

FIRST LANGUAGE VOCABULARY DEVELOPMENT AND PHONOLOGICAL DEVELOPMENT OF AN INDONESIAN CHILD: A CASE STUDY

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Abstract: First language vocabulary development and phonological development are important for a child to interact with others and to acquire second language. This current research aims to explore the first language vocabulary development and phonological development of an Indonesian child. The subject of this current research is an Indonesian female child aged 2.10 years. Recordings were employed as the research instrument to collect data. The data were collected by recording the child's utterances within a three-month period, commencing from February 5, 2019 to April 23, 2019. There were nine (9) recordings in February, twenty-five (25) recordings in March, and twenty-six (26) recordings in April. To explore the child's first language vocabulary and phonological development, the recordings of the child's utterances were transcribed. The findings show that the vocabulary development of the child occurred in the names of animals, vegetables, fruits, transportation, stationary, numbers, colours, and family members. In addition, the findings also indicate that child's phonological development did not yet happen in the second month of the research (March 2019). It occurred in the third month only in the categories of other things and colours. A study should be further conducted with more categories, not only focusing on the main four parts of speech – nouns, verbs, adjectives, and adverbs, but also on pronouns, prepositions, conjunctions, and articles.

Keywords: *first language; vocabulary development; phonological development*

INTRODUCTION

First language vocabulary development is important for a child to interact with others and to acquire the second language. Graves (2011) states that the development of vocabulary is crucial in learning other skills. It begins in infancy and is the foundation on which child's language and literacy skills are built. In addition to vocabulary development, a child also undergoes phonological development. According to Goswami (2000), child's phonological development is now recognised to play a causal role in the acquisition of literacy.

A number of studies have been conducted on child's vocabulary development and phonological development. Farrant, Shepherd, Walker, and Pearson (2014) conducted a study of early vocabulary development of Australian indigenous children. This study sought to increase the understanding of the factors involved in the early vocabulary development of Australian

indigenous children. The finding shows that higher levels of parent-child book reading and having more children's books in the home were associated with better English vocabulary development. Oral story-telling in indigenous language was a significant predictor of the size of children's indigenous vocabulary.

Further, Papaeliou (2011) conducted a study of vocabulary development in Greek children. This study investigated vocabulary size and vocabulary composition in Greek children. Participants were 273 toddlers coming from monolingual Greek-speaking families. The result of the study indicates that vocabulary size increased markedly with age. Common nouns were the largest category among the fifty most frequent words in both samples. Numbers of adjectives and verbs were comparable across languages, but people and closed class words were more numerous in the Greek sample.

In addition, Lamer (2011) investigated the vocabulary development in young children. This study examined whether maternal depressive symptoms were associated with child vocabulary acquisition during early childhood. Participants included 32 mother-child dyads, with varying levels of depressive symptoms. The vocabulary of the child and the mother were assessed using a standardized test (PPVT-IV). Maternal depressive symptoms were measured using the CES-D. Family income, used as an indicator of SES, maternal vocabulary, and child gender were included as control variables. A hierarchical regression analysis was conducted with the child's vocabulary as the dependent variable. The independent variables were entered into the analysis in three steps: 1) child sex, 2) family income, maternal education, maternal vocabulary, and 3) maternal depressive symptoms. The finding of the study reveals that there is no correlation between maternal depressive symptoms and child vocabulary. However, there is a strong correlation between family income and child vocabulary.

Farrant and Zubrick (2011) explored early vocabulary development in Australian children. This study brought a bioecological approach to children's early vocabulary development using data from the Longitudinal Study of Australian Children. The result of the study shows that support for the developmental importance of joint attention and parent-child book reading as well as the argument that the effects of individual (parent) and environmental (context) characteristics are primarily indirect, mediated through their impact on proximal processes (Bronfenbrenner, 1995). This evidence indicates that joint attention and parent-child book reading are important facilitators of children's early vocabulary development.

curriculum; syllabus; need analysis; students' needs; instrument Several studies have also been conducted on the child's phonological development. Daana (2018) undertook research on phonological development and phonological processes in the speech of an English-Arabic bilingual child. This research traced the phonological

development and the phonological processes in the speech of a bilingual child acquiring Jordanian Arabic and English. This trace was carried out through a thorough description of the phonological development of segments in Jordanian Arabic and English. It was also carried out through discussing the phonological processes resorted to by the child in order to simplify the production of segments in both languages. This study was the first of its kind to compare and contrast phonological processes in the speech of a bilingual child whose two first languages descend from two different linguistic families. The study also scrutinized evidence of any influence of one language over the other. The data were collected from the child acquiring Arabic and English simultaneously aged 7 – 20 months. The child's sound segment development showed consistency with universal trends. Phonological processes such as regressive and progressive assimilation, substitution and metathesis were found in the child's production of English and Arabic sounds.

