

Khilda Utami, Nani Darmayanti, Rosaria Mita Amalia, Inu Isnaeni Sidiq. (2021). Pronunciation of Indonesian Language Consonant by Students with Autism in *Bintang Harapan* Special Needs School: A Psycholinguistic Analysis. *International Journal of Early Childhood Special Education (INT-JECSE)*, 13(2): 39-48. DOI: 10.9756/INT-JECSE/V13I2.211037

Received: 07.03.2021 Accepted: 22.06.2021

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Pronunciation of Indonesian Language Consonant by Students with Autism in *Bintang Harapan* Special Needs School: A Psycholinguistic Analysis

Abstract

This study is entitled "Pronunciation of Indonesian Language Consonant by Students with Autism in Bintang Harapan Special Needs School: A Psycholinguistic Analysis". The aim of this research is to describe the pronunciation of Indonesian Language Consonant by students with Autism in Bintang Harapan Special Needs School in Bandung, Indonesia. This research utilized qualitative data analysis with case study approach. The data was collected by observing students in Special Needs School of Bintang Harapan followed by recording and note-taking techniques as well as interviewing teachers and parents. Theories used in this research include psycholinguistic and phonological theories related to language acquisition. The research results show that there is alteration of consonants in [p], [t], [k], [g], [ʃ], [r], [l], [f], [v], and [z]; deletion of consonants [n], [ŋ], and [r]; and appearance of consonants [h] and [ʔ]. However, the student has a good articulation compared to other students in the school. This was driven by family support, namely when he was a child, he was more often required to speak by his parents.

Keywords: Consonant, Language Acquisition, Psycholinguistics.

Introduction

Humans can convey ideas, thoughts, and expressions through language. Language is a way for humans to communicate. One way to communicate is by speaking. Tarigan (1985) states that speaking does not only utilize the articulator in the mouth, but also utilize the body muscles and tissues because speaking cannot only be heard, but also be seen by the hearer. Speaking is produced using articulation device,

therefore producing a sound is a way that makes it easier for interlocutor to understand idea or thought to be conveyed.

It is certainly important to discuss phonemes as the smallest part of the language strata. Before a child can master words, first he/she has to master phonemes. A child who has a speech disorder will certainly find it difficult to master phonemes that involve articulators in his/her mouth. To be able to master the existing phonemes, a child will experience language

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acquisition process, that is the process of acquiring language experienced by the child in obtaining their mother tongue or first language (Dardjowidjojo, 2018).

Dardjowidjojo (2000) describes the stages of language acquisition based on children's age. Children who are around 6 weeks old will start to make sounds that cannot be ascertained, this stage is called *cooing*. Then, at the age of 6 months, they start to be able to mix consonants and vocals, and this stage is called *babbling*. At the age of 1 year old, they start to be able to say their first words although the words are yet to complete. At the age of 3 years old, children still have difficulty pronouncing consonants.

There are different researches in stages of how children acquire language, particularly consonant sounds, as stated by Aziez (2016). He compared language acquisitions experienced by two children with different backgrounds namely Karim and Vintorez. At 20 months old, Karim could produce the sound of consonants [b], [p], [j], [m], [n], [z], [y], [h], [ŋ], and [ʎ]. He also could produce the sound of consonants [t], [d], [k], and [g] in limited amount. On the other hand, Vintorez could produce the sound of consonants [p], [b], [t], [d], [m], [n], [y], and [ŋ]. He could produce the sound of consonants [k], [g], and [w] in limited amount. Based on the previous research, the stages of children in acquiring language are different, particularly in producing consonants sounds.

Not all children experience these stages in accordance with the time, every child has different developments. Different stages are also experienced by children who have speech disorders. Speech delay can be seen as a symptom of disorders such as mental retardation, hearing loss, expressive language disorder, psychosocial deficiency, elective mute, receptive aphasia, *cerebral palsy*, and autism (Leung and Kao in Dewanti et al., 2012). To see more deeply about the disorder, parents need to do an examination because it can show other symptoms.

