# Improving the Use of Digital Technologies in Science Teaching

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**Abstract:** This article talks about the aspects of improving the use of digital technologies in the teaching of natural sciences in primary grades of general secondary schools.

**Keywords:** Natural science, individual approach, media, media literacy, individualization of training, creative role-playing games, methods of developing critical thinking.

Media education in the modern information society, using media in the educational process, forming the skills of a modern teacher to work with mass media, revealing the essence of education with the help of mass media, increasing pedagogical potential and using various mass media It is considered as a tool for understanding the conditions of education (information technology, Internet, social networks, screen art, television, advertising, interactive games, computer animation, etc.), pedagogical models and the formation of readiness to use them.

Along with theoretical knowledge, practical knowledge plays an important role in the formation of students' knowledge of natural sciences. Knowledge of natural sciences has been acquired over many years of practical research. Scientific and practical experience and practical knowledge have been and continue to play an important role in knowing and understanding nature. It is known that natural science is a science that studies the wide-ranging material world, its colorful features, various events of nature, and it is formed on the basis of scientific experience, and practice is the foundation of this science. The progress of science determines the process of knowledge of human knowledge about the laws of nature, science-based practical activities. The need to understand the essence of theoretical knowledge is born in practice, and their correctness is checked and confirmed through practice.

The unique advantage of such methods is that they are implemented only through the joint activity of students and teachers. Such a process of cooperation has its own characteristics. That is:

➢ ensuring continuity of students' interest in science during the educational process;

➢ to create an opportunity for students to think independently, create and search during the lesson;

➢ to strengthen the students' interest in science and their desire to gain knowledge by independently approaching each issue creatively;

The current period places great demands on teachers and their students, the most important of these demands is the effectiveness of the lesson, its quality, the knowledge and skills of students, various educational activities in schools, their organization and through it students acquire various knowledge and skills. Today, the role of innovative technologies, technical tools, including modern computers, in the correct and effective organization of the educational process is incomparable.

The use of multimedia, animation, graphics and video films related to the subject of the lesson helps to make the lesson process more interesting, and for this, the teacher can work on himself and enter each lesson with the idea of "how can I enter today's lesson process with something new?" he should ask himself the question "can I make the lesson interesting", that is, he should avoid traditional education and try to provide non-traditional education.

It is known that education is a type of activity in cooperation between the teacher and the students. as a result of mastering it, he will have the competencies to use it. In the process of learning new knowledge, students naturally use different forms of learning, such as receiving information, processing it, and putting it into practice. Nowadays, it is no secret to anyone that advanced pedagogic scientists have recognized that one of the most important indicators is the improvement of the possibilities of using modern computer technologies in general education schools, the full use of the possibilities of modern technologies in the educational process.

As a result of the rapid development of information and communication technologies, the term "media" appeared. The term "media" is derived from the Latin language (from the word media, medium) and means guide, intermediary. The term "media" was first used in the 20th century to refer to the tools that form mass culture. Skill is a person's ability to perform a specific activity or action based on previous experiences.

Media skills are a component of activities related to practical application of knowledge of information and communication technologies. "Media Literacy" is the ability to develop, analyze/analyze and create media. The main task of media education is to prepare the new generation for life in modern information conditions, to teach them to understand the consequences of receiving various information on the human psyche.

The concept of media competence (media competence) is considered a new term entering education, and it includes such meanings as the ability to transfer and evaluate media information in various forms, and the ability to convey learning.

The method of using media technologies in the teaching of natural sciences creates an opportunity to effectively solve the actual issues of education in the educational process, including:

➢ by making the educational process interesting and productive, the student's motivation to understand the material increases;

➢ the skills of independent work and self-control develop;

➢ ensures the effectiveness of the lesson and the mastery of each student;

➢ general active development is achieved due to the development of the thinking, feeling of knowing, striving towards the goal, spiritual imagination of each student;

➢ active work of all students in the class is ensured.

Media education methods can be classified according to:

sources of acquired knowledge: oral (lecture, story, conversation, explanation, discussions);

➢ demonstrative (images and demonstration of media texts (media textists); practical (performance of various practical tasks in media materials).

According to the level of cognitive activity:

explanation (exact information about media by the teacher, acceptance and assimilation of this information by the audience);

reproductive (development and application by the teacher of various exercises and tasks in media materials to learn students' methods of solving), problem (problematic analysis of specific situations or mass media to develop critical thinking);

partial search or heuristic, research (organization of research and creative activity).

At the same time, theoretical and practical training, including various creative tasks, prevails.

Almost all secondary schools in our country are equipped with modern computer and telecommunication technologies. This, in turn, requires primary school teachers to have a new approach to their work. The introduction of new technologies into the educational process of elementary school classes, not forcing the teacher by technical means, but changing his task and role through a new approach, turns the teaching activity into a profession based on a more vibrant, creative and creative approach. .

