IMPROVING STUDENTS' READING SKILL BY USING JIGSAW TECHNIQUE

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Abstract: This study is aimed to identify: (1) whether or not teaching reading by using jigsaw technique can improve students' reading skill and (2) the class situation when jigsaw technique is applied during the teaching-learning process. It was conducted to the first grade students of Madrasah Aliyah (MA) in Sukoharjo in the academic year of 2010/2011. The data were collected by using some techniques including observation, interview, documents, and tests. The qualitative data were analyzed by assembling the data, coding the data, comparing the data, building interpretations, reporting the outcomes. The quantitative data were analyzed by descriptive statistics to calculate the indicator achievement score and the mean score of pretest and post test. The research findings show that: (1) teaching reading by using jigsaw technique can improve some aspects of students' reading skill, (2) The students still lack of skill of inferring sentences meaning in the texts, and (3) Teaching reading by using jigsaw technique can improve better classroom situation.

Key words: reading, jigsaw, data, quantitative, qualitative

Urquhart and Weir in Ueta (2005) describe reading skill roughly as a cognitive ability which a person is able to use when interacting with written text. Reading involves word recognition and comprehension. According to Pang et al. (2003) reading is a complex activity that involves both perception and thought. Reading consists of two related processes: word recognition and comprehension. Word recognition refers to the process of perceiving how written symbols correspond to one's spoken language. Comprehension is the process of making sense of words, sentences and connected text. In addition, Grabe in Alyousef (2005) proposes six general component skills and knowledge in reading. Those are (a) automatic recognition skills, (b) vocabulary and structural knowledge (c) formal discourse structure knowledge, (d) content/world background knowledge (e) synthesis and evaluation skills/strategies, and (f) metacognitive knowledge and skills monitoring.

Boer and Mann (1966: 146) state the reading skill involves the following components (1) finding the main idea, (2) selecting significant details, (3) reading to answer questions, (4) making summaries and organizing material, (5) arriving at generalizations and coming to conclusion, (6) following directions, (7) predicting outcomes, (8) evaluating what is read, (9) reading graphical material, (10) getting the meaning of phrases, (11) comprehending sentences and (12) comprehending paragraphs.

Based on the explanation above, it can be concluded that reading skill is a

person's ability that is used to comprehend a text that involves the following components (1) finding the main idea, (2) comprehending paragraphs including the vocabularies, the graphical material, and the sentences , (3) finding the details information

In reality, students get some problems in learning reading. There are two major problems in teaching learning process of reading in first grade class of one of Madrasah Aliyah (MA) in Sukoharjo. First, the teacher only focused in vocabulary building and he did not provide enough reading experience to get the main idea, detail information, either explicit or implicit information. It seems that there are not enough reading-related activities in the class. Secondly, the class is not conducive at all. It is very noisy when the teaching learning process occurs. The teacher cannot manage the class well.

The proper technique to overcome the problems should be a technique that makes it possible for both teacher and students to have communicative interaction. One of the techniques is jigsaw. Jigsaw technique was invented by Aronson in 1971. It is one of techniques of cooperative learning strategies in teaching learning process. Jigsaw is a cooperative learning in which the success of the learning objectives depends on the group members themselves. Each member of the group is essential. They have the same important role to achieve the goal altogether. The jigsaw process encourages listening, engagement, and empathy by giving each member of the group an essential part to play in the academic activity. Group members must

work together as a team to accomplish a common goal; each person depends on all the others. No student can succeed completely unless everyone works well together as a team. This "cooperation by design" facilitates interaction among all students in the class, leading them to value each other as contributors to their common task (Schreyer Institute for Teaching Excellence, 2007).

According to Brown (2001: 185) jigsaw technique is a special form of information gap in which each member of group is given specific information and the goal is to pool all information to achieve some objectives. The jigsaw structure promotes positive interdependence and also provides a simple method to ensure individual accountability.

Jigsaw is also defined as cooperative learning strategy that enables each student of a "home" group to specialize in one aspect of a learning unit. 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 (Saskatoon Public Schools, 2009).

To conclude, jigsaw technique is a cooperative learning strategy that provides any activities in form of information gap in which each student of the heterogeneous group make a home group to specialize in one aspect of a learning unit and expert group to pool all information to achieve some objectives in learning.

In teaching reading by using jigsaw technique, the applied steps are stated in the table 1.

