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Acquisition of Phonological Competence in Five-Year-Old Mentally Disabled Children

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ABSTRACT

This research aims at describing language acquisition particularly at the level of phonological competence attained by mentally retarded children. The data in this research are gathered from children, who is mentally retarded, at the Panti Asuhan Yatim Sejahtera Banjarnegara. These data include vocabularies which are primarily nouns, for instance the name of transportations, fruits, and buildings. This is a descriptive-qualitative research of which steps were giving stimuli to the targeted child to pronounce some vocabularies. These pronounced-vocabularies were then employed in this research to further be examined. In order to discover the stages of language acquisition specifically at the level of phonological competence, the data will be analyzed with phonetic syllabus. Based on the result of the analysis, it indicates that the language acquisition of this mentally disabled child phonologically pronounced vocoid [ɪ], [I], [ɛ], [ɹ↔], [ɑ], [ʊ], [Y], [o], [ɹ̰], and [ˑ]; and contoid sounds [π], [β], [τ], [δ], [κ], [γ], [χ], [φ], [η], [λ], [μ], [ν], [ɾ̠], [ω]; while sounds such as [√], [σ], [ρ], [ζ], [θ], and [ϖ] were not able to be pronounced. In short, the phonological stage of language acquisition by mentally disabled child was obtained but it was not fully acquired.

Keywords: language acquisition; mentally disabled child; phonological competence; phonetic syllabus

INTRODUCTION

Humans are born with the ability to communicate. This is proved by the human ability to learn language through the language acquisition and learning processes. Language acquisition is the process of learning a language for the first time, when humans hear or receive it for the first time. Language learning, on the other hand, is the process of learning language through formal education. Language acquisition refers to the first language, while language learning refers to the second language. In addition to external factors, there are some influencing factors which play a

role in language acquisition. When acquiring language, it is important that the learner has stimulus from those around him, such as parents, siblings, and neighbors.

According to the KBBI, stimulus refers to a reinforcer for the organism. So, it is possible to define language stimulus as an activity involving the use of language that is carried out by an individual or community with the intention of promoting linguistic stimulation to stimulate in language acquisition. The stimulation offered by language is implied to be one of the methods used to stimulate the speech organs. It is subsequently processed in the brain, after which the brain sends the stimulus to the speech organs, which subsequently produce language as a form of the resulting response. Language stimulus is given to humans to provide linguistic stimulation, particularly during the process of language acquisition.

Providing continuous language stimulus helps one's language acquisition ability, especially when children are learning their mother tongue. It is consistent with the ideas expressed by Watson and Skinner in the stimulus-response theory (1878-1958). John B. Watson is an American psychologist. This stimulus-response theory is a development of Pavlov's classical refraction theory. The theory of classical conditioning was the initial theory in the stimulus-response theory group, but Watson and Skinner developed it because some aspects did not fit, leading to the development of the stimulus-response theory of behaviorism. One of the theories that supports language learning in the early years of life is the stimulus-response theory.

Watson and Skinner's theory is known as the stimulus-response theory. It is due to the fact that this theory has a fundamental view of behavior, one of which is language behavior, which begins with a stimulus and ends with a response. Language is one of the other behaviors, according to behaviorism, the process of acquiring the first language is controlled from the outside by stimuli provided from the environment. This stimulus shall also be supported by each language actor's Language Acquisition Device (LAD), which is then supported by environmental stimuli.

Acquisition, also known as language acquisition, is the process of acquiring children's first language or mother tongue in the brain (Chaer, 2009: 167). Language acquisition is divided into two stages. These are the competence and performance processes. The competency process is the natural or unconscious process of mastering grammar, whereas the performance process is the application stage of the competency process. The performance process is divided into two

stages: first, an understanding process involving the ability to observe something, and then a production process involving the ability to convey, compose, or write sentences.

At the stage of language acquisition, each child has different abilities. It is because each children has different cognitive abilities when it comes to learning their mother tongue. Every children with normal development will learn a mother tongue during the first five years of life (Indah, 2017:16). A child acquires his mother tongue from puberty, or around the ages of 12-14 years, until adulthood, or around the ages of 18-20 years. After puberty, children's language skills become more advanced and improved. However, in addition to learning other languages, children's language skills shall be developed. According to Pandudunita (2018: 49), there is a critical stage in a child's development that supports in language acquisition. This is referred to as the golden age phase. This is a period of brain growth and development in which children identify and absorb more information to the greatest extent possible. This golden age period is identical to the pre-school period.

The language acquisition stage of a child's growth and development requires special attention. It is to improve children's language development. The stimulus-response theory is one of the theories studied in the field of Psycholonguistics. This theory is a part of behaviorism theory. In the stage of language acquisition, the stimulus-response theory is a useful theory to use. This is due to the basic belief in this theory that behavior, including language behavior, begins with a stimulus or stimulus that results in an action, reaction, or response.

According to Dardjowijojo (2008: 232), the innateness hypothesis theory, which states that LAD (Language Acquisition Device) greatly influences language acquisition, particularly mother tongue acquisition, is the most fundamental theory in language acquisition. According to Chomsky, a nativist pioneer, LAD is possessed by every human being from birth, allowing children to acquire language, both mother tongue and other languages. Furthermore, LAD is the foundation for children's ability to predict language structures that will be acquired naturally. As a result, there are many grammatical features of the mother tongue that are unnecessary to learn. There is an assumption that all languages share the same innate patterns and structures. This explanation can be classified as deep structure in universal grammar (Indah, 2017:18). Humans will be able to memorize, imitate, and master difficult, complex, and universal language structures using their LAD. If there are accompanying supporting devices, stimulus responses

from the environment, LAD may function well. Stimulus-response may be applied, given, and observed through this LAD. The LAD that each person owns, however, will determine this.

Every human being, especially children, theoretically and instinctively has their own LAD. It also applies to children with special needs, especially those born in unusual circumstances, such as a child with mental retardation. Children with mental retardation have a low level of intellectual intelligence, addition to problems in adapting to their environment, deficiencies in intelligence, social adaptation, and academics (Haryeti, et al, 2013: 537).

The explanation above leads to the conclusion that language acquisition is an indicator of children's growth and development, both under normal and special conditions. One of the important and concerning issues is the issue of child growth and development. It is due to the fact that development is associated with increased ability to structure and function of the body, both of which are related to motor and cognitive abilities. Growth and development, according to Soetjiningsih (2014: 2), is a complex manifestation of morphological, biochemical, and physiological changes that occur from childhood to adulthood. Although growth and development are two distinct processes, they are connected.

Growth is a quantitative change. That is, growth includes the increase in the number, size, and dimensions of cells and organs that each human being possesses. It may be seen in the physical growth of the body as well as the organs and brain. A brain that grows perfectly has a greater capacity to learn, memorize, and to think. In addition to growth, there is also development. It involves both quantitative and qualitative changes. The development is marked by increasing skills and body functions that are increasingly complex and regular. It occurs as a result of the maturation process. The development also refers to the process of differentiation of human body parts and components such as body cells, body tissues, organs, and developing organ systems. The parts and components of the human body can function optimally as a result of this development.

