ENHANCING STUDENTS' READING COMPREHENSION ABILITY THROUGH COMPARISON STUDY BETWEEN COOPERATIVE LEARNING NUMBERED HEADS TOGETHER (NHT) AND THIN-PAIR-SHARE (TPS) STRATEGIES

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Abstract: *This study attempts to find significance difference in enhancing students' reading comprehension ability by comparing two teaching methods: Numbered Heads Together (NHT) and Think-Pair-Share (TPS). In this study, the respondents were students of Grade VIII from SMP Advent II, Setia Budi and students of Grade VIII from SMPN 1, parongpong. After careful detail of analysis, the result found is the average gain for Numbered Heads Together group is 0.2553 and Think-Pair-Share group is 0.5127. The p-value = 0.001 < α (0.05), which means there is a significant difference on the students' ability in reading comprehension between those who are taught using Numbered Heads Together (NHT) method and those who are taught using Think-Pair-Share (TPS) method.*

Keywords: Numbered Heads Together, Think-Pair-Share, Reading Comprehension.

INTRODUCTION

It is widely known through comprehending English reading materials, students may be able to explore more ideas and insights. Reading is deemed to be linguistic process. Hartmann and Blass (2007) stated in order to read well, readers should comprehend the syntax and semantics of the language and should have knowledge of the alphabet and have an awareness of certain aspects of the linguistic structure of language. McNamara (2007) said that students are required to identify words in the text (recognition) and comprehend them and later created meanings to establish reading accuracy (fluency). Furthermore, Reading is thinking. Thinking to comprehend the written test (Gibson, 2009).

According to Adeniji and Omale (2010), the ability to read, most likely, determines students to have better chance to get higher achievement. Reading skill can represent the students' skill in writing, listening and speaking. Moreover Ferrell (2012) emphasized that the main purpose for reading is to comprehend the ideas in the text. Without comprehension, reading would be empty and meaningless. Reading is not an easy subject to teach and many researchers still struggle to find the best method to be used. In relation to this, Mikulecky and Jeffries (1996)) assumed that the definition of true comprehension is "understanding about what is read and connects the ideas in the

text to what readers know about previously" (p.74). Reading drifts one's mind to comprehend a written text (Sovah & Rukmi, 2013)). Reader should comprehend the meaning of the reading text in order for them to understand the context of the text. Andanawari (2012) accentuated that reading comprehension is defined as the ability to understand information on a text and interpret it appropriately. Blachowicz and Ogle (2008) added that reading comprehension is "a silent reading activity undertaken for the purpose of learning so as to obtain greater insight about something that has been read."

Wulandari (2014) said that students who are good at comprehending a particular text most likely will be able to grasp the meaning and the organization of the writer's ideas. According to Anderson (2008), reading comprehension is a process that involves meaningful construction of an author's message by the use of prior knowledge, especially the knowledge of language. It means that reading comprehension is a process of getting the meaning and be knowledgeable in order to get the meaning of texts.

Yet sad to say, based on Diestha's (2011) finding students are less eager to learn how to comprehend reading materials, and during last school hour, students are only interested reading brief, easily understood materials. In addition to this Siahaan (2013) stated that reading is a wide-spread problem to Indonesian students. Matters that may cause this issues are categorized in several factors: physical factor, cognitive factor, psycholinguistic factor and emotional factor. Reading in English. These factors are known to give strong impact in enhancing students' comprehension ability (Aeny, 2009). Haris and Edward (1957) had drawn a conclusion on four factors that cause reading problems. The followings are the factors:

      Physical Factor. Physical could be a problem in reading when the readers are processing the information based on the text. Physical factor can happen if physical abilities of the readers such as visual sensory abilities and auditory sensory abilities are limited Aeny (2009). Self-esteem become an increasingly important concept in the field of child and adolescent mental health Butler & Gasson (2005).

      Cognitive Factor. Beside it there is also cognitive factor that cause problem in reading. Woolley (2011) defined cognitive factor as a process of think and reason that related to the use of analytic-sequential thinking of learning preference, memory abilities, recalling about the specific meaning of the words, and also recognizing the relationship with the paragraph for gaining the knowledge. In applying cognitive factors, the failures will lead the readers having difficulties in comprehending the text.

