



IMPROVING STUDENTS' READING COMPREHENSION OF NARRATIVE TEXTS THROUGH JIGSAW COOPERATIVE LEARNING

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Abstract

This study investigated the implementation of Jigsaw Cooperative Learning (JCL) in teaching reading comprehension in one of Junior High Schools in Serang Regency, Banten Province. It seeks to see how the JCL is implemented in the classroom, whether JCL can enhance students' comprehension and whether the impact is positive or negative in students' opinion. It employed classroom action research (CAR) with two cycles of actions, involving 31 students. To collect data, observation, tests and questionnaire were done. The implementation shows that, like other cooperative learning models, JCL requires students work in groups twice, in jigsaw and experts groups and require teachers do more preparation. The results of tests indicate that JCL improved students' comprehension. There was gain of the mean, the highest score and the lowest one. In addition, the data from questionnaire show that in the students' opinion, JCL impact on their literal comprehension is better than that on their inferential and evaluative comprehension meaning that the students are more aware of the impact on their literal comprehension than that on inferential and evaluative levels. It is suggested that similar study should include more items on every levels of comprehension, involve more students with various ages, be conducted in more cycles and use interview to collect data.

Key words: Jigsaw cooperative learning, reading comprehension, literal, inferential and evaluative comprehension.

Introduction

Regardless other language skills, reading is very important skill. It is useful for language acquisition and also has positive effect on students' vocabulary knowledge, their spelling and on their writing (Harmer, 2007 p.99). Reading can help other skills to develop and facilitate students to learn other language systems and language skills.

Learning to read is also an important educational goal and for both children and adults. The ability to read opens up new worlds and opportunities (IAE, www.ibe.unesco.org). Reading ability enables us to gain new knowledge, enjoy literature, and do everyday things that are part and parcel of modern life, such as, reading the newspapers, job listings. Therefore, everybody should be a successful reader to be a successful person.



A successful reader relies on lower and higher reading skills (Hood et al., 1996 p. 21; Grabe and Stoller, 2002 p. 33; Hedgcock and Ferris, 2009 p. 28). Lower skills result in literal and partly inferential comprehension (Johannessen et al. 2009, p.6). Higher skills result in inferential and evaluative comprehension (Hood et al., 1996 p. 44; Hughes, 2003 p. 138).

In connection to teaching reading, most scholars offer some similar stages: pre-(before) reading, while reading and post-(after) reading (Brown (2001 p. 315; see also Hedgcock and Feris, 2009 p 163). Barnet (1988) adds a last stage: follow-up activities.

Based on Indonesian 2013 curriculum, the competence of English teaching in junior high schools (SMP/MTs) is targetted to be able to read and write oral and written, short and simple texts using the appropriate text structures and accurate, acceptable and fluent linguistic features. The texts to teach in junior high schools include short and simple interpersonal texts, transactional texts, specific functional texts and functional texts in the form of descriptive, recount, narrative, procedure and factual report. In this study, narrative text was investigated.

In addition, the 2013 curriculum also suggests cooperative learning models to be implemented. Cooperative learning is considered more structured and more persfective to the teachers as classroom techniques, more directive to students as how to work together in group (Oxford, 1997 in Brown 2001). It is not only group work. Cooperative learning requires at least 5 (five) elements (Marzano at.al 2001, citing Johnson and Johnson 1999), namely, individual accountability, positive interdependence, face-to-face promotive interaction, group processing, and interpersonal and small group skills.

One of cooperative learning models is Jigsaw cooperative learning (JCL) wherein the students are assigned chapters, short books or other materials to read. Each team members is randomly assigned to become “expert” on some aspect of the reading assignment (Slavin, 1995). After reading material, experts from different teams meet to discuss common topics and then they return to teach to their teammates. Finally there is a quiz or other assesment on all topics. Scoring and team recorgnition based on improvement of team members (Slavin, 1995 p. 6-7).