The language acquisition ability of mentally retarded children requires special attention compared to children born with normal conditions. It is because children with mental retardation have imperfect brain function abilities so that in their ability to acquire their mother tongue, mentally retarded children shall be given continuous stimulation through more specific stages. Language acquisition in this study focused on mentally retarded children at the Panti Asuhan Yatim Sejahtera Banjarnegara. It is because there are five children with mental retardation who

shall receive special attention at that place, especially in the development of their language acquisition through the implementation of stimulus-response behaviorism. In addition, this research collaborated with related parties to support the development of language acquisition for mentally retarded children. The related parties are psychologists and volunteers who provide regular assistance.

Based on the background of the problems above, this study aims to identify and describe the application and development of stimulus-response to the language acquisition ability and vocabulary of mentally retarded children. The resulting acquisition is obtained through the implementation of stimulus-response behaviorism which influences cognitive, motoric, and psychosocial development as a result of interaction with the environment.

METHOD

The descriptive qualitative method was used in this study. This study was conducted at the Panti Asuhan Yatim Sejahtera Banjarnegara on five-year-old children with mental retardation for about two months. The vocabulary in the form of nouns was used as the data in this study. Vehicle, fruits, and building shapes are among the vocabulary items. Field observations, interviews, and a literature review were used to collect data in this study. Field observation is done when children are engaged in activity and interacting with their surroundings. Interviews with a number of the orphanage caregivers were conducted. The literature review is used to learn about and comprehend the language acquisition of children with special needs, particularly those who are mentally retarded. The resulting vocabulary is then examined in terms of its phonological competence stages. Controlled vocabulary is used to achieve vocabulary acquisition. Images are used as a stimulus medium to provoke the emergence of data as a method of applying stimulus-response theory to behaviorism.

RESULT AND DISCUSSION

Acquisition of Phonological Stages of Children with Mental Retardation

The form of phonological acquisition in five-year-old children with mental retardation at the Panti Asuhan Yatim Sejahtera Banjarnegara may be seen from the sounds of the language spoken by them. The sounds of language analyzed in this study consist of phonological acquisition obtained through sounds that may be pronounced: namely vocoid sounds [ɪ], [I], [ɛ],

[∴], [↔], [ɑ], [ʊ], [Y], [o], and [↵], and contoid sounds [π], [β], [τ], [δ], [κ], [γ], [χ], [φ], [η], [λ], [μ], [ν], [|], and [ψ] while sounds that cannot be pronounced are contoid sounds [√], [σ], [ρ], [ζ], [θ], and [ϖ] [ω].

Vocoid sound *[ɪ]*

Table 1. Data Distribution on Vocoid Sounds

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Biru	[βιρυ]	biyu	[βιψυ]	[bi + yu]
Roti	[ροτι]	ti	[τι]	[ti]
Satu	[σατυ]	atu/iji	[ατυ] / [ιφι]	[i + ji]

Based on data in the table above, mentally retarded children are able to pronounce vocoid sounds [i] which are distributed in the middle and end positions of words. Vocoid sound [i] can be pronounced clearly. All sounds that make up the vocabulary in the table above can be pronounced clearly by mentally retarded children except for the sound [ρ] in the word [βιρυ], the sound [ρ] and [o] in the word [ροτι], and the sound [σ] in the word [σατυ] / [σιφι]. Based on the table above, there is a vocabulary (*biru*) that should be pronounced [βιρυ]. However, [βιρυ]is pronounced as [βιψυ] so that the apico-alveolar sound [ρ]is substituted for a lamino-palatal sound [ψ]. In addition, there is a vocabulary (*roti*) that should be pronounced [ροτι]. However, [ροτι] is pronounced as [ροτι] so that there is an omission of the sound [ρ] and the sound [o] at the beginning of a word or what is commonly called apheretic zeroization. Besides the *biru* and *roti*, there is also *satu* vocabulary. The word *satu* should be pronounced [σατυ] / [σιφι]. However, by mentally retarded children the word *satu* is pronounced as [ατυ] / [ιφι] so that there is an omission of the sound [σ]at the beginning of the word or what is commonly called apherical zeroization.

Vocoid Sounds *[I]*

Table 2. Data Distribution on Vocoid Sounds *[I]*

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Bus kota	[βYσ] [κοτα]	bin	[βIn]	[bIn]
Putih	[πυτIη]	tih	[τIη]	[tIh]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [I] which is distributed in the middle position of the word. The vocoid sound [I] can be pronounced clearly, although not all sounds that make up the vocabulary can be pronounced completely. Based on the table above, there is a vocabulary *bus kota*. *Bus kota* is a phrase formed

from the combination of the words *bus* and *kota*. Based on the table above, there is a substitution of the vocoid sound [Y] into the vocoid sound [I] and the apico-alveolar sound [σ] into the apico-alveolar sound [n] in the word *bus* so that [βYσ]is pronounced as [βIn]. In addition, mentally retarded children cannot pronounce the word *kota* at all. That is, the phrase *bus kota* turns into the word *bin*. Thus, mentally retarded children have not been able to pronounce the phrase *bus kota* completely. In addition to the vocabulary *bus kota*, the table above also contains vocabulary of *putih*. The word of *putih* should be pronounced [πυτIη], but by mentally retarded children the vocabulary is pronounced as [τIη]. Thus, there is an omission of the sound [π] and the sound [υ] at the initial position of the word or it is called apheretic zeroization.

Vocoid Sounds [ə]

Table 3. Data Distribution on Vocoid Sounds [ə]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Apel	[απəλ]	pel	[πəλ]	[πəλ]
Bulat	[βυλατ]	bulet	[βυλ∴τ]	[βυ + λ∴τ]
Empat	[∴μπατ]	empat/papat	[∴μπατ] / [παπατ]	[∴μ + πατ]
Enam	[∴ναμ]	nem	[ν∴μ]	[ν∴μ]
Hitam	[ηιταμ]	iyeng	[ιy∴ ⏐]	[ι + y∴ ⏐]
Permen	[π∴ρμ↔ν]	emen	[∴μεν]	[∴ + μεν]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [ə] which is distributed in the initial and middle positions of words. The vocoid sound [ə] can be pronounced clearly, although not all sounds that make up the vocabulary can be pronounced completely *apel*, *bulat*, *enam*, *hitam*, and *permen*.

1. Vocabulary *apel*. Based on the table above, there is a vocabulary *apel* that should be pronounced [απəλ]. However, by mentally retarded children [απəλ] is pronounced as [πəλ] so that there is an omission of the sound [α] in the initial position of the word or what is called apheretic zeroization. Thus, the child has not been able to pronounce all the sounds that make up the word *apel*.
2. Inducing vocabulary *bulat*. Based on the table above, there is a vocabulary *bulat*. The word *bulat* should be pronounced [βυλατ], but the child pronounces it as [βυλατ] so that there is a substitution of the vocoid sound [α] to become a vocoid sound [∴]. Thus, the child has not been able to pronounce all the sounds that make up the word *bulat*.
3. Vocabulary *enam*. Based on the table above, there are vocabularies *enam* that should be pronounced [∴ναμ]. However, by mentally retarded children [∴ναμ] is pronounced as [ν∴μ]

so that there is an omission of the sound [∴] in the initial position of the word or what is called apheretic zeroization and there is a substitution of the sound [α] to become the sound [∴]. Thus, the child has not been able to pronounce all the sounds that make up the word *enam*.

