

# IMPROVING THE EIGHTH GRADE STUDENTS' READING COMPREHENSION ACHIEVEMENT BY USING JIGSAW IV TECHNIQUE AT SMPN 1 RAMBIPUJI JEMBER

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*Abstract* : The aim of this research is to improve the Class 8A students' reading comprehension achievement by using Jigsaw IV technique at SMPN 1 Rambipuji Jember. The respondents of this research were Class 8A students of SMPN 1 Rambipuji Jember in the 2012/2013 academic year. The research respondents were determined purposively based the result of the previous reading test score got from the English teachers. The data of this research were obtained from the students' scores of reading comprehension test, interview, documentation and observation. Based on the results of reading comprehension test in Cycle 1 and 2, it showed that there was improvement of the number of students who got scores more than 71. There were 48.64% of the Class 8A students who achieved the standard score in Cycle 1 while in Cycle 2, the number was improved to 78.37%. It indicated that the number of students who achieved the standard score improved and reached the target percentage of this research that was 75% of the total number of the Class 8A students got more than 71.

*Key Words*: Jigsaw IV, Reading Comprehension Test, Standard Score

## INTRODUCTION

Reading is one of the language skills in English that should be mastered by junior high school students. According to Harris and Smith (1972:8), reading is a process of communication between the writer and the reader. It means that the message that the writer has written must be understood by the reader so that the reader can reach the goal of reading.

The purposes of reading, according to Grellet (1996:4), are divided into two: reading for pleasure and reading for information. When someone understands a text well, they will be able to get some information they need even they can amuse themselves by reading. To obtain the purposes, the students must have good ability in understanding the text. They must comprehend the content of the text well.

Dealing with the purpose of reading, the eighth grade students experienced difficulties in comprehending a text. Based on the preliminary study conducted on

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February 3rd, 2012 with two English teachers who taught the eighth grade, Mr. Sudiyono and Miss Kulsum, it was known that most of the eighth grade students' difficulty was grasping ideas in reading a text. Most of the students tend to find each word meaning by looking for the meaning in the dictionary. The students could not get the whole paragraph even the whole text idea because they spent too much time while their reading chance was limited by the teachers. Thus, when the teachers asked them to answer some questions related to the text, they could not answer it. They only guessed the answers. Besides, most of the students in the class did not pay attention while the teachers explained the materials in front of the class. Eventhough the teachers gave them some questions during his explanation in order to activate them during the lesson in the class, it seemed hard for the students to be active. Some of them tried to answer the question given orally by the teachers but most of them were silent. Consequently, most of the students scores were below 71, the minimum standard score at SMPN 1 Rambipuji, when the teachers administered a post test related to the material given. The scores showed that the class which got the lowest percentage of the total number of the students whose score is  $\geq 71$  was Class 8A taught by Mr. Sudiyono. It was known from the data that there were only 29.7% of the whole students who got score more than 7. It means that there were only 11 students who passed the test while 26 students did not pass it. Besides, this class got the lowest average score compared with the other five classes.

Jigsaw is a teaching technique which was designed by Aronson in 1970s. It is one of the techniques in Cooperative Learning. In Jigsaw technique, the students were divided into some small groups consist of 5-6 students in each group. It is like the idea of Slavin (1991:11), who explains that in Jigsaw class, the members of different teams who have studied the same sections meet in "Expert groups" to discuss their section. Then the students return to their teams. It means that in Jigsaw activities, there are Home Group and Expert Group.

The latest version of Jigsaw is Jigsaw IV which was developed by Holliday. Jigsaw has been developed since there were some weaknesses in the previous versions. In order to get maximum result of this research, the researcher used Jigsaw IV technique.

There is not any difference in the concept as what Elliot had constructed. The difference between those Jigsaw series is in their steps. They can be seen in the table below.