However, no best method is available for all. JCL may encounter some problems as indicated in Aronson's website (<http://www.jigsaw.org/overview.htm>). They are the problem of the dominant students, slow students; bright students' boredom; and trained students to compete. JCL findings are also various.

Previous findings found that JCL benefited students and also fostered the interest of students' English study, aroused their motivation, and improved their reading ability of college students (Meng, 2010). JCL had good effect in teaching reading comprehension on recount text and influenced the reading comprehension of the students, especially at the eighth grade students (Robani, 2017). It could improve the tenth grade students' reading comprehension achievement as well as their participation (Zakiyah, 2014). It was effective on the learners' reading achievement (Kazemi, M. 2012) and could improve students' reading comprehension achievement (Kurnia, 2002) and the students' reading involvement in the reading class (Novianto, 2012).

On the other hand, Ghaith, G & El-Malak, M. A. (2004) found that JCL had no effect on overall reading comprehension and literal comprehension. Some cultures are hostile to groupwork because it involves learner-teacher relation that is at odds with those held in the culture (Jhonson, 2001 p.207).

Based on the previous arguments the writer is intended to investigate how is JCL implemented in the classroom, whether the application of JCL to improve reading comprehension of narrative texts and whether students' response positive or negative to the JCL implementation.

METHOD

This research was undertaken in grade IX C of a junior high school in Serang Regency, Banten Province, with 31 participant students. It employed participatory action research (Cresswell, 2008 p. 602). The procedures of the action research in this study, following Kemmis and McTaggar (1986 in Burns in Heigham and Crokers 2009: 115) contained two cycles of the four stages: planning, action, observation and reflection.

To collect the data, the tests, observation and questionnaire were administered. The tests, a pencil and paper tests (Mc.Millan and Schumacher, 2001 pp. 250-7), were intended to gather the data about the students' achievement in reading comprehension. The



tests were pretest, quizzes and posttest to see the effect of the actions on the students. In the tests, multiple choice items were chosen since they are suitable items for testing reading as receptive skill (Brown, 2005 p. 47).

Observation was carried out to provide additional evidence for the study (Cowie in Heigham and Crocker, 2009, p. 168). In this case, the researcher acted as a participant observer (Creswell, 2008 p. 222). While observing, the researcher made field notes about the actions JCL teaching procedure and the students' reaction about the activities.

The questionnaire was employed to survey the students' opinion about JCL to their comprehension. It follows the guideline from Oppenheim (1982 in Mc Millan and Schumacher, 2001 p. 258) and Dornyei (2002). It was written in Bahasa Indonesia to make it more comprehensible for the students and to avoid misunderstanding.

The researcher selected the narrative texts entitled "The Hare and The Tortoise" and "Lake Toba" as teaching materials including the practices (worksheets) and quizzes, wrote the lesson plans to suit the procedures of JCL. The questions of worksheet in the first meeting were aimed to practice of lower level reading skills to gain literal comprehension, and in the second one they were intended to exercise inferential and evaluative levels.

A meeting before the first action was taken, a pretest was conducted, then the researcher assigned students in groups/teams. The JCL group was expected to be equal in their comprehension ability.

The actions in the cycle 1 and cycle 2 are similar except the narrative text. The researcher implemented JCL procedures on the lesson plans scheduled for two meetings each of which took 80 minutes. The first meeting exercised the lower reading skills and the second one trained higher reading ones.

In both cycles, firstly, the researcher conducted the opening: greetings, checking the students' presence and asking what had been learned in the previous week. He then told the students what they were going to learn and its importance (Slavin, 1995 p. 76). After that, he assigned the students to JCL groups and researcher told students to move to their groups. He gave a chance for the students to build their team like naming their group or appointing a leader. Then, the researcher handed out the reading texts (worksheets). He discussed with the students the pre-reading questions, taught the unfamiliar but essential



vocabularies (Hood, 1996 p.74; Hedgcock and Ferris, 2009, p. 295; Joyce et al., 2011 p. 373) by questioning, explaining the words and applying them a phrases or even a sentence.

