprecedented level in the life of pedagogues. The use of information technologies in primary education is related to solving two main issues: teaching children to use new technical tools and computers in order to open and improve new opportunities for students in academic and extracurricular activities. use of technologies. The use of information technology in the classroom has caused great problems for pedagogues. For example, it is necessary for a modern pedagogue to know how to use a computer, to be able to use computer-assisted teaching tools and to have the skills to apply them to the educational process, to constantly improve his knowledge of computer-based teaching, etc.

In practice, it is worth noting that, for example, in the 3rd grade mathematics-informatics classes, when the teaching material was organized on the basis of computer technology, mastering significantly improved, students' interest in the lesson increased, and the ability to work independently appeared. happened, the opportunities for acquiring knowledge developed, creative approaches began to appear, self-confidence and knowledge began to form. It is especially important to organize the teaching process using information and communication technologies in primary school. Because students of grades 1-4 have developed visual-image thinking, therefore it is very important to organize the lesson process using computer technologies. For this, it is necessary to prepare and use high-quality visual materials in a targeted manner, to apply new views to the process of knowledge acquisition, with sounds, slides, animations.

The use of ICT in various classes in the primary school provides an opportunity to move from the visual-descriptive-explanatory method of teaching to the active method, in which the student becomes an active participant and subject of the educational process. This makes it possible for the student to acquire knowledge with understanding. That is why creative and innovative pedagogues organize the lesson process using computer technologies in the modern education

system in primary classes, which is becoming a vital work norm of most pedagogues. Simple digital, numerical examples and corresponding explanatory texts (numbers or numbers in language can be understood through The process of learning becomes more effective when explanatory texts corresponding to the recommended daily life examples are used in the form of slides and animations in the course of lessons in primary classes or when they are used independently by students during extracurricular activities.

ICT is a very powerful, versatile, universal instrumental tool in the hands of the teacher, who needs to master it and use it purposefully in the lessons of his subject. The application of ICT in the educational process closely helps to carry out various forms of teaching and education in elementary mathematics classes together with pedagogical technologies. As a result, the teaching process is active and targeted. For use in mathematics classes, slides of presentations divided into different levels of topics have been prepared, which serve as a basis for the formation of independent work skills in students after the lesson. Work with presentations on topics individually helps to strengthen the student's knowledge, to increase the quality of the acquired knowledge, and to further increase his passion for knowledge, to form it in a systematic way.

Using ICT, an open lesson was held using a computer on the topic of 3rd grade mathematics-informatics, thousands, "numbering of three-digit numbers". Pupils participated very actively in the lesson, because most didactic materials and presentations were prepared with the help of pupils. Effective use of purposeful, hierarchically structured presentations in mathematics-informatics classes greatly helps in mastering new material, especially the qualities of vitality, activity, creativity, research, and responsiveness have appeared in students. That's why the open lesson organized on the topic of "numbering three-digit numbers" was successful. Pupils fully answered the problematic questions. In order to ensure that all lessons are interesting for students, we use not only presentations prepared by ourselves, but also presentations prepared by fellow teachers, to help them achieve the goal and meet the requirements of students Uchenyy XXI veka • 2016 we make various changes taking into account. The use of ICT helps to realize my ideas and to modernize the lesson. The use of ICT in the educational process affects the growth of the teacher's professional competence, which prevents the further increase of the quality of education and its quality to a new level, as a result, it leads to the effective solution of the main problem of the educational system. Wandering the infinite space of the Internet, I got acquainted with a lot of educational Internet resources, and we use them in the course of the lesson, in the formation of my academic work, and in the planning and implementation of extracurricular activities.

For example, <http://www.ziyonet.uz/>, <https://www.uzedu.uz/>, <http://www.edu.uz/>, <http://www.bimm.uz/>, <http://www.gov.uz/uz/>, <http://www.xtjurnali.zn.uz/>, <http://daryo.uz/>, <http://www.multimedia.uz/uzb/>, <http://www.eduportal.uz/uzb/>, etc., Russian educational portal sites: <http://www.edu.ru>, <http://schoolcollection.edu.ru>, <http://nsc.1september.ru>, <http://www.ug.ru>, <http://schoollessons.narod.ru/> and others. Thus, applying information and communication technologies to the educational process in a purposeful way, based on a well-designed methodical plan, definitely helps students to develop the ability to learn independently. Presentations, prepared booklets, informative performances of students, oral information, informative papers (lists) used during the lesson form and develop students' skills of organizing independent study. All this leads to the teacher to organize the lesson at a very high level and to conduct learning at a high educational and methodological level, to show competition, personal revival, creativity and independence in the students in the process of learning. The student's independence in the process of learning develops, encourages the student to gain practical knowledge and actively act in life.

The analysis of the experience of organizing various lessons using ICT in primary schools of general education shows that it can be said with full confidence that the purposeful use of information and communication technologies creates the following opportunities:

- provides positive motivation of the educational process;

- lessons at a high aesthetic and emotional level (slides, music, animations, multimedia);
- ensures a high level of differentiation of education;
- increases the amount of work performed in the lesson by 1.5-2 times;
- improves knowledge control;
- the educational process is organized rationally, the effectiveness of the lesson increases;
- the ability to search and create is formed in the student's activity;
- provides access to electronic libraries, information resources, various information systems, etc.

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