4. Vocabulary *hitam.* Based on the table above, there is a vocabulary *hitam*. In Javanese, the word *hitam* is usually pronounced *ireng* which should be pronounced [ιρ∴ |]. However, by mentally retarded children [ιρ∴ |] is pronounced as [ιy∴ |] so that there is a substitution of the apico-alveolar sound [ρ] into the lamino-palatal sound [y]. Thus, the child has not been able to pronounce all the sounds that make up the word *ireng* or *hitam*.
5. Vocabulary *permen.* Based on the table above, there is a vocabulary *permen* that should be pronounced [π∴ρμ↔ν]. However, the word [π∴ρμ↔ν] is pronounced as [∴μεν] so that there is zeroization of apheresis and zeroization of syncope. This is because there is an omission of the sound [π] in the initial position of the word and the sound [ρ] in the middle position of the word. Thus, the child has not been able to pronounce all the sounds that make up the word *permen*.

Vocoid Sounds [ε]

Table 4. Data Distribution on Vocoid Sounds [ε]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Merah	[μεραη]	meyah	[μεyαη]	[με + yαη]
Sepeda	[σ∴πεδα]	eda	[εδα]	[ε + δα]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [ε] which is distributed in the middle position of words. The vocoid sound [ε] can be pronounced clearly even though in certain vocabularies not all the sounds that compose it can be pronounced. Based on the table above, there is a vocabulary *merah*. The *merah* word should be pronounced [μεραη]. However, children pronounce it as [μεραη] so that there is a substitution of the apico-alveolar sound [ρ] into a lamino-palatal sound [y]. In addition, there is also a vocabulary *sepeda*. The word *sepeda* should be pronounced [σ∴πεδα]. However, the child pronounces it as [εδα] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apheretic zeroization.

Vocoid Sounds *[↔]*

Table 5. Data Distribution on Vocoid Sounds *[↔]*

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus

Es krim	[↔σ] [κρIμ]	E kim	[↔] [κIμ]	[↔ + κIμ]
Nenek	[νεν↔κ]	nek	[ν↔κ]	[ν↔κ]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [↔] which is distributed in the initial and middle positions of words. The vocoid sound [↔] can be pronounced clearly even though in certain vocabularies not all the sounds that compose it can be pronounced. Based on the table above, there is a vocabulary *es krim*. The phrase *es krim* is formed from the combination of the word *es* which should be pronounced [↔σ] and *krim* which should be pronounced [κρIμ]. However, the child pronounces it as [↔] [κIμ] so that in this vocabulary there is zeroization of the apheretic and syncope types. This is because there is an omission of the sound [↔] in the initial position of the word in the word [↔σ] and the sound [ρ] in the middle position of the word in the word [κρIμ]. In addition, based on the table above, there is also a *nenek* vocabulary. The word *nenek* should be pronounced [νεν↔κ]. However, [νεν↔κ] is pronounced [ν↔κ]. Thus, there is an omission of the sound [ν] and the sound [ε] at the initial position of the word or it is called apheretic zeroization.

Vocoid Sounds [α]

Table 6. Data Distribution on Vocoid Sounds [α]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Baju	[βαφυ]	baju	[βαφυ]	[βα + φυ]
Celana	[χ∴λανα]	lana	[λανα]	[λα + να]
Dua	[δυα]	dua/loro	[δυα] / [λορο]	[δυ + α]
Empat	[∴μπατ]	empat/papat	[∴μπατ] / [παπατ]	[∴μ + πατ] / [πα + πατ]
Gajah	[γαφαη]	gajah	[γαφαη]	[γα + φαη]
Ibu	[ιβυ]	bu / mak	[βυ] / [mαk]	[βυ] / [mαk]
Ikan	[ικαν]	ikan	[ικαν]	[ι + καν]
Kaki	[κακι]	kaki	[κακι]	[κα + κι]
Kapal	[καπαλ]	kapal	[καπαλ]	[κα + παλ]
Lima	[λιμα]	lima	[λιμα]	[λι + μα]
Merah	[μεραη]	meyah	[μεγαη]	[με + γαη]
Mata	[ματα]	mata	[ματα]	[μα + τα]
Pesawat	[π∴sawat]	awat	[αωατ]	[α + ωατ]
Satu	[σατυ]	atu/iji	[ατυ] / [ιφι]	[α + τυ] / [ι + φι]
Sepeda	[σ∴πεδα]	eda	[εδα]	[ε + δα]
Sepatu	[σ∴πατυ]	atu	[ατυ]	[α + τυ]
Sembilan	[σ∴μβιλαν]	ilan	[ιλαν]	[ι + λαν]
Tiga	[τιγα]	tiga/telu	[τιγα] / [τ∴λυ]	[τι + γα]
Tomat	[τοματ]	omat	[οματ]	[ο + ματ]
Tangan	[τα |αν]	angan	[α |αν]	[α + |αν]

Based on the data above, mentally retarded children are able to pronounce the vocoid sound [a] which is distributed in the initial, middle and final positions of words. The vocoid sound [a] can be pronounced clearly even though in certain vocabularies not all of the sounds that make up it can be pronounced, namely in the following vocabularies.

1. Vocabulary *celana*. Based on the table above, there is a vocabulary *celana* that should be pronounced [χ∴ləna]. However, the word [χ∴ləna] is pronounced as [ləna] so that there is an omission of the sound [χ] and the sound [∴] at the initial position of the word or what is commonly called apheretic zeroization.
2. Vocabulary *merah*. Based on the table above, there is a vocabulary *merah*. The word *merah* should be pronounced [məraη]. However, children pronounce it as [məyaη] so that there is a substitution of the apico-alveolar sound [ρ] into a lamino-palatal sound [y].
3. Vocabulary *pesawat*. Based on the table above, there is a vocabulary *pesawat* that should be pronounced [π∴sawat]. However, the word [π∴sawat] is pronounced as [awat] so that there is an omission of the sound [π], the sound [∴], and the sound [s] in the initial position of the word or what is commonly called apherical zeroization.
4. Vocabulary *satu*. Based on the table above, there is a vocabulary *satu*. The word *satu* should be pronounced [σatυ] / [σiφi]. However, by mentally retarded children the word *satu* is pronounced as [atυ] / [iφi] so that there is an omission of the sound [σ] at the beginning of the word or what is commonly called apheretic zeroization.
5. Vocabulary *sepeda*. Based on the table above, there is a vocabulary *sepeda*. The word *sepeda* should be pronounced [σ∴pεdα]. However, the child pronounces it as [εdα] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apheretic zeroization.
6. Vocabulary *sepatu*. Based on the table above, there is a vocabulary *sepatu*. The word *sepatu* should be pronounced [σ∴patυ]. However, the child pronounces it as [atυ] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apheretic zeroization.
7. Vocabulary *sembilan*. Based on the above table, there is a word *sembilan* that should be pronounced [σ∴mbilan]. However, the word [σ∴mbilan] is pronounced as [ilan] so that there is an omission of the sounds [σ], [∴], [m], and [b] in the initial position of the word or what is commonly called with apheretic zeroization.