Ota (2016) studied child's first language (L1) phonological development. The study was aimed at presenting an overview of descriptive findings in the phonological acquisition of Japanese as a native language, and discussing their implications for our understanding of the phonological structure of Japanese, general phonological theory and models of phonological development. This study also highlighted specific findings from the acquisition of Japanese that complement previous research in phonological acquisition, which has been built primarily on data from major European languages, especially English.

Sharif (2013) conducted research on phonological development in child language acquisition. The objective of this research was to explore child's phonological development focusing on babbling, developmental order, and simplification in production. The simplification in production consisted of 1) Substitutions, including gliding and fronting (stopping, word-initial voicing, and word-final devoicing), 2) Assimilations, and 3) Omissions. The findings of the study show that there are many processes to let the

children succeed in speaking. Children need to listen and then practice to take over their own sounds which they get used to. Babbling is one of the steps that they practice the sounds and utter them. They need to use all the sounds around them to unite them in order to produce a word. And at early age, a baby may go some processes like simplification sounds and what sound is easy they tend to use until they would learn all the sounds in their environment.

Rauch (2003) carried out a study of phonological development in child language. This study aimed to examine the phonological processes in the language of a German child, aged around two years in comparison to the adult pronunciation. The focus of the study was especially on consonant harmony and in how far recent theories were able to explain the findings from the data of the child.

These studies, however, have not yet explored the child's first language vocabulary development and phonological development. Most of the studies investigated the child's vocabulary development separated from the phonological development. Moreover, there has been a very limited number of studies on child's vocabulary and phonological development focusing on the Indonesian child. Therefore, this current research aims to explore the first language vocabulary development and phonological development of an Indonesian child. It seeks to answer the following research questions: 1) What is the vocabulary development of the Indonesian child aged 2.10 years? and 2) What is the phonological development of the Indonesian child aged 2.10 years?

1. First Language

First language, native language or mother/father/parent tongue (also known as arterial language or L1), is a language that a person has been exposed to from birth or within the critical period. Further, *first language* is the language that someone learned first and speak best; used especially when someone speaks more than one language (<https://www.collinsdictionary.com/dictionary/english/first-language>). In addition, *first language* refers to the language that a person

acquires in early childhood because it is spoken in the family and/or it is the language of the region where the child lives, also known as a *mother tongue* (<https://www.thoughtco.com/native-language>)

2. Vocabulary

Vocabulary is a set of familiar words within a person's language. A vocabulary, usually develops with age, serves as a useful and fundamental tool for communication and acquiring knowledge. Vocabulary is of much more importance than grammar. It is the key to communicate successfully with other people. Words are the currency of communication. A robust vocabulary improves all areas of communication – Listening, Speaking, Reading, and Writing. To have mastery over vocabulary is of much importance because the people judge you by the words you use. Secondly, having a better vocabulary really improves one's ability to think. Vocabulary is the most important skill to learn any language (<https://www.slideshare.net/UzmaTahir1/what-is-vocabulary>). A person's vocabulary can be defined as the words that he or she remembers the meanings of well enough to use the word in the correct context.

3. Vocabulary Development

Vocabulary development is a process by which a child acquires words. Babbling shifts towards meaningful speech as infants grow and produce their first words around the age of one year. In early word learning, infants build their vocabulary slowly. By the age of 18 months, infants can typically produce about 50 words and begin to make word combinations. At this age, children typically attain a vocabulary of 50 words in production, and between two and three times greater in comprehension. Young toddlers acquire one to three words per month. It is believed that most children add about 10 to 20 new words a week. Between the ages of 18 to 24 months, children learn how to combine two words such as *mama marah* (mother angry), *dede nangis* (dede crying) and *belum makan* (not yet eat). Three-word and four-word combinations appear when most of the child's utterances are two-word productions. In addition, children are able to form conjoined sentences, using *and*. This suggests that there

is a vocabulary development between the time that the child's first word appears, and when the child is able to form more than two words, and eventually, sentences.

Furthermore, vocabulary development is defined as the process of a child increasing the number of words which the child uses in everyday life. In general, vocabulary development really refers to the process of widening a child's vocabulary, but it can also mean the literal development, or the initial forming of a vocabulary. According to Stahl (1999), vocabulary development does not stop once a child can talk. Children learn many new words once they start reading and going to school. The table below shows typical vocabulary development across several ages. Table 1 below indicates how quickly vocabulary grows over the first six years of life.

