

# **IMPROVING STUDENTS' STRUCTURE MASTERY BY USING NUMBERED HEADS TOGETHER COOPERATIVE LEARNING STRATEGY**

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## **ABSTRACT**

*The problems of this research were how to improve students' structure mastery by using Numbered Heads Together cooperative learning strategy and how to motivate the students to apply it in English learning. The research type was a classroom action research. The subject consisted of 60 students of the third semester of English Department at University of Indraprasta PGRI in 2015-2016 academic year. The research data were collected by using pre-test and post-test. Data on students' structure mastery were analysed by using descriptive and statistical analysis, to know the improvement in mean students. The result of cultivation data identified that the average score of post-test was 67.4 and the average score of pre-test was 55.5. It indicated that the score of post-test was higher than pre-test and teaching English language structure by using Numbered Heads Together can improve students' structure mastery.*

**Keywords:** *Cooperative Learning, Structure Mastery and NHT*

## **A. INTRODUCTION**

Language and the ability to communicate is an essential building block of human relationships. It helps us share information, ideas and feelings with one another, making language structure and development critical to groups of people and on an individual basis. Language development begins in infancy and continues throughout a person's life. Considering the importance of the language, in Indonesia, English teaching aims at mastering four basic skills of language: listening, speaking, reading, and writing. Nowadays, the students are expected to master those four skills in order to be able to use English communicatively. The aim of teaching and learning will not be successfully achieved if the language teaching does not consider the language components such as grammatical structure, vocabulary, spelling, and pronunciation. Therefore, grammar needs to be mastered by the students since it is the basic rule of language.

Nevertheless, students at general do not like learning structure. They have a harder time learning rule systems like grammar. Somehow, language structure needs to be taught out of context, despite the enormous push to only teach it in context. Using grammar and conventions should clearly be incorporated into the teaching of good writing, but students do not learn the rules from correcting their mistakes. Teaching grammar out of context does not necessarily mean doing thousands of worksheets and listening to lectures. When language structure is never explicitly taught, students do not know that they are supposed to be learning it. For those who are gifted are frequently also not interested in spending time doing things that are “boring,” and most grammar instruction is boring.

By seeing those facts, Numbered Heads Together as a learning strategy is needed in the language classroom due to the way they go about learning rather than to force beyond their control. Most students can learn how to use strategies more effectively; when they do so, they become more self-reliant and better able to learn independently. They begin to take more responsibility for their own learning, and their motivation increases because they have increased confidence in their learning ability and specific techniques for successful language learning.

## **B. THEORETICAL REVIEW**

### **1. Structure Mastery**

Each language has a special structure of the language concerned. Government of Saskatchewan Education stated that each language is a unit in the vocabulary and the sentences arranged and pronounced to create and deliver meaning. Grammar or language structure is based on the referring to the analysis of grammar in language descriptive which explains the principles of language structure and arrangements words. Grammar is a formal description of language structure. ([http://www.susked.gov.sk.ca/docs/ella\\_gram.html](http://www.susked.gov.sk.ca/docs/ella_gram.html))

The basic function of language structure is to help people communicate with one another through speech, whether verbal, written or through sign language. Although there are many different languages, they share the same basic attributes of sounds, word and sentence formation and meaning and cadence of speech. In English, it has the main part which is included in a sentence, i.e. S (Subject), V (Verb), O (object).

When someone has already mastered in reading the text, thus in that reading activity is involving the cognitive and linguistic process which are

synchronizely combined, where the mental process namely understanding the meaning and interpreting the text effected by factors. One of factors affect is the knowledge of the language structure such as syntax, semantic, and pragmatic.

Learning structure is not only important, but also is needed by certain requirements applied. First, point proposed is the structure comes out from English, not the Latin one. Second, it also must be rational and has a good basic foundation. Structure is logically should be accounted for. Achmad (2002: 113) said that in a view of grammatical which assumes the language structure as hierarchy subsystem, the sentence is only one unit remains bound to the larger unit, or can stand alone. There is a possibility of a relative in a larger unit that sentence stand alone, has the final intonation pattern, the actual and potential consisting of the clause. In conjunction with syntactic units (words, phrases, and clauses), the sentence can be viewed as a construct composed of the basic constituents, which is usually a clause, with final intonation, and if necessary fitted with conjunctions. Thus, there are two important issues related to the sentence, the basic constituents (words, phrases, and clauses) and the final intonation.

Kridalaksana (2008: 103) said that the sentence is (1) unit of language that is relatively self-contained, have final intonation patterns and actual or potential consists of the clause, (2) clause that is part of cognitive-free conversations; proposition that a single unit clause or a combination of clauses, which form a free unit; minimal answers, exclamations, greetings, and so on, and (3) the grammatical construction consisting of one or more clauses which are arranged based on certain patterns and can stand alone as a single unit.

Completeness of the speech was characterized by the structure of the sentence - the subject and verb, and optionally some object - and the realization of a complete thought or grammatical meaning.

