
1. **INTRODUCTION**

1.1 **Background of The Study**

In their first year, children do the same things “coing” and “babling” as the first vocalization. Since birth children have been heard some sounds. All children have the same chance in acquisitioning language. They already have Language Acquisition Device (LAD) in their brain, but the development is still depend on children’s environment. By the end of their first years, they understand a few frequently repeated words and are able to produce a word or two words. By the age of two, most children produce at least fifty different words and some produce many more and they also start to combine words into simple.

The pre-school children begin to combine words. Children’s two-word combinations are followed by utterances that are three and more words long, and as children’s utterances get longer, they also become increasingly complex. Children’s first sentences tend to be simple declarative sentences lacking many of grammatical morphemes. By the time, pre-school children can produce complex sentences, and it is said that at this point they essentially mastered the grammar of their language.

The structure of language in terms of phonetics, phonology, morphology, and syntax have been found to play an important role in the understanding of how language is produced and comprehended during activities such as speaking, listening, reading, and writing. Based on the illustration above, the researcher wants to study about The Indonesian Language Used by Pre-school Children: A Study on Syntax.

1.2 **The Aim**

The writer reported in this paper aims to describe the phrase structure rules of utterances produced by pre-school children and to formulate the constituent structures of pre-school children’s utterances in the X-bar theory.

1.3 **Theory Approach**

This study applied a syntactic approach with X-bar concept as the main theory. X-bar theory is a component of linguistic theory which attempts to identify syntactic features of human languages. X-bar theory was first proposed by Noam Chomsky (1970) and further developed by Ray Jackendoff.
Newson defined X-bar as a theory of basic structure comprising of three different rules which determine the nature of all structures in a language (2006:88). The three rules can be stated as follows:

(1) 

- a. \( X' \rightarrow X \ YP \) 
- b. \( XP \rightarrow YP \ X' \) 
- c. \( X' \rightarrow X', \ Y/YP \)

The letter X and Y are used to signify any arbitrary possible category. When analyzing a specific utterance, specific categories are assigned. The X and Y may become N for noun, V for verb, A for adjective, P for preposition or D for determiner. Thus these rules tell us how phrases in general are structured.

The rule in (1-a) is called the complement rule, as it introduces the structural position for the complement. There are two immediate constituents of the X’ (pronounced “X-bar), which are called the head of the phrase (X) and the complement (YP). The complement always appears closer to the head. The head is the central element of the phrase and is a word of the same category as the X. Therefore, if the head is a verb, the X will be V’.

The rule in (1-b) is the specifier rule, as it has the structural position as specifier. There are two immediate constituents of the phrase. The specifier precedes the X’, the constituent just discussed containing the head and the complement. The specifier of the DP is the possessor and this precedes the D’ constituted of the determiner and its complement (Newson, et al, 2006: 88)

The rule in (1-c) introduces a position into the phrase called the adjunct. An adjunct is optional, or structurally dispensable, part of a sentence, clause, or phrase that, when removed, will not affect the remainder of the sentence except to discard from it some auxiliary information. An adjunct is not an argument (nor is it a predicative expression), and an argument is not an adjunct.

Constituent Structure

A constituent is a word or a group of words that functions as a single unit within a hierarchical structure. The analysis of constituent structure is associated mainly with phrase structure grammar (Miller, 2002: 11). The constituent structure of sentences is identified by using constituency tests. These tests manipulate some portion of a sentence and based on the result, clues are delivered about the immediate constituent structure of the sentence. According to Miller (2002: 13) there are three tests for whether a sequence of words forms a phrase, such as, transposition, substitution and ellipsis. Transposition is one of the reveal whether a given sequence of words make up a phrase or are just words that happen to come one after the other. Pro-form substitution, or replacement, involves replacing the test constituent with the appropriate pro-form (e.g. pronoun). Substitution normally involves using a definite pro-form like *it, he, there, here*, etc. in place of a phrase or a clause.

Categories of Constituent Structure

Lexical Categories

A lexical category is a linguistic category of words (or more precisely *lexical items*), which is generally defined by the syntactic or morphological behavior of the lexical item in question. According to O’ Grady (1997: 182) the four most studied lexical categories are noun (N), verb (V), adjective (A), and preposition (P). A fifth and less studied lexical category consist of adverb (Adv), most of which are derived from adjectives. Those lexical categories are the head of noun phrase (NP), verb phrase (VP), adjective phrase (AP), prepositional phrase (PP), and adverbial phrase (AdvP).