8. Vocabulary *tomat.* Based on the table above, there is a vocabulary *tomat*. The word *tomat* should be pronounced [τοματ]. However, the child pronounces it as [οματ] so that there is an omission of the sound [τ] in the initial position of the word or what is commonly known as apheretic zeroization.
9. Vocabulary *tangan.* Based on the table above, there is a vocabulary *tangan*. The word *tangan* should be pronounced [τα ˈαν]. However, the child pronounces it as [α ˈαν] so that there is an omission of the sound [τ] in the initial position of the word or what is commonly known as apheretic zeroization.

Vocoid Sounds [υ]

Table 7. Data Distribution on Vocoid Sounds [υ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Biru	[βιρυ]	biyu	[βιψυ]	[βι + ψυ]
Bulat	[βυλατ]	bulet	[βυλ∴τ]	[βυ + λ∴τ]
Burung	[βυρΥ ˈ]	buyung	[βυψΥ ˈ]	[βυ + ψΥ ˈ]
Baju	[βαφυ]	baju	[βαφυ]	[βα + φυ]
Dua	[δυα]	dua/loro	[δυα] / [λορο]	[δυ + α]
Ibu	[ιβυ]	bu / mak	[βυ] / [mαk]	[βυ]
Kuning	[κυνI ˈ]	kuning	[κυνI ˈ]	[κυ + νI ˈ]
Mulut	[μυλΥτ]	ulut	[υλΥτ]	[υ + λΥτ]
Sepuluh	[σ∴πυλΥη]	uluh	[υλΥη]	[υ + λΥη]
Satu	[σατυ]	atu/iji	[ατυ] / [ιφι]	[α + τυ]
Sepatu	[σ∴πατυ]	atu	[ατυ]	[α + τυ]
Tiga	[τιγα]	tiga/telu	[τιγα] / [τ∴λυ]	[τ∴ + λυ]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [υ] which is distributed at the initial and final word positions. The vocoid sound [υ] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly, namely in the following vocabularies.

1. Vocabulary *biru.* Based on the table above, there is a vocabulary *biru* that should be pronounced [βιρυ]. However, [βιρυ] is pronounced as [βιψυ] so that the apico-alveolar sound [ρ] is substituted for a lamino-palatal sound [ψ].
2. Vocabulary *bulat.* Based on the table above, there is a vocabulary *bulat*. The word *bulat* should be pronounced [βυλατ], but the child pronounces it as [βυλ∴τ] so that there is a substitution of the vocoid sound [α] to become a vocoid sound [∴].

3. Vocabulary *burung*. Based on the table above, there is a vocabulary *burung* that should be pronounced [βυρY ˩]. However, [βυρY ˩] is pronounced as [βυψY ˩] resulting in the substitution of the apico-alveolar sound [ρ] into the lamino-palatal sound [ψ].
4. Vocabulary *mulut.* Based on the table above, there is a vocabulary *mulut*. The word *mulut* should be pronounced [μυλYτ]. However, the child pronounces it as [μυλYτ] so that there is an omission of the sound [μ] in the initial position of the word or what is commonly known as apheretic zeroization.
5. Vocabulary *sepuluh.* Based on the table above, there are vocabulary *sepuluh*. The word *sepuluh* should be pronounced [σ∴πυλYη]. However, the child pronounces it as [υλYη] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apherical zeroization.
6. Vocabulary *satu.* Based on the table above, there is a vocabulary *satu*. The word *satu* should be pronounced [σατυ] / [σιφι]. However, by mentally retarded children the word *satu* is pronounced as [ατυ] / [ιφι] so that there is an omission of the sound [σ] at the beginning of the word or what is commonly called apherical zeroization.

Vocoid Sounds [Y]

Table 8. Data Distribution on Vocoid Sounds [Y]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Anjing	[ανφI ˩]	guk	[γYκ]	[γYκ]
Burung	[βυρY ˩]	buyung	[βυψY ˩]	[βυ + ψY ˩]
Hidung	[ηιδY ˩]	idung	[ιδY ˩]	[ι + δY ˩]
Jeruk	[φ∴ρYκ]	yuk	[yYκ]	[yYκ]
Mulut	[μυλYτ]	ulut	[υλYτ]	[υ + λYτ]
Sepuluh	[σ∴πυλYη]	uluh	[υλYη]	[υ + λYη]
Telur	[τ□λYρ]	ndun	[νδYn]	[νδYn]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [Y] which is distributed at the initial and final word positions. The vocoid sound [Y] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly, namely in the following vocabularies.

1. Vocabulary *anjing.* Based on the table above, there is a vocabulary *anjing*. The word *anjing* is commonly called by children as *guguk* which should be pronounced [γυγYκ]. However, [γυγYκ] is pronounced [γYκ]. Thus, there is an omission of the sound [γ] and the sound [υ] at the initial position of the word or what is commonly referred to as apheretic zeroization.

2. Vocabulary *burung.* Based on the table above, there is a vocabulary *burung* that should be pronounced [βυρY˩]. However, [βυρY˩] is pronounced as [βυψY˩] resulting in the substitution of the apico-alveolar sound [ρ] into the lamino-palatal sound [ψ].
3. Vocabulary *hidung.* Based on the table above, there is a vocabulary *hidung*. The word *hidung* should be pronounced [ηιδY˩]. However, the child pronounces it as [ιδY˩] so that there is an omission of the sound [η] in the initial position of the word or what is commonly known as apheretic zeroization.
4. Vocabulary *jeruk.* Based on the table above, there is a vocabulary *jeruk* that should be pronounced [φ∴ρYκ]. However, children pronounce it as [yYκ] so that there is an omission of the sounds [φ] and [∴] in the initial position of the word or it is called apheretic zeroization and the substitution of the apico-alveolar sound [ρ] to become a lamino-palatal sound [y].
5. Vocabulary *mulut.* Based on the table above, there is a vocabulary *mulut*. The word *mulut* should be pronounced [μυλYτ]. However, the child pronounces it as [υλYτ] so that there is an omission of the sound [μ] in the initial position of the word or what is commonly known as apheretic zeroization.
6. Vocabulary *sepuluh.* Based on the table above, there are vocabulary *sepuluh*. The word *sepuluh* should be pronounced [σ∴πυλYη]. However, the child pronounces it as [υλYη] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apherical zeroization.
7. Vocabulary *telur*. Based on the table above, there is a vocabulary *telur*. The word *telur* in Javanese is called *ndog*. The word *ndog* is usually pronounced [νδ˩γ]. However, the child pronounces it as [νδYn] so that there is a substitution of the vocoid sound [˩] into a vocoid [Y] and a dorso-velar sound [γ] into an apico-alveolar sound [ν].

Vocoid Sounds [ο]

Table 9. Data Distribution on Vocoid Sounds [o]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Harimau	[ηαριμαω]	imo	[ιμο]	[i + mo]
Hijau	[ηιφαω]	ijo	[ιφο]	[i + jo]
Mobil	[μοβΙλ]	mobil	[μοβΙλ]	[mo + bil]
Tomat	[τοματ]	omat	[οματ]	[o + mat]
Dua	[δυα]	dua/loro	[δυα] / [λορο]	[lo + ro]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [ɔ] which is distributed at the initial and final word positions. The vocoid sound [ɔ] can be pronounced clearly even though in certain vocabularies not all the sounds that compose it can be pronounced. Based on the table above, there is a vocabulary *harimau* that should be pronounced [ηαριμαω]. However, by mentally retarded children [ηαριμαω] is pronounced as [ιμο] so that there is an omission of the sounds [η], [α], and [ρ] in the initial position of the word or what is called apheretic zeroization and there is substitution of a double vocoid sound [αυ] into a single vocoid sound [ɔ] or commonly called monophthongization. In addition, there is also a vocabulary *tomat*. The word *tomat* should be pronounced [τοματ]. However, the child pronounces it as [οματ] so that there is an omission of the sound [τ]in the initial position of the word or what is commonly known as apheretic zeroization.

