THE EFFECT OF NUMBER HEAD TOGETHER (NHT) TECHNIQUE
ON STUDENTS' READING COMPREHENSION AT
TENTH YEAR OF SMA N 1 BUKITTINGGI

Mega Gusna Yenti[1], Rusdi[2], Aryuliva Adnan[3]
English Department
Faculty of Languages and Arts
State University of Padang
email: gusnayenti.mega@gmail.com

Abstract

This research aims to see whether students who were taught by using Number Together technique had better reading comprehension than those who were taught by using technique used by English teachers in teaching reading which was called in this technique as conventional technique. The sample of this research was X IPA 3 as the experimental group which consists of 35 students and X IPA 5 as the control group which consists of 35 students. The data of this research was reading test (posttest) scores which were analyzed by using t-test. It was found that there was significantly difference on student' reading comprehension of tenth year students who were taught by using Number Head Technique. The reasult showed that t_{count} was 8.73 and t_{table} was 2.00 in the level of significant 0.05 which means t_{count} was bigger than t_{table}. Finally, it could be concluded that the students who were taught by using Number Head Together technique had better reading comprehension thann those who were taught by using conventional technique.

Key words: Number Head Together (NHT), Conventional technique and Reading comprehension.

A.   INTRODUCTION

Reading is one of the important and crucial skills to be mastered by students among other English skills like listening, speaking and writing. In reading, the readers try to understand what the writer means by interpreting what they read. Candlin (2002: 11) says that "Reading is the ability to draw meaning from the printed page and interpret this information appropriately". It is also supported by Anderson & Nunan (2008: 2-3) who say that reading is the ability of readers combining information from a text and their own background knowledge to build meaning.

---

[1] English ELTSP of English Department of FBS Universitas Negeri Padang graduated on September 2016
[2] Lecturer of English Department of FBS Universitas Negeri Padang
[3] Lecturer of English Department of FBS Universitas Negeri Padang

Similar opinion also purposed by Grabe (2009:15) that the reader constructs the meaning of the text by comprehending what the writer intends and interpreting his or her background knowledge. In other words, background knowledge or prior knowledge helps the readers in catching the meaning from text. Based on the explanation from some experts above, the researcher concludes that reading is the act of thinking meaning of the text by combining information from a text and making use of background knowledge to get more understanding of the text.

Reading is more important to be mastered by students than other English skills. It is because every single academic activity at school involves reading. However, learning reading is not an easy task for the students, especially senior high school students in Indonesia. The students still cannot master that skill yet. It can be seen on students' English scores which indicated that they are not able in reading comprehension yet.

One of the influential causes is the technique used by English teachers in teaching reading. Currently cooperative learning used by English teachers in teaching reading especially to senior high school students might not be effective yet. The students who are taught by using this technique still find difficulties in mastering reading.

Based on an informal interview that was conducted to some senior high school student, the students said that English was a boring subject. It was because the teacher asked them to sit in groups just for making group report and the teacher tended to point the students who raised their hands only to answer the questions given. It can be argued that fewer chances for students who did not raise their hands to participate in the class.

There were some studies which had been conducted related to the teaching reading. One of them was the study conducted by Hamida, Amir, and Fitrawati (2012) that focused on the effect of summarizing strategy in students' reading comprehension. Involving all students in teaching and learning process is one way to make the students understand and comprehend more about what is being taught. It is in line with a technique developed by Spencer Kagan which is known as Number Head Together (NHT) technique which emphizes on promoting students' participation. According to Reiss (2012: 92), Number Head Together (NHT) is a structured strategy that promotes students participation by allowing small group discussion before anyone is required to respond.

Promote students participation here means all students may have the same chances to speak up in the classroom during teaching and learning process. How this technique promotes students participation can be seen in the teaching and learning process using four steps of Number Head Together technique. NHT consists of four steps; numbering, questioning, heads together and answering. In numbering, the teacher divides the students into groups and gives them one

number for each. Then in questioning, the teacher guides the students to ask by asking them some guided questions.

In heads together, the students in groups put their heads together to find the answer of the questions given. In this step, all group members have to make sure that all members know the answer of the group before they are asked to answer. Last, in answering, the teacher points randomly the students by calling a certain number. For example, question number 1 will be answered by student number 2. It means all number two students stand up and give their opinion. Those students may argue each other to maintain their opinion. These steps continue for the rest questions. This step helps the students to actively participate during teaching and learning process.

Due to the description above, the researcher wants to see the effectiveness of Number Head Together technique on students' reading comprehension. Therefore, it was needed to conduct an experimental research about "The effect of Number Head Together technique on students' reading comprehension at tenth year of SMA N 1 Bukittinggi."