Noun Phrase

A noun phrase or nominal phrase (abbreviated NP) is a phrase which has a noun (or indefinite pronoun) as its head word, or which performs the same grammatical function as such a phrase. Noun phrases often function as verb subjects and objects, as predicative expressions, and as the complements of prepositions.

Traditionally, a phrase is understood to contain two or more words. The traditional progression in the size of syntactic units is *word < phrase < clause*, and in this approach a single word (such as a
noun or pronoun) would not be referred to as a phrase. However, many modern schools of syntax – especially those that have been influenced by X-bar theory – make no such restriction. Many single words are judged to be phrases based on a desire for theory-internal consistency, such as he saw someone.

**Verb Phrase**

Verb phrase is a phrase that is headed by a verb. A verb phrase may be constructed from a single verb. A verb phrase or VP is a syntactic unit composed of at least one verb and the dependents of that verb – objects, complements and other modifiers, but not include the subject. In syntax, there is a transitive verb that is a verb that requires one or more objects and intransitive verbs that do not have objects. VPs may be constructed from a single verb; often, however, the verb phrase will consist of various combinations of the main verb and any auxiliary verbs, plus optional specifiers, complements, and adjuncts.

**Adjective Phrase**

An adjective phrase (or *adjectival phrase*) is a phrase with an adjective as its head. This adjective may be accompanied by modifiers, determiners, and/or qualifiers. Adjective phrases may be attributive (appearing before the noun) or predicative, but not all adjectives can be used in both positions. An adjective phrase consists of an adjective which may be preceded and/or followed by other words. The pre-modifier is always an adverb phrase, but the post-modifiers can be an adverb phrase, a prepositional phrase, or even a clause.

**Adverbial Phrase**

An adverbial phrase is a word group with an adverb as its head. This adverb may be accompanied by modifiers or qualifiers. An adverb phrase can modify a verb, an adjective, or another adverb, and it can appear in a number of different positions in a sentence. Adverb phrases are phrases that do the work of an adverb in a sentence.

**Prepositional Phrase**

Prepositional phrases have a preposition as the central element of the phrase, which is the head of the phrase. The remaining part of the phrase, usually a noun (phrase) or pronoun, is sometimes called the prepositional complement. The underlined phrases in the following sentences are examples of prepositional phrases in Bahasa Indonesia.

a. Ayah pergi ke pasar.
b. Adi makan di dapur.

**Functional Categories**

Functional Categories are parts of speech that provide inflectional or grammatical information for phrases and clauses, including determiner (D) and inflection (I) which each of them stands as a head of determiner phrase (DP) and inflectional phrase (IP).

**Determiner Phrase**

A determiner phrase (DP) is a functional category, a phrase headed by a determiner. The noun phrase is strictly speaking a determiner phrase, and NP designates a constituent of the noun phrase, taken to be the complement of the determiner. Subiyanto (2013) in his dissertation found that there are some Determiner phrases in the Javanese language. There are three kinds of determiner in Javanese language, such as *iki, kuwi*, and *kae*. In Indonesian language, they are similar to *ini* and *itu* such as in the phrase *kucing ini* and *buku itu*.

**Inflectional Phrase**

An inflectional phrase is a functional phrase which has inflection properties (such as tense and agreement). An Inflectional phrase is essentially the same as a sentence, but reflects an analysis whereby a sentence can be treated as having a head, complement and specifier, like other kinds of phrase. Subiyanto in his dissertation explained that there are tense markers, aspectuality, and modal
auxiliary in the Javanese language (2013: 188). In Indonesian language produced by pre-school children is also found some tense marker such as *mau* or *akan* ‘will’, aspectuality marker such as *sudah, belum, and lagi* and also modality such as *bisa* ‘can’, *boleh* ‘may’, and *harus* ‘should’, such as in *mau pergi, sudah makan, lagi tidur*, and *harus pergi* respectively.