Researches on children with autism are mostly studied in psychological and educational fields. However, there is also education in the field of language, Dewi (2014) concluded that the respondents' active or expressive language skills still experience problems, the articulation is not clear in words and the endings [l], [n], [m], [r], [t], [ŋ], Speaking in short words, unable to hold dialogue or communication, unable to provide information, and expressing his wishes when frustrated with incomplete sentences.

In this study, researchers focus on speech delay experienced by children with autism. Autism is a disorder characterized by disruption of the developmental areas of reciprocal social interaction skills, communication skills, and

stereotypical behavior with limited interests and activities (Nakita in Pamuji, 2007). Lumbantobing (in Pamuji, 2007) defines autism as a condition in children who experience a developmental disorder in brain function which includes social and affectional fields, verbal and nonverbal communication, imagination, flexibility, interest, cognition, and attention. Autistic children will find it difficult to socialize with the world outside of themselves. Children with autism have several characteristics, such as in relationships with other people, namely not communicating with the eyes, being unresponsive, like to being alone, not having social smile, limited eye contact, not playing turn games, and using adult hands as a tool (Handojo, 2004).

The object of this research is a child with autism who is currently students at *Bintang Harapan* Special Needs School in Kopo Bandung, West Java. The school is a place that is devoted to children who really need more treatment, such as autism and down syndrome. By the age of 16, usually a child can speak the language well, the pronunciation of the phonemes is also good. The problems found were interesting because the two autistic children that the researchers found still had problems pronouncing the phonemes. Then what will be studied is the pronunciation ability of consonants because in pronunciation, consonants involve articulators in the mouth. Articulators involved in the pronunciation of consonants must be trained often since they were babies or during the process of acquiring language because otherwise the muscles and nerves that work on the articulators can be weak, so the child has difficulty pronouncing the consonants. This often happens to an autistic child.

This paper aims to describe the pronunciation of the Indonesian consonants of a student, then compare the pronunciation of the consonants and the acquisition of language. The results of this study show the relationship between students' communication and their ability to master consonants. These results will be useful for certain parties who deal with children with autism, such as parents and teachers so that they can calculate what things are better avoided, done, or might happen when they treat children with autism. The most appropriate approaches to achieve the objectives of this study are phonology and psycholinguistics because the objects analyzed are directly related to the sound of pronunciation and the process of acquiring language both physically and mentally.

Phonology is one of the scientific studies in linguistics. Muslich (2015) states that phonology as a branch of linguistics is an in-depth study of speech sounds. Phonology is divided into two fields, namely phonemic and phonetics. "Phonemic is a branch of phonological studies

that examines the sounds of language regardless of their status" (Chaer, 2013). Phonetics is a scientific study that studies sound without looking at the meaning or meaning of the sound, as stated by Malmberg (in Verhaar, 1977; Ramlan, 1982; Marsono, 2008) that phonetics is the science that investigates language sounds without looking the function of the sound is to distinguish the meaning in a language (langue).

Psycholinguistics according to Harley (in Dardjowidjojo, 2018) is the study of mental processes in language use. Then Clark and Clark describe the notion of psycholinguistics in more detail. According to them, psycholinguistics is the psychology of language related to the comprehension, production and acquisition of language (in Dardjowidjojo, 2018). From the various definitions above, it can be concluded that psycholinguistics is the study of the human language process, from the time language is produced in the brain until it is spoken. In the process, the things that influence a person in language are explained. The influence can come from within humans or from outside or from the environment.

Research Methods

This study uses a qualitative data analysis method with a case study approach. "Qualitative research is a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior," (Bogdan and Taylor in Moleong, 2004). Case study research is conducted to determine an organization, institution, and specific symptoms in detail and depth (Arikunto, 2010). Data was obtained using the observation method. The listening method is a method used to obtain data by listening to language usage. It is called the listening method because the method used to obtain data is by listening to language usage (Mahsun, 2017).