Table 1 – Child's Vocabulary Development by Age

Age	Vocabulary Development
1 – 1.5 years	Toddlers develop around a 20-word vocabulary during this time.
2 years	By the time a child is 2 years old, he/she will have a 200–300-word vocabulary.
3 years	Vocabulary grows to be about 900 – 1,000 words by the time a child is 3 years old.
4 years	The typical 4-year-old child will have about a 1,500–1,600-word vocabulary.
5 years	By the time a child reaches school age and heads to kindergarten, he/she will have between a 2,100- and 2,200-word vocabulary.
6 years	The 6-year-old child typically has a 2,600 word expressive vocabulary (words he or she says), and a receptive vocabulary (words he or she understands) of 20,000–24,000 words.
12 years	By the time a child is 12 years old, he/she will understand (have a receptive vocabulary) of about 50,000 words.

4. Phonological Development

Phonological development is defined as how children develop the ability to use and

understand the sounds of language. It is difficult to be precise about later phonological development and the way in which vowels and consonants are acquired varies from child to child. When a sound has been mastered, it may be used only in the pronunciation of certain words and may be missing or pronounced incorrectly in others (<https://revisionworld.com/a2-level-level-revision/english-language/child-language-acquisition/phonological-development>). According to Gard, Gilman, & Gorman (1993), the child's phonological development can be shown in Table 2 below:

Table 2 – Child's Phonological Development by Age

Age	Phonological Development
0 - 3 months	- Birth cry – undifferentiated - Reflexive sound making produces glottal catch and vowels (ah, eh, uh) - Some variety in non-crying sounds - Differentiated cry (true vocal communication begins) - Coos and gurgles - Produces single syllables - Begins blowing bubbles
3 - 6 months	- Babbling begins - Double syllables – VCV, aga - Puts lips together – says “m” - Nasal tone is heard - Vocalizes pleasure and displeasure - Stops vocalizing when adult enters - Self-initiated vocal play - Coos, chuckles, gurgles and laughs - Babbles to self, others, and objects - Babbling show pitch and inflection change - Vocally expresses eagerness
6 – 9 months	- Uses m, n, t, d, b, p, y in babbling multiple syllables - Babbles tunefully – singing tones - Uses wide variety of sound combinations including non-English sounds - Inflected vocal play – intonation patterns heard - Imitates intonation and speech sounds in his/her own repertoire

	Reduplicative babbling begins – bababa
9 – 12 months	- Vocalizes during play - Vocalizes to mirror - Jabbers loudly – wide variety of sounds and intonations - Uses most sounds (C&V) in vocal play – beginning of phonetic drift - May acquire first true word –0-18 months - Variegated babbling begins – combines different syllables in vocal play
1 – 1.5 years	- Uses sentence-like intonations (jargon) - Some echolalia - Uses most vowels and consonants and some initial consonants - Basically unintelligible with exception of a few words - Omits final consonants and some initial consonants - Words produced with VC structure (bo/boat)
1.5 - 2 years	- Words increasing in frequency – jargon almost gone by 2 years - Asks questions by raising intonation at end of phrase. - Improvement in intelligibility – now approximately 65% intelligible by 2 years - Appearance of words produced with CVC structure (hot)
2- 2.5 years	- Approximately 70% intelligible - May omit final consonant, reduce consonant blends; substitute one consonant for another
2.5 - 3 years	- Still some substitutions and distortion of consonants - Continuing to improve intelligibility – now approximately 80% intelligible - Consonants mastered: p, m, n, w, h
3 - 3.5 years	- Uses final consonants most of time - Phonological processes disappearing by age 3: consonant assimilation, diminutization, doubling, final consonant deletion, prevocalic voicing, reduplication, unstressed syllable deletion, velar fronting
3.5 - 4 years	- Becoming very intelligible in connected speech - Continued refinement of

	articulatory skills taking place - Consonants mastered: b, d, k, g, f, y - Phonological processes continuing after age 3: cluster reduction, deplatalization, epenthesis, final devoicing, gliding, stopping, vocalization
4 - 4.5 years	- Should be few omissions and substitutions of consonants - Very intelligible in connected speech
4.5 - 5 years	- Most consonant sounds used consistently and accurately, though may not be mastered in all contexts - More errors present in difficult blends
5 - 6 years	Consonants mastered: t, ing, r, l
6 - 7 years	Consonants mastered: voiceless th, sh, ch, j (by 8 years, voiced th, v, s, zh are mastered)

METHODS

This section addresses the method of the research and provides information on the subject of the research, instrument of the research, data collection technique, and data analysis procedures.

The subject of this current research is an Indonesian female child aged 2.10 years. Recording was employed as the research instrument to collect data. Data were collected by recording the child's utterances within a three-month period, commencing from February 5, 2019 to April 23, 2019. There were nine (9) recordings in February, twenty-five (25) recordings in March, and twenty-six (26) recording in April.