1.4 Organization

The writer organizes the report in order to make it is easier to read. The organization of the report can be described as follows:

Chapter I: Introduction

This chapter contains Background of the Study, The aim of the study, Underlying Theory, and Organization of the Report.

Chapter II: Research Method

This chapter contains Data Analysis and Technique in Collecting Data

Chapter III: Discussion

This Chapter is the main part of the research. This chapter explains the research result and discussion.

Chapter IV: Conclusion

This chapter shows summary of the report.

II. METHODOLOGY

2.1 Data

The population in this research is all utterances produced by pre-school children. Samples were taken by using a purposive sampling technique, that is: based on the researcher’s consideration they are properly chosen as the subject of research. Thus, every respondent’s utterances collected through the interview which contains syntax features is considered as a unit of analysis of this research. The sample was coding by using number for each utterance and separating the transcript between Lutfi (L1&L2), Asyam (A1, A2 & A3), Nazra (N1&N2), Joice (J1&J2), Vivi and Jose (V1&O1). The examples below are units of data analysis.

1. [Mobil Papah]\[^\text{1}\] rusak (L1.54)
   ‘Daddy’s car is damaged’
2. [Vivi]\[^\text{1}\] pulang (J1.14)
   ‘Vivi goes home’
   ‘I see very big crocodile over there’
4. Adi [[berangkat]\[^\text{1}\]] (V1. 151)
   ‘Adi departs’
5. Miss Shasa gendut sekali (J2. 57)
   ‘Miss Shasa is very fat’

2.2 How to Collect Data

In order to get the data, the researcher used participatory observation and conversation method. The technique of elicitation or teknik pancing as basic technique and continuation technique by face to face interview was used in this study. The technique of elicitation as one of the conversation method techniques was used in order to hold a conversation with the objects or people around them to know the information about what they talking about.

While she conducted a conversation, she recorded the children’s utterances. To make the respondents catch what the writer meant, the writer used triggered question before asking main
questions and used medium like some pictures to help the respondents understand. The conversation was recorded by using a voice recorder. Then, she collected the utterances that had been understood by pre-school children. After that, the researcher continued to make transcripts of the data. Next, she coded the utterances. The coding transcript was the data which is ready to analyze. Finally, the researcher selected the proper data to analyze.

III. DISCUSSION

Children of 3-5 years old are able to produce some utterances. They use words to refer to an object or an event in their environment. In this chapter, the analysis of the research data will be presented. As mentioned before, the writer analyzes the Indonesian Language used by pre-school children. Based on the data from six pre-school children who become the subject of the research, the writer found 743 utterances produced by them. The utterances produced by pre-school children can be classified into seven categories of constituent structure found. They are noun phrases (NP), verb phrases (VP), adjective phrases (AP), adverbial phrases (AdvP), determiner phrases (DP), and inflectional phrases (IP). The seven categories consist of four variations of the NP (161 utterances), eight variations of the VP (145 utterances), two variations of the AP (28 utterances), one variation of the AdvP (3 utterances), one variation of the PP (28 utterances), four variations of the DP (48 utterances), and one variation of the IP (40 utterances).

Noun Phrase

Noun phrases often function as verb subjects and objects, as predicative expressions, and as the complements of prepositions. In the clause (1), the noun as head of NP consists of only a single noun. Single noun can be pronoun, proper noun, and common noun. As can be seen in (1-a) *Aku sama Sheren mainnya*, the noun *aku* has a function as pronoun. A proper noun is a noun that in its primary application refers to a unique entity, such as Indonesia, Adi. The Proper noun is always written with a capital letter, since the noun represents the name of specific things; see (1-b). A common noun is a noun referring to a person, place, or thing in a general sense, such as in (1-c). Common nouns are not capitalized unless they begin a sentence or part of a title.

(1)  
a. [Aku]₁ sama [Sheren]₂ mainnya (V1. 341)  
   1SG     with NAME   play  
   ‘I play with Sheren’

b. [Vivi]₁ pulang (J1.14)  
   NAME   go home  
   ‘Vivi goes home’

c. [Gelas]₁ di [meja]₂ (A2.65)  
   glass   on the table  
   ‘The glass on the table’

The clause (3) shows the different rule of NP. The utterance *Buaya* and *besar sekali* is in one constituent. The utterance *Buaya* stands as the noun that is modified by the adjective phrase (*besar sekali*). How to determine which words should be grouped together into the phrase? The existence of constituents can be independently verified with the help of special tests, such as the distributional test, the movement test, and the coordination test.