Before the research began, the researcher made observations at *Bintang Harapan* Special Needs School to determine the current state of a student with autism who was 16 years 7 months old, about his speaking ability especially his consonant pronunciation. Interviews were conducted with parents and teachers, both in direct and indirect (written) interviews. Direct interviews were conducted face-to-face both with parents and teachers. The question was about the students' ability to speak and communicate, as well as his background. Next, the researcher recorded the pronunciation of the words produced by the student, then the teacher or researchers showed the cards containing the images that had been prepared. Recording was also done when conducting interviews with both teachers and parents. Besides recording, note taking technique

was also performed, that is to transcribe the verbal data into written data. The written data was transcribed by using phonetic symbols for the pronunciation of consonants, making it easier for researchers to analyze students' use of phonemes.

The collected data was then analyzed. In this case, the researchers analyzed the data by making classification based on the students' ability to pronounce consonants. The recorded pronunciation data that had been collected were then transcribed into transcript, namely in the form of phonetic symbols. Then the data was identified to distinguish one data from another. Next, the data was classified according to the problems previously identified. The data obtained through interviews and questionnaires were also accumulated into one, then presented in a transcript.

After the data was identified and classified, next it was analyzed using the extra lingual equivalent method. According to Sudaryanto (in Kesuma, 2007), equivalent method is a data analysis method in which the determining tool is external, independent, and does not become part of the language concerned. "Data as the object of research that becomes the target, its identity is determined based on the determinants as standard, based on its equivalence, harmony, suitability and similarity" (Djajasudarma, 2010).

Results and Discussion

There are 39 words used by researchers for the student with autism. The words were chosen by adjusting the needs of researcher to obtain the result of pronunciation of desired consonants. The data of consonant pronunciation was analyzed by using Marsono's classification (2008). However, not all consonants were taken, namely based on the inhibition of the consonants, including bilabial stop, apical dental stop, medio-palatal stop, dorsal velar stop, bilabial nasal, apical alveolar nasal, medio-palatal nasal, dorsal velar nasal, lateral, labio-dental fricative, lamino-alveolar fricative, laryngeal fricative, apical alveolar trill, bilabial semivowel, and medio-palatal semivowel.

1) Consonant Pronunciation

- **Bilabial Stop Consonants [b] and [p]**

Not all bilabial stop consonants can be pronounced correctly by Student A. He could pronounce bilabial stop consonant [b] correctly, both at front and center. For consonant [p] which is in the front and in the middle, he could pronounce it correctly. However, in consonant [p] which is behind the Indonesian word *tutup* (*close*;v), he could not pronounce it correctly. He pronounced the word as [tUtUh]. When he was

asked to repeat the word *tutup* three times, he could pronounce the consonant [p] correctly in the first and second pronunciation, but not in the third pronunciation. The bilabial sound produced by the student was clear, the air could be blocked properly by the lips.

- **Apical Dental Stop Consonants [t] and [d]**

Not all apical dental consonants can be pronounced correctly. Student A could pronounce

apical dental consonants [t] that was in the front and in the middle correctly. However, for the consonant [t] that is located in the back of the word *lalat* (*flies;n*), he could not pronounce it correctly. He pronounced it as [lalah]. For consonant [d], he could pronounce the consonant correctly, both that is located in the front or in the middle. He could produce the sound properly by stopping air flow using his front tongue and teeth.

Table 3.1.

