

# The Role of Early Intervention in Developing Auditory Perception Skills in First-Stage Children

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## Abstract

Early Intervention Guide is a rehabilitation program for children with early hearing loss. This guide explains the most important principles of auditory-speech therapy and can be used by parents and professionals as a resource to support the auditory-speech rehabilitation process. The program follows the stages of normal development for a child from birth to preschool (4 years). The guide includes ideas and strategies for developing speech through listening instruction, as well as charts that illustrate the normal developmental stages of auditory, cognitive, and speech skills; receptive and expressive language skills; and social communication skills, from birth to age four. The guide also contains developmental charts for more than twenty other skills, such as self-help, memory, motor imitation, and tool use. The current study discovers that first-stage children suffer from significant difficulties in auditory perception and social communication, which negatively affects their ability to interact effectively with others and achieve good academic achievement. Early intervention has been proven to be an effective solution to improve linguistic and social skills of children in this category, which contributes to their better integration into society. As such, this study aims to demonstrate the importance of early intervention programs to develop auditory perception skills in first-stage children. Through a survey of previous studies, different kinds of training programs were recommended.

**Keywords:** Early Intervention, Rehabilitation, Auditory-Speech, First-Stage Children

## Introduction

Some children with certain developmental health problems are delayed in early childhood. Until a diagnosis is confirmed, a solution must be found to help them, thus, comes the concept of early intervention. Early intervention is the term given to health services provided to children if they are observed to be suffering from or at risk of delays or deviations, whether overt or covert, in their neurological development.

Early and effective intervention involves identifying cases in need of assistance and then providing an appropriate program, even before a precise diagnosis. This helps prevent the problem from occurring or worsening. The significant impact of early intervention on the child, their family, society, and the country's economy has been proven, as it significantly reduces the level of challenges that individuals with special needs and their families may experience. Early intervention programs require a team, usually consisting of a pediatrician, a neurodevelopmental specialist, a pediatric neurologist, a physical therapist, and a psychologist. Other specialties such as ophthalmologists, speech therapists, and audiologists may also be added depending on the case.

Early childhood is one of the most important stages in a child's life, as it is subject to change and learning, and the growth of skills and abilities that shape the child's personality in the preschool stage, including experiences that help in developing various developmental skills, including cognitive, perceptual, emotional, social, and linguistic development, which leads to the development of the child's ability to innovate, think and imagine (Abdullah et al. 2022). Therefore, auditory perception is considered one of the basic aspects of language and communication development in children, and is greatly affected by the biological, environmental and educational factors of the individual during the stages of his growth, which affects their ability to interact socially and achieve effective communication. Hence, improving auditory perception skills becomes an urgent necessity to improve the linguistic and social performance of these children (Abdul Wahab 2015). Children who suffer from these disorders face difficulty in communicating with others, which leads to psychological and behavioral effects that may continue until advanced stages of their lives (Abu Shaira and Ghubari 2015). In this context, early intervention programs play a vital role in reducing the impact of these disorders and developing auditory and cognitive skills that contribute to improving pronunciation and speech.

The importance of the study emerges from the significant role that early intervention plays in improving auditory perception and the development of pronunciation and speech skills in children. Many researchers indicate that early training in auditory perception can contribute effectively to improving the linguistic abilities of children with pronunciation and speech disorders. Hence, the need to design early intervention programs based on scientific foundations and direct them towards improving the listening and speaking skills of this group is essential.

### *Study Objectives*

- Provide a comprehensive theoretical review of the concept of auditory perception and its relationship to the development of pronunciation and speech.
- Analyze the role of early intervention programs in developing auditory perception skills in children with speech disorders.
- Review the most important methods and techniques used in designing training programs for this group.

### *Study Problem*

Despite the great development in the field of early intervention, there are still gaps in understanding the relationship between auditory perception and speech disorders. Current programs also face challenges in their design and implementation in a manner that suits the

individual needs of children. Therefore, this paper seeks to explore the theoretical and applied foundations that can enhance the effectiveness of these programs.