Then, the teacher demonstrated the reading skills by discussing the answer to a question from the worksheet or made by the researcher. In the first meeting, the students were trained the skills of how to get explicit information, main idea and the synonym of the antonym of words/phrase. In the second meeting, the students were trained the skills of how to identify main ideas of texts or paragraphs, identify the generic structure of narrative texts, infer the character's emotion or feeling, and identify the communicative functions of texts.

Then, the researcher asked the leader of the group (jigsaw groups) to distribute the work, who did number 1-3, number 4-6, number 7-9 or number 10-12. Right after all the group members got their own task, the researcher assigned the students to new groups based on the equal task to do (expert group).

Next, the students discussed the worksheet in their expert group in the provided time. The researcher kept moving to whole class monitoring and guiding the discussion.

When the students had finished doing the worksheet, all members of the expert group were commanded to back to their jigsaw group. Then, each member of jigsaw presented what they had got in the expert group. The researcher also monitored and guided the group discussion.

As the last step, few members of the group presented the answer to the class. This was to make sure that all the class mastered the reading skills that were trained that day.

FINDINGS AND DISCUSSION

Data from the Observation

Based on the observation of the actions, some findings were identified. It was found that in group discussion, not all students focused on learning. Therefore, the researcher should have always monitored all students, moving from a group to another to keep all students in their teams are on-task continuously (Slavin's 1995 pp. 78-9 see also Leighton in Cooper 1990 p. 320; McCafferty, 2006).



It was also observed that most group members relied on a certain student or pair of students in the expert groups. Other members of team only copied the answer. It seemed 'high achievers' dominated in the discussion.

In addition, it was seen also that some students was dependent on vocabularies. It seemed that they needed to know all vocabularies in the text. Some students frequently opened the dictionary or asked the meaning of some words to the researchers.

It was also found that there was no enough time to present the answer of each team. When every group member was given a chance to read aloud their answer, it took too much time. Therefore, only one or two jigsaw members suggested to present their answer on certain question.

It was also observed that most students found it difficult to answer the questions about the complication (problem), the resolution and the communicative function of the text. In this case, the researcher should give model to use the skill of how to identify them from the text.

It was also found that some students still relied on their friend and the vocabulary. When they found unknown words they at once looked up their dictionary. So, the researcher needed to inform the students that they did not need to know all words to catch the meaning of the texts. They could predict and infer the meaning of the sentence as a whole based on their own knowledge (Grabe and Stoller, 2002 p. 33).

It was found that most students were able to identify the characteristic of the characters in Bahasa Indonesia, however they felt difficult to express it in English since they lacked of vocabularies. So, the researcher should identify the vocabularies related to the characteristics that might come up in the texts and their synonyms as well.

It was observed that inferring the complication (problem) was always a problem. In this case, the researcher should give more models of how to identify the complications from the text, and how to determine the main one in the story.

Data from Tests

The pretest and the posttest were administered to the participant students: Class IX C consisting of 31 students. The result of the pretest and posttest were analyzed by the



software of ANATES V.4 right after administration and subsequently analyzed. The result of the pretest and the post test can be seen on the table.

Table 1: Descriptive Statistics of the Result of Pre-Test and Post Test

	Class	N	Mean	Std. Deviation	Highest Score	Lowest Score
Pretest Score	8C	31	32.26	10.84	69.44	16.67
Posttest Score	8C	31	37.90	11.59	75.00	25.00

The descriptive statistics above show that the mean score of the pretest is 32.26 and that of the posttest is 37.90 on a scale of 0-100. The highest score of the pretest is 69.44 and that of the posttest is 75.00. Meanwhile, the lowest score of the pretest is 16,67 and the post test is 25.00. These indicate that the implementation of JCL could improve the students' achievement. However, the table shows that there is also gain in the standard deviation from 10.84 to 11.59 in the post test (on a scale of 0-100). This means that the high achievers made more progress than the low achievers. These facts suggest that the treatment of JCL could improve the achievement of high achievers more that the low ones.