B. RESEARCH METHOD

This research was experimental research using posttest-only group design. Gay (2009:257) states that in this design there will be no pretest. Therefore, the researcher only administered posttest into both experimental and control groups after the two groups were given different treatments.

The population of this research was tenth year students of SMA N 1 Bukittinggi registered in academic year 2015/2016. In determining the sample of this research from the population, the researcher used cluster random sampling method. Homogenity test by using students' reading scores which the researcher got from the English teacher at SMA N 1 Bukittinggi was conducted to find two homogenous sample classes. From ten classes of tenth year provided in this school, the researcher chose two classes as the sample of this research: X IPA 3 as the experimental group and X IPA 5 as the control group. Those classes were treated by using different tretments.

The data of this research was gotten from posttest (reading comprehension test) which consisted of 25 multiple choice questions which have been tested its validity and reliability. In collecting the data, the researcher taught both classes experimental and control groups using different treatments. The posttest was administered in the last meeting. Then the data was analyzed by using t-test to see the effect of Number head Together (NHT) technique on students' reading comprehension.

C. DATA DESCRIPTION, DATA ANALYSIS, FINDINGS AND DISCUSSION

1. Data Description

The data of this research were taken from students' scores of reading comprehension test (posttest) which was administered on May 23[rd,] 2016 to both groups. The result can be seen as follow:

Students' Code	Experimental Group		Control Group	
	$X1$	$X1^2$	$X2$	$X2^2$
1	74	5476	52	2704
2	76	5776	60	3600
3	76	5776	60	3600
4	76	5776	60	3600
5	76	5776	64	4096
6	76	5776	64	4096
7	76	5776	64	4096
8	80	6400	64	4096
9	80	6400	68	4624
10	80	6400	68	4624
11	80	6400	68	4624
12	80	6400	68	4624
13	80	6400	68	4624
14	80	6400	68	4624
15	80	6400	68	4624
16	84	7056	68	4624
17	84	7056	72	5184
18	84	7056	72	5184
19	84	7056	72	5184
20	84	7056	72	5184
21	84	7056	72	5184
22	84	7056	72	5184
23	84	7056	72	5184
24	84	7056	72	5184
25	84	7056	72	5184
26	88	7744	72	5184
27	88	7744	76	5776
28	88	7744	76	5776
29	88	7744	76	5776

30	88	7744	76	5776
31	88	7744	76	5776
32	88	7744	80	6400
33	88	7744	80	6400
34	92	8464	80	6400
35	96	9216	84	7056
Σ	**2902**	241524	**2456**	173856
Mean	**82.91**		**70.17**	

Based on the table above, the highest score of eperimental group was 96 and the lower one was 74. Meanwhile, the highest score of control group was 84 and the lower one was 52.

2. **Data Analysis**

In analyzing the data, the researcher analyzed the mean score and the standard deviation of each group. The means score of experimental groups was 82.91 and its standard deviation was 5.16. Meanwhile, the means score of control groups was 70.17 and its standard deviation was 6.68. Then, the scores were calculated through:

a. homogeneity test; the result showed that F_{count} -0,02 < F_{table} 1.76 with the level of significant 0.05. Thus, it means that the two variance or the two groups, both control and experimental groups, were homogenous

b. normality test; it was found that the value of experimental group post-test was $L_0 = 0,1409$ and $L_{table} = 0,1498$ for N = 35 and the level of significant was 0,005. It can be concluded that $L_{table} > L_0$ (0,1498>0,1409). Thus, it could be concluded the data was normal distributed. Then the value of control group post-test was $L_0 = 0,1365$ and $L_{table} = 0,1498$ for N = 35 and the level of significant was 0,05. It can be concluded that $L_{table} > L_0$ (0,1498>0,1365). Therefore, the data of this research was normally distributed.

c. t-test; the results of t-test showed that $t_{observed}$ was higher than t_{table} ($t_{observed}$> t_{table}= 8.73> 2.00). It means that there was a significant difference between the students' posttest scores in both experimental and control groups.

3. **Findings**

From the data analysis above, it was found that the students who were taught by using Number Head Together (NHT) have better

reading comprehension than those who were taught by using conventional technique. It was proved by calculating it by using *t-test*. The result of the *t-test* showed that t_{count} was 8.73 was bigger than t_{table}2.00, in the level of significance 0.05. The result proved that there was significance different between the experimental groups with the control groups in the post-test.

4. **Hypothesis Testing**

Based on the findings above, it had been mentioned that t_{count} in this research was higher than the value of t_{table}. Therefore, the hypothesis H₁ that stated "the students who are taught by using Number Head Together have better reading comprehension than the students who are taught by using conventional technique." was accepted. While H₀ that stated "the students who are taught by using Number Head Together do not have better reading comprehension than the students who are taught by using conventional technique" was rejected.

