

THE USE OF NUMBERED HEADS TOGETHER TECHNIQUE IN TEACHING SIMPLE PAST TENSE

(A Quasi-Experimental Study at the Tenth Grade Students
of SMA Negeri 1 Cibeber)

by

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Abstract

The research was aimed at discovering whether Numbered Heads Together technique is effective to improve students' ability in simple past tense and finding out the student's responses toward this technique. The quasi-experimental design was utilized in order to collect the data. This quantitative research involved two classes of tenth grade at one senior high school in Cianjur in which one class was assigned as the experimental class and the other one was assigned as the control class. The instruments used were pre-test, post-test, and questionnaire attitudes towards the Numbered Heads Together technique. The pre-test was conducted in which the pre-test mean scores were the bases in identifying the initial learning framework of the participants. After conducting the selected lessons that employed the Numbered Heads Together technique in experimental class and employed Grammar Translation Method in control class, the students of both classes were given a post-test. The gain score of the two classes were compared by using Independent t-test. Results showed that the significance value was less than the significance level which was $0.032 < 0.05$. It means that the Numbered Heads Together technique is effective to improve the students' ability in simple past tense. Based on the questionnaire analysis, the findings showed that most of the students agreed that employing the Numbered Heads Together technique helps them to be more confident in term of participating because of group encouragement and benefits them to understand the hard concept of the learning material. Thus it can be concluded that the students' responses toward the Numbered Heads Together technique were positive.

Keywords: *Numbered Heads Together, cooperative learning, simple past tense*

I. Introduction

English is a foreign language in Indonesia and it is studied in formal education from elementary school to university. As one of the subjects that is examined in the national exam, the English is the main subject and an obligatory to be studied by the students. Based on the

Education and Culture Minister Regulation (Permendikbud) no. 21 year 2016, one the English language teaching scopes for senior high school in Curriculum 2013 is comprehend the supporting competencies. The supporting competencies included linguistic competence such as the ability to use grammar, vocabulary, pronunciation, and writing arrangement.

Grammar is very necessary to learn because with grammar the students can communicate clearly especially in writing and speaking. As Harmer (2010: 32) in Syukron et al (2016: 2) states that grammar can thus be partly as knowledge of word can go where and what form these word should take. Studying grammar means knowing how different grammar element can be strung together to make chain of words. But in fact, when the students learn English at school, grammar is one of the subjects that avoided by the students. It is reasonable, because grammar covers many tenses with different functions and formulas. Beside that there is the change of some verbs based on the tenses that we use, including in simple past tense.

When the writer did the observation in tenth grade of SMA Negeri 1 Cibeber, the writer found that the students feel confused to understand and hard to memorize the lessons especially in learning simple past tense. It could cause by some factors, one of them is the teaching technique. Hence, the teacher must apply the easiest way to teach English especially teaching simple past tense, to make the students not only get the material but also enjoy the method.

Cooperative learning as one of teaching methods is alternative way in teaching learning process. According to Haydon et al. (2010: 224) states that cooperative learning strategies are effective because they increase pupil response opportunities, provide more immediate and frequent feedback, increase the number of complete learning trials, and offer students the opportunities to serve as teachers and learners. Cooperative learning has many kinds of techniques, one of the techniques is Numbered Heads Together.

According to Kagan in Maheady et al (2006:27), NHT involves dividing the class into small (4 members), heterogeneous learning teams within which pupils number themselves (1 to 4). Pupils “put their heads together” in response to each teacher question, come up with the best answers they can, and make sure that everyone on the team knows the answer. The activity in NHT technique is expected to train the students to socialize and help each other. NHT can grow the responsibility among students because each student must give a contribution to their group for the best result in doing any assignment. According to Huda (2014: 138), NHT technique can

be apply in all of the subjects and class level.

Based on the explanation above, the writer would like to conduct an experimental research at tenth grade students of SMA Negeri 1 Cibeber that concern to the use of Numbered Heads Together technique in teaching simple past tense.

Based on the background the writer conducts the study aim is to answer 2 research questions:

1. How the Numbered Heads Together technique effective to improve students' ability in simple past tense?
2. What are students' responses toward Numbered Heads Together technique applied in the classroom?