Pronunciations of Apical Dental Stop Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [t]					
1	<i>tas</i>	Front	[tas]	[ta]	-
2	<i>gitar</i>	Middle	[gitar]	[gitar]	-
3	<i>lalat</i>	Back	[lalat]	[lalah]	[t] → [h]
consonant [d]					
4	<i>domba</i>	Front	[domba]	[domba]	-
5	<i>badak</i>	middle	[bada?]	[badah], [bada?]	-

- **Medio-palatal Stop Consonants [c] and [j]**

Medio-palatal stop consonants could be pronounced correctly. Student A could pronounce medio-palatal stop consonant [c] that is located in

the front and in the middle correctly. The same goes for medio-palatal stop consonant [d], where he could pronounce it well, both in the front and in the middle. The sound produced by the air flow blocked by the middle part of tongue and hard palate can be obstructed well.

Table 3.2.

Pronunciations of Medio-palatal Stop Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [c]					
1	<i>cabai</i>	front	[cabay]	[cabay]	-
2	<i>kucing</i>	middle	[kucɪŋ]	[kucɪh], [kucɪŋh]	-
consonant [j]					
3	<i>jeruk</i>	front	[jərʊk]	[jərəh]	-
4	<i>anjing</i>	middle	[anjɪŋ]	[ajɪŋ]	-

- **Dorsal velar Stop Consonants [k] and [g]**

Not all dorsal velar stop consonants could be pronounced correctly by Student A. He could pronounce dorsal velar stop consonant [k] correctly when the consonant was located in the front and in the middle, meanwhile for the consonant that was located in the back like in the word *jeruk* (*orange;n*), the pronunciation of consonant [k] was altered into [h]. For dorsal velar

stop consonant [g], he could not pronounce it correctly. For consonant [g] which was located in the middle such as in the word *jagung* (*corn;n*), the pronunciation was altered into [jakʊŋ]. When asked to repeat the word three times, he could pronounce it correctly as [jagʊŋ] in the third pronunciation. The sound of dorsal velar stop produced by him was clearly heard for consonants [k] dan [g].

Table 3.3.

Pronunciations of Dorsal Velar Stop Consonants

No	Word	Consonant position	Phonetic	Student pronunciation	Alteration
consonant [k]					
1	<i>kucing</i>	front	[kuclŋ]	[kuclh], [kuclŋh]	-
2	<i>ikan</i>	middle	[ikan]	[ikan]	-
3	<i>jeruk</i>	back	[jɛrUk]	[jɛrɛh]	[k] → [h]
consonant [g]					
4	<i>gitar</i>	front	[gitar]	[gitar]	-
5	<i>jagung</i>	middle	[jagUŋ]	[jadɔh], [jakUŋ], [jagUŋ]	[g] → [d] [g] → [k]

• **Bilabial Nasal Consonant [m]**

Bilabial nasal consonant [m] could be pronounced correctly by Student A. He could

pronounce [m] that is located in the front, in the middle and in the back correctly. The sound produced could be clearly heard.

Table 3.4.

Pronunciations of Bilabial Nasal Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [m]					
1	<i>monyet</i>	front	[mɔŋɛt]	[mɔgɛh], [mɔnyɛh], [mɔngɛh]	-
2	<i>domba</i>	middle	[dɔmba]	[dɔmbah]	-
3	<i>malam</i>	back	[malam]	[malam]	-

• **Apical Alveolar Nasal Consonants [ŋ]**

Not all apical alveolar nasal consonants could be pronounced correctly. Student A could pronounce apical alveolar nasal consonant [ŋ] located in the back correctly. Consonant [ŋ] that is

located in the middle of the word *kelinci* (*rabbit;n*) was disappeared, instead the consonant was pronounced as [kɛlici]. The sounds made by the student were clear for consonant [ŋ] and could be pronounced correctly.

Table 3.5.

Pronunciations of Apical alveolar Nasal Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [ŋ]					
1	<i>nanas</i>	front	[nanas]	[nanas]	-
2	<i>kelinci</i>	middle	[kɛlɪnci]	[kɛlici]	[ŋ] → ∅
3	<i>ikan</i>	back	[ikan]	[ikan]	-

• **Medio-palatal Nasal Consonants [ɲ]**

The student was not able to pronounce medio-palatal nasal consonant [ɲ] correctly. For the word *nyamuk* (*mosquito;n*), the consonant [ɲ] that is located in the front was disappeared and

changed into [yabɛh]. For the consonant placed in the middle like in the word *monyet* (*monkey;n*), he pronounced it as [mɔgɛh] and [mɔŋɛh]. However, the word could be pronounced correctly in the second pronunciation.

