Analysis of Sentence Elements by Using Tree Diagram
of English Department IAIN Padangsidimpuan

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ABSTRACT

Penelitian ini berjudul "Analysis of Sentence Elements by Using Tree Diagram of English Department IAIN Padangsidimpuan" bertujuan untuk mengetahui apakah ditemukan unsur-unsur kalimat menggunakan tree diagram dan mencari tipe unsur-unsur kalimat yang paling sering digunakan dalam menggunakan tree diagram. Penelitian ini menggunakan metode kualitatif-deskriptif, dengan informan penelitiannya adalah mahasiswa bahasa Inggris yang terdiri dari 22 orang. Adapun instrumen pengumpulan datanya adalah wawancara tidak terstruktur dan observasi. Peneliti menganalisis data dengan mengedit data, menggambarkan, dan membuat kesimpulan. Unsur-unsur kalimat yang dianalisis adalah subjek, kata kerja, objek, dan pelengkap. Setelah data diperoleh, dilakukan pengklasifikasian data berdasarkan unsur-unsur kalimat menggunakan tree diagram kemudian dianalisis dengan menggunakan rumus. Dari analisis tersebut dihasilkan bahwa dalam unsur-unsur kalimat yang ditemukan menggunakan tree diagram, unsur-unsur kalimat yang paling dominan digunakan adalah 'Verb'; dalam tipe kalimat sederhana.

Keywords: **Analisis, Kalimat, Unsur-unsur Kalimat, Tree Diagram**

A. Introduction

Syntax is to represent structures of phrases and clauses. However, students of syntax must have understood the X-bar theory and mastered the skills in drawing the correct trees. A student of syntax who has learned the X-bar theory should have a certain competence in phrase structure rules and they should be able to enjoy tree diagram drawing.

Based on the explanation above, syntax is one of skills in drawing the correct trees for students to master and gives them competence in phrase structure rules. The students should be able to represent the sentences. Syntax defines as

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determining the component parts of a sentence. So, the largerst units of syntactic description is called sentence.

Sentence may consist of one or more than one clause, that a clause may consist of one or more than one phrase, that a phrase may consist of one or more than one word. Words are divided according to their grammar, such as noun, verb, adjective, etc. The terms of words, phrases, clauses, and also sentences are very important units in syntax.

Traditionally, sentences are divided into two main constituents: the subject and the predicate. The predicate contains at least a verb. So, a subject and verb are called elements of simple sentence. It means that a simple sentence have only one clauses.

For example: I learned English

Simple sentence can be identified in terms of sentence elements such as subject and verb. In example above, the subject is *I,* the verb is *learned* and the direct object is *English*.

In syntax, the elements of sentence are marked and labeled. However, there are many other method of marking the element such as, bracketed diagram, Reed-Kellog diagram, and tree diagram. Studying syntax seems easy for students, if it talks about tree diagram. Many students often find tree diagram a daunting task, so that tree diagram is difficult and complicated. This happens because they fail to understand the properties of the tree diagram.

Their problems above are related to that has been stated by Long in Susan A. Steffani the fact that many students have difficulty identifying the basic structures of English, such as nouns, verbs, and adverbs. It is of little surprise that they also struggle with identifying complex sentences.[2] Instead, the basic structures of English seems to solve this problem by telling us first how the whole element (s) are/is spilt into parts and yet how these parts are combined to form larger elements till they reach to the highest level which is the sentence.

Based on the background of the study above, this research is dealing in sentence elements by using tree diagram, and the sentence is used simple sentence

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[2]Susan A. Steffani, *Identifying Embedded and Conjoined Complex Sentences: Making it Simple*, California: State University Chico, 2007, p.44.

with the elements such as: subject, verb, and object. The subject is also known as noun phrase, verb as verb phrase, and object, complement as noun phrase or adjective phrase, and prepositional phrase.

B. Theoretical Descriptions

1. Definition of Analysis

Analysis is one way to found solution of the problem. Analysis is the study of planned complex series of procedures to decide the quickest, most efficient order for carrying out those procedures.[3] Analysis is collect information that can be used to develop a profile of the language needs of a group of learners in order to be able to make decision about the goals and content of a language course.[4] Based on those explanations, the writer concluded that analysis is the methods for found solution of the problem and to repair.

2. Sentence

Sentence is a group of words that represent a complete sense. Further, sentence is a group of words that contains at least one subject and one verb and expresses a complete thought.[5] Then, Giorgio states that a sentence is a coherent word combination, expressing a complete thought.[6] Another approach by defining a sentence as a string of words beginning with a capital (upper case) letter and ending with a full stop (period). This is a formal definition: it defines a term by the form or shape of what the term refers to. The following are the examples of sentences:

1) Birds fly.
2) The sky darkned.
3) Tom was watching TV, and Anna was washing the dishes.
4) When Tome came home, Anna was sleeping.