Vocoid Sounds [↵]

Table 10. Data Distribution on Vocoid Sounds [↵]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Motor	[μ↵τ↵ρ]	moton	[μ↵τ↵n]	[μ↵ + τ↵n]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [↵]. The vocoid sound [↵] can be pronounced clearly even though in certain vocabulary not all the sounds that compose it completely can be pronounced because there is a substitution of the apico-alveolar sound [ρ] to become apico-alveolar sound [n] so that [μ↵τ↵ρ] is pronounced as [μ↵τ↵n].

Contoid Sound [π]

Table 11. Data Distribution on Vocoid Sounds [π]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Apel	[απəλ]	pel	[πəλ]	[πəλ]
Kapal	[καπαλ]	kapal	[καπαλ]	[κα + παλ]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [π] which is distributed in the initial and middle positions of words. The vocoid sound [π] can be pronounced clearly even though in certain vocabularies not all of the sounds that compose it can be pronounced as in the word *apel* above. The word *apel* that should be pronounced is [απəλ]. However, by mentally retarded children [απəλ] is pronounced as [πəλ] so that there is

an omission of the sound [α]in the initial position of the word or what is called apheretic zeroization.

Contoid Sound [β]

Table 12. Data Distribution on Vocoid Sounds [β]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Biru	[βιρυ]	biyu	[βιψυ]	[βι + ψυ]
Bulat	[βυλατ]	bulet	[βυλ∴τ]	[βυ + λ∴τ]
Burung	[βυρY ⏐]	buyung	[βυψY ⏐]	[βυ + ψY ⏐]
Baju	[βαφυ]	baju	[βαφυ]	[βα + φυ]
Bus kota	[βYσ] [κοτα]	bin	[βIn]	[βIn]
Ibu	[ιβυ]	bu / mak	[βυ] / [mαk]	[βυ]
Mobil	[μοβIλ]	mobil	[μοβIλ]	[μο + βIλ]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [β] which is distributed at the initial and final word positions. The vocoid sound [β] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly, namely in the following vocabularies.

1. Vocabulary *biru.* Based on the table above, there is a vocabulary *biru* that should be pronounced [βιρυ]. However, [βιρυ] is pronounced as [βιψυ] so that the apico-alveolar sound [ρ] is substituted for a lamino-palatal sound [ψ].

2. Vocabulary *bulat.* Based on the table above, there is a vocabulary *bulat*. The word *bulat* should be pronounced [βυλατ], but the child pronounces it as [βυλ∴τ] so that there is a substitution of the vocoid sound [α] to become a vocoid sound [∴].

3. Vocabulary *burung.* Based on the table above, there is a vocabulary *burung* that should be pronounced [βυρY ⏐]. However, [βυρY ⏐] is pronounced as [βυψY ⏐] resulting in the substitution of the apico-alveolar sound [ρ] into the lamino-palatal sound [ψ].

4. Vocabulary *bus kota.* Based on the table above, there is a vocabulary *bus kota*. The word *bus kota* is a phrase formed from the combination of the words *bus* and *kota*. Based on the table above, there is a substitution of the vocoid sound [Y] into the vocoid sound [I] and the apico-alveolar sound [σ] into the apico-alveolar sound [n] in the word bus so that [βYσ] is pronounced as [βIn]. In addition, mentally retarded children cannot pronounce the word *kota* at all. That is, the phrase *bus kota* turns into the word *bin*.

Contoid Sound [τ]

Table 13. Data Distribution on Vocoid Sounds [τ]

Controlled	Phonetic	Pronounciation	Phonetic	Phonetic

Vocabularies	Transcription		Transcription	Syllabus
Bulat	[βυλατ]	bulet	[βυλ∴τ]	[βυ + λ∴τ]
Mulut	[μυλΥτ]	ulut	[υλΥτ]	[υλΥτ]
Putih	[πυτIη]	tih	[τIη]	[τIη]
Roti	[ροτι]	ti	[τι]	[τι]
Satu	[σατυ]	atu/iji	[ατυ] / [ιφι]	[ατυ]
Tiga	[τιγα]	tiga/telu	[τιγα] / [τ∴λυ]	[τιγα] / [τ∴λυ]
Tomat	[τοματ]	omat	[οματ]	[οματ]

Based on the above data, mentally retarded children are able to pronounce a vocoid sound [τ] which is distributed at the initial and final word positions. The vocoid sound [τ] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly. The examples are in the following vocabularies.

1. Vocabulary *bulat.* Based on the table above, there is a vocabulary *bulat*. The word *bulat* should be pronounced [βυλατ], but the child pronounces it as [βυλ∴τ] so that there is a substitution of the vocoid sound [α] to become a vocoid sound [∴]. Thus, the child has not been able to pronounce all the sounds that make up the word *bulat*.
2. Vocabulary *mulut.* Based on the table above, there is a vocabulary *mulut*. The word *mulut* should be pronounced [μυλΥτ]. However, the child pronounces it as [υλΥτ] so that there is an omission of the sound [μ] in the initial position of the word or what is commonly known as apheretic zeroization.
3. Vocabulary *putih.* Based on the table above, there is a vocabulary *putih*. The word *putih* should be pronounced [πυτIη], but by mentally retarded children the vocabulary is pronounced as [τIη]. Thus, there is an omission of the sound [π] and the sound [υ] at the initial position of the word or it is called apheretic zeroization.
4. Vocabulary *roti*. Based on the table above, there is a vocabulary *roti* that should be pronounced [ροτι]. However, [ροτι] is pronounced as [τι] so that there is an omission of the sound [ρ] and the sound [ο] at the beginning of a word or what is commonly called apheretic zeroization.
5. Vocabulary *satu.* Based on the table above, there is a vocabulary *satu*. The word *satu* should be pronounced [σατυ] / [σιφι]. However, by mentally retarded children the word one is pronounced as [ατυ] / [ιφι] so that there is an omission of the sound [σ] at the beginning of the word or what is commonly called apherical zeroization.

6. Vocabulary *tomat.* Based on the table above, there is a vocabulary *tomat*. The word *tomat* should be pronounced [τοματ]. However, the child pronounces it as [οματ] so that there is an omission of the sound [τ] in the initial position of the word or what is commonly known as apheretic zeroization.

Contoid Sound [δ]

Table 14. Data Distribution on Vocoid Sounds [δ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Dua	[δυα]	dua/loro	[δυα] / [λορο]	[δυ + α]
Hidung	[ηιδY ⏐]	idung	[ιδY ⏐]	[ι + δY ⏐]
Sepeda	[σ∴πεδα]	eda	[εδα]	[ε + δα]
Telur	[τ□λYρ]	ndun	[νδYn]	[ν + δYn]

Based on the above data, mentally retarded children are able to pronounce a vocoid sound [δ] which is distributed at the initial and final word positions. The vocoid sound [δ] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly in the following vocabularies.