Table 3.6.

Pronunciations of Medio-palatal Nasal Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [ɲ]					
1	<i>nyamuk</i>	front	[ɲamUk]	[yabɛh]	[ɲ] → ∅
2	<i>monyet</i>	middle	[mɔŋɛt]	[mɔgɛh], [mɔŋɛh], [mɔŋɛh]	[ɲ] → [g] [ɲ] → [ŋ]

• **Dorsal velar Nasal Consonants [ŋ]**

Not all dorsal velar nasal consonants could be pronounced well. The student could pronounce consonant [ŋ] located in the front correctly. Consonant [ŋ] that is located in the middle of the word *mangga* (*mango;n*) was disappeared, the

student pronounced it as [makan]. However, in the second pronunciation, the student could pronounce it correctly. Then, for the consonant located in the back, there was a change and the student pronounced it as [jadɔh]. However, the student could pronounce it in the second and the third pronunciation.

Table 3.7.

Pronunciations of Dorsal velar Nasal Consonants

no	word	consonant position	phonetic	Student pronunciation	alteration
consonant [ŋ]					
1	<i>ngarai</i>	front	[ŋaray]	[ŋahray]	-
2	<i>mangga</i>	middle	[manga]	[makan], [maŋka]	[ŋ] → ø
3	<i>jagung</i>	back	[jagUŋ]	[jadɔh], [jakUŋ], [jagUŋ]	[ŋ] → [h]

• **Lateral Consonant [l]**

Not all lateral consonants could be pronounced correctly. Student A could pronounce

consonant [l] that was located in the front and middle correctly. Consonant [l] that was located in the back like in the word *wortel* disappeared, instead it was pronounced as [wɔrtɔh].

Table 3.8.

Pronunciations of Lateral Consonant

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [l]					
1	<i>labu</i>	front	[labu]	[labɔh], [labɔh]	-
2	<i>malam</i>	middle	[malam]	[malam]	-
3	<i>wortel</i>	back	[wɔrtɛl]	[wɔrtɔh]	[l] → [h]

• **Labio-dental Fricative Consonants [f] and [v]**

Not all labio-dental fricative consonants could be pronounced correctly. Student A could pronounce labio-dental [f] fricative consonants correctly, whether in the front, middle or back. However, the student could not pronounce [f] in the word *sofa* once in the second pronunciation that it changed into [sopa]. For consonant [v] that

is located in the front, the student could pronounce it correctly although in the second pronunciation. In the first pronunciation, the word *vas* (*vase;n*) was pronounced as [was]. Consonant [v] that is located in the middle could not be pronounced correctly. The word *oven* was pronounced as [ɔpɛn]. The sound between the lower lip and teeth produced Student A could be clearly heard.

Table 3.9.

Pronunciations of Labio-dental Fricative Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [f]					
1	<i>foto</i>	front	[foto]	[fɔtɔh]	-
2	<i>sofa</i>	middle	[sofa]	[sofah], [sɔpa], [sofa]	[f] → [p]
3	<i>saraf</i>	back	[saraf]	[sa?laf], [sa?raf]	-
consonant [v]					
4	<i>vas</i>	front	[vas]	[was], [vas]	[v] → [w]
5	<i>oven</i>	middle	[oven]	[ovɛh], [ɔpɛn]	[v] → [p]

• **Lamino-alveolar Fricative Consonants [s] and [z]**

Not all lamino-alveolar consonants could be pronounced correctly. Student A could pronounce

lamino-alveolar fricative consonant [s] correctly, whether in the front, middle or back. For consonant [z] that is located in the front and middle, the student had not been able to pronounce it correctly. The word *zebra* was

pronounced as [sɛbrah] and the word *lezat* (tasty;n) was pronounced as [lɛsah].