Table 1. The Differences of Jigsaw II, III and IV

No	Jigsaw II	Jigsaw III	Jigsaw IV
1.	-	-	Introduction
2.	Expert sheets assigned to expert groups	Same as II	Same as II
3.	Group answer expert question prior to returning to home teams	Same as II	Same as II
4.	-	-	Quiz on material in the expert groups checking for accuracy
5.	Students return to Home Teams sharing information with teammates	Same as II	Same as II
6.	-	-	Quiz on material shared checking for accuracy
7.	-	Review process	Same as III Whole group by Jeopardy, or Quiz Bowl, etc.
8.	Individual assessment and grade	Same as II	Same as II
9.	-	-	Re-teach any material missed on assessment as needed

Holliday (2002:4)

Like the other techniques, Jigsaw has both strengths and weaknesses in its application. According to Mengduo and Xiaoling (2010), the strengths are (1) students are eager participants in the learning process and are responsible for the work and achievement while being held accountable by their peers, (2) students have more chance to appreciate differences and share experiences through individual participation and instruction, (3) the jigsaw classroom stimulates students' motivation and increases enjoyment of the learning experience and promotes a great deal of negotiation for meaning, and (4) the jigsaw classroom reduces students' reluctance and anxiety to participate in the classroom activities while increasing self-esteem and self-confidence. On the other hand, according to Maden (2010), the weaknesses are (1) Jigsaw IV became time consuming, group members were jealous of one another; (2) the students whose performances were lower, slowed down the successful members and were unable to work in long term.

There were some researchers who have conducted researches by using Jigsaw. Since there are slight differences among Jigsaw I, II, III, and IV, the findings on the use

of Jigsaw I, II, III might be also discovered in Jigsaw IV. Sari (2011) is one of the researchers who conducted an experimental research to the eighth grade students' at SMPN 2 Tanggul Jember. She applied Jigsaw II technique in her research. She reported that there was a significant effect of using Jigsaw technique. Sahin (2010), with the same type of Jigsaw technique, conducted an experimental research to the students' attitudes to written expression course at Turkish language teacher department. He found that Jigsaw II technique was effective on the students' academic achievement in written expression course classes. He also found that most of the students experienced a great development in getting access to information. The third researcher is Abidin (2011), who conducted a classroom action research to improve the grade eight students' writing achievement at SMPN 1 Puger in the 2009/2010 academic year. He reported that the application of Jigsaw II technique in the writing class could improve the students' writing ability. Furthermore, he reported that the students' active participation also increased. In 2011, Sahin conducted another research dealing with the use of Jigsaw III in comparison with the instructional teacher-centered teaching method in six graders in terms of the effect of written expression on their academic success. He reported that the students had positive impression on the Jigsaw III technique. Mengduo and Xiaoling (2010) found further benefits in the application of Jigsaw technique. They found that Jigsaw could improve the students' motivation in the classroom. The students also had more chance to appreciate difference and shared experiences through individual participation. In conclusion, the use of Jigsaw technique is effective. It can help the students to understand the text given due to some benefits as mentioned before by applying Jigsaw technique.

In relation to Jigsaw IV used in this research, Maden (2010) applied Jigsaw IV to compare the application of the conventional teaching on the academic achievement of Turkish pre-service teachers as for the language teaching methods and techniques. He found that Jigsaw IV increased the students' achievement. Furthermore, the application of Jigsaw IV could enhance self-confident, improve cooperation and interaction, provide active participation, and make the learning activities enjoyable. The other researcher is Zakiyah (2010). She conducted a classroom action research to the tenth grade students at MA Darussalam in the 2009/2010 academic year. She reported that the application of Jigsaw IV technique could improve the student's reading comprehension

achievement. She also found that Jigsaw technique could improve the students' participation in the reading class.

## **RESEARCH METHODS**

This research was conducted by using the classroom action research with the cycle model. The research was intended to improve the Class 8A students' reading comprehension at SMPN 1 Rambipuji Jember in the academic year 2011/2012 by using Jigsaw IV technique. It was conducted collaboratively with the English teacher of Class 8A at SMPN 1 Rambipuji. Arikunto (2011:17) says that collaborative research is ideal because it can reduce the researcher's subjectivity. In other words, the collaboration between the researcher and the English teacher gave better result to this research than that without collaboration. This research was done in two cycles. Each cycle consisted of four stages of activity. They were planning the action, implementing the action, observing and evaluating, and reflecting. Those actions are the elements which construct a cycle (Arikunto, 2011:20).