1. Vocabulary *hidung.* Based on the table above, there is a vocabulary *hidung*. The word *hidung* should be pronounced [ηιδY ⏐]. However, the child pronounces it as [ιδY ⏐] so that there is an omission of the sound [η] in the initial position of the word or what is commonly known as apheretic zeroization.

2. Vocabulary *sepeda*. Based on the table above, there is a vocabulary *sepeda*. The word *sepeda* should be pronounced [σ∴πεδα]. However, the child pronounces it as [εδα] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apheretic zeroization.

3. Vocabulary *telur*. Based on the table above, there is a vocabulary *telur*. The word *telur* in Javanese is called *ndog*. The word *ndog* is usually pronounced [νδ↵γ]. However, the child pronounces it as [νδYn] so that there is a substitution of the vocoid sound [↵] into a vocoid [Y] and a dorso-velar sound [γ] into an apico-alveolar sound [ν].

Contoid Sound [κ]

Table 14. Data Distribution on Vocoid Sounds [κ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Anjing	[ανφI ⏐]	guk	[γYκ]	[γYκ]
Es krim	[↔σ] [κρIμ]	E kim	[↔] [κIμ]	[↔] [κIμ]
Ibu	[ιβυ]	bu / mak	[βυ] / [mαk]	[mαk]
Ikan	[ικαν]	ikan	[ικαν]	[ι + καν]

Jeruk	[φ∴ρYκ]	yuk	[yYκ]	[yYκ]
Kaki	[κακι]	kaki	[κακι]	[κα + κι]
Kapal	[καπαλ]	kapal	[καπαλ]	[κα + παλ]
Nenek	[νενεκ]	nek	[ν↔κ]	[ν↔κ]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [κ] which is distributed at the initial and final word positions. The vocoid sound [κ] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly in the following vocabularies.

1. Vocabulary *anjing.* Based on the table above, there is a vocabulary *anjing*. The word *anjing* is commonly called by children *guguk* which should be pronounced [γυγYκ].However, [γυγYκ] is pronounced [γYκ]. Thus, there is an omission of the sound [γ] and the sound [υ] at the initial position of the word or what is commonly referred to as apheretic zeroization.
2. Vocabulary *es krim.* Based on the table above, there is a vocabulary *es krim*. The phrase *es krim* is formed from the combination of the word *es* which should be pronounced [↔σ] and *krim* which should be pronounced [κρIμ]. However, the children pronounces it as [↔] [κIμ] so that in this vocabulary there is zeroization of the apheretic and syncope types. This is because there is an omission of the sound [↔] in the initial position of the word in the word [↔σ] and the sound [ρ] in the middle position of the word in the word [κρIμ].
3. Vocabulary *jeruk.* Based on the table above, there is a vocabulary *jeruk* that should be pronounced [φ∴ρYκ]. However, the children pronounce it as [yYκ] so that there is an omission of the sounds [φ] and [∴] in the initial position of the word or it is called apheretic zeroization and the substitution of the apico-alveolar sound [ρ] to become a lamino-palatal sound [y].
4. Vocabulary *nenek.* Based on the table above, there is a vocabulary *nenek*. The word *nenek* should be pronounced [νεν↔κ]. However, [νεν↔κ] is pronounced [ν↔κ]. Thus, there is an omission of the sound [ν] and the sound [ε] at the initial position of the word or it is called apheretic zeroization.

Contoid Sound [γ]

Table 16. Data Distribution on Vocoid Sounds [γ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Anjing	[ανφI ⁞]	guk	[γYκ]	[γYκ]
Gajah	[γαφαη]	gajah	[γαφαη]	[γα + φαη]

Based on the above data, mentally retarded children are able to pronounce a vocoid sound [γ] which is distributed in the initial position. The vocoid sound [γ] can be pronounced clearly even though in certain vocabularies not all the sounds that compose it can be pronounced as in the word *anjing*. The word *anjing* is commonly called by children *guguk* which should be pronounced [γυγYκ]. However, [γυγYκ] is pronounced [γYκ]. Thus, there is an omission of the sound [γ] and the sound [υ] at the initial position of the word or what is commonly referred to as apheretic zeroization.

Contoid Sound [φ]

Table 17. Data Distribution on Vocoid Sounds [φ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Baju	[βαφυ]	baju	[βα**φ**υ]	[βα + **φ**υ]
Gajah	[γαφαη]	gajah	[γα**φ**αη]	[γα + **φ**αη]
Hijau	[ηιφα$_{ω}$]	ijo	[ι**φ**ο]	[ι + **φ**ο]
Satu	[σατυ]	atu/iji	[ατυ] / [ι**φ**ι]	[α + τυ] / [ι + **φ**ι]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [φ] which is distributed in the middle position of the word. The vocoid sound [φ] can be pronounced clearly even though in certain certain vocabularies not all the sounds that compose it can be pronounced as in the word *satu*. The word *satu* should be pronounced [σατυ] / [σιφι]. However, by mentally retarded children the word *satu* is pronounced as [ατυ] / [ιφι] so that there is an omission of the sound [σ] at the beginning of the word or what is commonly called apheretic zeroization.

Contoid Sound [η]

Table 18. Data Distribution on Vocoid Sounds [η]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Gajah	[γαφαη]	gajah	[γαφαη]	[γα + φαη]
Merah	[μεραη]	meyah	[μεyαη]	[με + yαη]
Sepuluh	[σ∴πυλYη]	uluh	[υλYη]	[υ + λYη]

Based on the data above, mentally retarded children are able to pronounce the vocoid sound [η] which is distributed in the initial and final positions of words. The vocoid sound [η] can be pronounced clearly even though in certain vocabularies not all the sounds that compose it can be pronounced as in the words *merah* and *sepuluh.* Based on the table above, there is a vocabulary *merah* that should be pronounced [μεραη]. However, the children pronounce it as

[μεγαη] so that there is a substitution of the apico-alveolar sound [ρ] into a lamino-palatal sound [y]. In addition, there are also vocabulary words *sepuluh* that should be pronounced [σ∴πυλΥη]. However, the child pronounces it as [υλΥη] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apherical zeroization.

Contoid Sound [λ]

Table 19. Data Distribution on Vocoid Sounds [λ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Apel	[απəλ]	pel	[πəλ]	[πəλ]
Celana	[χ∴λανα]	lana	[λανα]	[λα + να]
Dua	[δυα]	dua/loro	[λορο]	[λο + ρο]
Kapal	[καπαλ]	kapal	[καπαλ]	[κα + παλ]
Lima	[λιμα]	lima	[λιμα]	[λι + μα]
Mobil	[μοβΙλ]	mobil	[μοβΙλ]	[μο + βΙλ]
Mulut	[μυλΥτ]	ulut	[υλΥτ]	[υλ + Υτ]
Sepuluh	[σ∴πυλΥη]	uluh	[υλΥη]	[υ + λΥη]
Sembilan	[σ∴μβιλαν]	ilan	[ιλαν]	[ι + λαν]
Tiga	[τιγα]	tiga/telu	[τ∴λυ]	[τ∴ + λυ]

Based on the above data, mentally retarded children are able to pronounce a vocoid sound [λ] which is distributed at the initial and final word positions. The vocoid sound [λ] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly in the following vocabularies.

