Using Numbered Head Together Technique on Students' Reading Comprehension

Nurdiana
State Islamic University of Sultan Syarif Kasim of Riau
Nurdiana@gmail.com

ABSTRACT

*In increasing students' reading comprehension, various techniques have been applied by the lecturer. However, based on the preliminary study, it was found that the students have low comprehension in reading, including the narrative text. Numbered head together technique was offered to improve students' reading comprehension. The purpose of the research were to investigate the difference of students' reading comprehension on narrative text before and after being taught by using Numbered Head Together Technique and to investigate the effect of using Numbered Head Together Technique toward students' reading comprehension of narrative text at the English Education Department of UIN Suska Riau.The research design was quasi experimental research. The population was the third semester students of English Education Department of UIN Suska Riau. Two groups which consisted of 55 students were invited to be samples by using cluster-random sampling. Both groups were administered the pretest and the posttest. The technique of collecting data used test. The technique of data analysis used was paired sample t test. The research found that there was significant difference of students' reading comprehension on narrative text after being taught by using numbered head together technique for experimental class and non-treatment of numbered head together technique for control class. It was stated by the value of sig. (2-tailed) was **0,000.** It was smaller than **0,05.** It meant that the use of Numbered head together technique had a significant effect on students' reading comprehension on narrative text.*

Key Words : Number head together, reading comprehension

1. Introduction

Reading is a receptive skill for success in English teaching and learning process. According to Harmer, (1998:199) reading is included one of the receptive skills. Receptive skill is the way in which people extract meaning from the discourse they see or hear. Therefore, the main process of reading is to construct the meaning of the written text. The ability to read has become an indispensable skill in students' life. Almost every aspect of everyday life of students is carried out in reading such as to gain information from the text, to understand and know meaning of the text, to answer questions from the text, and to make the result of the text as comprehending from in reading. In short, students require an ability or skill to understand and comprehend text in reading.

Besides, reading is a way to get information and knowledge. It can be easier done if it is done as a pleasure activity. It is supported by Beatrice (1996:7), she explained that reading for pleasure can improve vocabulary, increase reading speed, improve reading comprehension, and give us a chance to gain more knowledge.

In English education department of UIN Suska Riau, the students learn reading I at the first semester which consists of 4 credits, reading II at the second semester, reading III at the third semester, reading IV at the fourth semester which each of them consists of 2 credits. While at the fifth semester, the English students are provided Extensive Reading which consists of 2 credits. So, ideally with the series of these reading subjects, the students have good comprehension in reading. Besides the reading lecturers used and applied various techniques to engange and motivate the students in learning reading. Then, in teaching reading, the lecturers often gave brainstorming, and ice-breaking activities.

However, Some facts were found by the researcher in the preliminary study, such as, the students had lack of motivation in reading the texts. It was proved when the students were asked to discuss the text in group and in pair, but they did not engage to participate in discussing the reading text. Besides the researcher also found that the students did not want to share the ideas after reading and did not feel that they had a good qualities in reading especially reading the narrative text.

The other fact was some of the students were not able to comprehend the narrative text. It made the students obtained many difficulties in reading activity and their difficulty in comprehending an English text made them slower in doing task given by lecturer because some of the students were not able to identify the generic structures of the text.

These symptoms make the researcher interested in conducting the treatment that can increase students' reading comprehension in reading text. As to increase students' reading comprehension, the lecturer needs an appropriate technique. In this research, the technique to be used is Numbered Head Together Technique.

Kagan (1992: 20) says that numbered head together will make students share information each other, listen carefully, speak and answer the question carefully, so the students are more active in learning process. This technique has the purpose to give opportunity to the students to allot ideas each other and consider most precise answer and also it is reached through interdependence among all group members rather than working alone.

Reading Comprehension is one of some uses of NHT technique (Slavin,2005). Comprehension questions can be posed to groups, and the students can work together to find the answers. For example, when reading a story, the students can be given the task of analyzing one of the characters. They can be asked questions such as, "Which character traits are stated directly, and which are implied by the author?" and "What information do you get from the character's speech and actions?"