Before implementing the action in the class, the researcher constructed lesson plans as the planning of the action in solving the problems, observation guide for observing the students during the teaching learning process, reading test to measure the students' reading comprehension achievement, and criteria of success to show whether the cycle is successful or not. In the implementation of the action, the researcher divided the students into *Home Groups* then *Expert Groups*. The researcher let the students to discuss a single paragraph in Expert Groups then a whole text in Home groups. The observation was also conducted during the implementation of the action. The observers recorded the students' active participation in the form of checklist as the observation guide. The indicators are (1) the students paid attention to the explanation of their team members in both home and expert groups, (2) the students asked questions to the teacher related to the single word, single sentence, single paragraph, or whole text given, (3) the students discussed the text or single paragraph with the members of both home and expert groups, (4) the students did the task based on the paragraph or the text given, and (5) the students answered questions from the teacher related to the material given.

The data of this research were obtained from test, observation, interview, and documentation. Reading comprehension tests and observation were used to obtain the primary data which were used in this research. A test was conducted in the end of each cycle for measuring the students' reading comprehension achievement. The observation was conducted in each meeting of each cycle helped by the English teacher and the researcher's thesis-student colleagues to know students' active participation. The students were categorized as active if they fulfill at least three indicators.

Interview and documentation were used to obtain the secondary data. Interview had been conducted in the preliminary study on February 3<sup>rd</sup>, 2012 with the English teachers, Mr. Sudiyono and Miss Kulsum. The purpose of the interview was to obtain the students' problem, the techniques used in the classroom and the materials used by the teacher in teaching reading. Documentation aimed to obtain the names of the participants, and the previous scores of the students' reading comprehension achievement.

Besides, evaluation was also carried out in this research. The types of evaluation used were process and product evaluation. The process evaluation was intended to evaluate the students' active participation during the teaching learning process by observing them. The product evaluation was intended to evaluate the students' reading comprehension achievement in each cycle. They were conducted to know whether the use of Jigsaw IV technique could improve the students' reading comprehension achievement. The result of the comprehension test in Cycle 1 was used for determining in grouping the students to make Home Groups in Jigsaw IV activities in Cycle 2.

Reflection was conducted after the researcher and the English teacher analyzed the data obtained from each cycle. The reflection was done to know whether the actions given in each cycle was successful or not. The actions in the first cycle were not successful, it means that, there were some weaknesses that could be drawn and they were revised before continuing to the second cycle.

## **RESEARCH FINDINGS AND DISCUSSIONS**

In the first meeting of Cycle 1, all Class 8A students attended the reading class. In the main activities by using Jigsaw IV technique, they were divided based on the previous scores got from Mr. Sudiyono, the English teacher. Unfortunately, they needed

more time to make their groups. They spent 5 minutes and 54 seconds while the researcher only gave 3 minutes for grouping.

During the discussion, twenty one students actively discussed the text or single paragraph with the members of both home and expert groups. However, 9 students did not pay attention to the explanation of their team members seriously. They merely talked out of the topic and sometimes bothered the other team members.

As many as 16 students did the tasks based on the paragraph or the text given while the others were just waiting for the answers. In asking activities, five students were not reluctant to ask to the teacher whatever they did not know about the materials. In review game, 7 students could answer the questions many times although their answers were not totally correct. The other 30 students only kept silent. Finally, there were 17 students who were categorized as active while the rest were passive.

It is also reported that there was an unexpected behavior done by the students. The students made very disturbing noises when they were moving the chairs and tables to make Expert groups. They shouted to the other students and arranged the tables and the chairs noisily. The condition did not change when they went back to the previous groups, Home Groups. The teacher, Mr. Sudiyono, was afraid that it could bother the other classes and the researcher was too. Mr. Sudiyono and the researcher asked to the students to move quietly. Unfortunately, most of the students could not hear the researcher and Mr. Sudiyono's voice because of the noises and their business.

In the second meeting, all students remained attending the reading class. The groups were intact. There was no change in the group members. They were all grouped in both Home and Expert group as what was decided in the previous meeting. They spent 5 minutes and 41 seconds for grouping. The time was still longer that what the researcher provided that was 3 minutes.

