The Effectiveness Of Using Jigsaw Technique To Improve Reading Comprehension Of First Graders Of Smk 4 Kendari In 2015/ 2016 Academic Years

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ABSTRACT

This study aimed to find whether teaching narrative text by using Jigsaw technique effective for students’ reading comprehension of first graders at SMK 4 Kendari and to describe the students perception about Jigsaw technique. The researcher limited this study on literal and interpretative comprehension. This study was pre experimental design. The population of this study was 97 students (taken from 3 classes of TKJ). Through SPSS 21.0, the researcher gotten the students of TKJ A is the sample of this study. The numbers of sample were 32 students. The instrument of this study was reading test and perception questionnaire. The result of this study showed that Jigsaw technique gave a significant effect on the students reading comprehension at first graders of SMK4 Kendari. It can be seen from the result of SPSS 21.0 (T-Test), it showed the probability value Asymp (Sig. 2 Tailed) was 0.000 < 0.05 (p ≤ 0.05) and t count was 11.33 > t table (2.039). It means that the second hypothesis (H1) was accepted.

1. INTRODUCTION

There are four English basic skills, to be able to communicate, they are listening, speaking, reading and writing. Reading holds the important rule because reading is
one activity which cannot be released from our live to search some information or knowledge from printed text. Thus, the students should have good reading skills. In the fact most of students still have low competence in those skills and language components. For them, English is difficult and boring lesson. And it makes students less motivation to learn English especially at school. One reason is the technique in teaching English.

The problems above is happened at SMKN 4 Kendari. This school is facing some discouraging phenomena. Some of them are English teaching and learning process situation, where in reading learning process, the students tend to be worried to make mistakes, be ashamed to speak and even not able to speak English. These have been serious issues among educators, particularly teachers of English at SMK 4 Kendari.

Besides, the problems report came from others English teacher. There are some teacher who complain about teaching and learning of English at the school. For example, my colleagues often say who they have not motivation to teach English at the classroom. It because the class not interest in terms of teaching and learning process, the students are poor of self-confidence, students’ are poor of motivation, and students’ have a discipline problem. Another reason is the content of the teaching material does not connect with the context of application.

In teaching practice, most of the students are afraid or have a bad perception about English learning process. They are considered English is difficult and elusive. In addition, their attitude when the teacher explains was still low. Another weakness of teaching reading in this school are the students are hesitant, not confident or do not dare to issue an opinion to answer questions provided by the teacher. That’s why, when students is gave questions and they must answer directly, the student would answer with a long duration of time.

Moreover, during the learning process is dominated by the teacher, the teacher was busy explaining while students just listen without issuing any opinion. It is less effective because students become passive and affect the student's academic results are not inflated. Besides, the impact is that students do not dare to speak in English because of laziness, fear and confidence lingering in students. Therefore, many educators recognize this model as a cooperative learning model of learning in groups. Cooperative learning model asks the students to be more than just learning in groups or work in groups, because in a cooperative learning there is no structure encouragement or tasks which are designed and given to students in which these tasks are cooperative enabling the open interaction and relationship that is interdependent effectively amongst the group members.

In relation to the learning objectives and answering the above problems and to promote the English reading comprehension of the eleven grade students at SMK 4 Kendari, the researcher choses a type of cooperative learning such as Jigsaw model. Cooperative learning type of Jigsaw was developed so that all students take active roles there who think that one is more important than any other, the cooperation of the interdependence of all group members, and all members have an equal role in contributing value to the group through a quiz (Mulyatiningsih, 2011: 227).
According to Wena (2009:193), the cooperative learning type of Jigsaw has characteristics:

a. It can be applied to a class of heterogeneous students' academic ability in learning because students are grouped in small heterogeneous groups in terms of gender and academic ability is basic groups and expert groups to discuss solve the problem.

b. Working group is appreciated by providing a predicate group which aims to motivate students in learning.

c. Can improve student interaction in learning activities.

