IMPROVING STUDENTS' READING COMPREHENSION USING JIGSAW

Agustina Dwi R., A. Dahlan Rais and Hefy Sulistyawati
English Education Study Program
Sebelas Maret University Surakarta

Email: ratna_231988@yahoo.com

Abstract: The objectives of the research are (1) to describe how jigsaw improves the students' reading comprehension at the eighth grade of SMP Islam Diponegoro Surakarta and (2) to describe how jigsaw can improve class situation. In the pre research, the students had difficulties in identifying main idea, identifying supporting detail, guessing meaning of new words, and identifying communicative purpose of text, identifying cohesive device, and identifying reference. Because of those indicators, the researcher applied jigsaw technique. The research finding shows that jigsaw could overcome the students' difficulties in reading comprehension; they could identify main idea, identify supporting details, guess meaning of new words, identify communicative purpose of text, identify cohesive device, and identify reference. The improvement could be seen from the mean score of posttest 1 (60.37) and it increased to 73.08 in posttest 2. Besides solving the students' difficulties, jigsaw improved the class situation. Before conducting jigsaw technique in teaching process, the students' motivation was low and after the implementation of jigsaw, their motivation improved. Based on the pre-observation, most of students were passive. After taught jigsaw technique, the students became more active and interactive during the teaching learning process. There was improvement in the students' attitude. Finally, it can be concluded that jigsaw can improve the students' reading comprehension and improve the class situation.

Keywords: reading comprehension, jigsaw, classroom action research

English subject which is taught at school has four skills: listening, speaking, reading, and writing. Students are supposed to master the four skills not only in getting a good mark but also for communicative purpose, in that the students can use English as a means of communication in daily life. This statement is supported by Watkins (2005: 10), who says that knowing a language involves being able to use that language effectively in real life situations.

One of the English skills is reading. Reading is the activity of perceiving a written text in order to understand its meaning (message). Wallace (1992: 4) says reading as interpreting means reacting to a written text as a piece of communication; in other words, we assume some communicative intent on the writer's part which the reader has some purposes in attempting to understand.

By mastering reading comprehension the students can comprehend a text especially for the students; they can easily to do the exercises dealing with the text. Besides, most of the school's material in printed form especially English lesson, they can be easier to get the meaning of it and also it will

increase their scoring in reading comprehension.

Reading comprehension is a complex process of constructing meaning by coordinating a number of complex processes that include word reading, word and world knowledge, and fluency; interacting between readers and what they bring to the text, and carrying out for extended period of time and with apparently few processing difficulties and devoted to automatic word recognition, syntactic parsing, meaning formation, and text-building comprehension processes, and also receiving and interpreting information encoded in language form via the medium of print and it occurs when the reader extracts and integrates various information from the text and combines it with what is already known.

The eighth grade students of SMP Islam Diponegoro lacked of reading comprehension. They had some difficulties in reading comprehension, such as identifying main idea of a text, identifying supporting details, guessing meaning of new words, identifying communicative purpose of a text, identifying cohesive device and the last, identifying reference and the *KKM* (Minimum Passing Grade) for reading comprehension of SMP Islam Diponegoro is 62.

In contrast, based on the pre-research, their reading comprehension was low. It is supported by the fact that the mean score of reading comprehension was 55.43. The problems that arose in teaching reading could be seen from the students' and the teacher's factors. Only few students paid attention to the lesson.The teacher had to translate new words in the whiteboard or orally. From the teacher's side, she still used lecture or conventional technique to teach the students. Moreover, she also had limited techniques and ineffective in using media to teach the students.

To increase their ability in reading comprehension and class situation, the writer used jigsaw technique. Jigsaw is a special form of information gap in which each member of a group is given some specific information to achieve some objectives where students meet with members from other groups who are assigned the same aspect, and after mastering the material, return to the home group and teach the material to their group members, then each student combines the material learned by others and forms a coherent body of knowledge or skill.

The writer chosen this technique which belongs to cooperative learning because it has some positive advantages as follows: 1) it improves both academic learning and social skills, 2) it is an aid to classroom management and instruction, 3) it enhances students' enthusiasm for learning and their determination to achieve success, 4) it increases the academic achievement of students of all ability level in reading, writing, mathematics computation and application, comprehension, and critical thinking, and 5) it improves students' emotional well-being, self-esteem, copying skills, and attitudes toward schoolwork (Orlich, 1998: 274).