Some advantages of NHT technique are the students will have high confidence, tolerance and sensitivity and it also can increase the students' achievement.

Based on the explanation above, it is necessary to conduct a research entitled "The Effect of using NHT technique toward Students' Reading Comprehension on narrative text at English Education Department of UIN Suska Riau".

Research Question

In this research, the research questions were formed based on the problems. Furthermore, the research questions are presented, as follows:

a. How was the students' reading comprehension on narrative text being taught by using NHT technique?
b. How was the students' reading comprehension on narrative text without being taught by using NHT technique?
c. Was there any significant effect of using NHT technique toward students' reading comprehension on narrative text?

Objectives of the Research

a. To investigate students' reading comprehension on narrative text being taught by using NHT technique.
b. To investigate students' reading comprehension on narrative text without being taught by using NHT technique.
c. To investigate the effect of using NHT technique toward students' reading comprehension on narrative text.

2. Discussion

a. Reading Comprehension

Reading is one of the subjects to get information and knowledge about everything readers need from written form. Almost every aspects in our life is covered by reading. Reading is assumed to be the central means for learning and gaining information and knowledge.

Reading is comprehending. It means that if readers can read the words of a text, but do not understand what they are reading, they are not really reading. How much and how easily readers comprehend depends on variables within and outside them. These key variables of reading comprehension include the reader, the activity of reading, and the text. These three intersect to affect how well comprehension occurs.

Besides, comprehension is the active process of constructing meaning concepts, making inferences, and linking key ideas. While Rayner (2001) states that reading comprehension is defined as the level of understanding of a text/ message. This understanding comes from the interactive between the words that are written and how they

trigger knowledge outside the text/ message.

Reading comprehension includes the following:

a. Applying one's knowledge and experiences to the text,
b. Setting goals for reading, and ensuring that they are aligned with the text,
c. Using strategies and skills to construct meaning during and after reading,
d. Adapting strategies that match the reader's text and goals,
e. Recognizing the author's purpose,
f. Distinguishing between facts and opinions, and
g. Drawing logical conclusions.

Then, Snow (2002) states that reading comprehension as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. She also mentioned that comprehension entails three elements such as:

a. The reader who is doing the comprehending
b. The text is to be comprehended
c. The activity in which comprehension is a part

Furthermore she said that to comprehend, a reader must have a wide range of capacities and abilities. These include:

a. Cognitive capacities (e.g., attention, memory, critical analytic ability, inference, visualization ability).
b. Motivation (a purpose for reading, an interest in the content being read, self-efficacy as a reader)
c. Various types of knowledge (vocabulary, domain and topic knowledge, linguistic and discourse knowledge,

knowledge of specific comprehension strategies)

Besides, King and Stanley (1989) states that reading has five components which contain in reading texts, they are as follows:

1. Finding the main idea

Recognition of the main idea of a paragraph is very important because it helps the readers to understand the paragraph on the first reading and to remember the content later. The main idea of a paragraph is what the paragraph develops.

2. Finding the detail information

Detail information requires readers scanning the specific information. Scanning can be done by reading questions that give and find the content words-synonyms or the same words. The detail information is generally prepared for the students and the following questions of the reading are started with WH-Question word in multiple choice options.

3. Finding the meaning of vocabulary in context

Meaning that the reader can develop his or her guessing ability to the word, which is not familiar to him or her by relating the closest meaning of unfamiliar words to the text and the topic of the text that is read.

4. Identifying references

Reference is a word or phrase to which pronoun refers to. Recognizing references and identification of the words or phrases to which they refer will help the readers to understand the reading passages or textbooks. References are generally symbolized by possessive adjectives (my, your, our, their, his, her, its), subject pronouns (I, you, we, they, he, she, it) and object pronoun (me, you, us, them, him, her, it)

5. Making inference

Inference is a skill where the reader has to be able to read between lines. King and Stanley divide into two main attentions; draw logical inferences and make accurate prediction. Prediction can be made by correctly interpreting the signs writer gives.