(3)  
   over there   see   crocodile   big   very  
   ‘I see very big crocodile over there’

b. Di sana lihat [itu]₁  
   Over there   see   that  
   ‘I see that over there’  
   (itu= buaya besar sekali)

c. Buaya di sana lihat besar sekali
Crocodile over there see very big
‘Crocodile over there I see very big’

The substitution test gives evidence that the phrase *buaya besar sekali* forms a syntactic unit, which is a NP, because it can be replaced by an element such as the pronoun *mereka* or *itu*. This is illustrated in (3-b), where *itu* replaces the NP *buaya besar sekali*. The movement test involves moving the test sequence to the front of the sentence, such as in (3-c), resulting in the unacceptable sentence. A constituent can be moved as a single unit to a different position within a sentence.

Based on constituency test, it can be proven that there are NPs in the utterances produced by pre-school children. In X-bar theory, the NP can be formed by N only, N+A or AP, and N+N. The following examples show the phrase structure rules of N’.

(4)

a. N’ ➔ N
   [obat]‘medicine’ (N1. 37)
b. N’ ➔ N’ A
   [[kucing]N’ [gendut]A]‘fat cat’ (L1. 2)
   cat
   fat
c. N’ ➔ N’ AP
   *Aku lihat setan seram sekali* ‘I saw very scary ghost’ (J1. 255)
   [[setan]N’ [seram sekali]AP]N’
   Ghost
   scary very
d. N’ ➔ N’ N
   *Ke rumah Bibi* ‘to the aunt’s house’ (V1. 149)
   [[rumah]N’ [Bibi]N]N’
   house
   aunt

**Verb Phrase**

In syntax, there is transitive and intransitive verb. The first type of verb refers to one that requires one or more objects; and the second type of verb refers to one that does not have objects. A verb phrase is considered as a predicate in some contexts. VP is formed by V only or V + Complement. In the clause (7), the VP only consists of verb *berangkat*, while in the clause (8), the VP consists of *membuang* as the head and NP *sampah* as the object. An intransitive verb will be specified a tree diagram where there is no NP following. The verb *berangkat* in the clause (7) and the constituent *membuang sampah* in the clause (8) have a function as a predicate. Both of them have the same category as the verb phrase.

(5) Adi [[berangkat]V]VP (V1. 151)
   NAME departs
   ‘Adi departs’

(6) Joko [[membuang]V] [sampah]NPVP (V1. 133)
   NAME throws away the trash
   ‘Joko throws away the trash’

The following examples show the phrase structure rules of V’.

(7)

a. V’ ➔ V NP
   [[makan]V [angin]NP]V ‘take the air’ (N2. 4)
b. V’ ➔ V’ PP
   *Papah kerja di sana* ‘Daddy works over there’ (L1.10)
   works over there
c. V’ ➔ V’ AdvP
   flies very high
d. V’ ➔ V DP
   *Aku mau main ini ya* ‘I want to play this’ (J1. 279)
e. V’ ➝ V
   Vivi pulang ‘Vivi goes home’ (J1. 14)
   [pulang] V
f. V’ ➝ AdvP V’
   Papah cepet pulang ‘Daddy quickly comes home’ (L2. 21)
   [[cepet], Adv [pulang] V] V

g. V’ ➝ V NP PP
   Bermain bola di pantai ‘playing the ball on the beach’ (V2. 267)
   [[bermain], V [bola], NP [di pantai], PP V]

Adjective Phrase

Adjective phrases may be attributive (appearing before the noun) as in (8-c) or predicative, as in (8-a) and (8-b), but not all adjectives can be used in both positions. An adjective phrase consists of an adjective which may be preceded and/or followed by other words. The pre-modifier is always an adverb phrase, but the post-modifiers can be an adverb phrase, a prepositional phrase, or even a clause.

