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THE EFFECTIVENESS OF USING COOPERATIVE LEARNING TYPE NUMBER HEADS TOGETHER (NHT) IMPROVING READING COMPREHANSION OF THE STUDENTS AT SMP N 20 TANGERANG

Destiani Rahmawati
As-Syukriyyah Collage

Corresponding email : tazwb2000@yahoo.com

Abstract

The teacher found some constraints in students of understanding English text such as limited vocabulary; the students are lack of stock of the words, the students who have little knowledge of vocabulary will face some difficulties to understand the written language. The students' lack knowledge about the text, when student have lack knowledge about the topic that make student difficult to conclude the idea of the text, they are hard to understand what the text tells about.

This research used Experimental design. The writer teaches two different classes. They are control and experimental class. The population of this research is 305 students eighth grade in Junior High School which consists of eight classes. The writer used cluster random sampling technique to measure the reading comprehension test.

In collecting data, the writer will give reading comprehension tests to the students using multiple choice, and questioner in teaching learning using NHT in reading comprehension. The test is given to get the objective data of student's achievement in reading comprehension by using cooperative learning type NHT in experimental class. The writer will apply two test: there is pre test and post test.

The results data of analysis pre-test of the experimental class and the control class show there is no difference in mean, where value of the average values experiment class is 46.1 while the average control class is 43,1 after the experiment class was given treatment, turned out to give effect to the post-test score. The analysis data of post-test that have been done, it shows that there are differences in the average value of post-test between the experiment class and the control class, where the average in the experiment class is 68 while the control class average is 61.7. Based on the data analysis of post-test, it shows that values t_{count} more than t_{table}, where t_{count} is 2.18 while t_{table} is 1.99, so hypothesis statistic (H_1) is accepted. This suggests that the cooperative learning type NHT more effective than conventional learning. Based on those results, it can be concluded that the application of cooperative learning type NHT technique is effective in teaching reading comprehension.

Keywords : Cooperative learning type Number Head Together (NHT), Reading Comprehension

1. INTRODUCTION

1.1 Background of the Study

In the English language teaching, there are four language skills which are considered for students to master, namely: listening, speaking, reading and writing. Reading seems to be the most difficult to master by the EFL students, and yet it is clearly one of the most important in language teaching and learning, especially teaching English. Many students, however, give little attention to the lesson, and even most of them do not want to attend the class or do assignment.

Especially for teenagers or young learners of English who cannot concentrate on a topic for a long time, because they are hindered in their study by boring instructions. In addtion, reading seems to be difficult, but it is important for the Junior High School students to learn as stated in the Curriculum of Standard Competencies that: *"To e*xpress the meaning of transaction and interpersonal conversation that used kinds

of language which is very simple, accurate, and fluent which can be responded and interaction in the nearest environment*"[1]*

Learning to read is not an easy activity. A lot of the constraints or constraints encountered when someone read, that can affect the speed of absorbing the information in the reading material. Reading is an activity that is composed of four components: strategy or technique, smoothness, reader, and text. Strategy or technique is the ability of the reader to use a variety of strategies to achieve the goal in reading. Fluency is the ability to read at a certain speed with sufficient understanding. Combination of text, strategies, fluency, and the reader is referred to reading (Anderson, 2003: 68). Understanding in this regard is the purpose of reading.

A common mistake made by students in reading is too pursue their detail and lose the main idea of the text. The capability of finding the main idea is to advance the understanding stage. Finding the main idea of a paragraph or passage is key to understanding what is read it. If the main idea has been mastered, it becomes easy to understand the details. Therefore, in reading what students are expected to find the main idea, so students do not waste time to pursue detail. Therefore, whenever possible, a teacher must teach students how to read better and faster without missing the main idea in the article or reading material.

Cooperative learning has many kinds of techniques. Those techniques have been develop over the years and put into practice in the classroom. There are Students Team Achievement division (STAD), Jigsaw, Teams Games Tournament (TGT), and structural approach involves Think Pair Share (TPS) and Number Head Together (NTH).

