THE USE OF NUMBERED HEAD TOGETHER (NHT) TECHNIQUE WITH DESCRIPTIVE TEXT TO IMPROVE THE TENTH GRADE STUDENTS READING COMPREHENSION OF SMA MUHAMMADIYAH 1 PALEMBANG

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ABSTRACT

The aim of this research attempted to determine whether using NHT technique significantly improved the students' reading comprehension and significantly made a difference on the students' reading comprehension who were taught by using NHT and those who were not A Quasi Experimental design was used as the research method. The sampling technique used in this research was purposive sampling. Pretest and posttest, in the form of Reading comprehension test, were used to collect the data of students' reading comprehension. Paired samples and independent samples t-tests were employed to calculate the students' reading comprehension achievement. The research findings showed that there was a significant improvement on the students' reading comprehension who were taught by using NHT technique and there was a significant difference between the students reading comprehension who were taught by using NHT and those who were not.

Key words : Numbered Heads Together, reading comprehension, descriptive text

1. Introduction

In this era of globalization, English is the most needed and used in many countries. According to Matsuda & Friedrich (2011) said that the use of English as an international language (EIL) and it was implication for teaching has attracted much scholarly attention in recent years, both in the field of world English studied and English language teaching (ELT) (p. 332).

In learning English, there are four integrated language skills that must be mastered: listening, speaking, reading, and writing. Mastering language skills will determine students' communicative competence. Reading is one of four skills taught to junior and senior high school student. Reading is related to reading comprehension. Through reading activities, student was expected to understand the overall meaning of the text (Agustin, Ariyanto, & Sukmantara, 2013, p. 202).

According to Braunger and Lewis (2001) reading is as a complex interactive process, using basic skills and advanced strategies to give meaning. In reading activity, we communicate with the author by enable knowledge and imagery, and made conclusion from the author's idea. Anggraini (2013) state that reading comprehension is an essential skill for learners of English. For most of learners it is the most important skill to master in order to ensure success in learning. Apart from that, Anderson & Anderson (2003) states that reading is an activity consisting of four components: strategy or technique, subtlety, reader, and text. Strategy or technique was the ability of reader to used various strategy to achieved goal in reading. Fluency was the ability to read at a certain speed with sufficient understanding. The combination of text, strategy, fluency, and readers was called reading (p.68).

In addition, Harmer (2001) also reveals that there are several principles in reading (p. 70): (1) Reading is not passive skill, (2) Students need to be engaged with what they are reading, (3) Students should be encouraged to respond to the content of a reading text, not just to the language, (4) Prediction is a major factor in reading, (5) Match the task to the topic.

When researcher had an observation in SMA LTI IGM Palembang, the writer found some problems on students' reading comprehension. The first, student got difficulties in pronunciation, fluency, and grammar. The second, when reading, the student did not understand the content of the text. This can be seen when students were asked what the title of the text and asked to retell the content of reading, but most of the students could not answer. They did not understand the content of the text. They had trouble finding the main idea in a paragraph because of vocabulary insufficiency. And then method of teaching was still monotonous, so that made students less motivated.

When the writer interviewed a teacher at SMA Muhammadiyah 1 Palembang about students' reading comprehension, I found the same problems. First, the lack of vocabulary, grammar and pronunciation. Second, most of student did not understand the content of the text, and also the difficulty of finding the main idea of the paragraph. And the last, his teaching methods was boring.

There are many method to improve reading comprehension, one of them is Numbered Heads Together (NHT) technique. NHT first developed by Spencer Kagan in 1992. Numbered Heads Together

(NHT) was one of the informal cooperative learning strategies. He defined the NHT as cooperative learning strategies that made each student responsible for learning the material. Kagan (1992) stated this type of learning model though looks very simple, but full of activity, indirectly learners trained to be more productive in learning. Competencies to be mastered by the learner more emphasis on individual competence, although done in the form of group discussions. The use of NHT learning model, learner was not rely on fellow members. Each member was a high sense of responsibility for each issue discussed in the discussion forum. Thus, each individual always be ready if at any time designated by the teacher based on the number of heads.