1. Vocabulary *apel*. Based on the table above, there is a vocabulary *apel* that should be pronounced [απəλ]. However, by mentally retarded children [απəλ] is pronounced as [πəλ] so that there is an omission of the sound [α] in the initial position of the word or what is called apheretic zeroization. Thus, the child has not been able to pronounce all the sounds that make up the word *apel*.
2. Vocabulary *celana*. Based on the table above, there is a vocabulary *celana* that should be pronounced [χ∴λανα]. However, the word [χ∴λανα] is pronounced as [χ∴λανα] so that there is an omission of the sound [χ] and the sound [∴] at the initial position of the word or what is commonly called apheretic zeroization.
3. Vocabulary *mulut*. Based on the table above, there is a vocabulary *mulut*. The word *mulut* should be pronounced [μυλΥτ]. However, the child pronounces it as [υλΥτ] so that there is an omission of the sound [μ] in the initial position of the word or what is commonly known as apheretic zeroization.

4. Vocabulary *sepuluh.* Based on the table above, there is vocabulary *sepuluh*. The word *sepuluh* should be pronounced [σ∴πυλYη]. However, the child pronounces it as [υλYη] so that there are omissions of the sounds [σ], [∴], and [π] in the initial position of the word or what is commonly called apherical zeroization.

5. Vocabulary *sembilan.* Based on the above table, there is word *sembilan* that should be pronounced [σ∴μβιλαν]. However, the word [σ∴μβιλαν] is pronounced as [ιλαν] so that there is an omission of the sounds [σ], [∴], [μ], and [β] in the initial position of the word or what is commonly called with apheretic zeroization.

Contoid Sound [μ]

Table 20. Data Distribution on Vocoid Sounds [μ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Enam	[∴ναμ]	nem	[ν∴μ]	[ν∴μ]
Es krim	[↔σ] [κρIμ]	E kim	[↔] [κIμ]	[↔ + κIμ]
Harimau	[ηαριμαω]	imo	[ιμο]	[ι + μο]
Ibu	[ιβυ]	bu / mak	[mαk]	[mαk]
Lima	[λιμα]	lima	[λιμα]	[λι + μα]
Mobil	[μοβIλ]	mobil	[μοβIλ]	[μο + βIλ]
Merah	[μεραη]	meyah	[μεyαη]	[με + yαη]
Motor	[μ↵τ↵ρ]	moton	[μ↵τ↵n]	[μ↵ + τ↵n]
Mata	[ματα]	mata	[ματα]	[μα + τα]
Permen	[π∴ρμ↔ν]	emen	[∴μεν]	[∴ + μεν]
Tomat	[τοματ]	omat	[οματ]	[ο + ματ]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [μ] which is distributed at the initial and final word positions. The vocoid sound [μ] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly in the following vocabularies.

1. Vocabulary *enam.* Based on the table above, there is a vocabulary *enam* that should be pronounced [∴ναμ]. However, by mentally retarded children [∴ναμ] is pronounced as [ν∴μ] so that there is an omission of the sound [∴] in the initial position of the word or what is called apheretic zeroization and there is a substitution of the sound [α] to become the sound [∴].

2. Vocabulary *es krim.* Based on the table above, there is a vocabulary *es krim*. The phrase *es krim* is formed from the combination of the word *es* which should be pronounced [↔σ] and

krim which should be pronounced [κρIμ]. However, the children pronounce it as [↔] [κIμ] so that in this vocabulary there is zeroization of the apheretic and syncope types. This is because there is an omission of the sound [↔] in the initial position of the word in the word [↔σ] and the sound [ρ] in the middle position of the word in the word [κρIμ].

3. Vocabulary *harimau*. Based on the table above, there is a vocabulary *harimau* that should be pronounced [ηαριμαω]. However, by mentally retarded children [ηαριμαω] is pronounced as [ιμο] so that there is an omission of the sounds [η], [α], and [ρ] in the initial position of the word or what is called apheretic zeroization and there is substitution of a double vocoid sound [αυ] into a single vocoid sound [ο] or commonly called monophthongization.
4. Vocabulary *merah*. Based on the table above, there is a vocabulary *merah*. The word *merah* should be pronounced [μεραη]. However, children pronounce it as [μεyαη] so that there is a substitution of the apico-alveolar sound [ρ] into a lamino-palatal sound [y].
5. Vocabulary *motor*. Based on the table above, there is a vocabulary *motor*. The word *motor* should be pronounced [μ↵τ↵ρ]. However, it is pronounced by children as [μ↵τ↵ν] so that there is a substitution of the apico-alveolar sound [ρ] into the apico-alveolar sound [ν].
6. Vocabulary *permen*. Based on the table above, there is a vocabulary *permen* that should be pronounced [π∴ρμ↔ν]. However, the word [π∴ρμ↔ν] is pronounced as [∴μεν] so that there is zeroization of apheresis and zeroization of syncope. This is because there is an omission of the sound [π] in the initial position of the word and the sound [ρ] in the middle position of the word.
7. Vocabulary *tomat*. Based on the table above, there is a vocabulary *tomat*. The word *tomat* should be pronounced [τοματ]. However, the child pronounces it as [οματ] so that there is an omission of the sound [τ] in the initial position of the word or what is commonly known as apheretic zeroization.

Contoid Sound [ν]

Table 21. Data Distribution on Vocoid Sounds [ν]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Celana	[χ∴λανα]	lana	[λανα]	[λα + να]
Enam	[∴ναμ]	nem	[ν∴μ]	[ν∴μ]
Kuning	[κυνI ⏐]	kuning	[κυνI ⏐]	[κυ + νI ⏐]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [ν] which is distributed at the initial and final word positions. The vocoid sound [ν] can be

pronounced clearly even though in certain vocabularies not all the sounds that compose it can be pronounced. Based on the table above, there is a vocabulary *celana* that should be pronounced [χ∴λανα]. However, the word [χ∴λανα] is pronounced as [λανα] so that there is an omission of the sound [χ] and the sound [∴] at the initial position of the word or what is commonly called apheretic zeroization. In addition, there are also words *enam* that should be pronounced [∴ναμ]. However, by mentally retarded children [∴ναμ] is pronounced as [ν∴μ] so that there is an omission of the sound [∴] in the initial position of the word or what is called apheretic zeroization and there is a substitution of the sound [α] to become the sound [∴].

Contoid Sound [˩]

Table 21. Data Distribution on Vocoid Sounds [˩]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Burung	[βυρY ˩]	buyung	[βυψY ˩]	[βυ + ψY ˩]
Hidung	[ηιδY ˩]	idung	[ιδY ˩]	[ι + δY ˩]
Hitam	[ηιταμ]	iyeng	[ιy∴ ˩]	[ι + y∴ ˩]
Kucing	[κυχI ˩]	cing	[cI ˩]	[cI ˩]
Kuning	[κυνI ˩]	kuning	[κυνI ˩]	[κυ + νI ˩]
Tangan	[τα ˩αν]	angan	[α ˩αν]	[α + ˩αν]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [˩] which is distributed at the initial and final word positions. The vocoid sound [˩] can be pronounced clearly even though in certain vocabularies not all the sounds that make up the vocabulary can be pronounced clearly in the following vocabularies.