Jane Arnold states that cooperative learning is more than just small group activity.[2] In a well-structures cooperative task, there is a genuine information gap, requiring learners to both listen to and contribute to development of an oral, written or other product which represent the group's efforts, knowledge and perspective.

According to McCafferty, M. Jacobs[3], (2006, p.127) "NHT encourages all students to think about question and to help their peers to understand the process behind their group's answer". It means that the students can understand the process how answer the questions in their groups.

Based on the reason above the writer will research about "THE EFFECTIVENESS OF USING COOPERATIVE LEARNING TYPE NUMBER HEADS TOGETHER (NHT) IMPROVING READING COMPREHANSION OF THE STUDENTS AT SMP N 20 TANGERANG"

1.2. Identification of the Problems

Based on the background of the problem above, it can be stated that there are only a few students who have ability in reading comprehension. The initial observation should learn that;

"Is there an effect of the use of cooperative learning type number heads together (NHT) improving reading comprehension of the students at SMP N 20 Tangerang?

1.3. Limitation of the Problem

Based on the identification of the problem above, this study deals with the techniques of reading comprehension of narrative text by using cooperative learning type Number Head Together (NHT) as a way to investigate the students reading ability at Junior High School (SMP) Negeri 20 Tangerang.

1.4. Formulation of the Problem

Based on the limitation of the study, the research problems can be formulated as follows:
"Is there an effect of the use of cooperative learning type number heads together (NHT) improving reading comprehension of the students at SMP N 20 Tangerang?

1.5. Objectives of the Study

Based on the research questions above, the objectives of this study are to investigate:
An effect of the use of cooperative learning type number heads together (NHT) improving   reading comprehension of the students at SMP N 20 Tangerang

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[1] Exact, Panduan guru pelajaran Bahasa Inggris untuk SMP KTSP. Jakarta,ganeca,2007. P: 15

[2] Jane Arnold. Cooperative Learning in Physical Education A research-based approach, USA & Canada:Routledge

[3] McCafferty, Steven G and Jacobs, George M. (2006). Cooperative Learning and Second Language Teaching, USA: Cambridge University Press. (p.127)

2. THEORETICAL FRAMEWORK

2.1. The Concept of Reading Comprehension

According to Grellet "Reading is a constant process of guessing, and what one brings to the text is often more important than what one finds in it".[4] And National Reading Panel, 2000 state that comprehension is a highly complex cognitive process involving the intentional interaction between the reader and the text to create meaning and to find information it means that the reader must be able to comprehend the meaning of printed words understanding content of the text.

Aebersold and field defined that reading is what happens when people look at a text and assign meaning to the written symbols in that text[5]. The writer argues that this definition is different from the definitions before. The writer thinks that reading is the process of people to assign meaning from a text. The writer defines that reading is a process to understand the content of the text, which is done by readers to get information, ideas and feelings; it is given through written language and aimed to comprehend the meaning of the text.

According to Grellet that reading comprehension is the process understanding a written texts means extracting the required information from the text as efficiently as possible[6]. In the first case, a competent reader will quickly reject the irrelevant information and find what they is looking for. In the second case, it is not enough to understanding the gist of the text; more detailed comprehension is necessary.

2.2. The Understanding of Cooperative Learning

According to Olsen and Kagan[7], cooperative learning is group learning activity organized so that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others. It define that cooperative learning is the process of learning activity where student work together in group to solve the problems, to motivated each students, and give information between each other[8].

According to Slavin[9], in cooperative learning methods, students work together in four member teams to master material initially presented by the teacher[10]. It defines that in cooperative learning students doing things together with each other to help each other as one team to master the material from the teacher.

According to Johnson, and Holubec (1993) Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning[11]. It can define that cooperative learning to learn together, help each other from each other in learning and ensure everyone in the group achieve the goals.