Karen & Evans (2012) explains that the benefits of Numbered Head Together are: the first, all students are actively thinking of the answer. The second, students gain knowledge from their partner's ideas. The third, students work cooperatively. The fourth, students were confident enough to offer answers when called. And the last, improves class dynamics.

Based on the description above, the writer was interested in implementing the use of NHT (Numbered Heads Together) technique to improve the tenth grade students' reading comprehension of SMA Muhammadiyah 1 Palembang.

Based on the background of the study above, the problems of the research were as follow: (1) was there any significant improvement of the tenth grade students' reading comprehension achievement after being taught by using NHT (numbered heads together). (2) was there any significant mean difference on the tenth grade students' reading comprehension achievement by using NHT (numbered heads together) than those who were not?

Based on the research question above, objectives of the study were about: (1) to find out the significant improvement of the tenth grade students' reading comprehension achievement after being taught by using NHT (numbered heads together). (2) to find out the significant mean difference on the tenth grade students' reading comprehension achievement between the students who were taught by using NHT (numbered heads together) and those who were not.

The results of this study is not only useful for student, but also for teacher and for other researcher : (1) For the English Teacher : teacher should improve their creativity in teaching English by using Numbered Heads Together (NHT) technique to attract the student's interest and motivation. (2) For student: by using this method, it makes student improve their score and their reading comprehension. (3) For other researcher: other researcher was expected to use Numbered Heads Together (NHT) techniques on other language skills such as speaking, writing, and listening.

2. Research Methodology

A. *Methods of research*

In this study, the writer used Quasi Experimental design. According to Iman (2017) states that this method will indeed require two groups that are actually experimental and control groups (p. 424). The experimental group received the treatment while control group was not. In conducting this research, the writer used non-equivalent control group design. The form of non-equivalent control group design (Fraenkel & Wallen, 2012) can be shown in table 1 as follows:

Table 1. *Research design*

Group	Pre test	Treatment	Post test
Experiment	O1	X	O2
Control	O3	-	O4

Note :

O1: Pretest of experimental group
O2: Posttest of experimental group
X: Treatment by using Numbered Heads Together
   (NHT)
O3: Pretest of control group
O4: Posttest of control group

B. *Procedure of NHT*

In this research, there were 3 steps in procedures for teaching NHT, that was pre activity, while activity, and post activity.

1. Pre-teaching
a. The teacher greeted the student.
b. The teacher checked the student attendance.
c. The teacher reviewed the previous lesson.
d. The teacher motivated student by asking question related the material that was teach.
e. The teacher explained objectives of the study.

2. While-teaching
a. The teacher divided the class into small group of 4-6 people and each group member was numbered 1-6.
b. After Teacher provided descriptive text to read and understand the content of the text. For example descriptive text about "Palembang".
c. Teachers asked question about descriptive text.
d. The next stage was the teacher called the student by mentioning the number. Called number was given an opportunity to answer question from the teacher. This was done until all student with the same number from each group got a turn to explain the answer to the teacher question.
e. Student who not answer assisted with their respective group.
f. After being asked question, student present the result in front of the class.

3. Post-teaching
a. The teacher gave feedback.
b. The teacher asked the student to conclude the material that has been taught.
c. The teacher ended up the lesson.

C. Research variables

Kaur (2013) said that variable is something that can change and or can have more than one value. There was different type of variable and have different effect in a study. That was independent variable & dependent variable. Dependent variable was the variable that affected by the independent variable (p. 36). In this research, the independent variable was NHT (Numbered Heads Together) technique. And the dependent variable was reading comprehension.

D. Operational definition

Reading is an important skill that learner needed to know. Student read the text for information. Reading comprehension was the process of interaction to capture the meaning of a text. By doing those activities, student was expected to get the content of the reading material and achieved their purpose and expectation.

Numbered Head Together (NHT) is a technique that used for teaching reading comprehension. NHT was basically in group. Each student was given a number 1-4. The teacher asked a question based on the text, then the teacher mentioned the number that given a question. Each student in each group put their heads together to come up with an answer.