Table 1 The Steps of Jigsaw Technique in Teaching Reading

What Teachers do	What students do
Pre-reading	
1. Choose an entire textbook chapter or article and divide it into smaller segments, or pick a series of reading on the same topic. 2. Assign each student to a "home group" of three to five students. 3. Assign each student to an "expert group," with a focus on a particular segment of the task.	1. Meet briefly in the home groups before breaking off into the expert groups.
While-reading	
1. Establish guidelines for the information that students should include in their summaries (e.g., for a series of readings on chemical compounds, identify the following: the types of compounds, how they are formed, what reactions are caused, etc.) 2. Have expert groups meet to read a selection or work on a task, review and discuss what was read, and determine essential concepts and information, using a question sheet or graphic organizer to guide them. 3. Remind students that the experts will have to consider how they will teach the material to the home group members. 4. Convene home groups so that each student can share his or her expertise with all members of the home group.	1. Work together to make sure that all group members become "experts" on their particular part of the reading task, and help each other to decide how to report the learning to the home group (e.g., as a series of a questions and answers; in chart or template form; or some other way.) 2. Use small-group discussion skills to share "expert" knowledge with the home group until all members have arrived at a common understanding of the entire task. 3. When presenting information, monitor the comprehension of the group members by asking questions and rephrasing until it is clear that all group members understand the points. 4. If appropriate, fill out a graphic organizer in the home group to gather all the information presented by each expert.
Post-reading	
1. If appropriate, convene the class as a whole group to review and	1. Ask the teacher to clarify any information or ideas that are still

share learning or to enable expert groups to present to the entire class. 2. Have students reflect on the communication they used to help all group members understand the material.	unclear or confusing. 2. Discuss what communication helped them to understand the material explained by others.

(Source: Think Literacy: Cross-Curricular Approaches Grades 7-12, n.d.)

There are some benefits of using jigsaw in teaching and learning reading (Social Psychology Network, 2012). Those are (1) it is an efficient way to learn the material, (2) builds a depth of knowledge, (3) discloses a student's own understanding and resolves misunderstanding, (4) builds on conceptual understanding (5) develops teamwork and cooperative working skills.

In other words, through the grouping, the students can accomplish some objectives of learning reading. It can solve the students' problem on achieving the reading skill like getting the main idea, detail information, either explicit or implicit information. Every student can share their understanding on specific learning objective in the home group and expert group. Besides, the teacher can help the students to understand the reading material in post reading stage through the material review and the reflection. When jigsaw is applied in the reading class, there is more communication occurs between the students. It can build the students' interpersonal skill and interactive skill.

RESEARCH METHODS

This research is carried out using a collaborative classroom action research. There are some definitions of action research. Mills (2000: 6) defines action research as any systematic inquiry conducted by teacher researcher, principals, school counselors, or other stakeholders in teaching/ learning environment, to gather information about the ways that their particular schools operate, how they teach, and how well their students learn.

The researcher collaborated with the English teacher of first grade class of a Madrasah Aliyah (MA) in Sukoharjo and also with the other researcher who conducted the similar research in the school. The English teacher conditioned the class in the beginning of the research; while the other researcher helped the researcher to observe the class when the process of teaching reading by using jigsaw technique was conducted in this research.

This research is contextual, small-scale and localized. It identified the problems dealing with the teaching learning process of reading in the first grade class of a madrasah aliyah in Sukoharjo. It described the teaching learning process of reading by using jigsaw technique. The result of this research showed the change in teaching learning process of reading when jigsaw technique was applied in the class.

RESEARCH FINDINGS AND DISCUSSION

After conducting the action, the writer found improvement in two aspects: the class situation aspect, and the reading skill aspect.

In the class situation aspect, the writer found that the class situation when the action was implemented was better than before the action was implemented. The detail is shown in table 2.

Table 2 Improvement of Situation

Class Situation	
Before the research	**After the research**
1. Students did not pay attention. They read magazines, ate snacks, and made a chat with their friends during the lesson.	1. The students paid attention to the lesson. There were no students who read the magazine in the class. There were fewer students who chatted with their friends during the lesson. After the writer asked them to pay attention to the lesson they did it. No students ate snacks during the lesson. In addition, they made a note for the writer's explanation
2. Communication and interaction between the students and the English teacher was not good. The students did not respect the teacher during the lesson. They ignored the teacher's warning. There was no group work that enables the students to interact with each other during the lesson.	2. The communication was well built. Most students were active during the lesson. They did good discussion in the groups.

In the reading skill aspect, the improvement can be seen from the increasing score of the total amount of mean score of the indicator achievement. The detail is described in table 3.