Mastery can be defined as the ability to understand and apply in a concrete form. What is meant by understanding in this matter related to the theory or the existing rules, while applying can be understood as a manifestation of the theory to a tangible form. Thus, sentence structure mastery means the ability to absorb the theory of sentence (either functions, units, or form) and be able or capable of creating standard forms in accordance with the rules and regulations.

Learning of the language structure is rather than as a formal study but as a tool to solve problems in certain situations. In mastering the concepts and principles of structure by using this way, students will develop ways of thinking

and at the same time they will build vocabulary, terminology, and principles that are useful in reading comprehension.

Reading English text, students often do not understand the meaning of a sentence even though he understood all the words contained in that sentence. This often occurs, especially in long and complex sentences. By seeing those facts, there should be techniques to help students in understanding a sentence, such as: 1) Analysis of sentences, 2) Knowledge of punctuation, 3) Introduction of terms, and 4) Knowledge of key words.

The meaning of things elaborated above is to understand the reading text, it is important to emphasize principles of mastery and understanding the common sentence patterns, and it must be drilled deeply and continuously by using those common rule.

Structure is often termed with a grammar, grammatical structure, or the rules of language. Through the structure of language structure, someone can understand (receptive) and deliver (productive) means of communication. Because the structure of language is essential, thus the mastery of language structure is needed. The structure of the language indicates a rule or rules of language. If the rules of the language is understood and mastered by anyone, it allows understanding the speech of others properly, and can convey ideas, thoughts, feelings, and volition as well as the others.

By seeing the exposure to theories above, the essential of the ability to understand the structure of language is a skill or ability to master the system of the language rules which consists of morphology, and syntax (sentence structure), and understand the relationship between a linguistic unit, and parts of a sentence such as words, phrases, and clauses in accordance with the prevailing system of language.

There are many different ways of organizing words into sentences. It can be understood that the basic parts of a sentence can be combined and arranged in countless ways. So as we work to improve our skill, it is important to understand what these basic structures are and how to use them effectively. It will be begun by introducing the traditional parts of speech and the most common sentence structures, as follow:

### Parts of Speech

PART OF SPEECH	BASIC FUNCTION	EXAMPLES
1. noun	names a person, place, or thing	<i>pirate, Caribbean, ship</i>
2. pronoun	takes the place of a noun	<i>I, you, he, she, it, ours, them, who</i>
3. verb	identifies action or state of being	<i>sing, dance, believe, be</i>
4. adjective	modifies a noun	<i>hot, lazy, funny</i>
5. adverb	modifies a verb, adjective, or other adverb	<i>softly, lazily, often</i>
6. preposition	shows a relationship between a noun (or pronoun) and other words in a sentence	<i>up, over, against, by, for</i>
7. conjunction	joins words, phrases, and clauses	<i>and, but, or, yet</i>
8. interjection	expresses emotion	<i>ah, whoops, ouch</i>
9. article	identifies and specifies a noun	<i>a, an, the</i>

Betty Scrhampfer Azzar (2006:348-355)

## 2. Numbered Heads Together Strategy

Numbered Heads Together is a cooperative learning strategy that holds each student accountable for learning the material. Students are placed in groups and each person is given a number from one to the maximum number in each group. The teacher poses a question and students "put their heads together" to figure out the answer. The teacher calls a specific number to respond as spokesperson for the group. By having students work together in a group, this strategy ensures that each member knows the answer to problems or questions asked by the teacher. Because no one knows which number will be called, all team members must be prepared.

This cooperative learning strategy promotes discussion and both individual and group accountability. This strategy is beneficial for reviewing and integrating subject matter. Students with special needs often benefit when this strategy is

used. After direct instruction of the material, the group supports each member and provides opportunities for practice, rehearsal, and discussion of content material.

Stone (2000:72) recommended Numbered Heads Together to be implemented in teaching reading. Stone said that, NHT is a simple four-step structure which strengths are in building mastering and in reviewing previously learned information. In step one, the students on each team number off from 1 to 4. In step two, on a team of only 3, team member #3 answers when number 3 and 4 are called. On a team of 5, team members #4 and #5 both answer when number 4 is called. The teacher then asks a high consensus question. Rather than asking a simple knowledge or comprehension question, ask a question with multiple responses. In step three, the students put their head together, discuss the correct answers and make sure that everyone knows the answer. In step four, the teacher calls a number and those students raise their hands to respond. (Stone, 2000: 72).

Stone also suggested what he called as Heads Back Together, i.e.: when a teacher asks a question and only a couple of the group respond, the teacher should have all the groups put their heads back together. The teacher might say, “Not enough #2’s have their hands up, put your heads together and make sure all #2’s can answer the question.” Teacher may also vary the order of numbers called to respond by using a spinner, dice, or pulling numbers from a hat.