In short, the results of the tests show that JCL could improve the students' reading comprehension in general. It helped most students to get better achievement in reading narrative texts. However, it did not improve few students who were categorized into low achievers. These indications support the notions that the grouping in JCL widens the gap between students of high and low ability (McCurdy, 1996). This is also confirmed by the result of the pretest and the posttest.

This finding confirms that JCL is in line with the previous findings by Meng (2010), Robani (2017), Zakiyah, U. (2014), Kazemi, M. (2012), Kurnia (2002), Novianto (2012) that Jigsaw cooperative learning could benefit and improve the students' reading comprehension. However, it is rather contradictive to Ghaith, G & El-Malak, M. A. (2004) who found that JCL had no effect on overall reading comprehension and literal comprehension, though it was effective to the variable of higher order comprehension.

Data from Questionnaire

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To analyze the result of the questionnaire, the researcher tallied and summed the students' checklist. Then, the students' responds were scored according to the type of statements. On the positive statements, 'strongly agree' was scored '4', 'agree' was scored '3', 'disagree' was scored '2', 'strongly disagree' was scored '1'. In contrast, to the negative statements, 'strongly agree' was scored '1', 'agree' was scored '2', 'disagree' was scored '3', 'strongly disagree' was scored '4'. In analyzing the result, the statements were categorized based on the theme or main content of the statements; the reading skills related to literal, inferential and evaluative comprehension levels.

JCL Impact on Students Reading Skills Related to Literal Comprehension Level

The students' responses on the questionnaires related to literal comprehension were positive. Almost all students agree the positive statements and disagree to the negative ones. The biggest mean score is 3.03 and the least one is 2.71, meaning that at least one third of the students responded agree.

Most students responded agree and strongly agree to the positive statements #1 that JCL helps them in understanding the general content of the texts. There are 29 (93.55%) students responded positively (agree and strongly agree). It is confirmed by the responses to the negative statement whose mean score is 2.97 suggesting that almost all students disagree to the statements that JCL hinders them in understanding the general content of the texts.

To the second (positive) statement that JCL enables them to find explicit information on the text, 22 (70.97 %) students responded agree and strongly agree. It is confirmed by the responses to the negative statement. There are 22 (70.79 %) students disagree and strongly disagree to the statement that JCL disables them to find explicit information on the text.

Meanwhile, to the statement that JCL facilitates them to predict the meaning of words/phrase/clause, 74.19 % students checked agree and disagree. It is also confirmed by the response to the negative statement where 67.74 % students responded disagree and strongly disagree to the statement that JCL impedes their ability in predicting the meaning of words/phrase/clause.



In summary, there are about 25 (79%) students responded positively that JCL facilitates their literal comprehension level. It is indicated by the mean score on positive statements which is 2.88 (agree) and negative statements which is about 2.81. So, most students agree and strongly agree that JCL helps them understand the general content of the texts, find explicit information on the text and predict the meaning of words/phrase/clause.

JCL Impact on Students Reading Skills Related to Inferential Comprehension Level

In terms of inferential comprehension, the students' response on the questionnaires indicated that JCL was responded positively.

Most students (87.10%) responded agree and strongly agree to the positive statements that JCL helps them easier to identify the main ideas of the texts or paragraphs. It is confirmed by the responses to the negative statement where 19 students (61.29 %) disagree and strongly disagree to the statement that JCL inhibits me to identify main ideas of a text or a paragraph. However, there are 12 students (38.76%) responded agree and disagree to the negative statement. This means that a lot of students changed their mind in answering the statements.

To the second (positive) statement that JCL improves their capability in identifying the clues of the texts, most students (80.65 %) responded agree and strongly agree. However, the response to the negative statement is quite different. There are 67.74 % of the students disagree and strongly disagree to the negative statement that JCL worsens their capability in identifying the clues of the texts.