Cooperative learning is technique of learning make student to be a group contains by 4-6 students work together to be team each help with other, and give motivation to students in learning activity.

2.3. Type Number Head Together (NHT)

Cooperative learning has many kinds of techniques. Those techniques have been develop over the years and put into practice in the classroom. There are Students Team Achievement division (STAD), Jigsaw, Teams Games Tournament (TGT), and structural approach involves Think Pair Share (TPS) and Number Head Together (NTH).

NHT is cooperative learning method develop by Spencer Kagan. According to Trianto, "*penomoran berfikir bersama adalah merupakan jenis pembelajaran kooperatif yang dirancang untuk mempengaruhi pola interaksi siswa dan sebagai alternatif terhadap sturktur kelas tradisional*"[12]. It means NHT or numbering thinking together is a type of cooperative learning that is designed to influence the patterns of

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[4] Grellet. 1981 *Developing Reading Skills*. Cambridge: Cambridge University Press. (p.7)

[5] Jo Ann Aebersold and marry Lee Field, *From Reader to Reading Teacher : Issue and strategies for   second language classrooms*(Cambridge university press, 1991),p.15

[6] Grellet. 1981 *Developing Reading Skills*. Cambridge: Cambridge University Press

[7] Kagan,S. 1994. Kagan cooperative learning. 2nd ed. San Clemente, CA: Kagan Publishing.

[8] Richard, Jack C and Rodgers, Theodore S. (2001). *Approaches and Methods in Language Teaching*, Cambridge: Cambridge University Press.(p.192)

[9] Slavin, R. E.(1990). Cooperative Learning. New Jersey: Prentice-Hall

[10] Isjoni (2011). *Cooperative Learning*. Bandung: Alfabeta, (p.15)

[11] McCafferty, Steven G and Jacobs, George M. (2006). *Cooperative Learning and Second Language Teaching*,   USA: Cambridge University Press. (p.3)

[12] Trianto. (2009). Mendesain Model Pembelajaran Inovatif-Progresif: Konsep, Landasan, dan Implementasinya   pada Kurikulum Tingkat Satuan Pendidikan, Jakarta: Kencana Prenada Media Group. (p.82)

student interaction and as an alternative to the traditional classroom structure. The writer agree with the theory above that NHT is cooperative learning where each student in the group has a different number, and students make cooperation in group to understand the material .

According to Bawn "NHT is similar to cooperative learning type Students Team Achievement Division (STAD) because heterogeneous groupings of students are used. Arrangement of four students per learning team, with each team counting off from one to four is the beginning of Numbered Heads Together"[13]. The writer agree with the formation in group where the teacher divide to be group with heterogeneous such as in students achievement, ethnic, culture, sex and etc.

Based on the explanation above, the writer can conclude that NHT is one of type cooperative learning where each student in the group has a different number according to the number of members in the group. Technique of learning which grouping students into small group with heterogeneous there is one high achieving student, one low achieving student and two average achieving students on a learning team. And learning group to give opportunity for students to each share them idea and make all member in group more active work together to increase academic mastery.

2.4. Step Teaching Learning process through cooperative type NHT

According to Kagan (1992) there are four steps in doing Number Head Together:
1. Each student in a group of four gets a number : 1, 2, 3, or 4
2. The teacher or a student asks a question based on the text the class is reading.
3. Student in each group put their heads together to come up with an answer or answer. They should also be ready to supply support for their answer from the text and or from other knowledge.
4. The teacher calls a number from 1 to 4. The person with that number gives and explains their group's answer[14]

Based on the steps above, the writer would like to add the steps in the learning type NHT, such as:

Step 1. Preparation. At this stage the teacher prepares a lesson plan and work sheet by making cooperative learning model according to the type of Numbered Heads Together.

Step 2. Explanation. The teacher explanation about the material

Step 3. Formation of groups. The teacher divides the students into heterogeneous groups consisting of 3-6 students. Teachers gave a number to each student in the group and name the group. The group was formed by a mixture of in terms of social background, race, ethnicity, gender and learning ability.