Descriptive text is a text that describe a place, an object, a human, an animal, or something else. The purpose was to describe the simple feature of a particular place, or object. In this studied, the writer used descriptive text in teaching reading comprehension.

E. Population of study

The population was the group you set for learning. Population taken in this research was IPA class of the tenth grade student in SMA Muhammadiyah 1 Palembang. The total was 300 student. As shown in the table 3 below:

Table 2. *Population of the study*

Class	Number of student
Xmia1	32
Xmia2	32
Xmia3	32
Xmia4	34
Xmia5	32
Xmia6	32
Xmia7	34
Xmia8	36
Xmia9	36
Total	**300**

(Sources: SMA Muhammadiyah 1 Palembang in academic year 2016/2017)

F. Sample of study

Sample was made up from that group of which chosen to participate in the study. This research used purposive sampling method. Using purposive sampling depending on what criteria were used. The criteria were as follows: (1) the students were from the science class, (2) the student were taught by same teacher, (3) the students were taught by average level.

The total sample was 40 people and divided into 2 group, experimental group was 20 student and control group was 20 student. As shown in the table 4 below:

Table 3. *Sample of the study*

No	Group	Number of students
1.	Experimental group	20
2.	Control group	20
	Total	40

(Sources: SMA Muhammadiyah 1 Palembang in the academic year 2016/2017)

G. Technique of data collection

Sani (2013) explains that data collection techniques allow the researcher to systematically collect information about their object of study (people, objects, phenomena) and about the setting they occur. In data collection, the researcher must be systematic because if he collected the data carelessly, it was be very difficult for him to answer question in a conclusive way. Data collection was an integral part of research process in education (p. 40).). The test used in this research was in the form of n multiple choice questions. The test divided into pre-test and post-test. The researcher choose a multiple choice test because it measures the ability level more effective. Pretest was given to know the extent to which students' reading achievement. Posttest was given to know improvement of students' reading comprehension.

H. Validity of the test

Cresswell (2010) states that the validity is the extent to which questions on the instrument and the scores from these questions are representative of all possible questions about the contents or skills (p. 164). In order to know the result of the validity, the writer gave try out to the student who was on the same level with the sample of the tenth grade student in SMA Muhammadiyah 1 Palembang to check whether the test given was appropriate or not to use in the pre-test and post-test.

I. Reliability of the test

Nasution (2014) states that a measuring device is said to be reliable when the tool in measuring a symptom at different times always shows the same result. In an experiment we usually conduct measurements before and after the experiment. If there was a difference, then it assumed that the change that occurred the influence of experimental variable. For it required a reliable measurement tool, so it can be seen the change and magnitude of change as a result of experimental variables (p. 77)

J. Technique of data analysis

In this study, the writer used t-test to analyze data. Paired samples t-test used to see the significant improvement of the mean score of reading in both groups. Independent samples t-test used to see whether there was significant mean difference between 2 groups. Then, the results of pretest and posttest obtained by each group calculated and compared by using SPSS 22.

The writer used the score interval range 0-100. It can be shown in table 4 as follow:

Table 4. *Score range and category*

Score Range	Category
< 55	Very poor
55 – 64	Poor
65 – 74	Average
75 – 84	Good
85 – 100	Very good

K. Findings and discussion
1. Research findings
a. The results of descriptive analysis of pretest and posttest in experimental and control group
The summary of score in experimental and control groups are shown in (Appendix 5).

Table 5. *Descriptive statistics of experimental group*

Category	Experimental Group					
	Pre-test		SD	Post-Test		SD
	F	%		F	%	
Very poor	-	0%	2.34857	-	0%	2.52149
Poor	-	0%		-	0%	
Average	17	85%		-	0%	
Good	3	15%		13	65%	
Very good	-	0%		7	35%	
Total	20	100%		20	100%	

Table 6. *Descriptive statistics of control group*

Category	Control Group					
	Pre-test		SD	Post-Test		SD
	F	%		F	%	
Very poor	-	0%	1.02084	-	0%	1.02598
Poor	-	0%		-	0%	
Average	20	100%		-	0%	
Good	-	0%		20	100%	
Very good	-	0%		-	0%	
Total	20	100%		20	100%	

Based on summary of score pretest in experimental group, there were 17 students in average category with percentage 85%, 3 students were in good category with percentage of 15%, and for standard deviation was 2.34857. For the post-test in experimental group, there were 13 students in good category with percentage of 65%, 7 students got very good category with percentage of 35%, and the standard deviation was 2.52149.