Table 3.10.

Pronunciations of Lamino-alveolar Fricative Consonants

no	word	consonant position	phonetic	Student pronunciation	alteration
consonant [s]					
1	<i>sapi</i>	front	[sapi]	[saplh]	-
2	<i>kursi</i>	middle	[kUrsi]	[kuslh]	-
3	<i>nanas</i>	back	[nanas]	[nanas]	-
consonant [z]					
4	<i>zebra</i>	front	[zɛbra]	[sɛbrah]	[z] → [s]
5	<i>lezat</i>	middle	[lɛzat]	[lɛsah]	[z] → [s]

• **Laryngeal Fricative Consonants [h]**

Laryngeal fricative consonants could be pronounced correctly. Student A could pronounce

consonant [h] that is located in the front, middle, and back correctly. The sound made by the student could be clearly heard.

Table 3.11.

Pronunciations of Laryngeal Fricative Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [h]					
1	<i>hujan</i>	front	[hujan]	[hujan]	-
2	<i>lahar</i>	middle	[lahar]	[laʔhar]	-
3	<i>rumah</i>	back	[rumah]	[romah], [rumah]	-

• **Apical alveolar Trill Consonant [r]**

Not all apical alveolar trill consonant could be pronounced correctly. Student A could pronounce apical alveolar trill consonant [r] that is located in

the front and back correctly. Consonant [r] that is located in the middle like in the word *kursi* (chair;n) was disappeared that the pronunciation changed into [kuslh]. The sound made by the student could be clearly heard.

Table 3.12.

Pronunciations of Apical alveolar Trill Consonant

no	word	consonant position	phonetic	Student pronunciation	alteration
consonant [r]					
1	<i>roda</i>	front	[roda]	[rodah]	-
2	<i>kursi</i>	middle	[kUrsi]	[kuslh]	[r] → ∅
3	<i>pasar</i>	back	[pasar]	[pasar]	-

• **Bilabial Semivowel Consonant [w]**

Bilabial semivowel consonant could be pronounced correctly. The student could

pronounce consonant [w] that is located in the front and middle correctly. The sound made by the student could be clearly heard.

Table 3.13.

Pronunciations of Bilabial Semivowel Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [w]					
1	<i>wortel</i>	front	[wortɛl]	[wortɛh]	-
2	<i>awan</i>	middle	[awan]	[awan]	-

• **Medio-palatal Semivowel Consonants [y]**

Medio-palatal semivowel consonants could be pronounced correctly. Student A could

pronounce consonant [y] that is located in the front and middle correctly. The sound made by the student could be clearly heard.

Table 3.14.

Pronunciations of Medio-palatal Semivowel Consonants

No	Word	Consonant Position	Phonetic	Student Pronunciation	Alteration
consonant [y]					
1	yoyo	front	[yoyo]	[yɔyɔh]	-
2	payung	middle	[payun]	[payənh], {payUŋ}	-

Based on the pronunciation of consonants of Student A, there are alterations, deletions, and additional consonants as follow.