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[3]A. S. Hornby, A P Cowie, et. al., *Oxford Advanced Learner's Dictionary of Current English*, *Op. Cit,* p. 29.
[4]Jack C. Richards, *Curriculum Development in Language Teaching* (Cambridge: University Press, 2001), p. 90
[5]Alice Oshima and Ann Houge, *Introduction to Academic Writing*, USA: Pearson Education Inc, 2007, p. 11.
[6]Giorgio Graff, *200 Years of Syntax: A Critical Survey*, Amsterdam: John Benjamins Publishing, 2001, p.113.

5) The bell rang when I took a bath.[7]

As stated above, Charles defined a sentence is something that expresses a complete thought. He also said, in writing we begin with a capital letter and end with a period.[8] Then, Victoria et. al., defined sentences are composed of discrete units that are combined by rules.[9] This system of rules explains how speakers can store infinite knowledge in a finite space our brains.

From the definitions above, the researcher concluded that a sentence is a meaningful group of words that arranged systematically that usually consists of subject, predicate and it begins with capital later and ends with an end mark -full stop, question mark, or exclamation mark.

3. Kind of Sentences

There are four kinds of sentences; simple sentence, compound sentence, complex sentence, and compound complex sentence. Before it, sentences can be classified based on the function (purpose) of the sentence. Concerning the purposes, there are four kind of sentences, namely declarative, interrogative, imperative, and exclamatory.[10] *Declarative* means the speaker makes a positive or negative statement. Then, *interrogative* means the speaker asks a question in the form of yes/no, wh-, or tag. Later, *imperative* means the speaker gives a command or makes a request. The last, e*xclamatory* means the speaker expresses strong feeling.

Moreover, the sentence may be classified according to structure; simple, compound, complex, or compound complex. As Steffani said sentences can also be identified based on the structure of the sentence. Each type is explained or given example in detail below:[11]

1. Simple sentence contains one independent clause; has a subject and predicate; conveys one thought; these sentences can be long or short; simple sentences

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[7]George E. Wishon and Julia M. Burks, *Let's Write English*, New York: litton educational publishing, 1980, p. 1.
[8]Charles W. Kreidler, *Introducing English Semantics*, New York: Routledge, 1998, p. 62.
[9]Victoria Fromkin, et. al., *An Intoduction to Language*, Victoria: Nelson Australia, 2005, p. 104.
[10]Angela Acott Smith and Kay Curtis, *Grammar: Part II, Parts of the Sentence*, Academic English: The National Literacy Secretariat of Human Resources Development Canada., 1999, p. 29.
[11]Susan A. Steffani, *Identifying Embedded and Conjoined Complex Sentences: Making it Simple*, California: State University Chico, 2007, p. 45.

may contain a compound noun (e.g., The boy and girl stood by the door) or verb (Shelly washes and dries the dishes).

2. Compound sentence contains two or more independent clauses (simple sentences) conjoined by a coordinating conjunction (for, and, nor, but, or, yet, so); they have two or more subjects and predicates.

3. Compound complex sentence contains two or more independent clauses connected by a coordinating conjunction and one or more dependent clauses (generally conjoined to the independent clauses with a subordinating conjunction or relative pronoun); these sentences combine a complex sentence with a compound sentence.

4. Complex sentence joins one or more dependent clauses to an independent clause; the dependent clauses can be found at the beginning or end of the sentence, or embedded within it; these sentences usually have a subordinating conjunction (e.g., because, when, although) or relative pronoun (e.g., that, which, who).

4. Sentence Elements

As mentioned above that sentence is a group of related words that includes subject and verb. It's also has the elements. The elements include subject (S), verb (V), object (O), or complement (C). Complements can be adverb (Adv) or adjective (Adj). Related to this, Walter Schweikert[12] states there are two parts of elements, namely lexical elements such as: nouns, adjective, and prepositions and functional elements such as determiners, complementizers, and auxiliaries, etc.

5. Simple Sentence Elements

Sidney G. and Nelson states the sentence elements are grammatical, not semantic, categories. The following elements (major sentence constituents) function in the basic sentence structures:[13]

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[12]Walter Schweiker, *The Order of Prepositional Phrases Structure of The Clause*, Amsterdam: John Benjamins Publishing Company, 2005, p.7.
[13]Sidney Greenbaum and Gerald Nelson, *An Introduction to English Grammar*, London: Pearson Education, 2002, p. 33.

a. subject (S)

b. verb (V)

c. Object (O)

   direct object (dO O)

   indirect object (iO)

d. Complement (C)

   subject complement (sC C)

   object complement (oC A)

   adverbial complement (Ac)

   1) SV: subject + intransitive verb

      Someone (S) *is talking* (V).

