

THE EFFECT OF USING NUMBERED HEAD TOGETHER TECHNIQUE ON THE EIGHTH GRADE STUDENTS' READING COMPREHENSION ACHIEVEMENT AT SMPN 2 TANGGUL JEMBER

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Abstract. *This article is intended to discuss the effect of using Numbered Head Together (NHT) technique at the eighth grade students' reading comprehension achievement at SMPN 2 Tanggul Jember. Reading is one of the basic skills that are taught to students at junior and senior high school. Reading relates to reading comprehension. It means that a reader should think critically how to understand the text. Through reading activities, the students are expected to be able to comprehend the word, the sentence, the paragraph, and the text meaning. Therefore, a good reading ability is needed to make students master in reading. The use of Numbered Head Together technique in teaching reading is effective, since it lets the students to cooperate with their group by putting their head together to discuss the problem. This research applied a quasi-experimental with posttest only control group design. The research was conducted at SMPN 2 Tanggul Jember with the eighth graders as the research population. Considering the Homogeneity test's result, the population was homogeneous, therefore the research sample was chosen by using lottery. VIII-B which had 35 students was the experimental group and VIII-C which consisted of 36 students was the control group. The result of the students' reading comprehension test was calculated by using independent sample t-test through SPSS program. The result of the calculation showed that the use of Numbered Head Together Technique gave a significant effect on the eighth grade student' reading comprehension achievement at SMPN 2 Tanggul Jember.*

Key Words : *Reading comprehension achievement, Numbered Head Together Technique, Independent Sample t-test.*

INTRODUCTION

As a means of communication, language plays an important role for humans' life. People use language as a medium for transferring information from the speaker to the listener. Without having language, people cannot express their ideas, thought, and feelings. There are so many languages that are used by people around the world, one of them is English.

English is one of the international languages used by many people in the world. Crystal (2003: 6) states that English is spoken in approximately a quarter of the world's population. In fact, most of the sources of information, including book, science, and technology, are written in English. English is the most widespread medium of communication. It is because of the number and geographical areas of its speakers and

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the large number of non-native speakers who use it for part of their international contact. Thus, it is not surprising that English role is getting more and more important in our life. From the explanation above, it is clearly important to master English both in oral and written forms. Moreover, the Government of Indonesia has decided that English is regarded as a compulsory subject that is taught in junior and senior high schools.

In Indonesia, English is considered to be a foreign language. It means that Indonesian people do not use English for daily communication. As a result, learning English is very difficult for the learners because there are so many things that different from their first language. Besides, based on the 2006 Institutional Level Curriculum for junior high school students, the students should master all of the four language skills; reading, writing, listening and speaking.

Reading is one of four basic skills that are taught to the junior and senior high school students. This skill was as important as the other language skills. Grellet (1996:8) states that reading comprehension should not be separated from other skills. It means that everything that people talk or write is all about everything they have read. Reading relates to reading comprehension. When students are reading, they are doing thinking process by comprehending all the words, phrases, sentences, and paragraphs in order to get the meaning of the text as a whole. Through reading activities, students are expected to be able to understand the meaning of the whole text. Consequently, the students must have a good reading ability.

Based on the preliminary study conducted by an interview with the English teacher of the eighth grade at SMPN 2 Tanggul Jember, it was known that the English teacher of SMPN 2 Tanggul Jember as the center of learning usually teaches the students by using lecturing technique. In other word, the English teacher never used NHT Technique in teaching reading. He also explained that lecturing technique actually does not very effective for students. The students cannot really understand the meaning of the reading text. Consequently, they could not answer the comprehension questions correctly. For that reason, the teacher should choose the appropriate teaching strategy to make the students master in reading. One of the teaching strategies that can be applied in teaching reading comprehension is cooperative learning.

Cooperative learning is an approach to teaching that makes maximum use of cooperative activities involving pairs and small group of learners in the classroom (Richards and Rodgers, 2002: 192). It means that this approach emphasizes on cooperation rather than competition within the member of group. Good cooperative learning strategies engage students in sharing how they think, examining it themselves, gaining insight from the critiques of their peers, and enlarging their conceptual understanding by hearing how others understand the same content (Cooper, 1999:272). There are many kinds of technique in cooperative learning. The researcher chose Numbered Head Together technique to conduct this research.