To explore the child's first language vocabulary and phonological development, the recordings of the child's utterances were first transcribed. After the transcriptions were completed, they were categorized into four main parts of speech, consisting of nouns, verbs, adjectives, and adverbs. Nouns were further categorized into the names of animals, names of vegetables, name of fruits, names of transportation, names of stationary, numbers, colours, family members, and other things by month as detailed in the table below. After the categorization was finished, the data were analyzed to know the vocabulary

development and the phonological development of the child.

Child's Vocabulary and Phonological Development

No.	Categories	Feb 2019	Mar 2019	Apr 2019
1.	Nouns			
	Names of Animals			
	Names of Vegetables			
	Names of Fruits			
	Names of Transportation			
	Names of Stationary			
	Numbers			
	Colours			
	Family members			
	Other Things			
2.	Verbs			
3.	Adjectives			
4.	Adverbs			

FINDINGS AND DISCUSSION

1. Findings

a. Finding 1 (February 2019)

No.	Categories	February 2019
1.	Nouns	
	Names of Animals	N/A
	Names of Vegetables	kacang [1x] = <i>peanut</i>
	Names of Fruits	N/A
	Names of Transportation	keta api [1x] = <i>kereta api</i> = <i>train</i>
	Names of Stationary	gambal [1x] = <i>gambar</i> = <i>picture</i>
	Numbers	N/A
	Colours	blek [5x] = <i>black</i>
	Family members	Cela [2x] = <i>Zella</i> = <i>name of the subject</i> , emak [2x] = <i>housemaid call</i> , mama [12x] = <i>mother</i> , om [4x] = <i>uncle</i> , papa [5x] = <i>father</i>
	Other Things	boto [1x] = <i>botol</i> = <i>bottle</i> , cabun [1x] = <i>sabun</i> = <i>soap</i> , kompol [1x] = <i>kompot</i> = <i>stove</i> , pelmen [1x] = <i>permen</i> = <i>candy</i>
2.	Verbs	ambil [4x] = <i>take</i> , beli [1x] = <i>buy</i> , bikin [1x] =

		<i>make</i> , boleh [1x] = <i>may</i> , buat [1x] = <i>make</i> , buka [2x] = <i>open</i> , ikut [2x] = <i>follow</i> , mau [2x] = <i>will</i> , pegang [1x] = <i>hold</i> , tahu [1x] = <i>know</i>
3.	Adjectives	banyak [4x] = <i>many</i> , becalan [1x] = <i>besaran</i> = <i>getting older</i>
4.	Adverbs	cini [4x] = <i>sini</i> = <i>here</i> , udah [1x] = <i>sudah</i> = <i>already</i>

b. Finding 2 (March 2019)

No.	Categories	March 2019
1.	Nouns	
	Names of Animals	N/A
	Names of Vegetables	bokoli [1x] = <i>brokoli</i> = <i>broccoli</i> , jagung [2x] = <i>corn</i>
	Names of Fruits	banana [1x], stobeli [2x] = <i>strawberry</i>
	Names of transportation	N/A
	Names of Stationary	N/A
	Numbers	lima ribu [1x] = <i>lima ribu</i> = <i>five thousand</i>
	Colours	bilu [8x] = <i>biru</i> = <i>blue</i> , cokat [1x] = <i>coklat</i> = <i>brown</i> , glin [6x] = <i>green</i> , kuning [1x] = <i>yellow</i> , melah [6x] = <i>merah</i> = <i>red</i> , olin [1x] = <i>orange</i> , papel [10x] = <i>purple</i> , ping [3x], wait [1x] = <i>white</i> , yelo [3x] = <i>yellow</i>
	Family members	kaka [2x] = <i>sister</i> , mama [9x] = <i>mother</i> , om [1x] = <i>uncle</i> , papa [1x] = <i>father</i>
	Other Things	ail [1x] = <i>air</i> = <i>water</i> , bintang [1x] = <i>star</i> , ciki [1x] = <i>snack</i> , cucis [1x] = <i>sosis</i> = <i>sausage</i> , cucu [2x] = <i>susu</i> = <i>milk</i> , es [1x] = <i>ice</i> , kalung [1x] = <i>necklace</i> , kamal [1x] = <i>kamar</i> = <i>room</i> , kompol [2x] = <i>kompot</i> = <i>stove</i> , kue [1x] = <i>cake</i> , kulkas [1x] = <i>refrigerator</i> , mall [1x], milo [2x], minyak [1x] = <i>oil</i> , panci [11x] =