Further, there are only 38.71 % of the students checked agree and disagree to the statement that JCL aids them to identify implicit information from the texts. The response to the negative statement is quite contradictory with the findings. There were 61.29 % students checked disagree and strongly disagree that JCL holds them back in identifying implicit information from the texts. This shows that the students' response is not consistent. Many of them change their responses.

In shorts, only about 19 (61%) students who responded positively that JCL eases their inferential comprehension level. In this case, only 19 of 31 students agree that JCL helps them identify the main ideas of the texts or paragraphs, the clues of the texts and implicit information from the texts. The mean score of all positive statements is 2.83 and



that of the negative ones is 2.78, suggesting that some students changed their response on the negative statements.

JCL Impact on Students Reading Skills Related to Evaluative Comprehension Level

The questionnaires show the impact of JCL on the students' evaluative comprehension was not as positive as the literal or inferential levels. All the mean scores of the statements are less than 2.95.

In terms of evaluative comprehension level, most students responded agree to the first positive statements that JCL assist them in specifying the communicative or the generic structure of the texts. 24 of 31 (77%) students responded agree and strongly agree, and only 7 students responded disagree. However, the students responses changed to the negative statement. Only 17 (54.80%) students responded disagree and strongly disagree. There were about 7 students who were inconsistent in responding. This suggests that the students were not sure about the impact of JCL on their evaluative comprehension.

There were 24 (77.42%) students who responded agree and strongly agree to the statement that JCL supports them to determine the tone or feeling of the writer of a text. However, to the negative statement, there are 9 students (28.03%) responded agree and strongly agree to the negative statement that JCL hinders them to determine the tone or feeling of the writer of a text. Its mean score is only 2.68 meaning that many students were not sure about the positive statement.

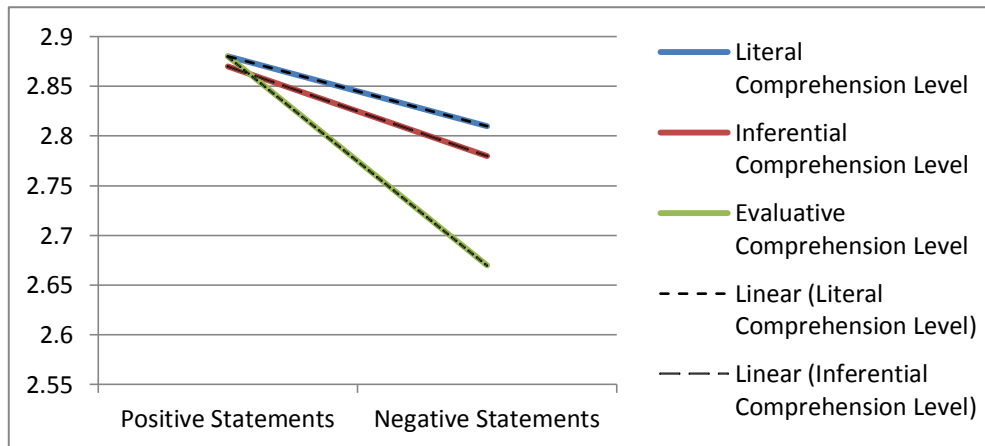
Finally, there are 27 students (87.09 %) checked agree and disagree to the statement that JCL improves me in identifying the characteristics of characters in a text. However, to the negative statement there were 9 students (29.03 %) checked agree and strongly agree to the statement. This shows that the inconsistency of the responses meaning that a lot of students were not sure about to the statement.

From the data above, some indications can be taken account. The score of the students' responses to positive statements are all larger than that to the negative one. All mean scores of positive statements are above 2.85. Meanwhile, the mean scores of negative statements are under 2.81. This indicates that some students were not consistent in responding the statements. See the chart below.