During the classroom activities, 29 students paid attention to the explanation of their team members in both home and expert groups. There were 8 students who ignored their team members' explanation. In asking activities, seven students asked questions related to the single word, single sentence, single paragraph, or whole text given. They asked something which they could not understand.

There were 28 students actively discussed the text or single paragraph with the members of both home and expert groups. As many as 9 students tried to talk out of the

topic and to bother the others. However, twenty two students did the task based on the paragraph or the text given and, in the last activity, 8 students answered questions from the teacher related to the material given. Finally, there were 19 students who were categorized as active participants in this meeting.

Some cases in Meeting 1 of Cycle 1 arose in Meeting 2. There were 8 students who ignored their team members' explanation. As many as 9 students did not involve themselves in both home and expert group discussion and 15 students let the other team members to do the task while they did nothing. Furthermore, 30 students were reluctant to ask question to the teacher. It was proved that students did not give any good responses when the researcher gave them some questions related to the material during group discussion. Finally, in the review game, there were 29 students who did not answer the questions. They remained silent.

Moreover, the students' behavior during moving to Expert and Home Groups was intact. They still made disturbing noises while they were moving to Expert groups. They shouted to the other students and arranged the tables and the chairs noisily. The researcher and the teachers reminded them not to make the noises. Some of the students ignored what the researcher and the teacher said. However, they started to make the noises few seconds later. The condition did not change when they went back to the previous groups, Home Groups.

Meanwhile, the result of reading comprehension achievement in Cycle 1 showed that the action in Cycle 1 had not completely successful. There were 18 students got the score higher than 71. It means that there were 48.64% of the Class 8A students achieved the standard score. Thus, Cycle 2 needed to be conducted.

Some revisions were brought up into Cycle 2. They were dividing the students by using a song, while moving, into some groups (home and expert groups) based on post test score in Cycle 1, asking the students to group into Home Groups in front of the class and divided them into Expert Groups, asking the students to bring dictionaries and guided the students to find an appropriate meaning, and allowing each student to answer once and give the other chances to the other students to answer.

All students attended the reading class in the first meeting of Cycle 2. The students, then, gathered in their Home and Expert groups in the main activities by using Jigsaw IV technique. They spent 3 minutes and 48 seconds for grouping. The members



of Home Groups were absolutely different because the groups were created based on the result of Post test in Cycle 1.

During the discussion, thirty two students actively discussed the text or single paragraph with the members of both Home and Expert group but unfortunately 5 students did not focus on the discussion. Thirty four students paid attention to their team members' explanation. There were only three students who did not pay attention to the explanation.

As many as 13 students asked questions related to the single word, single sentence, single paragraph, or whole text given, during the discussion. Twenty nine students did the task based on the paragraph or the text given while the rest were waiting for the answers. In other words, there were 8 students who were inactive. In the review game session, there were 18 students who answered questions from the teacher related to the material given although 3 students did not answer correctly. The rest of the students were still keeping silent. Finally, there were 29 students categorized as active participant in this meeting.

It is also reported that the students still made disturbing noises when they moved to Home and Expert groups. However, it was not as intense as the previous meetings in Cycle 1. Most of the students did not shout anymore because they sang a song recommended by the researcher and the teacher while moving to Home and Expert groups. By singing the song, they also always remembered that they moved the chairs carefully and silently so that the disturbing noises could be reduced. Eight students tried to make the noises accidentally but they quickly changed their behavior as they sang the song.

In the last meeting of Cycle 2, all students in Class 8A remained attending the reading class. The groups were the same as those in Meeting 1 of Cycle 2. All They needed 3 minutes and 5 seconds to move to the groups. The groups were the same as the previous groups in Meeting 1 of Cycle 2.

There were 35 students who actively discussed the text or single paragraph with the members of both Home and Expert groups. The students who did not actively involve in the discussion remained keeping silent. However, all students paid attention to the team member's explanation.

During the classroom activities, 16 students asked questions related to the single word, single sentence, single paragraph, or whole text given. As many as 30 students did the task based on the paragraph or the text given. There were only 7 students who were inactive. In the review game session, 24 students answered questions from the teacher related to the material given. As many as 13 students kept silent during the game. Finally, there were 33 students who were categorized as active in this meeting.