II. Literature Reviews

A. Simple Past Tense

According to Azar (1992: 18) says that the simple past is used to talk about activities or situation that began and ended in the past. While according to Macella Frank (1997: 49) as cited in Hizbullah (2010: 7) states that the simple past tense represents definite time, it refers to event that was completed before the statement is made.

The simple past tense formed with subject + auxiliary verb did + main verb. The simple past tense is formed with the past form of the verbs which may be either regular, i.e. by adding -ed to the infinitive form (incidentally, most verb are regular) or irregular which must be learned and memorized in each case (Mahmud, 2003:88).

According to Azar (1992: 19), here are the forms of the simple past tense.

Table 1. Forms of Simple Past

Statement	{I-You-She-He-It-We-They}	<i>worked</i> yesterday. <i>ate</i> breakfast.
Negative*	{I-You-She-He-It-We-They}	<i>did not (didn't)</i> work yesterday. <i>did not (didn't)</i> eat breakfast
Questions*	<i>Did</i> {I-You-She-He-It-We-They}	<i>work</i> yesterday? <i>eat</i> breakfast?
Short Answer	Yes, No, {I-You-She-He-It-We-They}	<i>did.</i> <i>didn't</i>

*Note: *Did* is not used with *was* and *were*.

According to Quirk and Greenbaum (1973: 28), lexical verbs in English considered into

two heads: regular (such as *call*) and irregular (such as *drink*). Regular verbs always end with a *-d* in the simple past, but we do not always pronounce the *-d* ending in the same way. In another statement Quirk and Greenbaum (1973: 28) says that we usually add *-ed* to the base form of the verb: *I play – I played, I open – opened*. Irregular verbs differ from the regular verb. It is typically, but not necessarily, has variation in their base vowel: *write – wrote – written*.

Based on the explanation above, it can be seen that the regular verb and irregular verb have different rules in their four principal parts. For the regular verbs, the past tense and past participles forms are spelt by adding *-d* or *-ed* to base form. While, for irregular verbs the past and past participles must be memorized because irregular verbs have unpredictable past tense and past participles forms.

B. Grammar Translation Method

The purpose of the Grammar Translation Method was to help students read and understand foreign language literature (Larsen-Freeman, 2000: 11). In order to communicate accurately, meaningfully, and appropriately skills and practice students need are provided using the Grammar Translation Method (Fish, 2003 in Mart, 2013: 103).

According to Prator and Celce-Murcia (1991) as cited in Esmaeil Heydari Asl et al (2015: 19), the characteristics of Grammar Translation Method are : (1) Classes are taught in the mother tongue, with little active use of the target language; (2) Much vocabulary is taught in the form of lists of isolated words; (3) Long elaborate explanations of the intricacies of grammar are given; (4) Grammar provides the rules for putting words together, and instruction often focuses on the form and inflection of words; (5) Reading of difficult classical texts is begun early; (6) Little attention is paid to the content of texts, which are treated as exercises in grammatical analysis; (7) Often the only drills are exercises in translating disconnected sentences from the target language into the mother tongue; and (8) Little or no attention is given to pronunciation.

Meanwhile the techniques of Grammar Translation Method as states by Larsen-Freeman (2000: 19) are: translation of literary passage; reading comprehension questions; antonyms, anonyms; fill in the gaps; memorization; and use words in sentence.

C. Cooperative Learning

Cooperative learning is now utilized in schools and universities throughout most of the world in every subject area and from preschool through graduate school and adult training programs (Johnson & Johnson, 2009: 365). Slavin (1996) as cited in Tsay and Brady (2010: 79) states that cooperative learning is teaching method in which students work together in small groups to help one another learn academic content.

There are some kinds of cooperative learning techniques, Olsen and Kagan in Kessler (1992: 88) describe the example of cooperative learning activities are Three-Steps-Interview, Roundtable, Think-Pair-Share, Jigsaw, and Numbered Heads Together. In this research will concern to the use of Numbered Heads Together technique.

D. Numbered Heads Together

Numbered Heads Together is one of components in cooperative learning that is use as media to apply this method when discussion process (Kagan, 1992 in Syawalia, 2013: 13). This technique emphasizes on the special structure designed to influence the pattern of students' social interaction in the class, and its goal is to reach the objective of materials and to improve the academic mastery.

According to Cruikshank (2006: 238) in Rahmi & Syahputra (2016: 42). states that there are four characteristics of cooperative learning method including Numbered Heads Together technique are: (1) How is the group team made up; (2) Choosing the task; (3) Groups' rule of behavior; (4) Motivation and reward system.

