Jurnal Onoma: Pendidikan, Bahasa dan Sastra, **Vol. 10, No. 3, 2024**

Types of Articulation Errors Produced by 3,5 Years Old Child: Study Case of PA

Anisa Nurjanah[1]
Vivi Indriyani[2]
[1 2] Universitas Negeri Padang, Indonesia

[1]anisanurjanah@fbs.unp.ac.id
[2] viviindriyani@fbs.unp.ac.id

Abstract

Articulation errors are often found in children. One of them is PA, 3.5 years old, a preschool student. This study aims to describe articulation errors shown by PA when communicating. This error will have a negative effect on PA if left without proper treatment. The author collected data by recording every word pronounced by PA according to the author's request. Then, the author pays attention to the articulation errors made and groups these errors into four types of articulation errors proposed by Fogle (2017). The author found three types of articulation errors that were often made by PA. PA shows a substitution error in the sound /s/ which changes to the sound /t/ if it is located at the end of the word. However, it changes to /c/ if it is located at the beginning and middle of a word. The sounds /r/ and /l/ change to /n/ when they are at the end of a word, but /r/ changes to /l/ when they are at the beginning and middle of a word. The /n/ sound will change to /ŋ/ if it is in the middle of a word that has repeated sounds. The author also found omission errors, namely the sounds /g/, /k/, /d/, /j/ will be lost if they are at the beginning of the word. The sounds /l/ and /r/ will also disappear if they are in the middle of a word. Errors in adding sounds were found in the middle of words in the form of a nasal /m/ sound if followed by a /b/ sound and an /n/ sound if followed by a /d/ sound. Meanwhile, the sounds /n/ and /ŋ/ will appear in the middle of words that have repeated sounds.

Keywords*: articulation errors, child's articulation, language development*

Introduction

Human being needs language to do the communication with others. People with good articulation and good comprehension must have good or effective communication. Effective communication involves the exchange of ideas, thoughts, opinions, knowledge, and data to ensure clear and purposeful understanding. When communication is successful, both the sender and receiver experience satisfaction as they comprehend each other. Human needs language as a media to interact with other people to do everything in life. Human is a social creature that cannot live alone.

According to Suhartono (2005) speaking is a form of behavior human factors that utilize physical, psychological, neurological, semantic, and linguistics. First, the physical factor, namely the speech apparatus to produce sounds language, such as head, hands, and facial features are used in speaking. Second, psychological factors can influence fluency speak. Therefore, emotional stability does not only influence sound quality but also affects the consistency of the conversation material. Third, neurological factors, namely the nerve network that connects the brain small with mouths, ears and other body organs that participate in activities speak. Fourth, semantic factors related to meaning. Fifth, linguistic factors related to language structure. The sound produced

must be arranged according to certain rules to be meaningful. If the words are arranged not following language rules will affect understanding of meaning by the interlocutor.

Bzoch in Muzaiyanah (2013), divides the stages of children's language development from birth up to 3 years of age in four stages, namely:

Infant language development as prelinguistic communication

This communication occurs at the age of 0-3 months from birth to end of first year. Newborn babies cannot yet combine language elements including content, form and use of language. Besides not yet developed conventional language forms, the baby's cognitive abilities are also not yet developed. Communication is more personal reflective rather than planned. This period is called prelinguistic. Even though the baby doesn't understand and can't express it yet conventional form, they observe and produce sound in a unique way. The clinician must determine whether the baby observing or reacting to sounds. If not, this is indication for physical or audiological evaluation. Next, intervention planned to build an environment that provides many opportunities to observe and react to sounds.

First words: Transition to language

Occurs at the age of 3-9 months old. One of the developments steps in language developments. The main milentone is the pronunciation of the first words that occur at the end of the first year, continuing until the current year and a half. Vocabulary growth is rapid, as the signs of initiation of initial sentence formation. Developing cognitive abilities, the presence of control, and emotional interpretation in this period will give meaning to the child's first words. The meaning of the first words they can refer to objects, places and events in about the child's early environment.