Additionally, a change happened to the students' behavior during moving to Home and Expert groups. They moved orderly to the groups while singing the song. They did not make any disturbing noises, such as shouting and moving the chair noisily, like they did in the previous meetings.

In the second comprehension test, 29 Class 8A students were able to get scores more than 71. It means that 78.37% of the students achieved the test. In other words, the actions in Cycle 2 were successful since more than 75% of the Class 8A students achieved the target score. Thus, the actions stopped.

The research findings prove that Jigsaw IV technique can improve the Class 8A students' reading comprehension achievement at SMPN 1 Rambipuji Jember. The findings confirm Lie's idea (2002:68) that Jigsaw can be used to teach listening, speaking, reading and writing. The students were more active by working together with their friends. There were positive interdependent and interaction between the students in each group who had the same purpose that was accomplishing the task given by the researcher. The students shared their idea to the members of the group so that the information spread to each person in each group.

In terms of pedagogical implications, the study provides some valuable insight to the English teacher of SMPN 1 Rambipuji Jember to apply Jigsaw IV technique as an alternative way in teaching English especially in teaching reading comprehension. Since, it is proven to have a better result on the students' reading comprehension achievement.

## **CONCLUSION AND SUGESTIONS**

Based on research findings and their pedagogical implications, it can be concluded that the use of Jigsaw IV Technique can improve the Class 8A students' reading comprehension achievement at SMPN 1 Rambipuji Jember in the 2011/2012

Academic Year. Therefore, it is suggested for the English teacher to apply Jigsaw IV technique to teach English especially in teaching reading.

## REFERENCES

- Abidin, M. Z. 2011. *Applying Jigsaw II Activity in Cooperative Learning to Improve the Ability of the Grade VIII Students of SMPN 1 Puger Jember in A Writing Narrative Paragraph in the 2009/2010 Academic Year*. Jember: University of Jember.
- Arikunto, S. 2011. *Penelitian Tindakan Kelas (Classroom Action Research-CAR)*. Jakarta: PT. Bumi Aksara.
- Grellet, F. 1996. *Developing Reading Skills*. Cambridge: Cambridge University Press.
- Harris L. A. & Smith, C. B. 1972. *Reading Instruction through Diagnostic Teaching*. New York: Holt, Rinehart & Winston Inc.
- Holliday, G. C. 2002. *Jigsaw IV: Using Students/ Teacher Concerns to Improve Jigsaw III*. [on line]. <http://www.eric.ed.gov/PDFS/ED465687.pdf>. [April 9, 2012]
- Lie, A. 2002. *Mempraktikkan Cooperative Learning di Ruang-ruang Kelas*. Jakarta: PT. Grasindo
- Maden, S. 2010. *The Effect of Jigsaw IV on the Achievement of Course of Language Teaching Methods and Techniques*. [on line]. <http://www.academicjournals.org/err/PDF/Pdf%202010/Dec/Maden.pdf>. [April 3, 2012]
- Mengduo, Q. & Xiaoling, J. *Jigsaw Strategy as A Cooperative Learning Technique: Focusing on the Language Learners*. [on line]. <http://www.celea.org.cn/teic/92/10120608.pdf>. [April 9, 2012]
- Sari, N. M. 2011. *The Effect of Using Jigsaw Type II in Cooperative Learning on the Eight Grade Students' Reading Comprehension Achievement at SMPN 2 Tanggul Jember*. Jember: University of Jember.
- Sahin, A. 2010. *Effects of Jigsaw II Technique on Academic Achievement and Attitudes to Written Expression Course*. [on line]. <http://www.academicjournals.org/err/PDF/Pdf%202010/Dec/Sahin.pdf>. [April 9, 2012]
- Slavin, R. E. 1991. *Students Team Learning: A Practical Guide to Cooperative Learning (Third Edition)*. Washington D.C: National Education Association.
- Zakiah, U. 2010. *Increasing the Tenth Year Students' Reading Comprehension Achievement by Using Jigsaw IV Technique at MA Darussalam Jember in the 2009/2010 Academic Year*. Jember: University of Jember.