In conducting the Numbered Heads Together technique in the class, the teacher should use the following four steps structure (Cayabyab and Jacobs, 1999: 30).

1. Numbering

The teacher divides students into a group, every group consist about three until six students. Then, each member of them is given number from one to six.

2. Asking the Question

Teacher asks a question to students. The teacher distributes the text/material that will be discussed to the students. Before start the

lesson the teacher asks some guiding questions to the students. Teacher introduces the text after the students guess the topic and the title of the text first. Teacher asks the students a question or sets a problem to solve. It must be stressed that everyone in the group must be

able to participate and answer the question.

3. Heads Together

Students put their heads together, answer the question, and make sure each team member understands and can explain the answer. In here, the students work together in order to solve the problem and also ensure that everyone in the group can answer the question.

4. Answering

Teacher calls a number at random. The students with that number raise their hands to be called upon. The teacher now asks for answer by calling a number. The students with the number called then take to answer. If there are not enough students ready to respond the teacher may judge that a little more time is needed.

III. Research Methodology

In this research, the writer uses quantitative method in the design quasi-experimental research. Quantitative research focuses on testing objective theories by examining the relationship among variables (Malik and Hamied, 2014: 36). Meanwhile, according to McMillan and Schumacher in Ridwan (2014: 19) states that quasi-experimental research is a good design of the research because although it is not true experiment, it provides reasonable controlled over most sources of individuality and it is usually stronger than the pre-experimental design. Schematically, the quasi-experimental design can be drawn as follows:

Table 2. The Schematic of the Quasi-experimental Design

Group	Pre-test	Treatment	Post-test
Experimental	Xe 1	T	Xe 2
Control	Xc 1	O	Xc 2

The writer conducted experiment in two different classes with two different methods. The first class as an experimental class taught using Numbered Heads Together technique (T). The second class as a control class taught using Grammar Translation Method (O). After pre-test (X) and post-test (X) conducted, the writer analyzed the data using t-test to compare and determine the final calculation of the research.

A. Population and Sample

Population is any group of people that have one or more characteristics in common that become the researcher's interest, while samples are a small part of a population selected for observation and analysis (Best & Khan, 1995: 13). The population of this research is the tenth grade of SMA Negeri 1 Cibeber. Because there are many students in tenth grade at this school, the writer cannot choose the whole students as a sample. In all research models we cannot study the whole population of our interest, it is essential to select a sub-set (sample) from the target population on which we want to generalize our findings (Malik & Hamid, 2014: 83). The sample was taken purposively where there are 21 students of class X IPS 2 as an experimental class which is using Numbered Head Together Technique. While, there are 18 students of X IPS 4 as a control class which is using Grammar Translation Method in teaching simple past tense. So, totally the researcher took 39 students as the sample.

B. Instruments

The instruments that used in this research are test, treatment, and questionnaire:

1) Test

There are three tests in this research, the first is tryout test. Tryout test was conducted to examine the validity, reliability, and difficulty of the items before administer in experimental class and control class. From 25 items that tested, only 20 items which are valid and used at the experiment. The second is pre-test, was conducted in both classes in order to get the sample that has a comparative relatively the same which is consist of 20 multiple choice items. The third is post-test, it conducted in the last after give the treatment to the students. It has a purpose to determine the growth of learning outcome with the two methods used in the research. The questions in post-test were similar like in the pre-test, consist of 20 items of multiple choices questions.

2) Treatment

The treatment was given to experimental class and control class after both classes doing pre-test. The experimental class taught by using Numbered Heads Together technique, while control class taught by using Grammar Translation Method. Even though the methods that applied in both of experimental and control class were

different, the learning materials and context were approximately similar.

3) Questionnaire

In the last of meeting the writer give a questionnaire to experimental class to know the students' responses about the use of Numbered Heads Together technique in teaching simple past tense, whether positive or negative. The questionnaire was constructed based on Likert scale and consisted of 20 questions. The students responded to the following questions by placing a check mark in the area of the rating scale that corresponds with their opinion.