### *Speech and Speech Disorders*

Many educators and trainers complain about the weakness and language disorder suffered by many primary school students. Language is considered a means of self-expression and understanding others, and the structure of linguistic, cognitive and emotional development, through which people communicate and get to know each other (Al-Fayoumi 2017). Language is also one of the most important factors in communicating with others, due to the skills it contains, such as speaking, listening, reading and writing, as each of these skills represents one of the windows of knowledge and the transmission of life experiences throughout the ages (Al-Nubi 2011). Al-Dabbas (2013) indicated that speech is a human tool for language, and through it a specific social system is formed within society. However, the problem that occurs in speech is the weakness of the linguistic product and the delay of speech in children in the early childhood stage (2-5) years, and hesitation in pronunciation (stuttering), tongue-tie (stammering), and the use of new words that have no meaning, chatter and flow of speech, which leads to a weakness of the linguistic product and stuttering, as mentioned by Didouh (2016), and excessive speed in speaking and aphasia, as mentioned by Al-Hajj Muhammad (2008).

### *Auditory Perception and its Importance*

Many scientists and educators in the field of special education have acknowledged that the perception process is one of the most important cognitive mental processes through which an individual deals with environmental stimuli, to formulate them in an intellectual system that expresses meaningful concepts in order to facilitate the processes of adaptation to the environmental surroundings with their social and material elements. Many studies have also confirmed the presence of cognitive problems among children with learning difficulties (Al-Hassan, 2007).

Perception is considered an intermediate process between sensory processes and cognitive processes. Therefore, any defect in the perception process during learning will have a negative impact on the efficiency of the performance of the processes that follow it, as it is a channel for supplying memory and thinking with information. It is possible for the sensory channels to be sound, but perception is not sound, and this is due to many factors or characteristics specific to students (Abdul Wahab; Saad, 2015).

Therefore, perception is an intellectual product of sensory impressions that interact with all factors of learning, memory, and previous experiences; So that these sensory stimuli are placed in prominent units in the cognitive field of human beings who work to organize, build and interpret these stimuli whether they are auditory or visual (Jadaan, 2007).

The deficiency in the auditory perception process is more present in students with learning difficulties than in normal students, so it is necessary to use appropriate therapeutic methods to reduce these problems that may appear in the form of disturbances in the interpretation of auditory stimuli that match the learning difficulty (Al-Hassan, 2007).

Auditory perception refers to the receptive aspect of oral communication processes in language, which includes listening and paying attention to the various auditory stimuli that an individual receives (Sulaiman Ibrahim, 2010). Therefore, from a linguistic perspective, auditory perception plays a pivotal role in developing pronunciation and speech skills. When a child can accurately process linguistic sounds, he becomes able to imitate sounds and linguistic models, which contributes to building his linguistic stock and developing his ability to speak and understand others.

### *The Importance of Auditory Perception*

The process of perception is of great importance in human life, as it is one of the basic processes that an individual relies on in his contact with his external environment. Sensory perception as a cognitive mental process depends on the senses in interpreting and giving meanings to things. It can be inferred from reality and from any shortcomings that may befall it through its various dimensions, which are represented in the perception of shapes, the perception of colors, the perception of sizes, the perception of concepts, auditory perception, olfactory perception, and tactile perception. However, many people refrain from talking about perception as related to sight and hearing only, due to the importance of these two senses in what the child learns from childhood.

The importance of auditory perception appears greatly in children, and it is worth noting that the child in the early childhood stage relies heavily on auditory perception to understand the aspects of life that surround him. Auditory perception is considered his basic means through which he seeks knowledge through his contact with the external world surrounding him, in addition to the various sensory perceptions that support his knowledge (Mustafa, 2001).

Auditory perception includes the following skills:

**1- Auditory discrimination skill:** The child may suffer from difficulties in perceiving the sounds he hears, for example when he hears letters that sound similar such as (s, s) (f, k) and so on such as (sara, sar), (qal, kal) and the like; as he gets confused and does not understand the meaning of the sound and the meaning of the word and what it indicates. As a result, he falls into error and confusion, which affects his understanding, perception and ability to communicate with others (Adas, 2000).

The auditory discrimination skill is essential for the child to learn the phonemic structure of spoken or spoken language; as this ability contributes to the individual's self-expression, learning to spell and read correctly. The child's failure to be able to distinguish between letters, syllables, or words that are similar in pronunciation but different in meaning will lead to difficulty in understanding spoken language, and extend to form difficulty in reading, expression, reading comprehension, and oral communication with others (Yasser Issa, 2012).

**2- Auditory closure skill:** It is the ability to combine or compose a single sound or phoneme within other elements, sounds, or phonemes of the complete word (Osama Al-Batayneh and others, 2015).

**3- Auditory coherence skill (auditory understanding and logic):** is defined by Johnson, C., et al. (1997, 244). as mentioned by Suhair Tony (the ability to understand long auditory messages, including participating in conversation, following instructions, and understanding stories. This is the most complex skill, which requires the child not only to understand exactly what is being said, but also to have the ability to use inferences and conclusions.