### **C. METHODOLOGY**

The method used in this research was classroom action research (CAR) focused on improving students’ structure mastery by using Numbered Heads Together learning strategy. The subject of the research consisted of 60 students of the third semester of English Department at University Indraprasta PGRI in 2015-2016 academic year.

This research had one dependent variable and one independent variable: (1) the independent variable of this research was the teaching using Numbered Heads Together; (2) the dependent variable of this research was structure mastery. It was empirically by the students’ structure mastery of using a learning strategy, Numbered Heads Together. “The variable that the independent variable is presumed to affect is called a dependent variable, it depends on what the independent variable does to it, how it affects it.” (Fraenkel and Wallen, 2003:43).

In collecting data, the instruments to be used: (1) test consisted of pre-test and post-test; (2) observation. Test after the first treatment and test after the

second treatment administered to find out the improvement of the students' structure mastery. The observation was administered to measure the characteristics of the students upon the application by using Numbered Heads Together learning strategy to support the data of the students' improvement in structure mastery.

The activities of the research used the following procedures: (1) The researcher observed the previous students' structure mastery average, (2) The researcher planned the action, constructing the plan for the treatment by using Numbered Heads Together learning strategy, (3) The researcher observed the classroom while implementing the actions, (4) The researcher reflected the results of class observation in the second cycle. (5) Analyzing the results of structure mastery test in the second cycle quantitatively and then classified them qualitatively.

#### **D. FINDINGS AND DISCUSSION**

This research was conducted in three meetings. The implementation of Numbered Heads Together started from the first meeting. Before asking the students to solve the structure, researcher introduced the topic that would be discussion. It helped the students so much because they could prepare themselves and reviewed what they know about the topic. In the first meeting, the researcher also introduced the technique that would be applied. Researcher explained the step of Numbered Heads Together clearly. Although the students were confused at the beginning, it was running well. In the next meeting, the researcher did not need to explain as much as the first meeting. Researcher just reviewed and reminded a little about procedure the strategy and technique. As the result, the students could perform better than the previous meeting. They were more enthusiastic, than the first meeting. In the third meeting, the students were no shy anymore to present their responses in that cooperative learning. They could live up the class as everybody had a chance to give responses. It means that there was no dominance in the group.

Researcher gave hints to the students and introduced the topic as well. Then researcher moved to give the question or case of structure. And the last, in post-activity, researcher gave a quiz to be answered by the students individually.

Numbered Heads Together was placed in whilst learning activity. However, the steps were modified from Kagan's structure. Kagan (1989) pointed

out that after dividing the group and giving numbers, the teacher can simply poses the question and then asks the students to answer. Then, students have to put their heads together to make sure that everyone in the group knows the answer. After that, the teacher calls a number and the students who has that number had to answer the question. In this study, each group had name. It was based on letter A to F. Then, researcher asked a question and made sure that all groups let each member knew the answer. Then researcher called a number and its alphabet. The pointed students had to answer the question. Giving name to each group could case her to observe the teaching and learning while scoring the students' participation. Thus modification did not change the original version so much. Even it helped the teacher to manage Numbered Heads Together technique to apply well within the limited time and great numbers of students.

The teacher's role was not dominant. Researcher involved the students in the whole activities. Researcher took role as an organizer, an observer, a feedback organizer, and a prompter as argued by Harmer (1998). Those roles were changed based on the activities. Researcher was an organized at the beginning of the class. Researcher gave a clear introduction of what they should do and should not do. Researcher always let the students knew how long they had to finish the task. Moreover, researcher always reminded the students about the time. It was really helpful because the students could finish the task on time. As a feedback organized, researcher managed turn-taking in asking and answering section. Where the students gave false answer, researcher gave chance to another group to answer.

By using Numbered Heads Together, the students were more active. Moreover, it created better classroom relationship. For instance, teacher-students relationship was better as the teacher gave chances for every student to participate. While students-students relationship was also good as they cooperated to solve the problem together. They could give their opinion in discussing section. It led to cooperative interaction among the students in a group. Therefore, the communication between teacher-students and students-students were good during the implementation of the technique. At the end of the implementation of the technique, the teacher always gave a quiz. The points of each meeting were concluded.

On the basis of the research, before the treatment, students' average score was was 55.5. Then after the treatments, data on the students' structure were collected in line with the instruments (tests, questionnaires, and observation) and



were analyzed using the scoring system, tabulating, percentage, classification, calculating the average score, from the first treatment, the researcher got the average score of the students reached 67.4.

#### **E. CONCLUSION**

From the discussion above, it could be stated that Numbered Heads Together was successfully implemented in improving students' structure mastery. It worked for both, group and individual works. Group work encouraged them not to be dominant in the discussion section. Even it gave them chance to participate. It can be shown from the students' increasing average in structure score. In the first treatment, the students' average was 55.5, then, on the last treatment, the students' average increase to be 67.4; (2) the use of Numbered Heads Together as learning strategy could improve students' structure mastery significantly.

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