Language/Psycholinguistic Factor. This factor also as a problem in reading. According to Wiley and Sons (2013) early psycholinguists described our comprehension and production of language in terms of the rules that were postulated by linguists. The connections between psychology and linguistics were particularly close in the area of syntax, with psycholinguists testing the psychological reality of various proposed linguistic rules. Worldwide concerned for literacy combined with the growing recognition by psychologist and linguist of how language may reflect the workings of the mind have helped bring about a surge of interest in the topic (Downing and Leong, 1982).

Emotional Factor. Emotional factor is considered as one of factors that cause disability in comprehending written text or reading materials. It is related to the individual condition of the readers. It has been observed that at times of physical or emotional stress, patients may experience flare-ups of symptoms, such as increasing abdominal pain or diarrhea (Rosenthal and Irwin, 2015).

One of the main ways to solve those issues is through Cooperative Learning; Johnson and Johnson (2009) cited that there are five basic elements of Cooperative Learning: positive interdependence, promotive interaction, individual accountability, teaching of interpersonal and social skills, and quality of group processing. One thing that is important that learning situations cannot be cooperative if students are arranged into groups without having positive interdependence. In addition, Cooperative Learning is a good style of learning for students. This style also builds students' creativity in thinking, sharing, talking, and working together with others. In cooperative Learning there are five basic elements:

Positive Interpendence. The groups are trained to work together and achieve the higher achievement than does individualistic effort. One skills and performance will affects another member or group to success and create responsibility to achieve the goal. Tran (2014) that "Positive interdependence means that in cooperative learning situations, students are required to work together as a cohesive group to achieve shared learning objectives" (p.131).

Promotive Interaction. It explains that one student in a group leads, encourages, and facilitates each member to reach the objectives. Promotive interaction also leads the students to discuss the assignment, share their ideas, help each other, and develop ideas. According to Gillies and Boyle (2007) Promotive interaction implicate individuals to encourage and facilitate each other's effort to equip the task and achieve the goals of the group.

Individual Accountability. Based on Smith (2000) Individual accountability or personal responsibility assessment make each member to become a stronger

individual in his or her own right. Students learn together so that they can perform better as individual. Each individual students' performance is assessed and the results given back to the individual and may to the group.

Social Skills. Li and Lam (2013) explained that through social skill students are encouraged and helped to develop and practice the trust-building, leadership, decision making, communication, and conflict management skills. Social skills is an important part of learning especially in learning using cooperative learning strategy.

Group Processing. Group processing has purpose to clarify and improve the effectiveness with members to carry out the necessary process to achieve the goals of group. During group processing, each member are expected to express respect for each other's contributions to the group efforts and for each other as persons (Jolliffe), 2007).

Cooperative Learning gives a sense of security is a relationship with other people and being part of a group. The feelings of belonging will enable students to face the issues in learning English. When they learn with their peers rather than alone, they get emotional and intellectual reinforcement which may allow them to surpass the threshold of their knowledge and skills (Siberman, 2014).

Therefore, in regards those issues in reading comprehension, this study was conducted to enhance students' reading comprehension ability by comparing two teaching Methods: Number Heads Together (NHT) and Think-Pair-Share (TPS). This study was brought up because of in-depth learning on the several studies conducted by local or even global researcher on enhancing students' reading comprehension ability; one of the studies was undertaken in Surakarta by Yuzianah (2011). It was a study on 'Efektifitas Pembelajaran Kooperatif Tipe Number Heads Together (NHT) dan Student Team Achievement Division (STAD) Pada Presetasi Belajar Matematika Ditinjau dari Motivasi Bresprestasi"; through this study, it was found that through NHT students' performance increased. In addition, Basuki (2013) did a study in Purwokerto on NHT and he stated that NHT helps students interact with peers during study group. Faristiana (2013) accentuated that the implementation of Numbered Heads Together (NHT) make students better understand the concept of what is taught in the learning process, because students are involved with varied discussions. NHT is part of a structural model of cooperative learning, which emphasizes the special structures devised to affect the pattern of student interaction.