5. **Discussion**

This research was conducted to see the effect of Number Head Together (NHT) technique on students' reading comprehension. The result of this research proved that this technique was a good technique to be used in teaching reading comprehension. This technique assisted on promoting students' participation during the learning process through four steps: numbering, questioning, head together and answering.

Using this technique in teaching reading comprehension helped the students to understand and comprehend more about the material being taught since all of them got involved during the learning process and also they were asked to argue each other when their numbers were called. In addition, it helped the students to be more critical.

The result of this research was also supported by several related findings which were Nuriddin (2013) which concluded that Number Head Together (NHT) technique was likely higher effective than the other techniques in improving the reading comprehension, Rahmawati (2014) which concluded that the application of cooperative learning type NHT technique was effective in teaching reading comprehension, Munawaroh (2015) which concluded that the achievement of the students' who were taught by using NHT was higher than the achievement of the students' who were taught by using STAD.

In the learning process, it can be seen that all students in groups work harder to find the answer of the questions given by the teacher. It

is because this technique, NHT, promotes students participation just like what Reiss said above. All students actively participate during the learning process.

The way of the students in answering the teacher's question was different from the technique used in the control class. In NHT which was implemented in experimental class, each student has one number which was used by the teacher to call them and all members of the groups should know the answer before the teacher randomly point one number to give an answer.

For example, the teacher called number 2 to answer question number 1. It means all 2s students from each group stood up and told their opinion about the question. This activity allowed the students to argue each other untill enough answer was offered. In addition, this acitivity also train students critical thinking since they have to maintain their opinion and argued with other group members. This activity repeated for the next questions. The teacher called one number randomly so that all students have to be ready to stand up and tell their opinion.

There were some weaknesses found during the process: The one who taught in both experimental and control groups was the researcher herself Second, the researcher conducted this research at SMA N 1 Bukittinggi which has been certified as "Unggul" school. Third, the researcher conducted this research during her teaching practice. Last, the research still wasted much time on numbering the students

D. CONCLUSION AND SUGGESTION

Based on the findings and discussion that have been discussed in the previous chapter, it can be concluded that the students who were taught by using Number Head Together had better reading comprehension than the students who were taught by using conventional technique at tenth year students of SMAN 1 Bukittinggi registered in academic year 2015/2016.

Based on the result of the research, the researcher suggested the next researcher as follow: (1) to involve two homogenous teachers to teach in both classes (2) to conduct a research at non-unggul school (3) not to do their research during teaching practice in order to do the research maximally (4) to manage the time well during the process.

Note: This article is written based on the writer's thesis with a guidance from Prof. H. Rusdi, Grad. Dipl., M.A., Ph.D. and Dra. Aryuliva Adnan, M.Pd**.**

References:

Anderson, Neil J and David Nunan.2008. *Practical English Language Teaching Reading*. New York: Mc Graw Hill Companies, Inc.

Candlin, Christopher N and David R. Hall.2002. *Teaching and Researching Reading*. Boston: Pearson education.

Hamida, A, Amir, Z, & Fitrawati. 2012. The Effect of Applying Summarizing Strategy Toward Students' Reading Comprehension in Exposition Text: an Experimental Research at Second Grade Students of MAN 2 Padang. *Journal of English Language Teaching*, 1 (1) Serie B.

Gay, L.R. 2009. *Educational Research*. New Jersey: Pearson Education Inc.

Grabe, William.2009. *Reading in a second language*. Cambridge applied linguistics: Cambridge.

Munawaroh. 2015. Journal of Research & Method in Education; The Comparative Study Between The Cooperative Learning of Number Head Together (NHT) and Student Team Achievement Division (STAD) to the Learning Achievement in Social Subject. e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 5, Issue 1 Ver. II (Jan - Feb. 2015), PP 24-3

Nuruddin, I. K., et al. 2013. The Effect of Numbered Head Together and Question Answer Relationship Techniques on Students' Reading Comprehension : A Comparative Study. E-Journal Program Pascasarjana Universitas Pendidikan Ganesha Program Studi Pendidikan Bahasa Inggris (Volume 1 Tahun 2013).

Rahmawati, Destiani. 2014. The effectiveness of using cooperative learning type Number Heads Together (NHT) improving reading comprehansion of the students at SMP N 20 Tangeran. The Second International Conference on Education and Language (2nd ICEL) 2014 (2303-1417)

Reiss, Jodi. 2012. *120 Content Strategies for English Language Learners. 2nd ed*. United States: Pearson Education, Inc.