   2) SVA: subject + verb + adverbial complement

      My parents (S) *are living* (V) *in Chicago* (aC).

   3) SVC: subject + linking verb + subject complement

      I (S) *feel* (V) *tired* (sC).

   4) SVO: subject + transitive verb + direct object

      We (S) *have finished* (V) *our work* (dO).

   5) SVOO: subject + transitive verb + indirect object + direct object

      She (S) *has given* (V) *me* (iO) *the letter* (dO).

   6) SVOA: subject + transitive verb + direct object + adverbial complement

      You (S) *can put* (V) *your coat* (dO) *in my bedroom* (aC).

   7) SVOC: subject + transitive verb + direct object + object complement

      You (S) *have made* (V) *me* (dO) *very happy* (oC).

   It concluded, a sentence needs at least two elements, and it can be more than like the examples above.
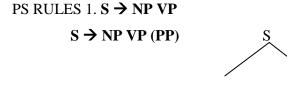
6. Phrase Structure Rules

   Phrase structure rules that make up an important part of syntax. The rules which can be drawn as a tree or equally written. This is just the way of drawing a basic phrase structure rules that says that a sentence consists of a noun phrase followed by a verb phrase. Richard Veit also symbolizes some of the common symbols used in phrase structure rules as follows.

Table 2.2 The Common Symbols that Used in Phrase Structure Rules[14]

No	Abbreviations		No	Abbreviations	
1	S	Sentence/ clause	11	PP	Prepositional Phrase
2	NP	Noun Phrase	12	VP	Verb Phrase
3	N	Noun	13	V	Verb
4	Art	Article	14	Pron	Pronoun
5	N_P	Proper Noun	15	N_C	Commons Noun
6	V_T	Transitive Verb	16	V_I	Intransitive Verb
7	V_L	Linking Verb	17	Prep	Preposition
8	Adj	Adjective	18	PP	Prepositional Phrase
9	Pro_p	Personal Pronoun	19	Cj_C	Coordinating Conjunctions
10	CompP	Complement Clauses	20	Cj_{CL}	Complementizing Conjunctions (that)

In transformational grammar, phrase structure rules are described by means of tree diagram called "phrase-makers"[15] which show the hierarchical structure of the sentence. The steps of derivation of a sentence are:[16]

PS RULES 1. **S → NP VP**

      S → NP VP (PP)

Diagram 2.1 Phrase Structure Rules Sentence (S)

PS RULES 2. **NP → Art N**

      NP → Art N_C

      NP → N_P

      NP → N

      NP → Adj N

      NP → Art Adj N

      NP → NP Cj_C NP

      NP → CompP

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[14]Richard Veit, *Discovering English Grammar*, USA: Houghton Mifflin Company, 1986, p. 25.
[15]*Ibid.,* p.49.
[16]*Ibid.,*p.14-15.

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                S
             /     \
           NP       VP
          /  \
        Art    N
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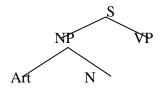
Diagram 2.2 Phrase Structure Rules Noun Phrase (NP)

PS RULES 3. **VP → V NP**

        VP → V$_I$

        VP → V$_T$ NP

        VP → V$_L$ NP

        VP → V$_L$ AdjP

        VP → V   (NP) (VP)