Rapid vocabulary development (Sentence formation)

Occurs at the age of 9-18 months. Form the first words into many words and the start of sentence production. Development comprehensive and word production occurs rapidly at around 18 months old. Children can combine nouns with words work which then produces syntax. Through interactions with people, children begin to learn to consolidate content, form, and form use of language in conversation. With the development of cognition and effective experience, the child begins to be able to speak using words stored in their memory. There is a shift from one-word sentences to nouns and verbs.

From baby talk to preschool registration resemble adults

Occurs at the age of 18-36 months old. Children with mobility are starting increased have access to wider social networks and Cognitive development deepens. Children start to think conceptually, categorizing objects, people and events and can solve physical problems. Children continue to develop using of adult phoneme forms.

Human being cannot instantly talk when they were born. They can talk at the age of 9-18 moths old. In this stage, human produces the first words, then followed by other words. After producing one word, then human will produce phrases, and then become simple sentences, and then complex sentences like adults. This phenomenon happens naturally because there is a device in human’s brain that is called LAD (Language Acquisition Device). LAD helps human being to understand and produce languages, started with the first language, then continue with the second language.

Language comprehension will increase time by time based on the age of human, started from bubbling until very complex sentences. Language development in 4 years old child has been good in phonology, syntactic, and semantics (Nasution, 2009). But there are some cases when the 3-4 years old child cannot produce sound correctly. This condition is called articulation errors.

Articulation disorder implies that the disorder has a motor component that affects the ability to clearly articulate specific sounds and syllables in words. Articulation disorders are often developmental disorders in which a child has learned to produce sounds incorrectly or inadequately compared to normative standards for a child's age (Bauman-Waengler, 2020).

According to Fogle (2017), there are four primary types of articulation errors can be made on any one sound: substitutions, omissions, distortions, and additions (S.O.D.A.). Articulation errors can occur in the initial, medial, or final position of words.

A sound substitution is the replacement of one standard speech sound by another. (A standard speech sound can be represented by a phonetic symbol.) When a child has a sound substitution, she produces a wrong sound in place of the correct sound, such as "thoup" for soup (a frontal lisp), "shoup" for soup (a lateral lisp), or "wed" for red (/w/ for /r/). Sound substitutions are probably the most common type of articulation errors among children.

A sound omission is the absence of a speech sound where one should occur in a word-for example, "k-on" for crayon, or "ba" for box. Some children will have both a substitution and an omission in the same word-for example, "sketty" for spaghetti, where there is an omission of the /p/ and schwa sound/a/, and substitution of /k/ for /g/.

A sound distortion is a sound that does not have a phonetic symbol to represent the sound that is produced in place of the intended sound, such as a lateral lisp that is not a clear "sh" sound, or a distorted /r/ sound that cannot be clearly represented by a phonetic symbol. Sound distortions are commonly heard in children. who have neurological disorders such as cerebral palsy or traumatic brain injuries when the articulators are weak and cannot make rapid or precise movements. An addition is the insertion of a sound or sounds that are not part of the word itself, such as animamal for animal.

The are some researchers who has conducted research about articulation errors in children. One of these researches comes with the title "*kajian fonologi kesalahan bunyi dalam bahasa kanak-kanak"* by Rodzi and Jafaar (2018). They found that that the children have most difficulties to produce consonants /r/ and /s/ as these consonants have been substituted to [ɣ], [w] or [l] and [ʃ] or [ʧ], respectively. Besides that, nasal consonants such as [m], [n] and [N] are deleted as these sounds are quite difficult to produce by the children.

Syahfitri and Rachmani (2015) said that 3 years old children are considered to have through almost all stages language acquisition. In this age range the child has entered the true speech stage, where language competence is very high developed and its performance has begun approaching adult language. Three years old children were in step to produce double word utterances (multiple-word utterances) that usually called telegraphic speech. The three old children are also capable in making sentences and order the sentences correctly. The child's vocabulary expands quickly reaching hundreds of words and the way the words are pronounced is becoming more and more similar in adult language. They also found that the participant of their research only had

the difficulties in pronouncing sound /r/ and /s/. The participant in their research pronounced sound /r/ in 'berenang' became /belenang/ and 'susu' became /cucu/.