In this case, reading comprehension means a process of understanding the text in order to get the purposes of reading such to get information and the meaning of the texts.In this research, the researcher focuses on the narrative text. There are some common narrative genres include detective fiction, historical narratives, memoirs, science fiction, fables and myths (Philips, 1999). All of the narrative text types have the social purpose to entertain and instruct the reader. The generic structures of narrative text consist of three parts: orientation, complication/problems, and resolution (Sudarwati and Grace, 2007: 62)

 a. Orientation. To describe scenes and introduce the characters, setting, and time or the story are established. Usually answer who, when or where
 b. Complication. To begin where there is a problem encountered by the character
 c. Resolution is the character finds the solution of the problem. The complication may be resolved for better or worse / happily or unhappily.

b. Numbered Head Together Technique

Numbered head together (NHT) technique developed by Spencer Kagan (1995). This technique gives opportunity to the students to allot ideas each other and consider most precise answer. Besides, this technique also pushes the students to improve the spirit of their job. This technique can be used for all age levels.

Structure of NHT technique is one of the cooperative learning. NHT technique is designed to influence students' interaction pattern particularly. The structure is developed as alternative technique in the traditional classroom such as raising your hand firstly then the teacher point one student to answer the question.

NHT technique will make noisy in the classroom because all of students want to answer the question from teacher. Kagan says that NHT technique will make students share information each other, listen carefully, speak and answer the question carefully, so students are more active in learning process.

Besides, NHT technique is one of the techniques that guides students' activity in search, produce and inform the information from some recourse and then inform them in front of the class. Then, NHT technique is a type cooperative learning that has a simple structure that consists of some steps. These steps will be used to review facts and basic information to set students' interaction. In addition, NHT technique is also used to develop students' understanding about the material and to check their understanding about the topic and also to develop students' group work.

In other side, Slavin (1995) states that NHT technique emphasis at aspect of social by using small group which consists of 4-6 equal students to yield student conception challenge and idea as element the key. This technique has lead number gives opportunity to student to each other to consider most precise answer and also to give amenity

in division of duty. Lie (2007) states that the students learn to execute personal responsibility of him in each other related to his group friends.

The goal of NHT technique is reached through interdependence among all group members rather than working alone. Each member is responsible for the outcome of the shared goal. 'Cooperative technique does not take place in a vacuum' not all groups are cooperative groups. Putting groups together in a room does not mean cooperative learning is taking place (Johnson Dw and Rt, 1999). It means that, basically cooperative learning is not different from group work.

There are several characteristics that compare cooperative learning with other cooperative rewards, every student has a role and individual responsibility, and has the same objective to be successful.

Based on the explanation above, it can be assumed that cooperative learning in NHT technique is a learning model group that every group has heterogeneous member. They also have individual purpose in a group to be successful. There are interaction among students. They have responsibility for their study.

There are three purposes of NHT technique such as academic achievement, reception many kind of opinion and develop social academic; NHT can increase students' achievement and change behavior. Besides, NHT can help the other friends who have low grade. It receives many kinds of opinion; in cooperative learning, the skills (Arends, 1997). Students' achievement can be developed and changed their ideas or opinion in a group. They can share their problem with their group that has different background and condition.

Develop social skill; by using NHT in the study, the students can develop their social skill because they always share in a group with their friends.

According Lundgren in Ibrahim (2000: 18) in Herdy (2009), there are some advantages of NHT, such as:

1. High confident
2. Improve Repairing attendance
3. Acceptance to individual become more big
4. Behavior bother to become more small
5. Conflict among person decrease
6. More circumstantial understanding
7. Improving kindliness of kindness, tolerance and sensitivity
8. High achievement

3. Research Method

a. Population and Sample of the Research

The population of this research was the second semester students of English Education Department of UIN Suska Riau which consisted of seven classes. Each class has various number of students. The total population of this research was 203 students. Because of the population number was large enough, thus, the researcher took the sample. In this case, the sampling technique was cluster random sampling. The sample was used in this research was class C which consisted of 27 students and class F which consisted of 28 students. So, the total number of sample was 55 students.