Step 4. Discussion of problems. The teacher give a worksheet to students to be discussed, Students then think and work together. Furthermore, each member of the group they should know the answer to the question that is on the sheet or activity that has been given by the teacher.

Step 5. Call the number of members or giving answers. The teacher then calls a number then the number corresponding and student raise his hand and the teacher ask the question, then the students answer the question to the whole class.

Step 6. Give individual task. The teacher give individual task for students.

Step 7. Gives conclusions. Teachers with students concluded the final answer of all questions related to the material presented.

2.5. Scoring system in teaching reading comprehension

According to Pakhare 2011, Reading comprehension is defined as the level of understanding of a passage or text. Reading at the rate of 200 to 220 words per minute is considered as a normal speed of reading. For normal reading rates, 75% is an acceptable level of comprehension. That means if a child can understand the meaning of at least 75% of the total text given, then it is regarded as acceptable limits for reading comprehension.

3. RESEARCH METHODOLOGY

3.1. Data Analysis Technique

This research used Experimental design. The writer teaches two different classes. They are control and experimental class. The population of this research is 280 students eighth grade in Junior High School

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13 Bawn, Susan (2007). The Effect of Cooperative Learning on Learning and Engagement, America.(p.43-44)
14 Richards, Jack C and Rcnandya, Willy A. (2002). Methodology Language Teaching : An Anthology of
    Current Practice, USA: Cambridge University Press. (p.52)

which consists of eight classes. The writer used cluster random sampling technique to measure the reading comprehension test.

In collecting data, the writer will give reading comprehension tests to the students using multiple choice, and questioner in teaching learning using NHT in reading comprehension. The test is given to get the objective data of student's achievement in reading comprehension by using cooperative learning type NHT in experimental class. The writer will apply two tests: there is pre test and post test.

In the research, the statistic techniques which are used to examine the hypotheses divided into many steps were; description of data, analysis of test requirements, and the hypothesis test.

1. Description of data

The steps in doing the description of data is make each variable in tabulation table. All of the data were analyzed by using SPSS (statistical Program For Social Science) in order to describe the results of the variables in frequecy distribution table, than made histrogram, mean, mode, average, and standard deviation.

2. Analysis of test requirements

The analysis tested by validity and reabilty instrument, normality and homogeneity test. The validity test used to know the effectiveness of the test and reliability test used to know how far the consistent of the value from the others test to the students' ability in reading. Reliability also showed the estimation of the variance in different condition. The normality test was used to know the data was normally or not normally. The analyses used Lilifores test. And the homogeneity test was used to make sure the data from the population and sample of homogeneity. It used Barlett test

In this research, the researcher used validity to know the correlation between the value of pre-test and post-test. The researcher listed the result to table and calculated by the Person Product Moment formula taken from Arikunto[15] as follow:

$$r_{xy} = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{(n\sum X^2 - (\sum X)^2)(n\sum Y^2 - (\sum Y)^2)}}$$

Note:

r_{xy} = correlation coefficient n = number of test
X = pre-test value Y = post-test value

The result of calculation this pearson product moment divedid with r $_{value}$ in table r, if r $_{con}$ > r $_{tab}$, so the instrument was valid.

a. Hypotheses test

The hypotheses in this research will do by t $_{test}$ to know the result of the data is lower than significance level. The pattern of t test is illustrated:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \qquad s^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{(n_1 + n_2 - 2)}$$

Where:

S = Standard deviation
n_1 = Sum of the students in the experimental class
n_2 = Sum of the students in the control class, with pattern
dk= $(n_1 + n_2 - 2)$
S_1 = Sample standard deviation
S_2 = Standard deviation of the sample
$\bar{x}_t$ = Mean after treatment
$\bar{x}_0$ = Mean before treatment

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[15] Arikunto. *Prosedur penelitian suatu pendekatan praktek*. Jakarta: Rhineka Cipta. 1996. P. 160

4. RESEARCH FINDINGS AND DISCUSSIONS

4.1. The Research Findings

The result of data analysis after the treatment is conducted reveals that the mean of experimental group is higher than control class. This study through the analysis of pre-test and post-test also shows that the students ability of reading improved significantly when NHT is used. Based on those results, it can be concluded that the application of cooperative learning type NHT technique is effective in teaching reading comprehension.

