

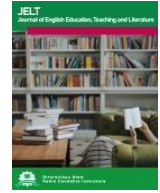


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Education Article

Listening Difficulties in Children

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A B S T R A C T

That belief most likely developed as a result of a dearth of solid studies that distinguished between speech comprehension issues brought on by weaknesses in language or cognition and those coming from abnormalities in auditory processing. This article states that the term “listening difficulty” is a catch-all for reported impairments in sound detection or speech understanding, which may be caused by auditory processing problems. Other possible causes include difficulties in language, cognition, and hearing. In order to ascertain the extent to which each possible cause of a child's hearing impairments contributes to their real challenges in life, a summary of the study that has to be conducted is given in the article's conclusion. This work presents a novel conceptual framework for quantifying the impact of various types of auditory processing disorders (APDs) on hearing impairments in children.

INTRODUCTION

Universal newborn hearing screening has led to early diagnosis of hearing loss in newborns, which facilitates clinical intervention and treatment at an earlier age. Early intervention, with hearing aids or cochlear implants (CIs), allows the child to access auditory stimulation at the beginning of their speech and language development, which is beneficial for the development of their auditory receptive skills, linguistic skills, and speech intelligibility (Yoshinaga-Itano et al. 2018).

While the importance of early implantation has long been recognized, the definition of early implantation has changed over the years. In the beginning of pediatric cochlear implantation, implantation was considered early before the age of 3.5 years—that is, the cutoff age for the sensitive period of auditory development as measured with cortical potentials (Sharma et al. 2002, 2007).

Nevertheless, the general increase of the spoken language abilities has led to a higher participation of children with CIs in mainstream schools (Venail et al. 2010). Over the years, better learning outcomes were reported for oral language, reading, writing, and mathematics (e.g., Sarant et al. 2015). These reported results were, however, still lower than the results of normal-hearing (NH) peers. Furthermore, studies that confirm good outcomes in the long term, for instance, in secondary or tertiary education, are sparse in literature. The limited body of research including this particular group of CI users shows that difficulties can still come to expression later in life, despite achieving age-appropriate skills in their early academic career (Geers et al. 2016). Difficulties reported in these studies were mostly related to complex language abilities and advanced literacy skills when they are 11 to 16 years old (Nittrouer et al. 2018). Other studies on older CI users have focused on more general educational placement, while exploring possible predictors explaining the variability found in the long-term outcome results. The variability—or at least part of it—is in most cases attributed to multiple factors, including age at implantation, speech and language outcomes, communication mode, parental support, socioeconomic background, CI programming and device characteristics, unilateral or bilateral CI use, cognitive abilities, and other developmental disorders (Edwards et al. 2016; Illg et al. 2017).

Another important factor that could have a major impact on their school functioning is the acoustical environment at school (Busch et al. 2017).

The first signs of acoustical and educational challenges are often contained in subtle communication irregularities, such as misconceptions and misunderstandings (e.g., Terwogt & Rieffe 2004), which are often hard to notice during daily (school) activities (also stated by Vermeulen et al. 2012). Moreover, mainstream teachers are often not trained to educate children with hearing problems; therefore, these subtle communication difficulties remain unnoticed in school (De Raeve & Lichtert 2012). To optimize the success of the heterogeneous group of children with CIs in mainstream schools, their individual challenges should be monitored closely (Mellon et al. 2016). One possible method to screen for their challenges in the classroom is by using questionnaires and screening tools.

Moreover, the communicational difficulties are likely to increase when children with CIs make the transition to secondary school, due to the increased complexity of the content taught (Archbold 2015), the greater level of participation required for class activities (e.g., class discussions; Punch & Hyde 2010), the lack of visual support (Blom et al. 2017), and the number of different teachers (De Raeve 2015).. Zanin and Rance (2016) assessed the benefit of hearing assistive technology (HAT) in adolescents in mainstream education (12–18 years) with both teacher and student appraisal. They compared the reported listening difficulties in 2 conditions: with CIs or hearing aids only (pretest condition) and with the additional

use of HAT (posttest condition). For every condition, a total sum score (%) was calculated for the LIFE-R questions. Results showed that considerably more listening difficulties were reported in the pretest condition compared with the posttest condition (mean LIFE sum score of 49.6% versus 70.8%)

the LIFE-R seems to be a sensitive tool for identifying listening challenges in classrooms, our research group has recently translated and validated the LIFE-R into Dutch (Krijger et al. 2018). In Belgium, up to 66% of the children with a CI are enrolled in secondary education (De Raeve 2015). From this population, a group of early implanted children was recruited for the present study.

The main objectives of the present study were the following: (1) to explore the listening difficulties of early implanted children with CIs in mainstream secondary education, (2) to investigate whether children with have more listening difficulties than their peers, and (3) to determine whether the teachers are able to identify the child-specific listening difficulties. We hypothesized that children with a would report more listening difficulties in the acoustically challenging listening situations than their peers. Also, we hypothesized that teachers would have problems identifying these listening difficulties given their subtle nature.