(8) a. Cabe itu pedes banget (A3. 75)
   chili is very spicy
   ‘the chili is very spicy’
b. Miss Shasa gendut sekali (J2. 57)
   Miss NAME is very fat
   ‘Miss Shasa is very fat’
c. Aku lihat setan seram sekali (J1. 255)
   1SG see ghost very scary
   ‘I see very scary ghost’

In general, adjective phrases produced by pre-school children are formed by adjective followed by post-modifier adverb. As can be seen in the clauses (10-a) until (10-c). In the clause (10-c), AP has a function as attribute (modifier) that is appearing after the noun. AP seram sekali modified N setan. The following examples show the phrase structure rules of A’.

(9) a. A’ ➝ A
   Roti tawar ‘plain bread’ (A3. 299)
   [tawar] V
   plain
b. A’ ➝ A’ Adv
   gendut sekali ‘very fat’ (J2. 57)
   [[gendut], Adv [sekalı], Adv V]

Adverbiazal Phrase

Adverbiazal phrase is a word group with an adverb as its head. This adverb may be accompanied by modifiers or qualifiers. An adverb phrase can modify a verb, an adjective, or another adverb, and it can appear in a number of different positions in a sentence.

(10) a. Burungnya terbang tinggi banget (A3. 133)
the bird fly very high
‘the bird flies very high’

b. Tinggi burungnya terbang banget

high the bird flies very
‘high the bird flies very’

c. Burungnya tinggi terbang banget

the bird high flies very
‘the bird high flies very’

Adv tinggi and modifier banget are formed a constituent. The movement test is required in order to prove that Adv tinggi and modifier banget formed a constituent. The movement test involves moving the test sequence to the front of the sentence. The movement of the head without being followed by the modifier makes the sentence unacceptable, such as in 10-b) and (10-c). A constituent can be moved as a single unit to a different position within a sentence.

**Prepositional Phrase**

Prepositional phrases have a preposition as the central element of the phrase, which is the head of the phrase. The remaining part of the phrase, usually a noun (phrase) or pronoun, is sometimes called the prepositional complement. In bahasa Indonesia produced by pre-school children P categories involve di, ke, dari, and sama ‘dengan’. The combination of a preposition and a noun phrase is called a prepositional phrase.

(11) a. Bu Ana hilang [di [sawah]w]’ (A2. 94)

NAME lost in the field
‘Bu Ana lost in the filed’

b. di Bu Ana hilang sawah

in NAME lost the field
‘in Bu Ana lost the field’

The utterance Di and sawah in the clause (11-a) form a prepositional phrase. This PP consists of the head di and the complement sawah. The movement of the preposition di without being followed by the NP sawah make the clause in (14-b) unacceptable. The movement test proves that di and sawah form a constituent with the head P and the complement NP.

(12) a. Aku ke rumah Vivi juga (J1. 16)

1SG go to Vivi’s house
‘I go to Vivi’s house too’

b. Aku ke

1SG go to
‘I go to’

The complement is required by a head. In the clause (12-a), PP is formed by P ke and NP rumahnya Vivi as the complement. In the clause (12-b), extraction of NP makes the unacceptable sentence. Based on constituency test, it can be proven that there are PPs in utterances produced by pre-school children. PPs can be formed by the heads P plus NP as complements.

**Determiner Phrase**

A determiner phrase (DP) is a functional category, which are a phrase headed by a determiner. The noun phrase is strictly speaking a determiner phrase, and NP designates a constituent of the noun phrase, taken to be the complement of the determiner. Subiyanto (2013) in his dissertation found that there are some Determiner phrases in the Javanese language. There are three kinds of determiner in Javanese language, such as iki, kuwi, and kae.
In the DP analysis of the noun phrases, determiners govern the referential or quantificational properties of the noun phrases they embed. There are some determiner phrases in Indonesian language produced by pre-school children. In the clauses, a determiner can stand by itself as the head of determiner phrase, as shown in (13-a), and also can be followed by NP. The DP in Indonesian language can be expended to the left or right of NP, such as in (13-b) and (13-c). NP *anjing baik* in (40-b) is separated from D *itu*. It can be proven by inserting a definite modifier –*nya* between *anjing baik* and *itu*. Thus, the clause (40-b) becomes *anjing baiknya itu* *kaya gini ketawa*.