When organizing the lesson process with the help of modern information technologies, the teacher should first:

➢ organizational part of the lesson;

➢ the purpose of the lesson;

➢ methods of presenting educational materials;

➢ teaching methods;

➢ types of educational assignments;

➢ reinforcement of the lesson;

➢ ways of organizing discussions and debates;

➢ it is necessary to identify factors such as methods of interaction and communication.

By using modern computer technologies, the teacher can perform the following tasks:

➢ students' interest in science develops through the use of multimedia technologies in elementary grades;

➢ this method of education activates students' thinking skills and increases the efficiency of learning material;

➢ provides an opportunity to model and visualize processes that are difficult or complex to demonstrate;

➢ assimilation of educational materials is effective not only according to the level, but also according to the level of logic and acceptance of students;

➢ students are given the opportunity to search for and find materials and find answers to problematic issues through independent research;

➢ conditions are created for students to master a new topic, solve examples, write essays, statements, get acquainted with educational materials, select and analyze information and data quickly.

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It should be concluded from the above that it is necessary to organize future natural science classes and educational work at a high level.

In particular: - organize and conduct training in accordance with state educational standards;

- ➢ organization of lessons based on modern pedagogical methods and ICT tools;
- ➢ carrying out education in an integrated manner with upbringing, forming the spiritual and educational consciousness of students, etc. it is necessary to solve such tasks wisely.

**FOYDALANILGAN ADABIYOTLAR:**

1. 2019 yil 29 apreldagi "O'zbekiston Respublikasi xalq ta'limi tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to'g'risida" PF- 5712-sonli Farmoni

2. O'zbekiston Respublikasi Prezidentining O'zbekiston Respublikasi Vazirlar Mahkamasining 2019 yil 9 iyuldagi "Matematika ta'limi va fanlarni yanada rivojlantirishni davlat tomonidan qo'llab-quvvatlash, shuningdek, O'zbekiston Respublikasi Fanlar akademiyasining V.I.Romanovskiy nomidagi matematika instituti faoliyatini tubdan takomillashtirish chora-tadbirlari to'g'risida" PQ-4387-son qarori

3. O'zbekiston Respublikasi Prezidentining 2019 yil 8 oktyabrdagi "O'zbekiston Respublikasi oliy ta'lim tizimini 2030 yilgacha rivojlantirish kontseptsiyasini tasdiqlash to'g'risida" PF-5847-son Farmoni

4. Karimova S.S. THE ROLE AND IMPORTANCE OF" NATURAL SCIENCES" IN THE DEVELOPMENT OF UNDERSTANDING OF NATURE IN GENERAL SECONDARY SCHOOLS. http://scientists.uz/uploads/202206/B-43.pdf

5. Karimova, S. (2022). THE ROLE AND IMPORTANCE OF" NATURAL SCIENCES" IN THE DEVELOPMENT OF UNDERSTANDING OF NATURE IN GENERAL SECONDARY SCHOOLS. Science and innovation, 1(B6), 214-218.

6. Karimova, Sevara. "CHARACTERISTICS OF NATURAL TEACHING METHODOLOGHY."Oriental renaissance: Innovative, educational, natural and socialsciences1.11(2021):737-740. https://cyberleninka.ru/article/n/characteristics-of-natural-teaching-methodologny.

7. Karimova Sevara "Didactic Features Of Development Of Nature Perception Skills Of Primary School Students"In volume 19, of Eurasian Journal of Learning and Academic Teaching (EJLAT) April 2023.

8. Qizi K. S. S. FORMATION OF NATURE AWARENESS SKILLS OF PRIMARY SCHOOL STUDENTS //International Scientific and Current Research Conferences. – 2023. – C. 43-45.

9. Mamatova , . H., Karimova, S., & Mamayusupova, . Z. (2023). PEDAGOGICAL ANALYSIS IN THE WORKS OF ALISHER NAVOI. Modern Science and Research, 2(9), 5–8. Retrieved from https://inlibrary.uz/index.php/science-research/article/view/23865

10. Pedagogik texnologiya. N.X.Avliyakulov, N.N.Musaeva. –T.: Chopon NMIU, 2012. 90-bet.

11. Innovatsion ta'lim texnologiyalari / Muslimov N.A., Usmonboyeva M.H., Sayfurov D.M., To'rayev A.B. – Toshkent: 2015. 168-bet.

12. Qizi K. S. S. FORMATION OF NATURE AWARENESS SKILLS OF PRIMARY SCHOOL STUDENTS //International Scientific and Current Research Conferences. – 2023. – C. 43-45.