

A Syntactic Analysis of a Child Language Development: A case study of Alya's language development

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Abstrak: Tujuan dari riset longitudinal ini adalah untuk mengetahui bagaimana seorang anak kecil menggunakan bahasa dalam kegiatan sehari-hari. Subjek dari riset ini adalah seorang anak perempuan dengan bahasa utamanya adalah Bahasa Indonesia. Data yang digunakan merupakan data autentik melalui rekaman dengan menggunakan 'tape recorder'. Data dianalisis berdasarkan aspek-aspek sintaksis, panjang kalimat dan struktur kalimat dari ucapan yang disampaikan. Dalam riset ini 'Mean Length Utterance' (MLU) dari 'Brown's Stages of Development' di gunakan untuk mengetahui tingkat (level) dari perkembangan bahasanya.

Kata kunci: analisis sintaksis, perkembangan bahasa, pemerolehan bahasa

INTRODUCTION

Language development is very interesting to be observed because every child has his/her own ability in acquiring, mastering, and developing his/her language. Every child has different ability in acquiring and using the language when he/she wants to express his/her thought because the ability is not only influenced by biological process, but also by social interaction of the child. Based on some studies about children language development, some findings have proved that these factors give significant effect on children language development.

One aspect of language development that is needed to be observed is syntactic development, the way the children combine words to make sentences. It is very interesting to know how every child utters words, combines them in phrases and sentences and chooses the words in their communication. It is very interesting to know whether he/she learns a language by listening to others speaking around them.

Two major fields of study that are closely related to this development are psychology and linguistics. It is difficult to separate between these two fields of

studying the language development. That is why some scientists tend to use psycholinguistics to investigate how children acquire a language and then use it as a communication tool.

This study tries to look at the language development of a child, who is 3.6 years old, in her daily speech. Three research questions of this study are:

1. How long is the sentence that is produced by a child in his/her conversation with his/her family?
2. How is the syntactic structure of a child's utterances in terms of using the kinds of words, phrases, and kind of sentences?
3. How is a child language development by using Mean Length of Utterance MLU from Brown?

Most of researchers in the field of language acquisition assume that children syntactic development consists of four stages. The stages are: Naming, Holophrastic, Telegraphic, and Morphemic (Steinberg, et al, 2001).

Naming and Holophrastic are stages when the children begin to name object that consists of one word utterance like "mama, daddy". They talk about the objects around them and therefore show considerable agreement in their first words (Clark and Clark, 1977) . Three categories that are frequently used in the first ten words are animals, food, and toys. They also use single word to express complex thoughts which involve those objects. A child who has lost his/her mother in a place may cry "mama" meaning "I want mama". According to Hoff (2004), this period occurs when the infant is between 9 to 18 months.

At the telegraphic period, the children begin the process of combining words. Gee (1992), states the children first realize that two words can mean two different things. Sometimes the children add meaningless morphemes to a holophrase before combining words because they are starting to understand that more words are required in a language. Next, Gee (1992) gives two ways in which children move from the holophrase period into two-word utterances. The first route involves chaining related holophrases together, and the second route occurs by reproducing what they have heard adult say. Examples of this are the phrases "all gone" and "my turn". While children may not really know what the individual words mean, they have heard the phrases enough that they can reproduce them and eventually begin creating their own. Next, according to Hoff (2004), a child starts to include primarily content words and omits such grammatical morphemes as determiners and endings of nouns and verbs at this stage and most of the language development occurs. Researchers are awed by the progress that occurs during this brief period of time between twenty-four and thirty months of age. During this time, a child's vocabulary and sentence length increase rapidly, as well as their variety of sentence structures. Utterances during

this stage are characterized by multiple words without the use of conjunctions (eg. “milk now” instead of “I would like to have some milk now.”)