		<i>pan</i> , pelmen kalet [3x] = <i>permen karet</i> = <i>gum</i> , pintu [1x] = <i>door</i> , sapu [1x] = <i>broom</i> , sebentar [3x] = <i>sementara</i> = <i>a moment</i> , selokan [1x] = <i>serokan</i> = <i>scoop</i> , TV [4x], umur [1x] = <i>umur</i> = <i>age</i> , walung [1x] = <i>warung</i> = <i>stall</i> , wana [6x] = <i>warna</i> = <i>colour</i>
2.	Verbs	beli [3x] = <i>buy</i> , benti [1x] = <i>berhenti</i> = <i>stop</i> , bica [1x] = <i>bisa</i> = <i>can</i> , bobo [1x] = <i>sleep</i> , buat [7x] = <i>make</i> , buka [1x] = <i>open</i> , ganti [1x] = <i>change</i> , makan [2x] = <i>eat</i> , masak [1x] = <i>cook</i> , mau [1x] = <i>will</i> , menghias [1x] = <i>decorate</i> , minum [1x] = <i>drink</i> , nabak [1x] = <i>nabrak</i> = <i>hit</i> , nyanyi [1x] = <i>sing</i> , nyetel [2x] = <i>turn on</i> , pakai [1x] = <i>use</i> patah [1x] = <i>broken</i> , pegi [1x] = <i>pergi</i> = <i>go</i> , pencek [1x] = <i>pencet</i> = <i>press</i> , punya [6x] = <i>have</i> , talo [1x] = <i>taruh</i> = <i>put</i> , tumpah [1x] = <i>spill</i>
3.	Adjectives	banyak [3x] = <i>many</i> , dikit [3x] = <i>little</i> , enak [1x] = <i>delicious</i> , kecil [1x] = <i>small</i> , panjang [2x] = <i>long</i> , sejahtera [1x] = <i>prosperous</i> , kacau [1x] = <i>confused</i>
4.	Adverbs	Katen [6x] = <i>Klaten</i> = <i>name of a town</i> , kemalin [7x] = <i>kemarin</i> = <i>yesterday</i> , masih [1x] = <i>still</i>

c. Finding 3 (April 2019)

No.	Categories	April 2019
1.	Nouns	
	Names of Animals	ayam [1x] = <i>chicken</i> , bulung [1x] = <i>burung</i> = <i>bird</i> , gajah [2x] = <i>elephant</i> , golia [2x] = <i>gorila</i> = <i>gorilla</i> , ikan laut [1x] = <i>sea fish</i> , ikan [4x] = <i>fish</i> , kambing [1x] =

		<i>goat</i> , kecoa [1x] = <i>cockroach</i> , kelinci [1x] = <i>rabbit</i> , kucing [1x] = <i>cat</i> , nyamuk [1x] = <i>mosquito</i> , sapi [1x] = <i>cow</i>
	Names of Vegetables	bawang [1x] = <i>onion</i> , bayem [7x] = <i>spinach</i> , bokoli [2x] = <i>brokoli</i> = <i>broccoli</i> , buncis [2x] = <i>bean</i> , cabe [1x] = <i>chili</i> , jagung [2x] = <i>corn</i> , jamul [1x] = <i>jamur</i> = <i>mushroom</i> , kelapa [1x] = <i>coconut</i> , kol [1x] = <i>cabbage</i> , telong [1x] = <i>terong</i> = <i>eggplant</i> , timul [1x] = <i>timun</i> = <i>cucumbar</i> , tomat [2x] = <i>tomato</i> , wotel [1x] = <i>wortel</i> = <i>carrot</i>
	Names of Fruits	anggul [1x] = <i>anggur</i> = <i>grape</i> , apokat [1x] = <i>avocado</i> , banana [3x], cemangka [1x] = <i>semangka</i> = <i>watermelon</i> , jeluk [1x] = <i>jeruk</i> = <i>orange</i> , kiwi [1x], leci [1x] = <i>lychee</i> , lemon [1x], mangga [1x] = <i>mango</i> , nanah [1x] = <i>nanas</i> = <i>pineapple</i> , pepaya [1x], pil [1x] = <i>pearl</i> , pisang [1x] = <i>banana</i> , stobeli [1x] = <i>strawberry</i>
	Names of Transportation	bis [2x] = <i>bus</i> , cepeda motol [1x] = <i>motor cycle</i> , cepeda [5x] = <i>sepeda</i> = <i>bicycle</i> , kapal [1x] = <i>boat</i> , kereta api [4x] = <i>train</i> , mobil [4x] = <i>car</i> , motol [6x] = <i>motor</i> , odong-odong [1x], pesawat [3x] = <i>plane</i> , tek [1x] = <i>truck</i>
	Names of Stationary	ayon [1x] = <i>krayon</i> = <i>crayon</i> , pencil [1x], ta [1x] = <i>tas</i> = <i>bag</i>
	Numbers	delapan [2x] = <i>eight</i> , dua [4x] = <i>two</i> , eih [1x] = <i>eight</i> , empat [3x] = <i>four</i> , enam [2x] = <i>six</i> , fai [1x] = <i>five</i> , fau [1x] = <i>four</i> , lima [2x] = <i>five</i> , neh [1x] = <i>nine</i> , satu [4x] = <i>one</i> ,