Table 3 Mean Score of Indicator Achievement

Indicator	Mean Score of Pre Test	Mean Score of Post Test	Passing Grade
Identifying the topic of the text	57.7	74.4	70
Identifying the main idea of paragraphs in the text	28.6	56.4	70
Identifying communicative purpose of the text	60.7	75.0	70
Identifying certain information of the text	34.5	58.9	70
Identifying the meaning of certain words in the text	37.5	48.8	70
Identifying the meaning of certain sentences in the text	41.0	35.1	70
Identifying the chronology of events in the text	49.9	45.2	70
Total amount of average score	**44.3**	**56.3**	**70**

The fact of the indicator score that is under the passing grade and the indicator score that is decreased can be explained by using the results of observation and interview. The material selection is not good. According to the students some texts are too long. They do not understand some vocabularies in the text. They still lack of exercise. The writer has not given enough reading experience for the students. Besides, assuming that the students' English teacher has given good vocabulary building, the writer has not taught strategy to answer the questions dealing with the vocabulary meaning.

Regarding the facts above, Duke (2003) stated an opinion. He said that comprehension difficulties have many causes. The causes are (1) difficulties with word recognition and decoding. In this case, the students do not understand the meanings of vocabularies in the text they read. (2) Difficulties with fluency. The students are not fluent in reading the text because they still lack of word recognition. (3) Poor short-term and/or working memory. The students have the short term memory, so it is difficult for them to comprehend the text. (4) Lack or poor use of strategies. The students do not know the strategies of reading like scanning and skimming. (5) Lack of reading engagement. In this case, the students are not interested in reading the text.

From the description above, it can be concluded that there are strengths, weaknesses, and the weakness causes of this research including the reading skill and the class situation aspect. This research finding is acquired from the observation, the interview, and the result of the test. It can be seen from table 4.

Table 4 Strengths and Weaknesses of the Research

The Strengths	The Weaknesses	The Weakness Causes
1. There are two indicators score which are above the passing grade. 2. Most of the students involved in the teaching learning process and they did the given task. 3. The students could build good communication during the lesson. 4. Most students paid good attention to the lesson	1. There are two indicators score of post test which decreased 2. The writer did not provide enough explanation about the strategy to understand the meaning of certain vocabulary 3. Lack of reading exercise. 4. There were some students who did not respect the writer during the lesson.	1. The lack strategy of understanding the meaning of words and sentences. 2. Assuming that the students' English teacher has given good vocabulary building, the writer has not taught strategy to answer the questions dealing with the vocabulary meaning. 3. There was no permission from the school to conduct the research more than one cycle, so the writer did not give more reading exercise.

4. The difficulty in monitoring the students at once.

Regarding to the last weakness, it can be said that it is one of the disadvantages of jigsaw technique. Sometimes some students made the noise in the class and did not join the class well. In the other words, implementation of jigsaw technique in class not only has the advantages but also disadvantages (HubPages Inc., 2012) such as (1) it takes much time to organize the group. the teacher should make groups that combine the students who have different intelligences, (2) if students do not get into their group quickly enough or read their initial texts quickly enough, it will run out of time, (3) if one or two obstinate students don't participate a whole group or two will lose out on a piece of the text, (4) the class situation become noisy, so the teacher needs to control the students and (5) a teacher cannot monitor all groups at once.

CONCLUSION AND SUGGESTION

By analyzing the result of action research, the writer concluded that the implementation of teaching reading by using jigsaw technique can improve the students' reading skill in some aspects. In this research, jigsaw can improve two indicators achievement of reading. The indicators are identifying the topic of the text and identifying communicative purpose of the text. By this, the writer concludes that reading by using jigsaw technique can improve students' skimming technique that the writer taught during the action. It enables the students to guess the context of the text without inferring the sentence meaning. The students still lack of skill of inferring sentences meaning in the texts. When jigsaw technique is applied to teach reading, the

students still needs more material explanation and reading exercises.

In the class situation aspect, the writer concludes teaching reading by using jigsaw technique can make the class situation better. When the action was implemented, the class situation is more conducive than before the action was implemented. The students paid good attention to the lesson and did the given tasks. They made the note for the writer's explanation although the writer did not ask them to do that. When some students made noise, the writer could make the class situation conducive by reminding them to be active in the discussion. After the writer reminded them, they joined the class well. The students gave good participation in the discussion and in the presentation. When they did not understand some materials and did not know how to do the assignment, they asked the material to the writer or to their friends in the groups. In the group discussion and presentation, the students built good communication and team work during the lesson.

After conducting the research and obtaining the conclusion above, the writer would like to give some suggestions especially for the teachers. Hopefully the suggestions will be useful to improve students' English skill. The suggestions are (1) the teachers should choose and apply a proper strategy in facing the students who did not enjoy the lesson. When the students feel the monotonous during the lesson, the teachers could conduct the lesson in non-class area but is still in school area like the laboratory. They should optimize the media available in the class surroundings or the media in the laboratory. (2) When applying jigsaw technique to teach reading, the

teachers should guide the students to do the process well. The students should be well involved in the discussion of the group. Jigsaw technique can be combined with the video or pictures to support the teaching materials. Besides, the teacher should provide enough learning experience and material explanation.

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