C. Data Analysis

The test consists of 20 questions when the right answer get score 4, in which the maximum score is 100, and the wrong score get score 0. The data from pre-test, post-test were analyzed by using independent t-test through software SPSS 20 for Windows with certainty the data must normal and homogenous. The t-test was conducted to determine whether or not there is a significant difference between the experimental and control classes' means on dependent variable

(Coolidge, 2000: 141). In this research, the significance level was set up at 0.05.

To analyze the data from questionnaire, the writer use the percentile formula through software Ms. Office Excel 2010. According to Hatch and Farhady (1982: 46), the percentile formula is formulated as follows:

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P = Percentile

F = Frequency of students' answer

N= Respondent

IV. Findings and Discussions

1. The Effectiveness of Numbered Heads Together Technique in Teaching Simple Past Tense

After conducting the pre-test and post-test at the both classes, the statistical description of the finding will be describe as follows:

Table 3. Statistical Description of the Findings

		N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	Experimental	21	25	70	47.14	13.836
	Control	18	25	70	46.11	14.907
Post-test	Experimental	21	45	90	71.90	11.670
	Control	18	45	85	64.44	10.556
Index Gain	Experimental	21	10	45	24.76	8.728
	Control	18	0	35	18.33	9.235

At the beginning, the data finding was analyzed its normality and homogeneity. The result shows that the data of pre-test, post-test and index gain are normal and homogenous so it can be continued to analyzed by using independent t-test. Here are the descriptions of independent t-test that conducted at the pre-test, post-test, and index gain in the following table.

Table 4. Independent t-test

Data	Sig. (2-tailed)
Pre-test	0.824
Post-test	0.045
Index Gain	0.032

Based on the Table 4, the t-test analysis at pre-test shows that, there is no significant difference between the experimental and control class for their pre-test scores because the significance value is higher than significance level or $0.824 > 0.05$. It means, the score of experimental class students and control class students is relatively same at the beginning.

And then, t-test was conducted to see the difference in the learning outcomes between experimental class students and control class students. Based on the Table 2, the t-test shows that the significance value is 0.045 or less than 0.05, so it means that the learning outcomes of experimental class is better or higher than control class students.

To strengthen the results of post-test analysis in this study, the index gain of the test was analyzed. The aim of this analysis is to know whether the improvement of the students' ability about simple past tense in both classes is difference or not. The data of index gain is normal and homogenous so, the last test that conducted to the index gain is independents sample t-test, in

order to know whether or not is there any significant difference in the improvement of students' achievement between experimental class and control class. Based on the Table 2, the t test result shows that the significance value is less than 0.05 or $0.32 < 0.05$, it means that the improvement of students' ability about simple past tense in experimental class is higher than students in control class.

Based on the discussion above, the used of Numbered Heads together in experimental class is better than control class that used Grammar Translation Method. The experimental students get higher post-test and index gain score than control class. So, the conclusion is the Numbered Heads Together technique is effective in teaching simple past tense to improve the students' comprehension.

2. The Students' Responses toward The Numbered Heads Together Technique in Teaching Simple Past Tense

Beside the improvement of students' comprehension about simple past tense that can be seen from the index gain data, the students' response to the use of Numbered Heads Together technique in teaching simple past tense can be seen from the result of questionnaire analysis. Based on the questionnaire, shows that commonly students (89% from 21 students) in experimental class show positive response to the English subject. It means that most of the students are interested and happy to learn English as one of the subject in the school. Furthermore, the questionnaire data shows that generally students (87% from 21 students) in experimental class give a positive response to the implementation of Numbered Heads Together technique in teaching simple past tense. So, the conclusion is generally students (88% from 21 students) give positive response to the use of Numbered Heads Together technique in teaching simple past tense.

V. Conclusion

Based on the data analysis and discussion, the conclusion of the study showed that the experimental class students, which employed the Numbered Heads Together technique, achieved better score than the control class students, which employed the Grammar Translation Method. The analysis in index gain of the both classes showed that the significance value is less than 0.05

so, H_0 is rejected and H_1 is accepted. It means that Numbered Heads Together technique is effective to improve students' ability in simple past tense.

Most of the students agreed that employing the Numbered Heads Together technique helps them to be more confident in term of participating because of group encouragement and benefits them to understand the hard concept of the learning material. When they were in group, they could solve the difficulties in learning English because they could share their knowledge. In addition, they believe that the Numbered Heads Together technique stimulates them to think critically when they want to solve the problems during active activities.

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