Number Heads Together developed first by Kagan (1993) cooperative learning type NHT is one type that makes students to be more active and take full responsible to comprehend the learning material as group and individual. (Yuzianah, 2011). Researcher found literature of Numbered Heads Together (NHT) to support this strategies. Faristiana (2013) stated that the implementation of Numbered Heads Together (NHT) make students better understand the concept of what is taught in the learning process, because students are involved with varied discussions. It means that students have better understanding about the concept of what is being taught when they are learning in the form of discussion. According to Pujianto (2015) the learning model of Numbered Heads Together is part of a cooperative learning model structural emphasis on special structures deliberately designed with the aim of influencing the pattern of student interaction. Kagan structure is basically made so that students can work with each other to rely on small groups cooperatively. Basuki (2013) stated that the advantages of Numbered head Together (NHT) are: The students are able to learn from each other, work together, and must check that everyone can understand and answer the question. Students are accountable to each other for sharing ideas, they may also be required to share their partner's ideas to another pair or whole group. Every student must be able to give the group response to the question. Each student within the group has an equal opportunity to share. High degrees of interaction at any one moment all of the students will be actively engaged in purposeful speaking and listening. This kind of learning can be used in any kinds of level, but of course it has to be adjusted with the material given. He stated that the disadvantages of Numbered Head Together (NHT) are: (a) The Smart students will tend to dominate so that it can make the weak students have passive attitude. (b)The discussion process can go smoothly if the students just simply copy the work of smart students without understanding. (c) If there are homogenous group so it will be unfair for the group contained of weak students. (d) Likelihood that number is called, called again by the teacher, means that not all members of the group called by the teacher.

Another study, on different method called Think-Pair-Share, was conducted by some researchers. Think - Pair – Share (TPS) method is one type of learning model first developed by Lyman at the University of Maryland in 1981. One of the studies on TPS was done by Ramdlany (2013) on "The Use of Think-Pair-Share' to Develop Students' Reading skills'. This study found out that Think-Pair-Share enhances students' reading skills through, collaborative work and idea-sharing. Furthermore, a study conducted abroad, Sampsel (2013) did a study entitled 'Finding the Effect of Think-Pair-Share on student Confidence and Participation.' It showed that TPS successfully increased students' confidence and participation. Additionally, Think-pair-share (TPS) also allows the opportunity for educators to hear various answer of students by circulating during the pairing stage and in class discussion. It is a method that trains students to think and sharing ideas with partner and the whole class. Think - Pair – Share method is

one type of learning model first developed by Professor Frank Lyman at the University of Maryland in 1978 and adopted by many writers in the field of cooperative learning. Sampsel (2013) explained that Think-pair-share allows the wait time and students are all given time to think to themselves in silence way before they discuss with partner. This strategy also allows the opportunity for teachers to hear various answer of students by circulating during the pairing stage and in class discussion. Think - Pair - Share has procedures established explicitly for students to give more time to think, respond, and help each other (Widodo, 2007). In addition, through this strategy, students are more successful when they are working in a team, they learn better when they are working in pair. Priya (2013) mentioned the advantages of Think-Pair-Share strategy are this strategy build the students' critical thinking. When teacher gives questions, it makes students to think, give their opinions and they try to find the best answer. TPS can motivate the quite student to speak out. By working in pair, they have a chance to speak without standing in class and make them feel nervous. While Fauziyatih and Istianah (2013) mentioned the disadvantages on Think-Pair-Share also has some disadvantages. Not all of the students are focus on the topic given because they can share and talk everything with their peers out of the topic and also it is possible for the students who have low understanding to cheat to their peers. Furthermore Siahaan and Ginting (2012) explained the disadvantages of Think-Pair-Share are there is too short and quite low-risk collaborative learning structure and this strategy needs a few minutes to think with peers.

Both teaching methods: NHT and TPS fall under the umbrella of Cooperative Learning; according to Johnson and Johnson (2009), Cooperative Learning provides five basic elements to enhance positive atmosphere in any learning situations. Through collaboration student will be able to establish good social communication to solve problems in English learning.

METHODOLOGY

This study used quantitative method because statistical computation is utilized in analyzing the data. This is a comparative study, using the pre-test and post-test method to compare whether there is significant effect between Numbered Heads Together (NHT) and Think-Pair-Share (TPS) to enhance students' reading comprehension ability. The population in this research was grade VIII students in SMP Advent II, Setia Budhi and SMP Negeri 1, Parongpong. The samples were students of grade VIII of SMP Advent II Setia Budhi and they were set group 1. This group was treated using Numbered Heads Together strategy. Students of grade VIII A of SMP Negeri 1, Parongpong were set as group 2; they were taught by using Think-pair-share strategy. In this study, the instruments that the researcher used in gathering the data are pre-test and post-test. The teaching materials used in this study are descriptive reading

and scientific, informative reading texts. These instruments were used to know the students' ability in comprehending the texts. The treatments were conducted to compare two teaching strategies.

