

## Speech Disorder in an 11 Years Old Child with Intellectual Disability in Rumah Tiga Village

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### Abstract

This study aims to describe the speech disorder of an 11-year-old intellectually disabled child in Rumah Tiga Village, Teluk Ambon District, Ambon City. The research adopts a descriptive qualitative method with the researcher as the main instrument, supported by observation and recording techniques to capture the child's speech production in natural contexts. The analysis reveals that the speech disorder experienced by the child can be categorized into three main types, namely: (a) substitution, which occurs when certain sounds are replaced with other sounds that are easier to articulate, (b) omission, which involves the deletion of specific phonemes or syllables within words, and (c) addition, characterized by the inclusion of extra sounds or syllables that alter the intended word form. These findings indicate that speech disorders in children with intellectual disabilities are closely related to limitations in cognitive and motoric functions that affect language development. Furthermore, the results highlight the importance of early identification and appropriate intervention in order to support effective communication skills for children with special needs. This study contributes to the understanding of speech characteristics in intellectually disabled children and provides a reference for educators, parents, and speech therapists in designing suitable strategies for speech and language development.

**Keywords:** *Intellectually Disabled Child; Speech Disorder*



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## INTRODUCTION

Language is crucial for civilization. Language forms the basis of our daily perception, communication, and engagement. Language is a system of symbols that categorizes, organizes, and clarifies thinking (Beverly, 2015). Language can be characterized as a tool for conveying what comes to mind. However, going further, language is an instrument for connecting or communicating, in the sense of transmitting any idea, opinion, concept, or feeling. Through language, we explain the world and learn about the world. Without language, society and its culture would not exist. In order to function in society and culture, children need to develop a wide variety of language abilities to decide their success in interacting in all kinds of scenarios and circumstances throughout their life. Language ability can generally be differentiated into receptive ability (hearing and understanding) and then expressive ability (speaking). Speaking ability is more easily tested than other abilities, hence discussions regarding language ability are more commonly related with speaking ability. The ability to talk includes a complex system that activates organs in the human body. A child with appropriate brain function and speech organs can probably speak well. However, a youngster with anomalies in brain function and speech organs will inevitably have challenges. Just like children with intellectual disabilities who encounter irregularities in brain function and speech organs, which also impairs communication. According to Somantri (2006), "Tunagrahita" is the term used to refer to children with below-average intellectual abilities. In individuals with intellectual disabilities, the symptoms make it difficult to converse with others (King, Hengst, & Dethorne, 2013). Only those closest to him understand and comprehend what the intellectually impaired child is communicating. The difficulties children with intellectual disabilities have in communicating is not unconnected to the factor of speech abnormalities in children with intellectual disabilities (Cirrin & Gillam, 2008).

Speech difficulties are one of the most prevalent developmental diseases identified in children with intellectual disability. Spoken disorder is one sort of communication behavior problem or disability characterized by faults in the production process of spoken sounds (Sumarsono, 2002). Abnormalities in the manufacturing process lead to inaccuracies in the articulation of phonemes, both in the point of articulation and the way of pronunciation (Allen, 2013; Dodd, 2013). Ito Limba is the sole child with intellectual disability in Rumah Tiga Village, Teluk Ambon District, Ambon City. In communication, the pronunciation of words spoken by Ito is still like that of a 2-year-old toddler. This speaking activity, which Ito commonly engages in, is typically done in non-formal conditions that are common in daily life, such as in relaxed settings or circumstances. For example, while Ito is singing. Ito truly loves to sing, even if he has limits in himself, especially with speech difficulties. When Ito sang, he said ambiguous words. The words Ito spoke also occurred when Ito was playing with companions his age who easily knew what Ito meant, but there were also those who were new to Ito and found it difficult to grasp what he said.

Ito is still uncertain whether Ito can pronounce words or sentences fluently and correctly at the age of 11, due to a developmental problem of his brain and speech organs, which normally hampers his speech development. As a result of this disorder, articulation or pronunciation becomes less perfect, leading to many words being spoken incorrectly, such as the omission of letters in words and different phonemes in Indonesian, for example, the word "tobat" (repentance) is pronounced "toba," "pisang" (banana) is pronounced "pitang," "mari" (come on) is pronounced "mali," "patah hati" (broken heart) is pronounced "pata ati," "pikir" (think) is pronounced "pitil," and so on. Ito's speech impairment is not yet entirely visible, as demonstrated by the vowel and consonant sounds that hamper the process of pronouncing the words he says.

