

Elimination of Defects in Pronunciation of Sounds Based on Innovative Technologies

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Abstract: This article discusses the content of the implementation of modern innovative technologies that are highly effective in organizing correctional speech therapy classes to eliminate defects in pronunciation of preschool children, taking into account the interests and capabilities of children.

Keywords: Speech therapy, innovation, innovative technologies, computer, speech, sound pronunciation, phonemic perception, intellectual growth.

Introduction: Intellectual abilities and speech skills play a large role in the formation of a person as a complete, mature person. The formation of a child's speech is the basis for his closer acquaintance with the environment.

The development of the perception and pronunciation of sounds is important for mastering the sound side of speech. Correct perception of sounds in speech, the phonetic structure of words does not occur immediately, but is the result of constant development.

In the early stages of speech development, the child perceives words as a whole. In later stages, as a result of development, he begins to distinguish the sounds in the composition of words. At the same time, his active vocabulary develops and he learns to pronounce words correctly. The child forms an acoustic and articulatory distinction between words and individual sounds.

The correct pronunciation of all sounds in a child is formed mainly by the age of 5. The work of educating correct pronunciation is directly related to the comprehensive development of speech. In preschool educational organizations, great attention is paid to enriching children's vocabulary, mastering the rules of correct pronunciation, and familiarizing them with grammatical forms.

M. Ayupova, studying the phonetic and phonemic

aspects of preschool children's speech, found that defects in the pronunciation of sounds are widespread among children. According to her, out of 270 examined 5-year-old children, 112 (41.5%) had defects in the pronunciation of sounds. Of these, defects in the pronunciation of the sound "R" account for 60.7%, noisy sounds for 38.4%, gliding for 32.1%, lingual back for 2.5%, deep lingual back for 7.1%, and defects in the pronunciation of the sound "L" for 5.4% [1].

The results of the study of phonemic processes conducted by M. Ayupova showed that the underdevelopment of phonemic perception is manifested in the inability to recognize syllables and words similar in sound structure and clearly distinguish them, and in the incomplete process of sound differentiation, especially in distinguishing sounds that differ in subtle acoustic and articulatory features [1].

Phonetic deficiency is a factor that limits the ability to master the entire language material, including vocabulary, in order to master the means of the native language. Deep mastery of the native language results from their exemplary preparation for school. Violation of the sound side of speech creates an obstacle for the child to communicate with others. The full-fledged speech development of a child is one of the main factors determining his intellectual growth, communication

with others and success in the educational process. Speech defects, especially cases of incorrect pronunciation of sounds, can lead to a decrease in the child's self-confidence, difficulties in integrating into a team [5].

Therefore, early detection of speech defects in children and the correct organization and implementation of corrective work determine the effectiveness of the speech therapy work carried out.

The placement of sounds in speech is carried out during individual lessons, with 10-15 minutes allocated for each child. In each specific case, methods of sound articulation are selected. When choosing them, attention should be paid to the child's personality, the characteristics of pronunciation defects, and speech characteristics.

When planning work on sound articulation, it is necessary to take into account the consistency of speech therapy work and the rules of sound articulation. The main attention is paid to consciously strengthening sound articulation, and children should be able to show and tell in what position the tongue, lips, and teeth are. Children's attention is more focused on the articulation of sounds. Correction methods are selected taking into account the structure and function of the articulatory apparatus. Imitation, mechanical, and mixed methods are used in sound articulation [1].

Despite the effectiveness of traditional speech therapy methods, today's proximity to the digital world of children requires new approaches. Therefore, in the current era of technical development, in the practice of speech therapy, there is a need to find or develop modern innovative technologies and methods that will take less time, give high efficiency, and take into account the interests and capabilities of children in the organization of correctional and speech therapy classes for the development of children's speech. Therefore, without denying traditional methods, the development of children's speech requires the creation of a special correctional and pedagogical work system enriched with innovative technologies that take into account the characteristics of the native language, as well as the necessary conditions, methods, programs, and manuals.

With the help of innovative technologies, classes can be organized in an interesting, dynamic and individualized

way. This increases the effectiveness of correctional work.

Any innovation used in speech therapy practice is called "micro-innovation", since its application does not change the basic organization of speech therapy, but only its methodological component [7].

Innovative technologies in speech therapy are a set of new methods, tools and principles used to diagnose and correct speech disorders in children and adults based on the use of modern information and communication technologies, scientific research results and advanced practical experience.