NAME like this
‘Azam likes this’
b. Anjing baik itu kaya gini ketawa (J1. 98)
‘Anjing baik itu’
dog good that
‘that good dog’
c. Itu orang baik, dilindungi itu, itu lho Tuhan (O1. 385)
‘itu orang baik’
that good people
‘that good people’

DP can also be modified by specifier. The specifier of the DP is the possessor. Possessors are marked by the element –*nya*, as can be seen in the clause (14-a). In expressing possessions, pre-school children also often used the word *punya*, as can be seen in the clause (14-b). Possessors can also be formed by pronouns. Pronouns sit in the same position, specifier of the DP, such as in (14-c).

(14) a. Aku lihat anjing cewek loh di [rumahnya *Mbak Asti]* (J1. 96)
1SG see a female dog in *Mbak Asti’s* house
‘I see a female dog in Mbak Asti’s house’
b. [Pesawat *punya Dindut*] (A2. 72)
the plane belongs to NAME
‘the plane is belongs to Dindut’
c. Ini minumku (O1. 317)
this my drink
‘this is my drink’

(15)
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  DP
   |   |   |   |   |
   D' | D' | D' | D' | D' | D' | D' |
  |   |   |   |   |   |   |   |
  Rumah | nya | Mbak Asti |
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Based on the C-structure above, the possessive determiner –*nya* is the head of the phrase *rumahnya Mbak Asti*. The utterance *rumah* is specifier of the D –*nya*. The specifier of the DP is the possessor and this precedes the D’ constituted of the determiner and its complement.

4.1.7. Inflectional Phrase
An inflectional phrase is a functional phrase which has inflection properties (such as tense and agreement). An Inflectional phrase is essentially the same as a sentence, but reflects an analysis whereby a sentence can be treated as having a head, complement and specifier, like other kinds of phrase. Inflectional elements take verbal complements on the observation that they are always followed by a VP. From an X-bar point of view, this suggests that inflections are to be treated as heads as only a head takes complement.

Subiyanto in his dissertation explained that there are inflectional phrases in Javanese language. Javanese language has tense markers arep (akan) ‘will’, aspectuality wis (sudah) ‘perfect affect’, durung (belum) and lagi (sedang), and modal auxiliary isa (dapat) ‘can’, entuk (boleh) ‘may’, kudu (harus) ‘must’ and mungkin (mungkin) ‘may’ (Subiyanto, 2013: 188). In the Indonesian language uttered by pre-school children there are some tense markers such as mau or akan ‘will’, aspectuality markers such as sudah, belum, and lagi and also modals such as bisa ‘can’, boleh ‘may’, and harus ‘should’ were found.

(16) Mamah sudah mandi (L1. 16)
Mama had a shower
‘Mama had a shower’

(17) Papah lagi kerja (L1. 8)
Papa is working
“Papa is working”

(18) Aku bisa bantuan kerja (O1. 14)
1SG can help working
‘I can help working’

Based on the examples above, it can be concluded that the words mau, lagi, and bisa are not adverbs. Adverbs are more flexible; they can be as pre- or post-modifier. Mau, lagi, and bisa have a function as tense marker, aspectuality, and modals as the head of IP. In this context, the inflection functions as the head having VP as the complement. The structure of the IP will be:

(19)

As can be seen in the tree diagram above, the inflection lagi is the head of the IP. The NP is in the same node as I’ and under the node of IP. Therefore, the NP Papah in the phrase structure tree above is the specifier of the utterance lagi kerja. The VP is in the same node as I under the node of I. It can be concluded that the VP kerja as the daughter of I’ and the sister of I is the complement of the head lagi.

IV. CONCLUSION

Based on constituency test, it can be proven that there are NPs, VPs, APs, AdvPs, PPs, DPs, and IPs in the utterances produced by pre-school children. In X-bar theory NP can be formed by N only, N+A or AP, and N+N. VPs can be formed by V only or V plus Complement or Adjunct. Complements or adjuncts can be parts of VP are NP, DP, AdvP, and PP. APs can be formed by A only or A plus Adv. AdvPs may be accompanied by modifiers or qualifiers. An adverb phrase can modify a verb, an adjective, or another adverb, and it can appear in a number of different positions in a sentence. PPs can be formed by the heads P plus NP as complements. DPs are formed by D, NP and
D, or D and NP and inflectional elements take verbal complements on the observation that they are always followed by a VP.

References