Before the author did research on Speech Disorders in Mentally Retarded Children Aged 11 Years in Rumah Tiga Village, Teluk Ambon District, Ambon City. This type of research was previously studied by Purnamasari under the title "Psychogenic Speech Disorders in Patients with Latah: A Psycholinguistic Review." This research examines psychogenic speech abnormalities in stutterers, viewed from phonological and syntactic viewpoints. The two stutterers who acted as data sources for this study submitted the words they said as research material. While the method used is descriptive and assessed qualitatively. This topic was also previously investigated by Hamdani Kamal Nurjay, titled "Analysis of Speech Disorders (Stuttering) in M.H.R: A Psycholinguistic Study." This research is driven by speech difficulties suffered by stutterers. The objective of this study is to describe how stuttering speech abnormalities occur in M.H.R. and what the causes are. The only data source used in this study was a single stuttering patient, 19-year-old

Mohamad Haris Rinaldi. Meanwhile, the methodologies employed were observation and interviews, which were assessed qualitatively. Based on prior research, the author is interested in investigating speech abnormalities in 11-year-old children with intellectual disabilities in Rumah Tiga Village, Teluk Ambon District, Ambon City.

This research differs from the two previous studies; the author's research focuses more on speech abnormalities in the form of phonemes and words in the speech of children with intellectual disabilities, whereas this study uses data from only one 11-year-old child with an intellectual impairment.

## METHODS

Therefore, this research can be characterized as qualitative research, which is research employing a natural environment with the objective of describing what is happening and being done by involving current methodologies, such as descriptive methods, because it is based on facts or phenomena prevalent in society. In this study, the data obtained consists of words and sentences, not numbers. The research data for this study is Sudaryanto's (2005) assertion that data is the object of research and the current context because the research involves numerous sorts of speech. Data gathered through spoken language as the interface between the researcher and the informant. The findings collected in this study are speech abnormalities in children with intellectual impairments. The data sources in this study are, according to Lofland (in Moleong, 2012:157), the key data sources in qualitative research are words and actions. In this regard, the data obtained is oral data, sourced from the tales of children with intellectual disabilities, in this case, Ito Limba.

Data analysis of qualitative data is an ongoing, iterative, and continual activity. According to Milles and Hubermen (2003), data collected in various ways is processed by recording and typing. Data analysis through three parallel activities: (1) Data reduction, which is the process of selecting and formulating data simplification, abstraction, and transformation that appears in written field notes. Data reduction is part of data analysis with a form of analysis that sharpens, categorizes, directs, discards unnecessary data, and organizes data so that final conclusions are drawn and verified; (2) Data presentation, which is the second flow in data analysis activities, namely the collection of information about the research conducted, making it possible to draw conclusions and take action; (3) Conclusion, which is a summary of organized information that allows for drawing conclusions and taking action. Drawing conclusions is merely one part of an activity. The conclusions were also validated during the research.

## RESULTS AND DISCUSSION

The discussion will elaborate on the research findings related to speech disorders in children with intellectual disabilities. It will begin with data presentation and then discussion.

### Data Exposure

Biodata of a Child with Intellectual Disability Name: Ito Limba

Place and date of birth: Ambon, May 5, 2008 Age: 11 Years Old

Address: Rumah Tiga Village, Teluk Ambon District, Ambon City.

The discussion in this study uses the theory according to Effendi (2008), who categorizes speech problems into fluency disorders, articulation disorders, and voice disorders. The three disorders are described as follows:

**Fluency Disorder.** Patients with fluency issues frequently suffer stuttering, word repetition, echolalia, or lengthening specific sounds, syllables, or sentences. Fluency issues are widespread in youngsters, such as adding sounds, modifying words, repeating phrases, or repeating sounds. As he gets older and his mastery of the language increases, the fluency issue can subside. However, the problem might persist throughout maturity, which can impair social engagement.

**Articulation Disorder.** Sound articulation incorporates speech organs such as the tongue, teeth, lips, and palate. Articulation abnormalities can be caused by mouth and throat cancer, accidents, congenital deformities (such as cleft lip), or other events that impair the speech organs. People with articulation difficulties frequently have trouble pronouncing sounds or mispronouncing them. This disorder is experienced by Ito, for example, in narratives where the sound /s/ changes to /t/ in the pronunciation of the word (rice) becoming (nati), and sounds are removed, such as in the word (broken) becoming (utus). The same thing is also explained by Effendi, where the sound /r/ changes to /w/, such as in the pronunciation of (wambut) for the word (rambut), sound omission, such as in the pronunciation of (and) for the word (hand), and mispronunciation, such as in the pronunciation of (tsutsu) for the word (milk). Other contributory variables include fetal anomalies, prenatal accidents, and difficulties with the neurological system, and the environment can also cause birth defects.

**Voice Disorders.** Voice problems include pitch issues, voice quality disorders, and loudness disorders. Voice issues can often present as monotone, breathiness, hoarseness, voice that is too low or too high, or a person's nasal voice quality. Voice issues can be caused by accidents, injuries, or illness affecting the throat. Damage or sickness to the throat can cause the vocal chords to not operate properly, resulting to voice abnormalities. This involves classification or is characterized as a child with significant intellectual disability (IQ range 25-40). Children in this range develop speech difficulties caused by physical disabilities. The reason of Ito's speech issue is owing to a fault in the articulatory portions, a disorder in the speech organs.