In this research, the writer used stages of jigsaw technique promoted by Aronson (2008) in teaching reading comprehension are as follows: 1) students are divided into a 5 or 6 person jigsaw group. The group should be diverse in terms of ethnicity, gender, ability, and race; 2) one student should be appointed as the group leader. This person should initially be the most mature student in the group; 3) the day's lesson is divided into 5–6 segments (one for each member); 4) each student is assigned one segment to learn; 5)

students should be given time to read over their segment at least twice to become familiar with it. Students do not need to memorize it; 6) temporary experts groups should be formed in which one student from each jigsaw group joins other students assigned to the same segment; 7) students come back to their jigsaw group; 8) students present their segment to the group. Other members are encouraged to ask question for clarification; 9) the teacher needs to move from group to group in order to observe the process.; 10) a quiz on the material should be given at the end.

RESEARCH METHODS

SMP Islam Diponegoro is located on Jl. Kapten Mulyadi No. 221 D Surakarta. SMP Islam Diponegoro is one of schools which is part of Islamic Education of Diponegoro Institution. The subject of the study is the students of the eighth grade of SMP Islam Diponegoro Surakarta.

The researcher applied Classroom Action Research. Classroom Action Research is any systematic inquiry conducted by teacher researchers, principals, school counselors, or other stakeholders in the teaching/learning environment to gather information about the ways that their particular schools operate, how they teach, and how well their students learn; to answer questions or solve problems about teaching and learning; to improve the rationally and justice of their own social or educational practices, their understanding of these practices, and the situations (and institutions) in which these practices are carried out; and to take a self-reflective, critical, and systematic approach to explore your own teaching context. The procedures of Classroom Action Research are as follows. 1) Planning. The researcher prepared lesson plans, materials, observation sheet that would be used to observe teaching and learning process, instrument aids, and test instrument. 2) Acting. This part the researcher applied jigsaw technique in teaching and learning process to deliver the material for the students step by step. 3) Observing. The researcher observed the students during teaching process whether or not jigsaw technique can improve their reading comprehension and class situation. 4) Reflecting. She evaluated the result of observation ofimplementing jigsaw technique in the class, both of the improvement in reading comprehension and class situation.

The researcher used qualitative and quantitative data. The quantitative data were obtained by calculating the mean score of tests and the researcher got qualitative data from class observation, field notes, and interview. To analyze the qualitative data, she used the steps of assembling the data, coding the data, comparing the data, building interpretation, and reporting the outcomes (Burns, 1999:156-160).

RESEARCH FINDINGS & DISCUSSION

The result of class observation showed that only few students who paid attention to the lesson. The teacher had to translate new words in the whiteboard or orally.The English teacher still used lecture or conventional technique and ineffective in using media to teach the students.The condition made the students feel bored and decreased their motivation to learn English. Therefore, the action research was carried out in four meetings in cycle I, and three meetings in cycle II. The material of the study was narrative text.

The research was aimed to describe how jigsaw could improve the students' reading comprehension and the class

situation. First was how jigsaw could improve the students' reading comprehension. It could be seen from the table 1 and 2 which showed the students' score in reading comprehension (*KKM* was 62) as follows:

Table 1. The Students' Mean Score of Reading Comprehension

Explanation	Score		
	Pre-test	Post test Cycle1	Post test Cycle 2
The Highest	76.7	76.7	86.7
The Lowest	40	50	66.7
The Average	50.43	60.37	73.09

Table 2. Students' Mean Scores of Each Element of Reading Comprehension

Elements	Pre-test	Post-test 1	Post-test 2
Identify main idea of text	66.7	71.1	78.5
Identify supporting detail	74.8	82.2	89.6
Guess meaning of new words	50.4	54.8	63
Identify communicative purpose of text	51.9	54.8	61.5
Identify cohesive device	43.7	48.1	88.1
Identify reference	45.2	51.1	57.8

The mean of the pre-test score was 55.43 and it increased to 60.37 in post-test 1 and to 73.08 in post-test 2. It indicated that jigsaw could be an effective technique to improve reading comprehension to the eighth grade students of SMP Islam Diponegoro Surakarta in the academic year of 2012/2013.

It was suitable with Slavin's (in Nunan, 1997: 35) statement that jigsaw as the part of cooperative learning that has some benefits. He says "a team environment provides assistance to each other to promote more positive peer relationship, social support, and partly for the reason, higher self-esteem, and academic achievement. Stevens and Slavin (in Orlich, 1998: 275) also say jigsaw has shown to increase the academic achievement of students of all ability level in reading, writing, mathematics computation and application, comprehension, and critical thinking.

This condition was also supported by the result of observation toward the teaching and learning process. In the teaching learning process using jigsaw in reading comprehension, the researcher used a kind of text as the topic namely narrative text. Each meeting covered some indicators; identifying main idea, identifying supporting details, guessing meaning of new words, identifying communicative purpose, identifying reference, and identifying cohesive device. There was an improvement students' reading comprehension skill.

