

## USING MODERN INFORMATION TECHNOLOGIES IN EDUCATING DEAF AND HARD-HEARING STUDENTS

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**Abstract:** The use of modern technologies in the classroom for deaf and hard of hearing students helps to navigate the information flows of the surrounding world. Creates the opportunity to exchange information using modern technical means. Strengthens positive motivation for learning, activates the cognitive activity of students.

**Keywords:** Hearing, computer technology, special education, visual functions, polysensory system, multimedia, PowerPoint program, deaf and hard of hearing children, modern technology, social adaptation.

Currently, computer technologies have begun to be actively used in the process of education and upbringing. Depending on the age of the child and the programs used, the computer can play the role of an opponent in a game, be a storyteller, teacher or examiner. There are various computer tools aimed at developing various mental functions of children, for example, visual and auditory perception, attention, memory, verbal and logical thinking, etc. The use of information and computer technologies in lessons on the development of hearing skills helps children to be oriented to the information flows of the world. It develops the ability to exchange information using modern technical means. It increases the positive motivation of teaching, activates the cognitive activity of students. For deaf students, it is important to purposefully form and stimulate the child's knowledge sphere in the process of speech education using modern technologies. The specificity of the learning process in deaf children is associated with the specific features of general and speech development. It includes the development of interest and learning abilities, the development of thinking, memory and imagination, attention and observation. The use of modern technologies in listening development lessons helps to form the following qualities in children:

- navigate the information flows of the surrounding world,
- master practical methods of working with information,
- develop skills that allow for the exchange of information using modern technical means.

– gives a positive impetus to education, activating the cognitive activity of students. The thinking of a deaf child develops more slowly, but his mind remains intact at any age. This means that the potential capabilities of deaf children are the same as those of hearing children. The realization of these capabilities is achieved in a specially organized educational process aimed not only at the development of hearing and speech, but also at the formation of all cognitive activity in general, arming with knowledge, skills and qualifications. In lessons on the development of hearing, it is necessary to take into account that with hearing impairment, not only speech, but also the general cognitive activity of students develops abnormally, which is manifested in the underdevelopment of logical operations, violations of reflection and generalization. This is the same reality in the form of abstraction. It should be borne in mind that deaf children have difficulty perceiving speech and, accordingly, the abstract concepts associated with it. In addition, when there are any difficulties in perceiving new material, such children lose

interest in lessons, become passive. Interest and a positive attitude to educational subjects in which modern technologies are involved help to increase children's motivation and achieve results that are important for the teacher. Therefore, we need to start introducing more and more information technologies into the education and upbringing system, especially for teaching deaf and hard-of-hearing children. Many parents say that this is harmful. However, if children get acquainted with computers relatively early, the use of computer technologies in the classroom and in educational work will help their development.

Practice has shown that children's interest in lessons increases significantly, the level of cognitive abilities increases. If multimedia presentations developed by computer programs are used in lessons on the development of hearing, then the effectiveness of these lessons increases. In lessons on the development of hearing, it is sometimes difficult to explain phenomena in words, and the computer is a unique multimedia medium, thanks to its multimedia capabilities, children's perception of the world around them and the intellectual perception of students develop. In addition, new information technologies that facilitate the change in volume, in particular, updating the specific frequencies of audio materials, can be used to develop residual hearing abilities and speech skills. This plays a huge role in the system of social adaptation of deaf children. The use of multimedia tools to explain and consolidate a new topic, especially in a playful way, attracts the involuntary attention of children, helps to develop voluntary attention.

This involves various cognitive operations of deaf and hard-of-hearing children, which allows them to be firmly preserved not only in modern technologies, but also in the memory of children, especially deaf children. Presenting topics in the form of multimedia presentations in hearing development lessons reduces learning time and frees up children's health resources. When using computer presentations, perception develops faster, psychophysical processes in cognitive activity are formed - memory, attention, perception, imagination. My presentations consist of colorful animated slides, which are great helpers in my lessons. The program that I am going to create when explaining topics in hearing development lessons is recommended for deaf and hard-of-hearing children who have difficulty analyzing, generalizing, systematizing and verbally expressing the phenomena of surrounding reality. I like to master the latest achievements of special pedagogy science and practice, therefore I set myself the following tasks:

1. Improving professional skills through the use of information and communication technologies in special education.
2. Introduction of modern technologies in the joint activities of educators and children in special boarding schools for the deaf and hard of hearing.
3. Use of modern technologies to improve the skills of parents in working with parents.