Numbered Head Together (NHT) technique is a cooperative learning strategy that holds each student in a group accountable for learning the materials. In this technique, the students have to work in-group and think together to solve the problem with all the member of the group. The entire member has responsibilities to know the answer because nobody knows who will be called by the teacher to present the answer. Cooper (1999: 282) states that NHT technique provides an incentive from students to harness their interest in socializing to academic agenda, to invest the learning of their teammates and to work hard themselves.

There are some strengths of using NHT Technique in teaching reading:

1. Increase the students' motivation.
2. Increase the students' retention.
3. Promote positive competition.
4. Promote discussions in both individual and group accountability.

Considering the above strengths, NHT Technique provides the students' opportunities to work cooperatively to achieve the goal of their group. The group success depends on the individual success, because students have the same responsibility to solve the problem given and support their group to achieve the goal. It means that the individual and group accountability is required.

Beside the strengths above, there are some weaknesses of using NHT Technique in teaching reading:

1. In NHT Technique, the division of groups should be equal, meaning that each group consists of higher achiever, average and lower achiever. Therefore the group's division should be done by the teacher. There is a possibility that the

students reject the group that is divided by the teacher. To overcome this problem the teacher (researcher) needs the English teacher's help to ask the students to make group as the teacher wants.

2. There is a possibility that the students over hear or cheat from another group. To solve the problem of overhearing the teacher will arrange the distance between groups. If the students cheat from another group, the teacher will punish for the group by not giving point for the group although the group's answer is correct.

Many researchers had done a research by using Numbered Head Together technique. The previous research findings were needed to provide relevant references for this research. First, Cristiani (2008) conducted an experimental research. She showed that the application of NHT technique influenced the eighth grade students' reading comprehension achievements of SMPN 1 Kalisat Jember. In her research, she used narrative text as the reading material. She focused on finding general and specific information from the reading text. She stated that the students who got treatment using NHT technique achieved better reading achievement compared to the students who taught without NHT technique. Second, an experimental research done by Taufiq (2012) proved that the use of NHT technique gave a significant effect on the seventh year students' tense achievements at SMP N 2 Balung Jember. The study shows that the students who taught by the application of NHT technique got the better score than those students who did not. It means that we can use NHT Technique as an alternative technique in teaching English, including in teaching reading comprehension. Third, a classroom action research done by Mustafa, Yusnani and Baharuddin (2011) proved that the use of NHT technique was successful in improving students' achievement in comprehending Mathematic concept at the VIII B class of MTsN Takalala, Soppen, South Sulawesi. The improvement could be seen from the percentage of the sample that could pass 75 as the minimal score (at cycle 1, only 49% of the sample could pass the minimal score; at cycle 2, 76.6% of the sample could pass the minimal score). Fourth, the experimental research done by Nesrin and Nazli (2004), they showed that there was a significant effect of using cooperative learning (including NHT Technique) on the seventh class students' Mathematics achievement in Balikesir, Turkey.

In brief, the researches above indicate that the use of NHT Technique not only successful in improving the students' achievements of the course, but also it can be applied to different subject (reading and mathematics).

RESEARCH METHODS

The design of this research was quasi-experimental with posttest only control group design (Cohen et al, 2007:278). The area of the research was SMPN 2 Tanggul Jember. The population of the research was the eighth grade students of SMPN 2 Tanggul Jember in the 2012/2013 academic year that was divided into five classes, they are 8A, 8B, 8C, 8D and 8E. The Homogeneity test's result the sample in this research was determined by using lottery. Class 8B as the experimental group consisted of 35 students and class 8C as the control group consisted of 36 students. The primary data (quantitative data) in this research was gathered by administering a reading comprehension test.