		sepuluh [4x] = <i>ten</i> , seven [1x], sik [1x] = <i>six</i> , ti [1x] = <i>three</i> , tiga [4x] = <i>three</i> , tu [1x] = <i>two</i> , tujuh [2x] = <i>seven</i> , wan [1x] = <i>one</i>
	Colours	abu-abu [10x] = <i>grey</i> , blek [4x] = <i>black</i> , blon [3x] = <i>brown</i> , blu [5x], coklat [12x] = <i>coklat</i> = <i>brown</i> , glin [10x] = <i>green</i> , grin [2x] = <i>green</i> , hijo tua [3x] = <i>dark green</i> , hijo [9x] = <i>green</i> , hitam [1x] = <i>black</i> , kuning [2x] = <i>yellow</i> , led [4x] = <i>red</i> , melah jambu [1x] = <i>pink</i> , melah muda [1x] = <i>light red</i> , melah [14x] = <i>merah</i> = <i>red</i> , olin [2x] = <i>orange</i> , orin [2x] = <i>orange</i> , papel [15x] = <i>purple</i> , ping [13x], putih [3x] = <i>white</i> , red [1x], ungu muda [1x] = <i>light purple</i> , ungu [1x] = <i>purple</i> , wai [2x] = <i>white</i> , wait [5x] = <i>white</i> , yelo [9x]
	Family members	kaka [1x] = <i>sister</i> , mama [9x] = <i>mother</i> , mbah kung [1x] = <i>grand father</i> , mbah ti [1x] = <i>grand mother</i> , om [1x] = <i>uncle</i> , pak de [1x] = <i>uncle</i> , papa [3x] = <i>father</i>
	Other Things	ayunan [1x] = <i>swing</i> , balon [2x] = <i>baloon</i> , gelas [1x] = <i>glass</i> , jambel [1x] = <i>sambel</i> , kolam ikan [1x] = <i>fish pond</i> , kolam [1x] = <i>pond</i> , lampu [1x] = <i>lamp</i> , lumah [1x] = <i>rumah</i> = <i>house</i> , sayur [1x] = <i>vegetables</i> , sepatu [1x] = <i>shoes</i> , teman [2x] = <i>friend</i> , walna [7x] = <i>warna</i> = <i>colour</i> , warna [4x] = <i>colour</i>
2.	Verbs	bawa [2x] = <i>bring</i> , boleh [2x] = <i>may</i> , kerja [1x] = <i>work</i> , pake [1x] = <i>use</i> , pegang [1x] = <i>hold</i> , tahu [1x] = <i>know</i> , tumpah

		[1x] = <i>spill</i>
3.	Adjectives	baru [1x] = <i>new</i> , elat-elat [1x] = <i>erat-erat</i> = <i>tightly</i> , salah [1x] = <i>wrong</i> , selamat [1x] = <i>safe</i>
4.	Adverbs	N/A

2. Discussion

a. Child' First Language Vocabulary Development

Vocabulary development is the process of a child increasing the number of words which the child uses in everyday life. According to Stahl (1999), vocabulary grows to be about 900 –1,000 words by the time a child is 3 years old. In February 2019, recording was conducted nine times, including once on 05 Feb at 14:51; twice on 26 Feb at 09:35 and 13:35; four times on 27 February at 10:50, 10:51, 17:44, and 17:45, and twice on 28 February at 11:42 and 16:27. In March 2019, recording was carried out twenty-five (25) times. At last, recording was undertaken twenty-six (26) times in April 2019. The **figure** and **x** in bracket, for instance [1x], [2x], [3x], etc. indicate the frequency of the word uttered by the child.

The first research question is “What is the first language vocabulary development of an Indonesian child aged 2.10 years?”