Jigsaw technique that was implemented in teaching and learning process provided activities useful to the students in understanding the text. Through the activity in jigsaw group, the students could do the task well in finding the main idea of the text. The students during the jigsaw group could find the location of main

idea. When the students were asked by the teacher, the students could mention the kinds of paragraph. As a result, it indicated that the activity in jigsaw group improved students' skill especially in identifying main idea. It was a line with Mengduo & Xiaoling statement that step 3 and 4 of jigsaw procedures, 'The researchers listed and explained the new and unfamiliar words and expressions in

the passage on the blackboard, such as *as good as, with all their might*, and *took heed to*, in order to remove some of the barriers of the material and ease the flow of the jigsaw activity in the groups. The researchers read the passage twice to the whole class so that the students could grasp the main idea of the passage. Then they asked wh-questions concerning the passage, which may help the students organize their thoughts for better preparation.'

The next indicator was identifying supporting details. During discussing in jigsaw group, the students could answer the questions which were given to them. They could analyze the text to complete the task in group. The result was most students answered correctly. The activities indicated that jigsaw improved students' skill in identifying supporting details. Using jigsaw technique in improving reading comprehension made a good effect for the students and it is in line with Mengduo and Xiaoling in the journal that they said that "Jigsaw makes it possible for the students to work together to complete the assignment on their own. Therefore, "each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement. Students work through the assignment until all group members

successfully understand and complete it" (Mengduo and Xiaoling, 2010).

Jigsaw technique could also improve students' reading comprehension in guessing meaning of new words or vocabulary. This case included jigsaw technique in step 6 that was the students discussed in jigsaw groups. Through the activity in jigsaw group they could predict the meaning of difficult words of their material. They guessed them by looking at the context, words, and sentences surrounding that word. They also could find the synonym or antonym of word. The National Reading Panel (National Institute of Child Health and Human Development, 2000) and the RAND Reading Study Group (2002) (in Klingner, 2007) investigated vocabulary as an essential part of reading for understanding. Quite simply, it is impossible to understand text if we do not know much about a significant number of the words in the text.

Jigsaw could improve students' reading comprehension in the skill of identifying communicative purpose. Through the discussion in jigsaw group, the teacher stimulated the students by giving them question to mention the generic structure of narrative text. They could answer it well. After that, the teacher asked what narrative text was. They also could answer it. Then, the teacher asked a question to them what communicative purpose of narrative text was, the students could complete it well. Think about various text structures and how they influence reading comprehension. A complete schema facilitates comprehension as well as memory. When we retell or summarize a story, this template provides an organizing structure that helps us do this more efficiently (Kintsch & Greene in Klingner: 1978).

Jigsaw technique could improve students reading comprehension in skill of identifying cohesive device and reference. During the discussion in jigsaw group, the students did the task well dealing with the material. They could find reference by analyzing the previous or next sentences in the text. They used their knowledge to complete the task. They also could find cohesive device by identifying the sentences which were joined. This was supported by Prom-D in his thesis that he said "Additionally, when regarding each of the four sub-skill of reading comprehension (reading for main idea, reading for detail, drawing inference, and differentiating between fact and opinion) the findings revealed that the students' achievement of drawing inference and reading for main idea were significantlyafter being taught by using the jigsaw technique"(Prom-D, 2012).

Jigsaw not only improved the students' reading comprehension but also improved the class situation. Jigsaw technique could improve the students' interest and motivation. It could be seen from their positive behavior during discussion in jigsaw or expert group. The students got involved in discussing the material actively. Although the class was crowded, the researcher could control it. The class condition was active and interactive. The students were also more courageous to ask some difficulties and answer the questions that the researcher asked. This finding is supported by Kessler (1992: 8). He says cooperative learning is a 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 own learning and is motivated to increase the learning of others. Other theories, Sharan (1989) and

Webb(1985, 1988) (in Orlich, 1998), say that jigsaw which belongs to cooperative learning can motivate students to clarify in their own minds what they have learned and what they have yet to learn.

The students became more active and interactive during the teaching learning process. It was based on their activity during the group discussion. Each of members of group involved the discussion; they shared their opinion in solving the difficulties of the task. Using jigsaw, the students were more courageous to ask their difficulties such as asking the words that they did not know yet and each of students got ready to answer and response the teacher's instruction. It is the same statement which is said by Kessler (1992: 7), that there are benefits of cooperative learning. One of them is providing a richness of alternatives to interactions between students.

There was an improvement in the students' attitude. It could be seen from their behavior during the teaching and learning process. When they were asked to join whether in jigsaw or expert groups, they could make time more effective. During the discussion the students got ease to do the task in group. They also focused in doing the task in group and the class was less crowded so that the discussion ran well. It is supported by Patterson and Patrick's (1994) statement. He says jigsaw improves students' emotional well-being, self-esteem, coping skills, and attitudes toward schoolwork.