a. Alteration of Consonant

- 1) Consonant [p]
There was alteration in the pronunciation of consonant [p], namely in the word [tUtUp] that changes into [tUtUh]. Consonant [p] alters into consonant [h].
- 2) Consonant [t]
There was alteration in the pronunciation of consonant [t], namely in the word [lalat] that altered into [lalah]. Consonant [t] altered into consonant [h]. Alteration also occurs in the word [ləzat] that altered into [ləsah].
- 3) Consonant [k]
There was a change in pronunciation of consonant [k], namely in the word [jərUk] that altered into [jərəh]. Consonant [k] altered into consonant [h].
- 4) Consonant [g]
There were some alterations in the pronunciation of consonant [g]. In the word [jagUŋ], consonant [g] was altered into two consonants, namely consonant [d] and [k]. Pronunciation changes into [jadɔh] and [jakUŋ]. Alteration also occurs in the word [maŋga] that changes into [maŋka].
- 5) Consonant [ŋ]
There were some alteration in the pronunciation of consonant [ŋ]. Consonant [ŋ] that is located in the front of the word [ŋamUk] changes into [yabəh], there is alteration from consonant [ŋ] into [y]. Consonant [ŋ] that is located in the middle was changed in the word [mɔŋɛt] into [mogəh], there is alteration from consonant [ŋ] to [g]. Not only that, the word [mɔŋɛt] also turned into [mɔŋəh], consonant [ŋ] changed into consonant [ŋ].
- 6) Consonant [ŋ]
There were some changes in pronunciations of consonant [ŋ].

Consonant [ŋ] that is located in the back of the word [jagUŋ] turned into [jadɔh]. Consonant [ŋ] altered into [h]. It also happened in the word [kuclŋ] that changed into [kuclh].

- 7) Consonant [l]
There was a change in pronunciation of consonant [l]. Consonant [l] that is located in the back of the word [wɔrtəl] changed into [wɔrtəh]. Consonant [l] was pronounced as [h].
- 8) Consonant [f]
There was a change in pronunciation of consonant [f]. Consonant [f] that is located in the middle of the word [sofa] changed into [sopah]. Consonant [f] changed into [p].
- 9) Consonant [v]
There were some changes in how consonant [v] is pronounced. Consonant [v] that is located in the front of the word [vas] changed into [was], there is a change of consonant from [v] to [w]. Next, the consonant that is located in the middle of the word [ovən] changed into [opən], there was a change of consonant from [v] to [p].
- 10) Consonant [z]
There were some changes in the pronunciation of consonant [z]. Consonant [z] that is located in the front of the word [zɛbra] changed into [sɛbrah], there was a change of consonant from [s] to [z]. Next, consonant [z] that is located in the middle of the word [ləzat] changed into [ləsah], the consonant [z] changed into [s].

b. Deletions of Consonant

- 1) Consonant [ŋ]
There was a deletion in the pronunciation of consonant [ŋ]. Deletion occurred in the consonant that is located in the middle, namely in the word [kəlŋci] that changed into [kəlɪci] and [an]lŋ that changed into [aj]lŋ.

- 2) Consonant [ŋ]
There was a deletion in the the pronunciation of consonant [ŋ]. Consonant [ŋ] that is located in the middle of the word [manŋa] changed into [makan].
- 3) Consonant [r]
There was a deletion in the pronunciation of consonant [r]. Consonant that is located in the middle of the word [kUrsi] changed into [kush].

c. Appearance of Consonants

Consonants that appeared in the pronunciation of student A are consonant [h] and consonant [ʔ]. Here are the words that were given additional consonants.

- 1) Consonant [h]
 - a) [labu] changed into [labɔh] [labəh]
 - b) [plntu] changed into [plntUh]
 - c) [sapi] changed into [saplh]
 - d) [kucŋ] changed into [kucŋh]
 - e) [dɔmba] changed into [dɔmbah]
 - f) [ŋaray] changed into [ŋahray]
 - g) [foto] changed into [fɔtɔh]
 - h) [kUrsi] changed into [kush]
 - i) [roda] changed into [rodah]
- 2) Consonant [ʔ]
 - a) [saraf] changed into [saʔraf] and [saʔlaf]
 - b) [lahar] changed into [laʔhar]

2) Consonant Pronunciations and Development Stages of Student A

Consonant pronunciations are harder than vocal because in producing consonant sounds, several articulators inside the mouth are involved. Based on the minimum consonant system, student A had mastered oral sounds with nasal, bilabial, and dental sounds. However, there were consonants that changed, either into other consonants, deleted, or articulated less clearly.