b. Research Design

The design of this research was a quasi-experimental research. In this

research, the researcher used pre- and posttest design. In conducting this research, two classes of the second semester students of English education department of UIN Suska Riau will be participated. The researcher assigned both groups, administer a pretest to both groups, conduct experimental treatment activities with the experimental group only and then administer a posttest to the two groups.

c. Technique of Collecting Data

In collecting the data, the researcher used the reading test. The test was used to find out the students' reading comprehension on narrative text. The reading test was divided into two kinds, they were as follow:

a. Pre-Test was used to collect data about students' reading comprehension on narrative text. The test was administrated before conducting the treatment to both classes; the experimental class and the control class.
b. Post-Test was used to collect data about students' reading comprehension on narrative

text. The test was administered to both classess; experimental class and the control class after conducting treatment.

For the each test, there were 4 narrative texts and 8 indicators of students' reading comprehension which were developed into 32 items.

d. Technique of Data Analysis

The data were analyzed by using statistic software which is SPSS 20 version.
To investigate the effect of Using Numbered Head Together Technique toward students' reading comprehension on narrative text, it was analyzed by using Paired sample T-Test. Meaning that the sample that must be measured: pre-test and post-test of experimental group which they correlate each other or the same samples. Afterward, according to Pallant (2010) it is better to find the effect size of T-test by following formula:

$$\tilde{\omega}^2 = \frac{t^2}{t^2 + n - 1}$$

eta-squared = $\tilde{\omega}^2$ *x 100%*
Where: $\tilde{\omega}^2$:
Coefficient

4. Research Finding

a. The Students' Reading Comprehension before treatment (Pretest Score)

No	Students	Pre-test Scores	
		Experimental Class	**Control Class**
1	Student 1	53.12	50
2	Student 2	62.5	56.25
3	Student 3	65.62	62.5
4	Student 4	56.25	56.25
5	Student 5	53.12	53.12
6	Student 6	53.12	56.25
7	Student 7	56.25	53.12
8	Student 8	56.25	59.37
9	Student 9	59.37	59.37
10	Student 10	62.5	56.25
11	Student 11	65.62	50

12	Student 12	62.5	62.5
13	Student 13	59.37	56.25
14	Student 14	56.25	53.12
15	Student 15	53.12	56.25
16	Student 16	56.25	59.37
17	Student 17	59.37	56.25
18	Student 18	62.5	59.37
19	Student 19	59.37	62.5
20	Student 20	65.62	65.62
21	Student 21	62.5	62.5
22	Student 22	53.12	59.37
23	Student 23	56.25	53.12
24	Student 24	59.37	53.12
25	Student 25	59.37	56.25
26	Student 26	53.12	53.12
27	Student 27	56.25	53.12
28	Student 28	-	56.25
	Total	**Σ= 1578.05**	**Σ=1590.56**
	Mean	**Σ=58.44**	**Σ=56.80**

From the table above, there were 27 respondents of the experimental class and 28 respondents for the control class. The calculation of total pre-test score of experimental class was 1578.05 and the calculation of total pre-test score of control class was 1590.56. The mean of pre-test score of experimental class was 58.44 and the mean of pre-test score control class was 56.80. From the pre-test scores of the experimental class, based on the mean scores of both classes, they had the same capability before doing the treatment.

b. The Students' Reading Comprehension after the treatment (Posttest Score)

No	Students	Post-test Scores	
		Experimental Class	Control Class
1	Student 1	75	56.25
2	Student 2	78.12	62.5
3	Student 3	68.75	68.75
4	Student 4	71.87	56.25
5	Student 5	75	59.37
6	Student 6	81.25	62.5
7	Student 7	62.5	62.5
8	Student 8	65.62	68.75
9	Student 9	81.25	62.5
10	Student 10	75	62.5
11	Student 11	71.87	56.25
12	Student 12	71.87	62.5
13	Student 13	68.75	62.5
14	Student 14	75	56.25
15	Student 15	71.87	62.5
16	Student 16	78.12	65.62
17	Student 17	81.25	62.5