1. Vocabulary *burung.* Based on the table above, there is a vocabulary *burung* that should be pronounced [βυρY ˩]. However, [βυρY ˩] is pronounced as [βυψY ˩] resulting in the substitution of the apico-alveolar sound [ρ] into the lamino-palatal sound [ψ].

2. Vocabulary *hidung.* Based on the table above, there is a vocabulary *hidung*. The word *hidung* should be pronounced [ηιδY ˩]. However, children pronounce it as [ιδY ˩] so that there is an omission of the sound [η] in the initial position of the word or what is commonly known as apheretic zeroization.

3. Vocabulary *hitam.* Based on the table above, there is a vocabulary *hitam*. In Javanese, the word *hitam* is usually pronounced *ireng* which should be pronounced [ιρ∴ ˩]. However, by mentally retarded children [ιρ∴ ˩] is pronounced as [ιy∴ ˩] so that there is a substitution of

the apico-alveolar sound [ρ] into the lamino-palatal sound [y]. Thus, children have not been able to pronounce all the sounds that make up the word *ireng* or *hitam*.

4. Vocabulary *kucing*. Based on the table above, there is a vocabulary *kucing*. The word *kucing* should be pronounced [κυχI ˩]. However, the child pronounces it as [χI ˩] so that there is an omission of the sounds [κ] and [υ] in the initial position of the word or what is commonly known as apherical zeroization.
5. Vocabulary *tangan*. Based on the table above, there is a vocabulary *tangan*. The word *tangan* should be pronounced [τα ˩αν]. However, children pronounce it as [α ˩αν] so that there is an omission of the sound [τ] in the initial position of the word or what is commonly known as apheretic zeroization.

Contoid Sound [ψ]

Table 23. Data Distribution on Vocoid Sounds [ψ]

Controlled Vocabularies	Phonetic Transcription	Pronounciation	Phonetic Transcription	Phonetic Syllabus
Hitam	[ηιταμ]	iyeng	[ι**y**∴ ˩]	[ι + **y**∴ ˩]
Jeruk	[φ∴ρYκ]	yuk	[yYκ]	[yYκ]
Merah	[μεραη]	meyah	[μεγαη]	[με + γαη]

Based on the above data, mentally retarded children are able to pronounce the vocoid sound [y] which is distributed in the initial and middle positions of words. The vocoid sound [y] can be pronounced clearly even though in certain vocabularies not all of the sounds that make up it can be pronounced. Based on the table above, there is a vocabulary *hitam*. In Javanese, the word *hitam* is usually pronounced *ireng* which should be pronounced [ιρ∴ ˩]. However, by mentally retarded children [ιρ∴ ˩] is pronounced as [ιy∴ ˩] so that there is a substitution of the apico-alveolar sound [ρ]into the lamino-palatal sound [y]. In addition, there is a vocabulary *jeruk* that should be pronounced [φ∴ρYκ]. However, children pronounce it as [yYκ] so that there is an omission of the sounds [φ] and [∴] in the initial position of the word or it is called apheretic zeroization and the substitution of the apico-alveolar sound [ρ] to become a lamino-palatal sound [y]. Besides that, there is also a vocabulary *merah* that should be pronounced [μεραη]. However, children pronounce it as [μεγαη] so that there is a substitution of the apico-alveolar sound [ρ] into a lamino-palatal sound [y].

CONCLUSION

The stage of language acquisition in children with special needs differs from the stage of language acquisition in children without special needs. Nonetheless, in the case of Umar, a mentally retarded child, he was able to progress through the morphological stages quite well. Despite the delay, the cooing and babbling stages can be skipped. Pronunciation of sounds that appear are vocoid sounds [ɪ], [I], [ɛ], [∴], [↔], [ɑ], [ʊ], [Y], [ɔ], and [↵], and contoid [π], [β], [τ], [δ], [κ], [γ], [χ], [φ], [η], [λ], [μ], [ν], [ǀ], and [ψ] while sounds that cannot be pronounced are contoid sounds [√], [σ], [ρ], [ζ], [θ], and [ϖ] [ω]. This was due to Umar's biological experience with suffering that lasted from the age of two months to two years and affected the function of the speech organs, particularly the tongue. As a result, it is necessary to have a stimulus that is continuously carried out. If mentally retarded children are frequently invited to communicate, it can indirectly serve as a therapeutic medium by facilitating sound pronunciation.

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REFERENCES

Alwisol. (2009). *Psikologi Kepribadian.* Malang: UMM Press.

Arsanti, M. (2014). Pemerolehan Bahasa pada Anak (Kajian Psikolinguistik). *Jurnal PBSI*, 3 (2), 24–47.

Chaer, A. (2009). *Psikolinguistik.* Jakarta: Rieneka Cipta.

Dardjowidjojo, S. (2008). *Psikolinguistik (Pengantar Pemahaman Bahasa Manusia).* Jakarta: Yayasan Obor Indonesia.

Endarwati, O. (2015). Cacat Sintaksis Keluaran Wicara Pada Anak Penyandang Autis di SD Lab PGSD Setia Budi dan SDIT Al-Mubarak Rawasari (Suatu Kajian Neurolinguistik). *Jurnal Atkhais*, 6 (1).

Martina, S. C., & Saman, S. (2014). Aktivitas Berbahasa Anak Berkebutuhan Khusus pada Lembaga Pendidikan dan Pelatihan Bina Anak Bangsa Kota Pontianak. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa*, 3 (10), 1—14.

Nurharyani, O.P., Nugroho, B. A. P. (2020). The Language Acquisition of a Child with Mental Retardation (A Psycholinguistic Study). *Jurnal Ilmiah Lingua Idea*, 11 (2), 92—112

Indah, R. N. (2017). *Gangguan Berbahasa.* Malang: UIN-MALIKI Press.

Leech, G. N. (1983). *Principles of Pragmatics.* London: Longman.

Putri A. K., Mawarni H., Yara N. Y., & Sumarlam. (2018). Kemampuan Berbahasa Anak Lahir Prematur Usia Dua Tahun: Kajian Psikolinguistik. *Jurnal Arkhais,* 9 (1), 139—146.

Pandudinata R., Sumarlam, S., & Saddhono K. (2018). Pemerolehan Bahasa Siswa Tunagrahita Kelas VI SD. *Jurnal Retorika,* 11, 48—56.

Pratiwi, I. C., Handayani, O. W. K., & Raharjo, B. B. (2017). Kemampuan Kognitif Anak Retardasi Mental Berdasarkan Status Gizi. *Public Health Perspective Journal*, 2 (1), 19—25.

Ramayumi, R., Nurdin, A. E., & Nurhajjah, S. (2014). Karakteristik Penderita Retardasi Mental di SLB Kota Bukittinggi. *Jurnal Majalah Kedokteran Andalas*, 37 (3), 181—186.

Steinberg, D. D., & Sciarini, N. V. (2006). *An Introduction to Psycholinguitics.* Great Britain: Pearson Longman.

Soetjiningsih. (2014). *Tumbuh Kembang Anak*. Jakarta: EGC.

Tarigan, H. G. (2009). *Psikolinguistik.* Bandung: CV. Angkasa.