Research results show that student A could pronounce medio-palatal stop, bilabial nasal, laryngeal fricative, bilabial semivowel, dan medio-palatal semivowel correctly without any mispronunciation. However, student A made many consonant alterations.

Based on the data obtained, there were a few alterations in consonants that involve active lip articulators, namely [b], [p], [m], [f], [v], and [w], namely consonants [p] and [v]. Student A could use the articulator well in pronouncing consonants. On the other hand, there were a lot of alterations for consonants that involved the tongue as an active articulator, namely [t], [d], [c], [j], [k], [g], [n], [ŋ], [l], [s], [z], [r], and [y]. Consonants that could be pronounced correctly without alteration are [d], [c], [j], [s], and [y].

Despite a lot of incorrect pronunciation, the cooperation between the tongue and some passive articulators is good enough because the sound is clear. The laryngeal sound [h] can be pronounced correctly by the student.

The student had been able to use articulators quite well. However, student A still needs to improve his ability to pronounce the sounds [v], [ŋ], and [z]. As for these sounds, the student could not pronounce it correctly, both front and center, especially the consonant [z] that could not be pronounced at all.

Student A also needs to practice for the pronunciation of some voiced consonants that the articulator has in common with unvoiced consonants. Consonants still incorrectly pronounced are [g], [v], and [z]. Dorsal velar stop consonant [g] changes into [k] which is an unvoiced dorsal velar stop consonant. The labiodental fricative consonant [v] also changes, but it does not become a voiceless [f], but instead it becomes [w] and [p] which still use the lips as an articulator. Consonant [z] changed into the unvoiced lamino-alveolar fricative [s]. The inhibition consonants [p], [t], [k], and [l] that are located in the in the back of words need to be considered. The air flow that should have been blocked by the articulator managed to escape so that the student could not pronounce the consonant properly, the consonant changed into the laryngeal consonant [h].

Student A was born in Bandung on July 10, 2003. His father is a private employee, while his mother is a housewife. He was first recognized to have autism at the age of 20 months, it was indicated by the inability to speak. Although living in Bandung, which usually uses Sundanese, the parents of Student A chose to use Indonesian when communicating because it would be more difficult to communicate if they used more than one language. Student A began to be able to speak at the age of 12, one of the first words he could pronounce was *mama*.

Student A's communication skill with his parents had been developed. At first, his parents provided illustrated paper, and he only had to point out if he wanted something. For example, when he wanted to eat, he would point to a photo showing eating activities. As he got older and starting school, he began to be able to say what he wanted, but still in one word. Currently, he began to be able to use sentences to express their wishes. Apart from attending the *Harapan Bintang* Special Needs School, he is also attending sensory integration therapy and speech therapy.

Conclusion

One of the characteristics of children with autism is speech delay. The slow ability to speak

is also influenced by how children communicate with their closest people, including parents. Based on the results of interview and questionnaires by informants, it is found that there are differences in how parents communicate with their children. The difference in communicating can be seen from the ability of the student to pronounce consonants.

In how Student A pronounces consonants, there are 10 consonants that changed into other consonants, namely [p], [t], [k], [g], [ŋ], [ŋ], [l], [f], [v], and [z]. There are three deleted consonants, namely [n], [ŋ], and [r]. There are emergences of consonants, where consonant [h] emerged in nine words and consonant [ʔ] in two words.

Student A was required to talk and was frequently invited to communicate with their parents. The way the student communicates at home affects the student's ability to pronounce consonants. Thus, the articulation of student A is clearer than the other students in his school. Student A also often adds consonants at the end of words. Changes to consonants to other consonants occurred more frequently in student A.

Based on these information, it is shown that student A still needs to practice pronouncing the consonants [v], [ŋ], and [z]. Many things can be studied from children with autism. In the field of language, analysis can be made for the ability of children with autism to produce words and sentences so that they can be refined in terms of morphology and syntax. In addition, the student's understanding of a sentence with pragmatic studies can also be examined.

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