Next, at the morphemic stage they start producing longer utterances by combining three or more words and start adding the function words and bound morphemes that are missing in their first word combination. This stage known as morpheme level, where children start using words with more complicated than the telegraph level. At thirty months of age, a child typically begins incorporating function words into their multi-word utterances. They can produce a full range of sentence types, including questions as well as more advanced grammatical and functional structure. In “multi-word” stage, the children begin to include comparatives, negations, conjunctions, and passives into their sentence production. Hoff (2004) writes this level as “the development of different sentence form”. According to her, this development consists of (1) expressing negation by tacking on a negative marker (no or not) to the beginning or end of the sentence, and by shaking their heads as they utter an affirmative statement, (2) asking questions by using two types of questions (yes/no questions and wh-question), (3) using passive forms at age of 3.5 years, and continuous to grow after they are 5 years old, and (4) producing complex sentences at the age 2 years and the children can use most of the different complex sentence types by the age of 4.

Related to environment influences, the child linguistic environment is simpler than adult speech syntactically. According to Clark and Clark (1977), children seem to talk about what they already know, and they begin by talking about their surroundings. Therefore, they usually spend a year or more actively taking in information about their surroundings before using a single word. In addition, Larsen & Long (1991) state:

The length of children utterances is shorter and less varied. They writes that maternal input is transformationally less complex, with fewer verb per utterance, fewer coordinate and subordinate clauses and fewer sentence embedding. It contains fewer adjectives, adverb and pronouns than adult speech, and has a higher ratio of content (vocabulary) words to functors (grammatical words, like articles, preposition and auxiliary verbs).

Based on the explanation above, it can be concluded that the syntactic development of children language has some stages in conformity with their ages. The development from every stage is also influenced by some factors, such as their social interaction, and their environment. They tend to use simple utterance and sometimes they use ungrammatical speech.

The purpose of syntactic analysis is to determine the structure of the input text. This structure consists of a hierarchy of *phrases*, the smallest of which are the *basic symbols* and the largest of which is the *sentence*. According to Klint

(2007), *syntactic x analysis* or *parsing* is about discovering structure in a text and is used to determine whether or not a text conforms to an expected format. A question like "Is this bibliographic entry textually correct?" is a typical question that can be answered by a syntactic analysis.

The syntactic analysis is also done to measure the length of utterance. It is measured using MLU, mean length of utterance, which is basically the average length of a child's sentence. According to Brown (1973), measuring children utterance length has been widely used as a bench mark of linguistic maturation. They develop expressive language skills in the same sequential order. As they become mature, the length of their utterances increases. Consequently, we are able to relate the length of an utterance to a child's age.

The length of a child's utterances is often related to morpheme, As a basic element of language, it is more instructive to determine the length of a child's utterances in relation to morphemes rather than words (Williamson,2009). This takes into account the child's developing morphological skills as well as their syntactic skills. Clearly, it is not sufficient to examine just one utterance, as there is a great deal of variation in the length of utterances. It is necessary to examine several utterances and then to calculate the average length of utterance based on a count of the number of individual morphemes in each.

Besides measuring the length of the utterance in language acquisition, it is also important to analyze the syntactic structure of the subject utterances. By analyzing the structure of the sentence, we can identify the preference part of speech and kind of phrase used by the subjects in their conversation.

RESEARCH METHOD

This research is a longitudinal approach that involves observing the development of linguistic performance, and usually the spontaneous speech of the subject (Larsen & Long, 1991).The subject of this study was a female child who speaks Indonesian in her daily conversation at her house and school. The child, Alya Purnama Sari, lives with her family, that consists of her father, mother, and her sister. She was born on December 21, 2007. This means that the child is 3 years and 6 months during the study implemented. Interaction approach used in this study is the subject has opportunity to interact with both parents and her sister.

The speech of the interaction was recorded by using a tape recorder. In order to get more authentic recording of data, Alya's speech recordings were not planned and taken in various situations and circumstances within her own family. Next, the speech was transcribed, collected as research data. Only 50 Alya's utterances were taken from data recorder as a sample of the study.