Chart 1: The Comparison between the Students' Responses on Positive



and Negative Statements



The chart shows that among the three comprehension levels, the responses to statements about lower reading skills related to literal one is more consistent than the other two. Its mean score of the responses on positive statements was 2.88 and that of negative statements was 2.81. The responses to the statements about lower reading skills related to inferential and evaluative level are more inconsistent. The mean score of the responses on positive statements related to inferential level was 2.83 and that on negative statements was 2.78. Meanwhile, the mean score of the responses on positive statements related to evaluative level was 2.88 and that on negative statements was 2.67. This suggests that the students were not so sure about the impact of JCL on their inferential and evaluative level. In other words, JCL is considered to facilitate the students' literal comprehension level better than inferential and evaluative levels.

CONCLUSION AND SUGGESTIONS

Firstly, the implementation of JCL in the classroom needs more preparation, just like other cooperative learning models. In JCL, the students are divided into small groups of five or six students with a leader appointed. Then, the lesson should be divided into 5-6 segments (exercises). Then, each student was assigned to learn the exercises. The next step, temporary "expert" groups were formed by having one student from each jigsaw groups join other students assigned to the same segment. Further, the "expert" groups discussed the exercises. Next, the students backed into their jigsaw groups and asked each other to present their segments (exercises) to the group. At the end, a quiz is held to see the students



comprehension. Hence, JCL requires teachers do more preparation before the implementation.

Secondly, regarding the impact of JCL on the students' reading comprehension, this study shows that JCL improved their reading comprehension. This can be seen from the improvement of the mean, the highest and the lowest scores of the test. The mean score increased 5.64 on a scale of 0-100, from 32.26 in the pretest to 37.90 in the post test. The highest score raised 5.66 (69.44 in the pretest to 75.00 in the posttest) and the lowest score increased 8.33 on a scale of 0-100, from 16,67 in the pretest to 25.00 in the posttest.

These indicate that the implementation of JCL could improve the students' reading comprehension. This finding is in line with the previous findings by Meng (2010), Robani (2017), Zakiyah, U. (2014), Kazemi, M. (2012), Kurnia (2002), Novianto (2012) that Jigsaw cooperative learning could benefit and improve the students' reading comprehension. However, it is rather contradictive to Ghaith, G & El-Malak, M. A. (2004) who found that JCL had no effect on overall reading comprehension and literal comprehension.

Thirdly, the data from questionnaire show, in the students' opinion, JCL's impact on their literal comprehension level is better than on their inferential and evaluative comprehension levels. It means that they are more aware of the impact on lower reading skills than that to higher ones. This can be seen from the mean score of the responses on positive statements about literal comprehension level, which was 2.88 and that of negative statements was 2.81. The mean score of the responses on positive statements about inferential comprehension level was 2.83 and that on negative statements was 2.78. Meanwhile, the mean score of the responses on positive statements about evaluative comprehension level was 2.88 and that of negative statements was 2.67.

In other words, JCL is considered to facilitate the students' literal comprehension level better than inferential and evaluative level. This mattered probably because inferential comprehension questions were more difficult since they require the orchestration and manipulation of information from the text as well as information that resides within the readers (Brasel and Rasinski, 2008, p. 17) and the lower reading skills were easier since they only requires recognition and recall of ideas, information and happening explicitly



stated in the text (Clymer, 1968 in Pettit and Cockriel 1974, in Hudson, 2007 p. 85; Berry, 2005; Briskin, 2005).

Suggestions

The number of items for each reading skills, both lower and higher skills was only 12. So, similar study should include more items on every reading skills related to comprehension levels. More items might generate more comprehensive and valid result. Additionally, other types of items completion, cloze procedure or memory test could be employed to assess the students reading comprehension.

This study only investigated a group of junior high school students whose number was only 31 students between 13-15 years old. Therefore, it would be a good idea in the future research to involve more students with various ages.

This study was done in only two cycles applying observation, test and questionnaire to collect the data. It would be better to conduct similar study in more cycles to see the stable tendency of the students' achievement or responses. It is also necessary to triangulate the data, such as interviewing students.

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Online Resources

<http://www.jigsaw.org/overview.htm>

IAE, www.ibe.unesco.org