The students' reading comprehension increased after given treatment using cooperative learning type NHT of experiment class. It can be seen from the acquisition of post test results on the experimental class. The results data of analysis pre-test of the experimental class and the control class show there is no difference in mean, where value of the average values experiment class was 46.1 while the average control class was 43,1 after the experiment class was given treatment, turned out to give effect to the post-test score. The analysis data of post-test that have been done, it shown that there were differences in the average value of post-test between the experiment class and the control class, where the average in the experiment class was 68 while the control class average was 61.7.

Based on the data analysis of post-test, it shown that values t_{count} more than t_{table}, where t_{count} was 2.18 while t_{table} was 1.99, so hypothesis statistic (H_1) was accepted. This suggests that the cooperative learning type NHT was more effective than conventional learning.

4.2. Discussion

This study found that an effect of the use of cooperative learning type number heads together (NHT) improving reading comprehension of the students at SMP N 20 Tangerang was a significance. The result also indicated that high achievers significantly benefitted teaching reading through cooperative learning type number heads together (NHT) at SMP N 20 Tangerang. The students who got good values in the pre-test got much better values in the post-test.

The teacher only explained the rules without giving sufficient practice and exposure to the language. Moreover, they were not used to reviewing the lesson because of limited time. This situation may result in the lesson being teacher-centered, and it was not challenging in terms of creativity and imagination. The NHT encouraged the belief that learning a language was simply a case of knowing the rule. In this situation, it recommended that NHT may serve as alternative techniques for teaching reading ability.

5. CONCLUSIONS AND SUGGESTIONS

5.1. Conclusions

Based on data analysis and comparison of the result of pre-test and post-test in experiment class (a) and control class (c), it was found that:

There was an effect of the use of cooperative learning type number heads together (NHT) improving reading comprehension of the students at SMP N 20 Tangerang. It showed that before the students were given the treatment, the result of pre-test did not effect of students` reading ability through cooperative learning type number heads together (NHT). After the teacher were given the treatment through cooperative learning type number heads together (NHT), the result of post-test improve the students` reading ability. Because the teacher increased the students' competence and cooperative learning type number heads together (NHT) can motivate the students to read.

Finally, the use of teaching reading through cooperative learning type number heads together (NHT) was more effective than those through conventional. It showed that the result of the mean value of pre-test before using cooperative learning type number heads together (NHT) was more effective than teaching reading through conventional technique. Because there was a significance mean difference between cooperative learning type number heads together (NHT) , after the teacher created an English interaction, got more exposure and practice in the class.

5.2. Implication

The result of this research is expected to be beneficial for all English teachers who taught in the reading class. The result showed that there was an effect of teaching reading through cooperative type NHT was

important for improving the students` reading ability. However, introducing the topic and choosing a suitable reading material make the students' aware of their reading ability.

1. Need to set a time as possible so that all stages in the implementation of learning can be achieved.
2. In the learning process the teacher should facilitate students to learn actively, so that all members of the group cooperative can master the material being studied.
3. It needs a preparation includes worksheets, quiz questions, quiz answers for the learning process to go as planned.

5.3. Suggestions

Based on the conclusion, the writer puts forward some suggestions that might be useful for any teacher who teaches English as a foreign language.

For teachers and prospective teachers of English, learning with Cooperative method type NHT can be applied to enhance students' reading ability, because these methods provide more opportunities for students to help each other master the material being studied, and give students the opportunity to actively engage with each other in solving problems that are being faced, In the implementation of learning need for proper preparation, proper timing in order to achieve maximum results.

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