However, this research comes with different participant. The participant of this research is very talkative with good family background and good school environment. This research describes the types of articulation errors produced by PA, 3,5 years old, a preschool student. Articulation errors can cause some bad effect for the child's social life such as avoid speaking, hate school, and enjoy to be alone. If parents or teacher do not pay attention to this, it might be worse time by time. The writers hope that the result of this research will give the clear description about articulation errors in order to provide appropriate therapy.

Method

This research is descriptive qualitative research with 1 child aged 3.5 years old as the research participant. This research used the listening method and the advanced technique of listening technique as a method of data acquisition. The technique of this research is Involved Conversation Observation Technique. This technique involves the researchers directly in the emergence of prospective research data (Sudaryanto, 1988). This technique is realized with the lure technique through providing stimulus to the informant or participant.

The participant will be given a stimulus in the form of a word and asked to repeat the word. Thus, the data in this study are oral data in the form of consonant or vowel sounds in words spoken by the participant. In the advanced technique of data acquisition, recording and recording were carried out. Recording was done by recording the data acquisition process in audio form using a device, using the help of gadgets. Meanwhile, recording was done by writing down informant's speech in the data card using a ballpoint pen. Afterwards, the data was analyzed by paying attention to the missing (omission), changing (substitution), and increasing sounds (addition). The researchers used International Phonetics Alphabet (IPA) to do the transcription of the data gotten from the recordings. The researchers only analyzed the errors of words produced by PA as participant of this research.

Results

This research aimed to describe the types of articulation errors produced by PA, a 3,5 years old girl, who has become a preschool student since she was 2,5 years old. There are four types of articulation errors found by Fogle (2017), they are substitution, omission, distortion, and addition.

Substitution errors

Substitution errors is when a standard speech sound is replaced by another speech sound. For example, the sound /s/ in the word /sama/ can be replaced by /c/ sound, so the children might pronounce that word become /cama/.

/alis/	>	/alit/	eyebrow
/haus/	>	/aut/	thirsty
/pasir/	>	/pacin/	sand
/susu/	>	/cucu/	milk
/air/	>	/ain/	water
/pintar/	>	/pintan/	smart

/kumis/	>	/tomit/	mustache
/saus/	>	/caut/	ketchup
/bantal/	>	/bantan/	pillow
/sambal/	>	/camban/	chili sauce
/dindiŋ/	>	/diŋdiŋ/	wall
/dendeŋ/	>	/deŋdeŋ/	beef jerky
/sisir/	>	/cicin/	comb
/paus/	>	/paut/	whale
/rapi/	>	/lapi/	tidy
/sari/	>	/cali/	name
/saran/	>	/calan/	advice

PA produced some substitution errors where sound /s/ at the end of words become /t/ sound like when she produced /alis/ but she said /alit/, /haus/ become /aut/, /paus/ become /paut/, and so on. However, if it at the begining or midle of the words, /s/ sound changed become /c/ sound like when she pronounced /susu/ became /cucu/, /saus/ became /caut/, /pasir/ became /pacin/, and /sisir/ became /cicin/. The substitution errors were also found in /r/ and /l/ sound that changed become /n/ sound if this sound position is at the end of the words, like when PA produced /pasir/ became /pacin/, /pintar/ became /pintan/, /sisir/ became /cicin/, /bantal/ became /bantan/, and /sambal/ became /camban/. /r/ sound changed become /l/ sound if this sound is at the beginning or in the middle of the words. PA pronounced the word /rapi/ became/lapi/, /sari/ became /cali/, and /saran/ became /calan/. The substitution also appeared in sound /n/ that would change into /ŋ/ sound if it is at the middle of half repetition word like “dinding” and “dendeng” become /diŋdiŋ/ and /deŋdeŋ/.

Omission errors

Omission errors is when there is the absence of a speech sound where one should occur in a word. For example, sound /d/ in word /dagiŋ/ is missing, and the children pronounce it as /agiŋ/. This omission errors can be happened to more than one sound in one word.