        VP → VP Cj$_C$ VP

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                S
            /        \
          NP          VP
         /  \        /   \
       Art   N      V     NP
                         /  \
                       Art    N
```
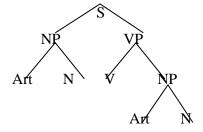
Diagram 2.3 Phrase Structure Rules Verb Phrase (VP)

PS RULES 6. **PP → Prep NP**

        PP → PP Cj$_C$ PP

PS RULES 7. **CompP → Cj$_{CL}$ S**

PS RULES 8. **AdjP→Adj CompP**

The tree diagram above can be explained more detail as follows:

a.   S consists of NP and VP

b.   NP consists of Art(article) and N

c.   VP consists of V and NP; V$_L$and AdjP

7. The Kinds of Diagram

Generally, many people find sentences to put their analysis into a visual form. As stated R. Veit,[17] a student of grammar to visualize and better understand

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[17]Richard Veit, *Discovering English Grammar...,* p.12.

the makes up of a sentence, they can help to use a diagram. It means that, if we want to make up of a sentence, it helps us to visualize and better understand for using a diagram. He also divided into three kinds of diagram, namely: Labeled Bracketed Diagrams, Reed-Kellog Diagrams, and also Tree Diagrams. So, it will be explained more clearly in the following:

One kind of diagram consists of brackets placed around constituents. Each bracket can be labeled with a subscript to show the type of constituent it is. Drawing bracketed diagrams essentially follows the same principles for drawing tree. Then, put on the left member of the bracket pairs. The researcher can conclude, labeled bracket diagram have several disadvantages. Although the word order of the sentences is preserved an improvement over reed-kellog diagram are rather difficult to read. Furthermore, the syntactic information given is often incomplete.

Next, L. Ben Crane et. al.,[18] explained that the Reed-Kellog diagrams is reasonably simple, and it provides a somewhat useful presentation of relationships within sentence. Besides, Richard Veit[19] said that Reed-Kellog diagrams show us much about the sentence's structure, but they too have limitations. Constituents are not labeled, the relationship of smaller constituents to larger ones is not always clear, and the diagrams do not always capture the sentence's word order.

8. Tree Diagram

In linguistics, tree diagrams are a well-known and commonly accepted representation of the constituent analysis of sentences. These tree diagrams are also known as 'syntax trees' in the context of generative grammar.[20]

As stated above, tree diagram shows among other things that the phrase divides into two branches, one of the verb and the other noun. From some explanation above, the researcher add information about tree diagram. Like stated by Richard Veit, tree diagram has some advantages, they are:[21]

a) Tree diagrams help us to see the structure of sentences.

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[18]L. Ben Crane, et. al., *An Introduction To Linguistics*, USA: Little Brown and Company, 1981, p. 103.
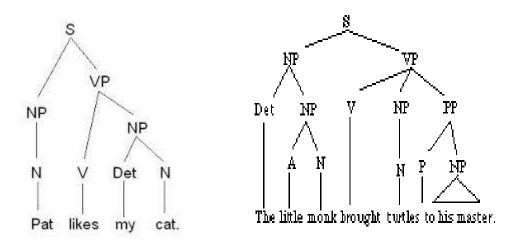
[19]Richard Veit, *Discovering English Grammar...,* p.14.

[20]Harm Brouwer, *Towards Automatic Optimal Rendering of Three Dimensional Syntax Trees*, Thesis: University Of Groningen, 2008, p.5.
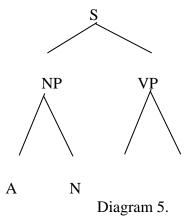
[21]*Ibid.,* p.15.

b) Tree diagram make its visual display meaningful for us.

c) Tree diagram makes us to be able to look at any tree diagram and read the sentence across the bottom.
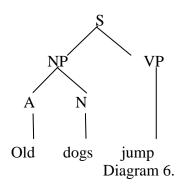
For example:

There are three steps/procedure for making sentence, they are: [22]

Diagram 5.

Step one is use the phrase structure rules to make a syntactic tree structure S→ NP V, NP→ Art N, as shown above. Step two is go to the mental lexicon; look for words that match the lexical categories in the tree. Such as dog is a Noun, jump is a Verb, etc. The next step is insert the words with the matching lexical categories under the lexical category labels in the tree, as shown above.

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[22]Joshua Crowgey, *Fundamentals of Grammar Phrase Structure Rules*, Department of Linguistics University of Washington, 2012, p. 62-63.

1. *Old dogs jump.*

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                    S
              /          \
           NP              VP
          /   \             |
         A     N            |
         |     |            |
        Old   dogs        jump
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Diagram 6.

C. Research Methodology

The researcher uses the descriptive qualitative method. It means that the research is based on the characteristics of phenomena and the data were analyzed using the description not numbers. It means that the researcher only intends to describe the data obtained as they are found in the fields. It is based on the problem statement. Here the writer gives the description of the adjective clauses in written language using the tree diagram.

D. Conclusion

Based on the result of the test done by the students, and interview done by the researcher about identifying sentence elements by using tree diagram. The researcher would like to write the conclusions of this research as the following:

1. Analysis of sentence elements by using tree diagram English Department IAIN Padangsidimpuan are:
   a. The students were lack of learning word class or misplaced the use of word class and inaccurate labelling of sentence elements.
   b. Further, they also represented phrase structure rules treatment as follows:
      1) NP consists of Adj and compP.
      2) NP consists of N and V_L.
      3) NP consists of compP and S.
      4) NP consists of art, N, and V.
2. The dominant sentence elements by using tree diagram were:
   a. The problems facing students to determine lexical and functional elments (word class) adjective.
   b. The problems facing students to represent phrase and phrase stucture rules such as; phrase structure rules verb phrase, and adjective phrase.

E. Suggestion

Considering the importance of understanding the sentence structure especially in the study of syntax, some suggestions are made. For students who are willing to conduct a research on the same topic, it will hopefully give a clear understanding in analyzing pop music using the syntactical study. It is also hoped that there are other students who will conduct study on related topic from different angle, hoping that there will be new findings dealing with syntactical study. Finally, the researcher hopes that this research can be used as reference for those who are interested in studying syntactical study.

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