The procedure of this research was as follows. First, the researcher administered the homogeneity test to the population of the research and analyzed it by using ANOVA formula. Second, because of the result of the homogeneity test was homogeneous. Therefore, the researcher took the respondents as experimental and control groups by lottery. Third, the researcher gave two meetings of NHT Treatment for the experimental group (8B) and two meetings of lecturing technique for the control group (8C). Fourth, the researcher administered the tryout test for one class that did not include as the research sample. Fifth, the researcher administered the posttest for both groups, the experimental and the control group. At last, posttest's scores were analyzed by using Independent Sample t-test through SPSS program.

FINDING AND DISCUSSIONS

Before conducting the posttest, the researcher administered the try out test on January 11th, 2013 at 09.55 up to 10.35 a.m. the test was given to one class that was not selected as the research sample. Considering the research sample, it was known that the eighth grade student of SMPN 2 Tanggul Jember in the 2012/2013 academic year was homogeneous. Therefore, the research sample and the class for administering the tryout

were chosen by using lottery. In this research, VIII A was taken as the class for administering tryout test.

The result of the try out was used to calculate the reliability coefficient and the difficulty index. In this research, Split half Odd-Even technique was applied to calculate the reliability coefficient. The data of try out were divided into two halves. The first half consisted of odd number and the second half consisted of even numbers. The second was correlating the two sets of scores by using product moment formula (Sudijono, 1996: 219) to know the reliability of the half test. The reliability of the half test was 0.58. In order to obtain the reliability index of the whole test, the value of reliability coefficient was taken into Spearman-Brown formula. From the estimation, the reliability of the whole test was 0.73. It was categorized as reliable because according to Sudijono (1998:209) the reliability coefficient of teacher made test is ≥ 0.70 . It means that the researcher did not need to make any changes of the test items, and the test items for the posttest could be administered.

After analyzing the reliability of the test, the analysis was continued to the difficulty index. The difficulty index for each item could be found by finding the number of the students who answered correctly and was divided by the number of students who answered the questions. The result showed that three test items were categorized as easy item (15%), three items were categorized as difficult items (15%), and the rest 14 items (70%) were categorized as fair (Djiwandono, 1996: 141).

The try out test was also intended to know whether or not the time allocation was sufficient. Dealing with the time allocation, the researcher found that the time allocation for the try out was appropriate because the students were able to finish all of the test items within the available time. Besides, the tryout test also intended to know whether the instructions of the test were clear or not. Dealing with the instructions, all the students understood the test instruction very well. From the clarification above, it could be concluded that the test items did not need to be revised. Hence, the test items of the posttest administered to the experimental group and the control group was the same as the test items of the try out.

The posttest was administered to both groups, the experimental group and the control group on Friday, January 18, 2013 after the two meetings of NHT treatment for the experimental group and two meetings of lecturing technique for the control group in

learning reading comprehension. The result of the posttest was analyzed by using independent sample t-test formula of SPSS (*Statistical Package for the Social Science*) to know whether or not the mean difference between the experimental group and the control group was significant. The output of the posttest analyzed by using independent sample t-test of SPSS as presented below:

Table 1. The Output of Group Statistics of Posttest

Group Statistics					
	Class	N	Mean	Std. Deviation	Std. Error Mean
Score	Experimental	35	75.29	11.403	1.927
	Control	36	69.22	7.108	1.185

From the Table 1 above, the total number of the test takers of the experimental group was 35 students. While the test takers of the control group was 36 students. The mean score of the experimental group was 75.29 with standard deviation 11.403 and the mean score of the control group was 69.22 with standard deviation 7.108.

Table 2. The Output of Independent Sample T-Test of Posttest

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Score	Equal variances assumed	6.712	.012	2.697	69	.009	6.063	2.248	1.578	10.549
	Equal variances not assumed			2.680	56.861	.010	6.063	2.262	1.532	10.594

From the Table 2 above, it is known that the value of significant column of Lavene's test was 0.012, it was lower than 0.05. Thus, the row that must read was the second row of t-test for Equality of Means column. In the column, the value of significant column (2-tailed) was 0.010 and it was lower than 0.05. It means that there was a statistical difference between the experimental and the control group. Significant column (2-tailed) in this research means that the effect can be positive or negative.