Table 1
Research Treatment

Steps	Treatment of NHT	Steps	Treatment of TPS
Step 1 Numbering and Asking Question	Teacher divided the student into some groups consist of 3 to 4 person. Each member in groups given number from 1 to 4. Teacher asks the questions or problem to each groups.	Step 1 Thinking	Teacher divided the student into some groups. Each group consist of 3 to 4 person. Teacher gives students questions that are related to the text that has been given (the generic structure and contained detailed information on the text). Teacher asks the students to answer the questions individually and write their answers on their respective books.
Step 2 Heads Together	Students put their heads together to decide one appropriate answer. Make sure that every group member know the agreed upon answer.	Steps 2 Pairing	Teacher asks the students to discuss in pairs about their answers to the questions that were previously awarded. Teacher asks the students to discuss the results of their discussions on their respective books.

Step 3	Teacher calls a number randomly and only student with the number respond to the question.	Step 3	After discussing in pair, teacher asks the students to discuss/share in their groups about the results of discussions in pair.
Answering Questions	The students with that number raise their hands.	Sharing	
	When called on, the students answers for his or her team.		Teacher asks the students to write the results of their group discussion on their books and after that teacher will ask them question and one of them should answer for their groups.

After the treatments, researcher conducted post-test to find out whether the use of Numbered Heads Together (NHT) strategy and Think-Pair-Share (TPS) strategy made significant difference in enhancing students' reading comprehension ability.

RESULT AND DISCUSSION

The writers gathered the data from pre-test and post-test scores and analyzed them. In gathering the data, researcher taught two groups. Class 8A in SMP Negeri 1 Parongpong which was taught using Think-Pair-Share method and class 8 in SMP Advent II Setia Budhi Bandung which was taught using Numbered Heads Together method. In collecting and analyzing the data, researcher used statistical program, SPSS 17.

Table 2
Result of Pre-test, Post-test, Standard Deviation, and Normalized Gain

	Think-Pair-Share		Numbered-Heads-Together	
	Mean	Std.Deviation	Mean	Std.Deviation
Pre-test	71.5278	8.36826	73.2258	12.47320
Post-test	86.3333	6.25643	81.0645	12.34757
Normalized Gain	0.5127	0.19917	0.2553	0.41161

It shows that the mean of Pre-test of TPS group is 71.5278 and in high category. For NHT group the mean of Pre-test is in high category also. While in post-test score of NHT is 86.3333 and TPS is 81.0645. The Normalized gain for Think-Pair-Share group is 0.5127 and it is in the moderate category; while for the Normalized gain in Numbered Heads Together group is 0.2553 and it is in low category. It means there is an increase in two different test average. Students who are taught using Numbered Heads Together (NHT) and Think-Pair-Share (TPS) strategies have enhancement in reading comprehension ability; however, Think-Pair-Share (TPS) shows more enhancement.

Based on the observation of the researcher, students should have passion for reading and confidence with their knowledge and their ability. According to Diestha (2011) the results showed that the problems of the Bandung District junior high school students in learning to read are students are less eager to follow the learning especially learning to read, and during last school hour, students are only interested in taking part of learning to read, if reading a brief, easily understood, and manifold literature. Students of both Numbered Heads Together group and Think-Pair-Share group make enhancement in comprehension ability. These two strategies are good for learning especially learning with peers or groups. Through this study, Think-Pair-Share (TPS) showed to be more effective in enhancing students' comprehension ability.

CONCLUSION

After a careful analysis, on the normalized gain from pre-test and post-test, the enhancement of students' ability in reading comprehension for TPS group and NHT group were moderate. According to the research finding, the researcher concludes that there is a significant difference in enhancing students' reading comprehension ability between those who are taught using Numbered Heads Together (NHT) strategy and those who are taught using Think-Pair-Share (TPS) strategy.

PEDAGOGICAL IMPLICATIONS

From the research findings, researcher has desires to render some recommendations to improve students' ability in reading comprehension. Teachers and especially English teachers should choose and utilize methods that encourage the students to be more active in learning. The method also should make the students become interested in learning toward the lesson that they learn. The students will be active in learning when they feel comfortable and enjoyable with the methods that the teachers use in teaching and learning process. It will develop good circumstances in classroom and students can learn comfortably. For the future research, this method should be conducted more often in order to enhance the cooperative learning of students in reading comprehension.

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