Our secondary aim was to examine the impact of on the child's listening difficulties, as we hypothesized that this would decrease the experienced listening difficulties. Thirdly, we aimed at giving an impetus for validating the sum scores and at providing a list of common experienced difficulties, including an acoustical characterization of the difficulty as well as possible recommendations to minimize the experienced difficulty.

METHOD

This data was created at the State Islamic University of North Sumatra in November. The case study method and qualitative research design will be used in this research by researchers with ten participants consisting of 2 women and 2 man. Data were collected based on a comprehensive test that focused on hearing in a large clinical sample of school- age autistic children with normal pure tone hearing to date. The steps included a parent- reported auditory sensory processing questionnaire and tests of speech recognition in noise, binaural integration, attention, auditory memory and listening comprehension. Individual test performance was compared with normative data from children who did not have listening difficulties. There are several questions that make up the data collection.

1. Does the child have enough opportunities to listen and practice English actively?
2. What are the factors that influence children's difficulty in listening?
3. What makes you more interested in listening to English?
4. Are there any obstacles that make it difficult for you to listen?
5. What are the factors that make it difficult for you to listen to English?
6. What are the factors that influence listening difficulties in children?

RESULTS AND DISCUSSION

In the results of this study, the researcher describes and discusses the research data from the questionnaire method. The results of four students are as follows :

Table 1.Result of the question

Question	Answers
1. Does the child have enough opportunities to listen and practice English actively?	Sometimes: 2, Not :2
2. What are the factors that influence children's difficulty in listening?	Lack of assistance or learning support. This is due to not being able to go to school due to economic factors or other reasons and a lack of assistance from several teachers in delivering unclear material. : 4
3. What makes you more interested in listening to English?	More interested in English because of playing games and watching films :4
4. Are there any obstacles that make it difficult for you to listen	Not : 4
5. What are the factors that make it difficult for you to	Noisy around :4 Don't understand the meaning : 4

listen to English	
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DISCUSSION

Data collection effort involving several children—two girls and two boys—to understand the challenges they face in listening. Through their responses, several factors contributing to their difficulties were identified. These include a limited vocabulary, where the children recognize or remember only a small number of words. Additionally, one of the factors causing difficulty in listening was the rapid pace at which the speakers delivered their speech, making it difficult for the children to process and understand the language being spoken.

Accent used by a speaker doesn't align with the accent familiar to the listeners. This discrepancy in accents creates difficulties, affecting both adults and children. For children specifically, comprehending accents they're not accustomed to presents a notable challenge, making it harder for them to understand the spoken language.

Lack of focus or attention. The first reason is “disinterest in the topic being taught,” which suggests that if someone is not engaged or interested in the subject matter, they may have difficulty concentrating. The second reason is “outside noise that makes it difficult to concentrate”, indicating that Distractions or noise in the environment can also hinder a person's ability to focus on the task at hand.

Lack of help or support in learning. Mentioned two main causes: the inability to attend school due to economic constraints or other factors, which hinders access to educational resources and support, and the lack of guidance from many teachers in explaining the material unclear, which can hinder understanding and progress. Additionally, it shows that another reason for the lack of support is the absence of English teachers in schools, which will impact learning and development in certain subjects.

And the last most important thing is a lack of hearing or hearing loss. If we can't hear there will be nothing we can say and a loss of communication occurs. This hearing loss has a big impact on the self. And there are many factors causes hearing loss. Among other things Colds or Rhinitis cause a buildup of fluid in the middle ear. Middle ear infection or otitis media. External ear infection or otitis externa. Torn eardrum or perforation of the tympanic membrane and many other things.

CONCLUSION

The provided text ends abruptly without summarizing the key findings or offering a resolution, so it lacks a clear conclusion. Nonetheless, it is clear from the information provided that the text highlights the difficulties related to auditory processing disorders, the value of early intervention for children with hearing impairments, and the necessity of more research to fully comprehend the complexities of auditory processing challenges.

Furthermore, the text presents a case study conducted at the State Islamic University of North Sumatra, which centers on hearing in a clinical sample of children with autism who are of school age. A thorough test

measuring different aspects of auditory and sensory processing is used in the study, and the main objective is to compare test results between individuals and normative data from kids who don't have hearing problems. A more official conclusion might emphasize

Consider adding a concise introduction that outlines the purpose of discussing audiology, cochlear implants, and related challenges. This can provide readers with a roadmap for the upcoming content. Sort the content into distinct subsections. For instance, utilize headings such as "Evolution of Early Implantation," "Early Diagnosis and Intervention," "Challenges in Mainstream Education," and "Assessment Tools." Make sure terms are used consistently. To ensure clarity, for example, if you introduce the term "auditory processing disorders," use it consistently throughout the text. Provide particular instances or highlights from pertinent research to bolster your arguments. This can deepen the conversation and increase readers' interest.

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