Meanwhile in pretest of control group, there was 20 students got average category with percentage 100%, and for standard deviation was 1.02084. In post-test of control group, there was 20 student got good category with percentage 100% and the standard deviation was 1.02598.

2. Statistical analysis

The results of the pretest and posttest of both experimental group and control group were analyzed by t-test. The analyses were done by using SPSS. The analyses consist of (1) statistical analyses on the result of pretest and posttest of the experimental group and control group by using paired samples t-test to see differences among the mean scores of reading score of both groups, (2) the result posttest between experimental group and control group by using independent samples t-test to see whether there was significant differences. To see the result of paired samples t-test, you can see (in Appendix 5).

The results of paired samples t-test and independent samples t-test. Based on summary of mean score pretest in experimental group were 72.60, and the mean score of pretest in control group were 70.90. On the other hand, the mean score of posttest in experimental group were 83.40, while the mean score of posttest in control group were 77.00. The mean difference pre and posttest EXP within were 10.8, and mean difference pre and posttest CONT within were 6.10. So, if sig. (2-tailed) less than 0.05 its mean that there was significant, but if more than 0.05 it was not significant. It can be stated that there was significant difference in reading achievement.

3. Interpretation

The writer made the interpretations based on some analysis related to the result of the test that the writer found during the research. First the writer gave reading test, pretest and posttest. Pretest was given before treatment while posttest was given after treatment. But the writer just gave the treatment for experimental group. The total of the treatment was 10 meeting and 2 other meeting for pretest and posttest. At the beginning of the experiment, the student were excited in reading activities done in class.

First, why NHT improved students' reading comprehension was because this technique work in groups. With group discussions all students were directly involved to think in solving problems in the discussion, and did not happen interdependent among the group members, so that all students thought actively. The first meeting, the students learned descriptive text about Losari Beach. The writer divided the class into small groups of 4-6 people and each group member was numbered 1-6. After the writer give a descriptive text to read and understand the content of the text. The writer asked question about Losari Beach. And then the writer called the students by mentioning the number. If the students could not answer the question, a friend of him/her helped them. This statement is supported by Kagan (1992) that NHT learning model indirectly train students to share information, listen carefully and speak with full calculation, so that students are more

productive in learning. It means that with group discussions, made students more active in learning activities and also good for increasing individual responsibility in the discussion.

The second reason why NHT improved students' reading comprehension was because the activity of reading. In this activity, students were asked to read descriptive text about Kapoposang. And then, the students were asked to answer the questions. The first question concerned the topic of the text, the second question was about generic structure, the third question was to determine the main idea of the paragraph, the fourth question to find the difficult word in the text, and the fifth question was to identify kind of the text.

The third reason why NHT improved students' reading comprehension was the activity of presentation in the class. Students read the text in front of the class. In order to make the other students listen to the reading while paying attention to punctuation and grammar because punctuation and grammar was one of the most important things in reading. This statement is supported by Harmer (2007) that reading can introduce some interesting topics, stimulate discussion, and stimulate imaginative response. In addition, reading not only gave some information, but also provided a good writing model. This encouraged students to get their vocabulary, knowledge in grammar and punctuation.

Numbered Heads Together improved the students' reading comprehension. This can be seen from the results of the test, it showed that the students reading score in pretest experimental was 72.60, while the students reading score in the pretest of control group was 70.90. And the students reading score in the post-test experimental group was 83.40, while the students reading score in the post-test control group was 77.00.