### *Early Intervention and its Importance*

Some children suffer from delayed language development, which negatively affects aspects of their development such as the social, emotional, cognitive, and linguistic aspects. We also find them suffering from learning difficulties, difficulties in understanding, and listening inside or outside the classroom, which leads to difficulty in communicating between them and their teachers and peers. In general, we find that delayed language development in children threatens their normal development in the preschool stage, and this is due to late diagnosis, late intervention, and the presence of a long period of time between diagnosis and intervention (Verhoeven & Balkom, 2004).

Early intervention has benefits for society, as it improves children's abilities and readiness, which increases their chances of integration into regular schools, and reduces the number of children who need special educational programs or treatment programs, which leads to reducing the economic cost to society.

### *A Historical View of Early Intervention and its Development*

The interest in raising and educating children in the early years is one of the matters that the Islamic religion called for and gave priority to, as the Holy Quran and the Sunnah of the Prophet indicate the importance of knowledge and learning. Therefore, developing basic cognitive, psychological and social abilities during early childhood is considered a matter of utmost importance, as these abilities constitute the basic building blocks upon which other children's abilities are built and developed in the following stages. Preparing them to receive education is a right for children, and failure to do so will result in many negative repercussions in the future (Al-Azhar University, 2005).

### *Early Intervention Goals*

The training programs implemented within the framework of early intervention aim to achieve a comprehensive improvement in the basic skills of children with speech and language disorders. The beginning is with developing auditory perception skills, where the focus is on improving the child's ability to distinguish different sounds and process them correctly, in addition to enhancing auditory memory that enables the child to retain words and sentences and retrieve them when needed.

Early intervention programs have developed in terms of their nature and goals through three main stages:

**The first stage:** Early intervention focused on providing infants with special needs with therapeutic services and activities that aim to provide them with sensory stimulation.

**The second stage:** Early intervention became concerned with the role of parents as assistant therapists and teachers for their children.

**The third stage:** The focus became on the family system as the social content that has the greatest impact on the child's development, where family support and guidance became the most important goal (Al-Khatib, Al-Hadidi, 2005).

### *Training Programs to Improve Auditory Perception*

Early intervention programs include a set of activities and exercises aimed at improving auditory perception in children. These programs include:

**Sound discrimination exercises:** These aim to teach the child how to distinguish between different sounds, such as letter sounds, which enhances the accuracy of pronunciation.

**Phonological pattern training:** Teaching the child various phonological patterns through repetition and practice, which helps him understand the language better.

**Strengthening auditory memory:** These activities include games that require the child to remember specific sound sequences, which enhances his ability to comprehend and use the language.

## **Recommendations and Conclusion**

### *Recommendations*

Based on what was discussed in the previous sections, a set of recommendations can be presented that aim to improve early intervention programs for children with speech and language disorders, with a focus on enhancing auditory perception and pronunciation skills:

#### *Enhancing Early Diagnosis*

The necessity of conducting comprehensive examinations for children at an early age to detect speech and language disorders.

Providing modern diagnostic tools that rely on technology to accurately identify problems.

#### *Developing Comprehensive Training Programs*

Designing individual training programs that suit the needs of each child.

Including interactive activities that rely on advanced technologies, such as educational games and smart applications.

#### *Activating the Role of the Family in Early Intervention*

Providing workshops and training sessions for parents to enable them to support their children at home.

Providing simplified educational materials that help the family implement daily activities to improve speech and auditory perception skills.

## **Conclusion**

This study emphasizes the great importance of early intervention programs in improving auditory perception and developing pronunciation and speech skills in children with speech disorders. Early intervention is not only a therapeutic procedure, but rather a long-term investment in improving the quality of a child's life, by enhancing their communication abilities, and supporting them to achieve academic and social success.

The results from previous studies and practical experiences show that early intervention can contribute to achieving sustainable positive changes in a child's life. However, these programs must be designed in a way that takes into account the needs of each child individually, which requires an individual approach based on accurate diagnosis and continuous evaluation.

Evidence indicates that modern technology, such as educational applications and interactive hearing devices, can be an effective tool to enhance the effectiveness of these programs. However, adopting these tools requires specialized training for therapists, and raising awareness among families about how to use them correctly to support their children.

Finally, this paper hopes to be a starting point for more applied studies and practical initiatives that enhance the effectiveness of early intervention, and make it a tool capable of tangibly improving the lives of children and their families.

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