To answer the first research question, it is important to know the vocabularies the child acquired in February 2019. In this month, due to the low number of recordings, it could be seen that the number of vocabularies the child acquired was very small. Even the data showed no vocabulary of the names of animals, names of fruits, and numbers. Related to the names of vegetables, names of transportation, names of stationary, and colours, there was only one vocabulary respectively, kacang [1x] = *nut*, keta api [1x] = *kereta api* = *train*, gambal [1x] = *gambar* = *picture*, and blek [5x] = *black*. In terms of family members, the child acquired the vocabularis such as emak [2x] = *housemaid* call, mama [12x] = *mother*, om [4x] = *uncle*, papa [5x] = *fathers*. The other things the child required included boto [1x] = *botol* = *bottle*, cabun [1x] = *sabun* = *soap*, kompol [1x] = *kompot* = *stove*, and pelmen [1x] = *permen* = *candy*. The verbs the child acquired were

ambil [4x] = *take*, beli [1x] = *buy*, bikin [1x] = *make*, boleh [1x] = *may*, buat [1x] = *make*, buka [2x] = *open*, ikut [2x] = *follow*, mau [2x] = *will*, pegang [1x] = *hold*, and tahu [1x] = *know*. The adjectives acquired were only banyak [4x] = *many* and becalan [1x] = *getting older*. Relating to the adverbs, the data showed that the child required only two vocabularies, including cini [4x] = *sini* = *here*, and udah [1x] = *sudah* = *already*.

In March 2019, there was no vocabulary of the names of animals and the names of transportation. It was because the recordings were not focused on these two categories. However, the vocabulary development of the child could be seen in most of the categories. The three best vocabulary developments were shown in the categories of noun (other things), verb, and noun (colours). The other vocabulary developments could be found in the adjectives (banyak [3x] = *many*, dikit [13x] = *little*, enak [1x] = *delicious*, kecil [1x] = *small*, panjang [2x] = *long*, sejahtera [1x] = *prosperous*, and kacau [1x] = *confused*, adverbs (Katen [6x] = *Klaten* = *name of a town*, kemalin [7x] = *kemarin* = *yesterday*, and masih [1x] = *still*, and nouns - family members (kaka [1x] = *sister*, mama [9x] = *mother*, om [1x] = *uncle*, and papa [1x] = *father*).

The vocabulary development of the child could also be seen in April 2019 that happened nearly in most of the categories, including names of animals, names of vegetables, names of fruits, names of transportation, names of stationary, numbers, colours, and family members. Particularly related to vocabulary development of the numbers and colours, the child could acquire the vocabularies of number and colours in English. For example, the vocabulary of numbers included delapan [2x] = *eight*, dua [4x] = *two*, eih [1x] = *eight*, empat [3x] = *four*, enam [2x] = *six*, fai [1x] = *five*, fau [1x] = *four*, lima [2x] = *five*, neh [1x] = *nine*, satu [4x] = *one*, sepuluh [4x] = *ten*, seven [1x], sik [1x] = *six*, ti [1x] = *three*, tiga [4x] = *three*, tu [1x] = *two*, tujuh [2x] = *seven*, and wan [1x] = *one*. In terms of colours, the vocabulary consisted of abu-abu [10x] = *grey*, blek [4x]

= *black*, blon [3x] = *brown*, blu [5x] = *blue*, coklat [12x] = *coklat*, glin [10x] = *green*, grin [12x] = *green*, hijo tua [3x] = *dark green*, hijo [9x] = *green*, hitam [1x] = *black*, kuning [25] = *yellow*, led [4x] = *red*, melah jambu [1x] = *pink*, melah muda [1x] = *light red*, melah [14x] = *merah* = *red*, olin [2x] = *orange*, orin [2x] = *orange*, papel [15x] = *purple*, ping [13x], putih [1x] = *whitr*, red [1x], ungu muda [1x] = *light purple*, ungu [1x] = *purple*, wai [2x] = *white*, wait [5x] = *white*, and yelo [9x].

Furthermore, the development of child's vocabulary is in line with the development of the child's age. It confirms Papaeliou's (2011) result that vocabulary size increased markedly with the age. In addition, the vocabularies (words) mastered by the child were those initiated with consonant 'b' (banana, banyak = *many*, baru = *new*, bawa = *bring*, bayem = *spinach*, etc.), 'k' (kaka = *sister*, kamal = *room*, kambing = *goat*, keja = *work*, kemalin = *yesterday*, etc.), 'm' (makan = *eat*, mama = *mother*, melah = *red*, minum = *drink*, mobil, etc.), 'p' (pake = *use*, papa = *father*, papel = *purple*, pelmen = *candy*, ping, etc.), 's' (satu = *one*, sebental = *a moment*, sepuluh = *ten*, stobeli = *strawberry*, etc.), and 't' (telong = *eggplant*, teman = *friend*, tiga = *three*, tomat = *tomato*, tujuh = *seven*, TV). It is in accordance with what Gard, Gilman, & Gorman (1993) said that child mastered some consonants, such as p, m, n, w, and h. The other interesting thing is that the developed around 800 – 1,000 words. It is in accordance with what Stahl (1999) said that the child's vocabulary grows to be about 900–1,000 words by the time a child is 3 years old.

b. Child' First Language Phonological Development

Phonological development is defined as how children develop the ability to use and understand the sounds of language. When a sound has been mastered, it may be used only in the pronunciation of certain words and may be missing or pronounced incorrectly in others. According to Gard, Gilman, & Gorman (1993), a child aged 2.5 – 3 years still deals with some substitutions and distortion of consonants. The consonants the child mastered include p, m, n, w, h.