18	Student 18	78.12	62.5
19	Student 19	75	68.75
20	Student 20	71.87	71.87
21	Student 21	81.25	71.87
22	Student 22	71.87	68.75
23	Student 23	68.75	59.37
24	Student 24	75	62.5
25	Student 25	78.12	62.5
26	Student 26	75	62.5
27	Student 27	75	62.5
28	Student 28	-	65.62
	Total	**Σ= 2003.07**	**Σ= 1768.72**
	Mean	**Σ= 74.19**	**Σ= 63.17**

From the table above, the calculation of total post-test score of experimental class was 2003.07 and the control class was 1768.72. The mean of post-test score of experimental class was 74.19 and the mean of post-test score control class was 63.17. Based on the mean score above, mean score of post-test experiment is higher than post-test score control class and they had different capability after giving the treatment of NHT Technique for Experimental class.

c. **Result of Students' Reading Comprehension Pre-Test and Post-Test Score**

Descriptive Statistics			
	N	Mean	Std. Deviation
Pre-test experiment	27	58.44	4.14
Post-test experiment	27	74.18	4.79
Pre-test control	28	56.8	3.99
Post-test control	28	63.17	4.36
Valid N (list wise)	27		

Based on the table, it can be determined that the number of participants of the third semester in the experimental class was 27 with pre-test standard deviation (4.1401), post-test standard deviation (4.7941), with pre-test mean score (58.44) and post-test mean score (74,18), and the number of participants of in the control class was 28 with pre-test standard deviation (3.99), post-test standard deviation (4.36), pre-test mean score (56.8), and post-test mean score (63.17).

The procedure of inferential statistics began with the statistical test on the following hypothesis:

H_o: There is no significant effect of using NHT technique toward students' reading

comprehension on narrative text.

H$_a$: There is significant effect of using NHT

technique toward students' reading comprehension on narrative text.

d. The Analysis of Paired Sample T-test Between Pre-test and Post-test on Students' Reading Comprehension for Experimental Class

Pre-test and Post-test experiment	Mean	Std. Deviation	T	Df	Sig. (2-tailed)
	15.7414	6.2197	13.151	26	.000

From the table above, the output of paired sample test showed that the t-test result was 13.151, its df was 26, significance was 0.000, mean difference was 15.741, standard error mean was 1.196, the lower difference interval was 18.201 and the upper difference interval was 13.281.

By comparing number of significance, If probability > 0.05, null hypothesis (H$_0$) is rejected. If probability < 0.05 alternative hypothesis (H$_a$) was accepted. Because the significance was $0.000 < 0.05$, thus, H$_a$ was accepted while H$_0$ was rejected

Finally, the reseacher found out the percentage of significant effect between pre-test and post-test of experimental class by looking for the effect size or eta-squared as follows:

$$\tilde{\omega}^2 = \frac{t^2}{t^2 + n - 1}$$

$$\tilde{\omega}^2 = \frac{(13.151)^2}{(13.151)^2 + 27 - 1}$$

$$\tilde{\omega}^2 = \frac{172.949}{172.949 + 26}$$

$$\tilde{\omega}^2 = 0.87$$

Eta-squared $= \tilde{\omega}^2$ *x 100%*

Eta-squared $= 0.87$ x 100% $= 87\%$

The result of data analysis is based on inferential statistics which has identified that after conducting the treatment for 6 meetings by using NHT Technique can improve **87%** on the reading comprehension on narrative text. Therefore, the **Ho** hypothesis was rejected and **Ha** was accepted that there is significant effect of using NHT technique toward students' reading comprehension on narrative text for experimental class.

5. Conclusion

Based on the research findings, several points could be drawn as conclusion, as follows:

1. Mean of students' reading comprehension on narrative text being taught by using NHT Technique was 74.19
2. Mean of students' reading comprehension on narrative text withou being taught by using NHT Technique was 63.17
3. The result of data analysis was based on inferential statistics which has identified that after conducting the treatment by using NHT Technique was **87%.** It means Using NHT Technique could increase students' reading comprehension on narrative text and **Ha** was accepted, meaning that there is significant effect of using NHT technique toward students' reading comprehension on narrative text.

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