/gelas/	>	/olat/	glass
/gendut/	>	/undut/	fat
/kecil/	>	/ucin/	small
/demam/	>	/omam/	fever
/kerbau/	>	/obau/	buffalo
/dagiŋ/	>	/agiŋ/	meat
/jele?/	>	/ule?/	ugly
/kasur/	>	/acun/	mattress
/kertas/	>	/otat/	paper
/keniŋ/	>	/uniŋ/	forehead
/karpet/	>	/kapet/	carpet
/kursi/	>	/uci/	chair
/jilbab/	>	/jibab/	headscarf
/gambar/	>	/amban/	picture
/pinguin/	>	/piwin/	pinguin
/kepitiŋ/	>	/pitiŋ/	crab
/keluar/	>	/uwan/	exit

/terbaŋ/	>	/obaŋ/	fly
/tempat/	>	/ompat/	place

The researchers also find some omission errors produced by PA. Sounds /g/, /k/, /d/, /t/, and /j/ at the beginning will disappear. Then, the vowel /e/ after these sounds will change become /o/ and /u/. PA pronounced /gelas/ became /olat/ and /terbaŋ/ became /obaŋ/, sounds /g/ and /t/ disappeared and vowel /e/ that followed these sounds was changed into /o/ vowel sound. Besides that, PA also pronounced /demam/ became /omam/, /kerbau/ became /obau/, /kertas/ became /otat/. We can see that these /g/, /t/, k/, and /d/ sounds were deleted by PA. She also pronounced /gendut/ become /undut/, /kecil/ became /ucin/, /jele?/ became /ule?/, /keniŋ/ became /uniŋ/, and /keluar/ became /uwan/. We can see that sounds /g/, /j/, and /k/ at the beginning of words disappeared and then vowel /e/ changed become /u/ sounds. But they will not change if the vowels after the first sound are /a/ and /u/ like in /dagiŋ/ became /agiŋ/ and /kursi/ became /uci/. /l/ and /r/ sounds in the middle of words like "jilbab", "kursi", and "karpet" will also disappear. PA pronounced /jilbab/ became /jibab/ and /karpet/ became /kapet/. But there is one exception like in the word /kepitiŋ/, the first sound /k/ and the second sound /e/ were lost. This case was also found in the word /kepala/ became /pala/. It means that if the consonant /p/ was after the second sound, the first and second sound would disappear.

Addition errors

An addition errors is when there is the insertion of a sound or sounds that are not part of the word itself, such as animamal for animal. This error usually appears in the middle of word.

/mobil/	>	/umbin/	car
/kebun/	>	/umbun/	garden
/dadar/	>	/dandan/	omelet
/hiduŋ/	>	/induŋ/	nose
/dadaŋ/	>	/daŋdaŋ/	dadang (name)
/mamaŋ/	>	/maŋmaŋ/	uncle
/susun/	>	/cuncun/	arrange

Addition errors are found in the words above, the addition are nasal sounds like /m/ and /n/ at the middle of word. /m/ sound will appear if it is followed by /b/ sound like in /mobil/ became /umbin/ and /kebun/ became /umbun/. However, /n/ sound will appear if it is followed by /d/ sound like in /hiduŋ/ became /induŋ/. Besides that, /n/ and /ŋ/ sound will appear in the middle of word if the words are repetition sounds like "dadar" and "dadang". But the sound is adjusted to the final sound like /dadar/ become /dandan/ because PA pronounced /r/ sound at the end of word became /n/, so in the middle of the word, there was an addition sound which is the final sound she produced. This also happened in the word /susun/, PA pronounced it by /cuncun/, because PA cannot produce the sound /s/ she changed it with /c/ sound and gave an addition in the middle of the word. She added /n/ sound in the middle because the final sound of the word is /n/ sound. In the words /dadaŋ/ and /mamaŋ/ became /daŋdaŋ/ and /maŋmaŋ/, we can see here the addition is sound /ŋ/ in the middle of the words, this /ŋ/ sound is the final sound of these words.