The data was analyzed to see the length of the utterance by counting the words for every utterance and also by separating kinds of words and phrases. The morphemes of the utterance were also calculated to measure the mean length of utterances. In order to know about the language development, MLU (Mean Length of Utterance) is used. It is a kind of language measurement to calculate the language development or proficiency of children. MLU is used to know the children linguistic productivity. Method of calculating the MLU is by dividing the total of morphemes and the total of utterances:

$$MLU = \text{Total morpheme} / \text{Total utterance}$$

FINDINGS AND DISCUSSION

After collecting and analyzing the data, there are some finding that will be discussed as follows:

1. Among the total utterances, most of Alya's utterances consists of two words utterances (40%), followed by the single words utterances (26%) , and three words and four words utterances (14%) .

Table 1: Analysis based on the amount of words in utterance

Word	Amount	%
1 word	13	26
2 words	20	40
3 words	7	14
4 words	7	14
5 words	1	2
6 words	2	4
Total	50	100

2. Single word utterances by Alya are dominated by nouns, followed by verbs, adjectives , and adverbs.

Table 2: Analysis based on kinds of words of single word utterances

Kind of word	Utterance	Amount	%
Noun	Bisa (can)	6	46.2
	Lima (five)		
	Nenek (grandma)		
	Saos (souce)		
	Habis (finish)		
	Ndak (no)		
Verb	Ya (yes)	4	30.8
	Belum (not yet)		
	Udah (already)		
	Nulis (write)		
Adjective	Enak (delicious)	2	15.3

	Pintar (smart)		
Adverb	Sana (there)	1	7.7
Total		13	100

3. Two-word utterances from Alya are dominated by noun phrases, followed by verb phrases, and adverbial phrases.

Table 3: Alya's utterances based on kinds of phrase

Phrase	Utterance	Amount	%
Noun Phrase	Buk Yul (Miss Yul)	10	50
	Ada balon (there are balloons)		
	UangYa (My money)		
	Pakai ayam (with chicken)		
	Rasa saos (taste likes souce)		
	Cerita barby (barby story)		
	Teman Apis (my friend, Apis)		
	Buat mi (cooking noodle)		
	Dengan papa (with father)		
	Warna kuning (yellow)		
Verb Phrase	Beli coklat (buying chocolate)	9	45
	Pakai Honda (by motorcycle)		
	Main balon (playing balloons)		
	Pergi main (go to play)		
	Main gambar (playing pictures)		
	Pakaitopi (use hat)		
	Kerja bank (work at the bank)		
	Jemput mama (picked up by mother)		
	Pakai bus (by bus)		
Adverbial Phrase	Jam 6	1	5
Total		20	100

4. Alya tends to use simple utterances that consist of one or two words to answer the questions asked by her parents.

Mother / father	Alya
Alya, mau pergi ke pasar?	Mau
Mau beli apa kepasar?	Beli coklat
Alya sudah makan tadi?	Ya
Alya bias menggambar?	Bisa

5. Based on the syntactic analysis of the complexity of the utterances, it was found that Alya only used complex sentences twice.

- Kakak mamam nasi pakai daging sup.
 - Buk Yul, Buk Tin, Buk Pat.
6. Based on the study of 50 Alya's utterances, it can be classified 119 morphemes. Therefore, Alya's MLU is 119 divided by 50 is 2:38. This means that Alya's position is in the Final Stage II in Brown's Stages of Development and will move on to Phase Early III when she reaches MLU 2.5. Based on Brown's Stages of Development, MLU 2:38 findings are consistent with children who are in anticipation of chronological age 30 months or in the age 24:7-35:5. Months. This means that Alya has not yet reached the expected level based on the chronology of age, 3:5, which should reach the MLU 3.8, although the calculation of MLU is not an absolute determinant to measure language development of a child.

CONCLUSION

This study is about syntactic development of 50 utterances from a young child at age of 3 years and 6 months. Based on the study, there are three points that can be concluded from the findings. They are as follows:

1. Alya tends to use simple utterances in her communication. Her utterances are more simple than adult utterances. She often speaks with two word utterances to express her thought.
2. She also tends to use simple sentences rather than the complex ones. When she uses the complex sentences, the sentences are ungrammatical because she does not use conjunction in connecting a sentence with another sentence.
3. The result of measuring the language development shows that Alya needs to improve her ability in communication since she has not yet reached the expected level based on the chronology of age, 3:5, which should reach the MLU 3.8.

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