There was an improvement in the class situation. Based on Aronson's statement (2000-2011) jigsaw can be used as other teaching strategies. Jigsaw technique made the students focus and active during discussion. The students did not have time to chat their business since they were busy with

their schoolwork. Jigsaw which belongs to cooperative learning provides opportunities for students to act as resources for each other, thus assuming a more active role in their learning (McGroarty, 1989). It made time more effective so that the teacher could manage the class condition well. According to Bassano and Christison (in Kessler, 1988), they identify four kinds of benefits associated with cooperative learning in classroom management. One of them is that cooperative learning can assist with classroom environment and social tasks, for example, arranging the classroom, distributing materials, or generating advice on critical accidents such as greeting new students or dealing with discipline problems.

Based on the results of the study above, it can be concluded that jigsaw can improve the students' reading comprehension and the classrooms' condition.

CONCLUSION AND SUGGESTIONS

The researcher did the Classroom Action Research by using jigsaw to improve the students' reading comprehension in SMP Islam Diponegoro at the eighth grade in academic year of 2012/2013. The conclusions of the research are as follows: 1) Jigsaw improves the students' reading comprehension in class VIII D of SMP Islam Diponegoro. It can be seen from the mean score of tests, 2) Jigsaw improves the class situation in terms of their motivation to learn English text and active participation in home or expert group.

Based on the result of the research, the writer has some suggestions to improve the students' reading comprehension. To English teacher, for improving the readingcomprehension, the English teacher is suggested that she should: a) choose jigsaw technique to teach reading comprehension to the students. It gives a positive effect to the students in order to make material delivered well. The students also received and understand the lesson easily. The classroom condition also was joyful, b) use other media such pictures, videos, and other things which they are familiar with it has positive effect for the students in understand and comprehend the lesson, c) use jigsaw, the teacher can organize the material easily and more efficient, d) apply jigsaw technique, the students can make a good relationship among them. The students try to appreciate other students in sharing their knowledge.

To the students, a) they should train their English ability by reading English text. It can increase their knowledge and also vocabulary, b) during the discussion the students should be active participants not only in English class but also other subjects.

To the school, a) make training about techniques of teaching such as jigsaw to the teachers in order to increase the teachers' ability in teaching and learning process. It will also improve students' achievement in any subjects, b) provide complete facilities in order that the teaching and learning process run well.

To other researchers, the writer uses jigsaw in improving students' reading comprehension. Hopefully, the research can give an alternative in enhancing classroom action research in reading comprehension.

BIBLIOGRAPHY

Aronson, E. (2008). *Jigsaw Classroom.* Retrieved from http://www.jigsaw.org on December 25, 2011.

Aronson, E. (2000-2011). *Jigsaw Classroom.*

Retrieved from http://www.jigsaw.org on December 25, 2011.

Burns, Anne. 1999. *Collaborative Action Research for English Language Teachers*. Cambridge: Cambridge University Press.

_____. 2010. *Doing Action Research in English Language Teaching*. New York: Routledge.

Clarke, J. (1994). "Pieces of the puzzle: The jigsaw method" In Sharan, S. (Ed.), *Handbook of cooperative learning methods*, Greenwood Press. Retrieved from http://www.jigsaw.org/steps.htm on December 25, 2011.

Kessler, Carolyn. 1992. *Cooperative language Learning*. New Jersey: Prentice Hall Regents.

Klingner, Janett. 2007. *Teaching Reading Comprehension to Students with Learning Difficulties*. New York, London: The Guilford Press.

Mengduo, Qiao, & Xiaoling, Jin. (2010). Jigsaw Strategy as a Cooperative LearningTechnique: Focusing on the Language Learners. *Chinese Journal of Applied Linguistics (Bimonthly), Volume: 33 No. 4*. Retrieved from www.celea.org.cn/teic/92/10120608.pdf on January 31, 2012.

Nagaraj, P., V, Arthy. 2012. Enhancing Reading Comprehension Skills through Small Group Interaction Techniques: A Comparative Study. *International Journal of Scientific Research, Volume 1 Issue: 5.*Retrieved from theglobaljournals.com/ijsr/file.php?val=MjAz on January 31, 2012.

Nunan, David. 1997. *Collaborative Language Learning and Teaching.* New York: Cambridge University Press.

Orlich, Donald C. Harder, Robert J. Callahan, Richard C. Gibson, Harry W. 1998. *Teaching Strategies: A Guide to Better Instruction.*Boston, New York: Houghton Mifflin Company.

Prom-D, Dararat. 2012. *The Effect of Jigsaw II on Reading Comprehension of MattayomSuksa 1 Students*. Bangkok: Srinakharinwirot University. Retrieved from thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan(M.A.../Dararat_P.pdf on January 31, 2012.

Wallace, Catherine. 1992. *Reading*. New York: Oxford University Press.