One of the important factors affecting the professional skills of each teacher is self-education. The search for new techniques, methods and technologies is relevant. Taking this into account, the use of modern technologies in work and in the teaching process: - Creating presentations in the PowerPoint program to increase the effectiveness of educational activities with children; - Using presentations created in the PowerPoint program. It is no secret that the material that is interesting for the child is better absorbed. Multimedia presentations allow you to present educational and developmental materials as a system of live supporting images. In this case, various cognitive and thinking operations are involved, which allows you to store information in children's memory not only in real, but also in associative form. The use of computerized slide presentations in the process of teaching children has the following advantages:

1. Polysensory perception of information;

2. The ability to display various objects in an enlarged form using a multimedia projector and a projection screen;
3. Combining audio, video and animation effects into one presentation helps to compensate for the information received by children from educational literature;
4. The ability to display objects that are more convenient for perception by the sensory perception system;
5. Activation of visual functions: the child's vision;
6. Computer presentation slides - films are convenient for displaying information in large print on a printer as handouts for classes with students.

Multimedia lessons based on computer learning programs allow you to combine audiovisual information presented in various forms (video, animation, slides, music), and due to the ability to display events and objects, they increase the dynamics and involuntary attention of children. The ability of teachers to use computer technologies allows them to increase the flow of information on the content of the subject and methodological issues due to the information available on electronic media and the Internet. One of the methods of meaningful, creative, exciting and interesting lessons with children is to conduct educational and developmental activities, inter-modern technological trips and games using information and communication technologies (modern technologies). The computer has wide possibilities, since computer technologies can be used in the lesson process both in frontal classes and in individual classes. For example, the use of various educational and developmental computer games when passing topics. Their use helps to develop sensorimotor functions in children, increases the effectiveness of children's education, and develops intellectual and creative abilities. Multimedia presentations are effective in their color and simplicity, and are of great importance in the development and upbringing of children with hearing impairments - children with unlimited abilities: the student's personality is formed and developed. We know that an integral part of the teacher's work is working with parents. The use of modern technologies, in my opinion, significantly reduces the time for preparing and holding parent meetings, helps to organize easy communication between the teacher and parents.

#### List of used literature:

1. Abduraxmanova, S. A. (2022). Individualization of professional education process on the basis of digital technologies. *World Bulletin of Social Sciences*, 8, 65-67.
2. Shahnoza, A. (2019). About one aspect of the development of students' intellectual skills using multimedia interactive tests. *European Journal of Research and Reflection in Educational Sciences Vol*, 7(12).
3. Mamarajabov O.E. Benefits of Using Information Technology in the Education System // *Vocational Education*. Tashkent, 2019. No.1. P. 55-59
4. Muratov, E. I. (2020). Improving the quality of the educational system of higher educational institutions by means of the involvement of students in the educational process with the use of analytical possibilities of neural network technologies. *Theoretical & Applied Science*, (9), 21-23.
5. Bagbekova Laylo Kadirbergenovna, Khusanbayev Elmurod Ubaydulla ugli Methodology for organizing the process of distance education and its teaching. (2023). *E Conference World*, 2, 160-164. <https://econferenceworld.org/index.php/ecw/article/view/42>



6. Sharofat, O. R. (2023, May). Electronic learning resources and requirements for their creation. In International Scientific and Practical Conference on Algorithms and Current Problems of Programming.
7. Бакиева, З. Р., & Мухаммадхўжаев, Б. Б. (2018). Возможности информационно-коммуникационных технологий в формировании личности учащихся.