The second research question is “What is the first language phonological development of an Indonesian child aged 2.10 years?”

Based on the above findings of the three-month recording, the child’s phonological development did not yet happen in the second month (March 2019). It occurred in the third month (April 2019) only in the categories of other things and colours. In the category of other things, the phonological development of the child can be detailed as below:

No	Other things	Date	Time	Record ing
1.	Kereta api = <i>train</i>	06 April 2019	14:10 14:13	R11 R12

The child could correctly utter “kereta api” (on 06 April 2019 at 14:10 in the recording 11 and at 14:13 in the recording 12), where in the previous two months the child could not yet say “kereta api” in a phonologically-correct way.

Further, most of the child’s phonological developments took place in the category of colours as can be seen in the table below:

No	Colours	Date	Time	Recording
1.	Wait = <i>white</i>	28 March 2019	15:33	R 23
		06 April 2019	17:14	R 20
		23 April 2019	21:17	R 26
2.	Grin = <i>green</i>	06 April 2019	17:15	R 20
		07 April 2019	14:40	R 21
3.	Blek = <i>black</i>	06 April 2019	17:14	R 20
4.	Red	23 April 2019	21:17	R 26
5.	Coklat = <i>brown</i>	23 April 2019	21:17	R 23

In the previous recordings in February and March 2019, the child could not yet correctly utter the words: wait (*putih*), grin (*hijau*), blek (*hitam*), red (*merah*), and coklat (*brown*). They child could only pronounce the words: wai (*putih*), glin (*hijau*), bek (*hitam*), led (*merah*), and cokat (*brown*). The child’s phonological development occurred in the

words ‘wait’, ‘grin’, ‘blek’, ‘red’, and ‘coklat’. The child still dealt with the problem of uttering the consonant ‘r’ like in ‘kereta’, ‘grin’, and ‘red’ and the combination of two consonants ‘bl’ and ‘kl’ like in ‘blek’ and ‘coklat’. In this case of consonant ‘r’, the child tried to simplify by substituting the consonant ‘r’ with consonant ‘l’, for instance ‘grin’ with ‘glin’. While in the case of two combined consonants, the child simplified by omitting/dropping the consonant ‘l’, for instance ‘blek’ became ‘bek’ and ‘coklat’ became ‘cokat’. It is according to Gard, Gilman, & Gorman (1993) that at the age of 2.5 – 3 years, a child simplifies her production by substitutions, assimilations, and omissions. The other thing is the most-frequently uttered words. In February 2019, the words ‘mama (mother)’ and ‘papa (father)’ were uttered by the child most frequently, 12x and 5x respectively. In March 2019, ‘mama (mother)’ and *papel (purple)* were most frequently spoken (9x and 10x). While, in April 2019, the child uttered the words ‘pape (purple)’, *melah (merah/red)*, and ‘mama (mother)’ with the highest frequencies (15x, 14x, and 9x).

CONCLUSIONS

Based on the above findings and discussion, conclusions can be drawn. The child’s first language (L1) vocabulary and phonological development occurs in line with the development of the child’s age. The vocabulary development happened in each month (March and April 2019). The number of vocabularies the child acquired was around 800 – 1,000 words. On the other hand, the child’s phonological development occurred only in April 2019. It was obvious that the child still dealt with the problem of saying consonant ‘r’, and the two combined consonants ‘bl’ and ‘kl’. To overcome this problem, the child simplified her production by substituting the consonant ‘r’ with ‘l’, for instance ‘grin’ with ‘glin’ and omitting / dropping the consonant ‘l’, for example ‘blek’ became ‘bek’ and ‘coklat’ became ‘cokat’. It is in line with Gard, Gilman, & Gorman (1993) saying that the child’s phonological development was still concerned with some substitutions and distortion of consonants. In

addition, some consonants such as p, m, n, w, and h were mastered by the child.

Due to the time constraint, a further study should be conducted with more categories, not only focusing on the main four parts of speech – nouns, verbs, adjectives, and adverbs, but also on pronouns, prepositions, conjunctions, and articles. In addition, recording should be carried out more consistently, for example once in three days. It is intended to obtain more accurate data in order that the final result can be more reliable. In addition, research should also be worth conducting on the parents' role in the development of child's first language vocabulary and phonology.

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