Articulation happens owing to abnormalities in the mouth and tongue, where Ito has a huge tongue or it protrudes too far out of his teeth, making it difficult for him to talk. Due to the disturbance in his articulatory organs, he faces difficulty when speaking, and the words he utters are difficult to pronounce. The influence of the psychological development experienced by Ito, due to Ito being different from typical youngsters, causes him tend to withdraw himself and feel inadequate while interacting with many people. Ito just wants to interact with his closest acquaintances. This child is also quite emotional, with his mood changing regularly; sometimes he gets furious more readily, but he might also feel lonely. The attempts made by Ito's parents to cure him, where his mother always tried to teach Ito to talk by communicating with him. This started with often asking her son questions. Another thing his mother did was always encourage Ito to sing together since singing would teach his pronunciation. Based on the three speech and explanation issues listed above, Ito can be characterized as a kid with intellectual disability having articulation difficulty. The prevalence of articulation disorder is much higher among those with intellectual disability. In this study, articulation disorder, which is the same as speech disorder, refers to the difficulty in articulating phoneme formation during speech, such as phoneme substitutions, omissions, and additions, making speech difficult to comprehend. The phoneme substitutions, omissions, and additions experienced by Ito are most likely owing to his difficulty in pronouncing those phonemes and replacing them with phonemes that are simpler for him to pronounce, according to his articulatory organs.

The articulation disorder patterns in this study refer to M. F. Berry and Jonh Bisension (in Edja & Sukarja 1995), who categorize speech sound faults into three types: substitution, omission, and addition. Here is the data presentation that the researcher found based on the patterns of articulation abnormalities presented by M. F. Berry and John Bisension.

**Substitution.** This is a type of articulation error where one phoneme forming a word is replaced by another phoneme in pronunciation. The following is data on articulation errors of the substitution type in children with intellectual disabilities.

The pronunciation of speech in Ito, a child with intellectual disabilities, when pronouncing the word "bisa" (can) is "bita". From the explanation above, the sound [s] changes to the sound [t]. The sounds [s] and [t] are located at the same place of articulation, which is laminoalveolar. To pronounce the [s] sound, the brain must be able to control the vocal cords. Because what produces the sound of language are the vocal cords, which contain the glottis, and it is the glottis that determines those language sounds. But he pronounced it as the sound [t] because his brain was not strong enough to control the friction within his vocal cords, which obstructed the airflow at his place of articulation, so Ito could only make a stop sound because a stop sound is easier to

pronounce.

Context: This utterance is a brief response Ito gave to the researcher's question, "Can Ito sing?"

**Ommition.** This is a type of articulation error that occurs when a specific phoneme is omitted or not pronounced in a particular position. The following is data on articulation errors of the Omission type in children with intellectual disabilities.

The pronunciation of speech in Ito, a child with intellectual disabilities, when pronouncing the word "your hand" is spoken as "tananmu." The omission of the [g] sound occurs because the brain is unable to control the vocal cords, resulting in no obstruction within the vocal cords due to the influence of nasal sounds, causing the [g] sound not to be pronounced.

Context: This utterance is the lyrics of a song Ito was singing. Ito was really enjoying himself and was busy with the song he was listening to.

**Addition.** This is a type of articulation error where a phoneme is added. The following is data on the type of articulation error, addition, in children with intellectual disabilities.

The pronunciation of speech in Ito, a child with intellectual disabilities, when pronouncing the word "mati" (dead) is "matih". From the explanation above, the sound [h] is added because the sound [h] is a fricative sound where air is exhaled from the lungs, passes through the glottis, is then fricated, and the sound is added.

Context: This utterance is what Ito said to Heny when he dropped the glass, and Ito spoke these words.

## CONCLUSION

Based on the research findings on Speech Disorders in 11-Year-Old Children with Intellectual Disabilities in Rumah Tiga Village, Teluk Ambon District, Ambon City, it can be concluded that Ito experiences language development delays, starting with a speech disorder that makes Ito's articulation or the words he speaks less clear when communicating with others. The elements impacting articulation issues in Ito include those related to the child's physical state, which enables smooth speech, while Ito suffers a disorder in his articulators. Ito exhibits three articulation disorders: substitution, omission, and addition. Ito prefers to replace, and the omissions and additions are caused by trouble pronouncing specific consonants, forcing Ito to resort to these actions. Ito has difficulties pronouncing consonant phonemes such as /r/, /s/, /j/, and /k/ since his tongue is unable to generate these sounds. The pronunciation of speech that happens in Ito has faults in specific phonemes, such as /r/ being sounded pronunciation.

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