Innovative technologies in speech therapy allow for a more effective and complete identification of the causes and nature of speech disorders, as well as the development of individual correction and rehabilitation programs. They allow the speech therapist to easily and quickly achieve high results [7].

Innovative technologies in speech therapy can include the use of computer programs and applications, interactive games, exercises, virtual, as well as various electronic devices and sensor technologies. They allow us to create more interactive and personalized sessions, as well as monitor and analyze the development of a person with a speech defect in real time [6].

The use of innovative technologies in speech therapy has a number of advantages that help the speech therapist work more efficiently and qualitatively and achieve good results in the development and correction of speech in children.

The following are widely used in speech therapy practice:

- multimedia presentations;
- audio and video exercises;
- interactive games;
- virtual articulation models;
- electronic applications.

These tools simultaneously activate the visual, auditory and motor analyzers. As a result, the child develops the correct pronunciation skills faster. Based on innovative technologies, it is recommended to carry out corrective works in the following sequence of stages:

Preparation stage. At this stage, articulatory gymnastics is conducted through multimedia instructions.

Animated films help the child clearly understand the movements of the tongue and lips.

The stage of putting sound into speech. The child hears the model pronunciation and sees the articulation on the screen. The ability to repeat many times creates a solid skill.

Consolidation of sounds in speech. Through tasks such as interactive games, choosing a picture, marking the correct answer, the sound is reinforced in words and sentences.

Activation of sounds in the speech process. By creating digital stories, recording and listening, the child controls his speech [6].

When innovative technologies are used, it is observed that children's interest in training increases, and the level of fatigue decreases. As they strive to practice independently, the correction process is continuous. Electronic monitoring also allows the speech therapist to quickly identify the achievements and difficulties of each child.

In the process of implementing innovative technologies, the pronunciation skills of preschool children are correctly formed. In this case, corrective work includes the stages from the correct pronunciation of individual sounds to their correct pronunciation in syllables, words, sentences, and speech practice.

In modern conditions, a specialist must master not only speech correction methods, but also the skills to use digital tools. It is important to choose a program that is appropriate for the purpose of the training, taking into account the age and individual characteristics of the child [6].

CONCLUSION

In conclusion, it should be said that the use of innovative technologies brings the process of eliminating defects in the pronunciation of sounds to a new level. The use of innovative technologies in speech therapy allows the speech therapist to work more effectively, individualize training programs, improve visualization and auditory perception, monitor the development of a person with a speech impairment, increase his motivation and satisfaction with the learning process. The use of innovative technologies in education makes classes more effective, increases the child's activity, and stabilizes results. In the future, the

digitization of speech therapy practice and the development of new programs will remain an important task.

REFERENCES

1. Аюпова М.Ю. Логопедия. Ўзбекистон файласуфлар миллий жамияти нашрети. Тошкент.: 2011 й.
2. 2. Аҳмедова З.М., Аюпова М.Ю., Хамидова М.П. "Логопедик ўйин" Ўзбекистон файласуфлар миллий жамияти нашрети. Тошкент 2013
3. Емельянова, И.А. Педагогическая технология формирования коммуникативных умений и навыков у младших школьников с нарушением интеллекта [Текст]: автореф. дис. ... канд. пед. наук / И.А. Емельянова. - Екатеринбург, 2009. - 20 с.
4. Инновационные технологии в образовании: Материалы ИВ Международной научно-практической видеоконференции (г. Тюмень, 30 ноября 2016 г.) / под ред. С. М. Моор. – Тюмень: ТИУ, 2017. – 216 с.
5. Филичева, Т.Б. Преодоление общего недоразвития речи у дошкольников / Т.Б. Филичева, Е.М. Мастюкова, Н.С. Жукова. – М. : Просвещение. – 2011.
6. Чупрова Е.С. Использование информационных технологий в коррекционной работе / Е. С. Чупрова // Педагогика: традиции и инновации : материалы IV междунар. науч. конф., декабрь 2013 г., г. Челябинск – Челябинск : Два комсомольца, 2013.
7. Репина, З. А. Новые информационные технологии: специализированная компьютерная логопедическая программа «Игры для Тигры» / З. А. Репина, Л. Р. Лизунова // Вопросы гуманитарных наук. – 2004. – № 5 (14).