It means that the result of the students' average score in experimental group was higher than in control group. In other words, teaching through the technique Numbered Heads Together (NHT) was able to develop students' reading comprehension, and effective to be applied in class.

Meanwhile, Karen & Evans (2012) explains that the benefits of Numbered Head Together are: the first, all students are actively thinking of the answer. The second, students gain knowledge from their partner's ideas. The third, students work cooperatively. The fourth, students were confident enough to offer answers when called. And the last, improves class dynamics.

The students who were taught reading by using NHT technique in experimental group had better reading improvement than the students who were taught without it. The research of the experiment and control groups showed that the used of Numbered Heads Together (NHT) technique was helpful for the students because of some reasons. First, Numbered Heads Together (NHT) technique made students in group work together to unite idea and to express their opinion in front of the class that made the student became more active. Second, Numbered Heads Together (NHT) technique gave them high motivation to practice reading.

This statement is supported by Kagan (1992) that this type of learning model though looks very simple, but full of activity, indirectly learners trained to be more productive in learning.

3. Conclusion

Based on the research, the writer concluded that, first, from the results of the analysis of the research, it was proven that the student's score of reading taught by using NHT technique is better. This result had answered the research question that the use of NHT technique was effective in students reading comprehension. Second, The use of NHT made the atmosphere of classroom more active and alive. Each of group were able to answer each question from teacher. And the last, the use of NHT made the students more motivated in learning, easier to comprehend the content of the text, and also found the main idea of the text

Suggestion

From the conclusion above, there were some suggestions proposed in order to make the students more active in the discussion. And the last, at the end of the learning, teacher should give games to make the student enjoy the class.by the writer: Firstly, the application of NHT technique should be use as an alternative choice for teacher in reading learning. Secondly, the application of NHT technique can be developed more creative by using media that attract students' attention. Thirdly, the teacher should guide the students to be more active in the discussion. And lastly, at the end of the learning, teacher should give games to make the student enjoy the class.

References

Agustin, S., Ariyanto, S., & Sukmantara, I. P. (2013). The effect of using numbered head together technique on the eighth grade students' reading comprehension achievement at SMPN 2 tanggul jember. *The Effect Of Using Numbered Head Together Technique, 2*(3), 201-210.

Anderson, M., & Anderson, K. (2003). *Text types in English 3.* South Yarra: Macmillan.

Anggraini, R. W. (2013). Improving the reading comprehension achievement of the fourth semester students at Islamic religion education department of tarbiyah faculty of iain raden fatah Palembang through sqrw technique, *Journal global expert, 1*(2), 1-10

Braunger, J., & Lewis, J. P. (2001). *a knowledge base in reading* (2nd ed.). Delaware: International Reading Association,Inc.

Cresswell, J. W. (2010). *Research design: Pendekatan kualitatif, kuantitatif, dan mixed.* Yogjakarta: PT Pustaka Pelajar.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design evaluate research in education.* San Francisco: Mc Graw Hill Company, Inc.

Harmer, J. (2001). *How to teach English: An introduction to the practice of English language teaching.* England: Longman.

Harmer, J. (2007). *How to teach English.* Kuala Lumpur: Pearson Education Limited.

Iman, J. N. (2017). A quasi-experimental study on using short stories: statistical and inferential analyses on the non-english major university students' speaking and writing achievements. *International Journal of Languages Education and Teaching, 1*(5), 421-433.

Kagan, S. (1992). *Cooperative learning.* San Juan Capistrano, CA: Resources for Teachers, Inc.

Karen, N., & Evans, D. (2012). *Cooperative learning: module 9. Florida: Virginia Department of Education.*

Kaur, S.P. (2013). Variables in research. *Ijrrms, 3*(4), 36-38.

Matsuda, A., & Friedrich, P. (2011). English as an international language: A curriculum blueprint. *World Englishes, 30* (3), 332–344.

Nasution, S. (2014). *Metode research.* Jakarta: Bumi Aksara.

Sani, L. I. (2013). Data collection techniques a guide for researchers in humanities and education. *International Research Journal of Computer Science and Information Systems, 3*(2), 40-44.