This research agrees with what Rodzi and Jafaar said in their research entitled "*kajian fonologi kesalahan bunyi dalam bahasa kanak-kanak".* After doing the research they found that that the children have most difficulties to produce consonants /r/ and /s/ as these consonants have been substituted to [ɣ], [w] or [l] and [ʃ] or [ʧ] respectively. In PA case, the results were a little bit similar where PA also had difficulties in producing /r/ and /s/ sound, however PA did not change these sounds into [ɣ], [w] or [l] and [ʃ] or [ʧ]. She replaced /r/ sound with /l/ and /n/ sounds. On the other hand, she replaced /s/ sound with /c/ and /t/ sounds. This finding is also similar with Syahfitri and Rachmani found in 2015, they found the participants of their research only had the difficulties in pronouncing sound /r/ and /s/. The participant in their research pronounced sound /r/ in 'berenang' became /belenang/ and 'susu' became /cucu/. Besides that, PA did not have any difficulty in producing nasal sounds (/m/ and /n/) like Rodzi and Jafaar found. Of course, this happened because the participant in these researches were different.

Articulation errors can cause some bad effects for the child's social life such as avoid speaking, hate school, and enjoy to be alone. If parents or teacher do not pay attention to this, it might be getting worse time by time. The participant in this research is PA, 3,5 years old, a preschool student. After doing the research, the researchers found only three types of articulation errors that are produced by PA.

There some factors that cause Articulations errors. One of them is family parenting style. PA is a child of a working mom that is taken care by her grandparents, and her grandparent, uncle, and aunty treats her with very pampered. Every family member shows their attention and love to this child. In school, the teachers are also treats her in the same way, because she is the youngest student in her school. Every student also showers her with attention. This is the factor that can cause the articulation errors. PA keep doing this to get the attention from everyone.

Conclusion

This research finds that PA shows only three types of articulation errors, they are substitution, omission, and addition. PA faces some difficulties in producing sound /s/ if this sound is at the end of words, the sound will change become /t/ sound. But the sound will change become /c/ sound if it is in the middle or at the beginning of word. This is also happening to /r/ and /l/ sounds, when these sounds were at the end of words, they became /n/ sound, but if this /r/ sound is at the beginning or in the middle of words, it became /l/ sound. Researchers also find omission errors of sounds /g/, /k/, /d/, /t/, and /j/ if they are at the beginning of words. The are also omission of /l/ and /r/ sound if it is in the middle of word. The last one is additional errors, the additional sounds are nasal sound /m/, /n/, and /ŋ/. These additional errors were found if the words are consisting of sounds repetition like /susun/, /dadaŋ/, /dadar/, etc. The writers hope this result of research will give contribution to psycholinguistics and neurolinguistics study to find the suitable speech therapy for children like PA.

Acknowledgment

The researchers would like to express their gratitude to the research participant, PA, who has collaborated well during this research. The participant has helped researchers a lot with her willingness to repeat how to pronounce words.

References

Bauman, Jacqueline & Waengler. (2020). Articulation & Phonology in Speech Sound Disorders. California: Pearson.

Fogle, Paul, T. (2017) Essentials of Communication Sciences & Disorders. Burlington: Jones & Bartlett Learning.

Muzaiyanah, (2013). Perkembangan Bahasa pada Anak. *Wardah: e-Journal Universitas Islam Negeri Raden Fatah*, No. XXVI/ Th. XIV/ Juni 2013.

Nasution, Putri. (2009). Kemampuan Berbahasa Anak Usia 3 - 4 Tahun (Prasekolah) di Play Group Tunas Mekar Medan: Tinjauan Psikolinguistik. (Skripsi Sarjana, Universitas Sumatera Utara).

Rodzi, N. S. M., & Jaafar, S. R. F. (2018). Kajian Fonologi Kesalahan Bunyi dalam Bahasa Kanak-Kanak. Journal of Social Sciences and Humanities, Vol. 13, No.2 (2018) 178-188, ISSN: 1823-884x.

Sudaryanto. (1988). Metode Linguistik Bagian Kedia: Metode dan Teknik Pengumpulan Data. Yogyakarta: Gajah Mada University Press.

Suhartono. (2005). Pengembangan Keterampilan Berbicara Anak Usia Dini. Jakarta: Depdiknas.

Syahfitri, Dian & Annisa, Rachmani, T. (2015). Pemerolehan Bahasa pada Anak Usia 3 Tahun. *Medan Makna: Jurnal Ilmu Kebahasaan dan Kesastraan*, vol: XIII (1), 87-94.