Overall, it can be concluded that the null hypothesis "There is no Significant Effect of Using Numbered Head Together technique on the Eighth Grade students' reading comprehension achievement at SMPN 2 Tanggul Jember" was rejected. On the

other hand, the alternate hypothesis “There is no Significant Effect of Using Numbered Head Together technique on the Eighth Grade students’ reading comprehension achievement at SMPN 2 Tanggul Jember” was accepted.

The research findings provide evidence that Numbered Head Together (NHT) technique can have a significant effect on the students’ reading comprehension achievement at SMPN 2 Tanggul Jember. The findings confirm Cooper’s idea (1999:281) that NHT makes drill and quick reviews of facts engaging and productive for the whole class. In other words, NHT technique enables the students to learn any subject, especially reading comprehension and mathematics. Furthermore, as stated by Cooper (1999:273), NHT technique engages the students actively in achieving the objective of a lesson with their own groups. This means NHT technique makes the students become active during the teaching learning process because it enables the students to cooperate with their teams to achieve the goal of the team. The technique is also focused on cooperation within the groups rather than competition. For this reason, the individual and group accountability is required.

In terms of pedagogical implications, this study provides some valuable insights to the English teacher of SMPN 2 Tanggul Jember to also apply NHT Technique as an alternative technique in teaching English especially in teaching reading comprehension since it is proven to have an effective result on students’ reading comprehension achievement.

CONCLUSION AND SUGESTIONS

Considering the research findings and their pedagogical implications, it can be concluded that Numbered Head Together (NHT) Technique can have a significant effect on the eighth grade students’ reading comprehension achievement at SMPN 2 Tanggul Jember. Therefore, the English teacher at school should use NHT Technique to improve the students’ reading comprehension achievement at SMPN 2 Tanggul Jember because NHT Technique is an effective teaching technique. Besides, it is suggested for the English teacher to use Numbered Head Together Technique to teach English, especially to teach reading comprehension.

REFERENCE

- Cohen, L., Lawrence, M., Keith, M., 2007. *Research Method in Education*. New York : Routledge.
- Cooper, J. M. 1999. *Classroom Teaching Skill*. Boston : Houghton Mifflin Company
- Cristiani, A. 2008. *The Influence of NHT Technique on Reading Comprehension Achievement of The Grade Eight Students of SMP 1 Kalisat-Jember in the 2007/2008 Academic Year*. Universitas Jember : Unpublished S1 thesis.
- Crystal, D. 2003. *English as a Global language*. Cambridge : Cambridge University Press
- Depdiknas. 2006. *Kurikulum Tingkat Satuan Pendidikan (KTSP) Mata Pelajaran Bahasa Inggris untuk SMP/MTs*. Jakarta : Depdikbud.
- Djiwandono, M. S. 1996. *Tes Bahasa dalam Pengajaran*. Bandung: Penerbit ITB.
- Grellet, F. 1996. *Developing Reading Skills: A Practical Guide to Reading Comprehension Exercises*. Cambridge : Cambridge University Press.
- Mustafa, Yusnani And Baharuddin. 2011. Penerapan Pembelajaran Kooperatif Model Numbered head together (NHT) Untuk Meningkatkan Keaktifan dan Penguasaan Konsep Matematika. In *Jurnal PTK Decentralized Basic Education 3*, Vol. Khusus No 1, Februari 2011, pp. 8 – 14.
- Nesrin and Nazli. 2004. The Effect of Learning Together Technique Of Cooperative Learning Method On Student Achievement In Mathematics Teaching 7th Class Of Primary School. In *The Turkish Online Journal of Educational Technology – TOJET*, Vol. 3 Issue 3 Article 7, July 2004, pp. 49 – 54.
- Richard, J. C and Rodger, T. S. 2001. *Approaches and Methods in Language Teaching*. Cambridge : Cambridge University Press.
- Sudijono, A. 1996. *Pengantar Evaluasi Pendidikan*. Jakarta : PT Raja Grafindo Persaja.
- Taufiq, M. 2012. *The Effect OF Using NHT Technique on The Seventh Year Students Tense Achievement At SMPN 2 Balung-Jember In The 2011/2012 Academic Year*. Universitas Jember : Unpublished S1 thesis.