In Jigsaw technique, the student is required to master the subject and be responsible for a given topic. Because, this technique will ask each member of the group must be accountable to master the material acquired and should be able to explain to other members into one group with him. If a student is not able to master the subject well, means the student will not be able to explain the topic acquired to the members of his group well. Likewise, if a student is able to explain the material acquired by either the members of the group, understanding between members of the group will be good too.

The most important thing in Jigsaw technique is togetherness and interaction among the members with other members. In this process is expected to improve understanding and foster self-confidence of students to repeat the activity. Students will play an active role in the learning process and are expected to learn to be more meaningful and produces good learning outcomes.

This current study is intended to answer the following questions:

a. Is teaching narrative text using Jigsaw technique effective to students’ reading comprehension of first-graders at SMK 4 Kendari?

b. How do the students perceive after they taught using Jigsaw techniques?

2. LITERATURE REVIEW

2.1. Reading

Reading is one activity in order to get the information from printed text. Tarigan said that reading is a process which done by the reader to get the massage or information from the author through his/her written. It means that reading is part of language process because in reading is occurred the communication between the reader and the text. Byrnes says “Reading is a transaction between the text and the reader”. Furthermore Brown (2001; 264) states “reading is a process interrelated with thinking and with other communication abilities listening, speaking, and writing. Reading is the process of reconstructing from the printed pattern on the ideas an information intended by the author.

2.2. Jigsaw Technique

Jigsaw is a technique that is very famous in cooperative learning which was first developed in the early 1971 by Elliot Aronson, hence this technique is developed by some experts to be two added version, those are jigsaw II that developed by Slavin in
1989 and jigsaw III that developed by Kagan in 1990 and many other. In 2000, Maria brisk and Margaret M. Harrington (p.83) had argued that the jigsaw approach is a way for students to work cooperatively and help each other to learn new material. Students take an active role their learning as they teach other students what they have learned”. As a cooperative learning method, jigsaw has to consist of group member about five to six students in one group.

In applying the jigsaw technique in the classroom, the technique can be modified depends on the situation or the necessity. One of the other modification of jigsaw technique is jigsaw reading. Jigsaw reading is a kind of jigsaw technique which combines the idea of jigsaw puzzle with reading. The technique of jigsaw reading focuses on reading activity. According to Berkeley-Wykes in Farouk (2001), jigsaw reading technique is the technique in which a reading text is cut into segments and the task of the students to restore it to its proper order to make sense of the text. If used as a group activity where students discuss the decisions of how to order the segments of the text, it can obtain a great deal of communicative interaction.

In the implementation of this jigsaw reading, the text given to group is in form of jumbled text. The main benefit of this jigsaw reading rather than the jigsaw is it can cover more reading in a shorter amount of time and allows students to think deeply about an important part of the text. The jigsaw reading is very simple and easy to be applied in the classroom. This technique can be modified if it is considered necessary. The jigsaw reading activity can be applied in any proficiency level as a cooperative learning activity during reading comprehension instruction, according to The Master Teacher (2010), the steps of jigsaw reading with some modification can be seen as follows:

1. Divide students into the heterogeneous group of 4 to 5 that is diverse in ability. This group is called Home Group;
2. Appoint one most mature student from each group as a leader;
3. Prepare the text and a graphic organizer, likes chart or table as the students’ worksheet;
4. Give the text to the students, the text is formed as text pieces. Distribute the copies of the individual task worksheet and the group task worksheet;
5. Assign students to learn their own part and do the tasks responsibly. They have to finish the individual task first, then they can finish the group task later;
6. Ask students to share and discuss their own segment to their group mates cooperatively. After students in each group work together to thoroughly understand the information, be sure to check for the comprehension;
7. Make the new temporary groups that is the Expert Group. There will be the expert of their own text from their Home Group in this new Expert Group;
8. In the Expert Group, the students take turns teaching their new group mates and discussing the main point about their text;
9. Bring the students back into their Home Group. Ask students to discuss and share the point that they have gotten in their previous Expert Group;
10. Float from group to group, observing the process; and
11. At the end of the session, give an assessment on the material so that students quickly come to realize that these sessions are not only for fun and game but really valuable. In jigsaw reading activity, each group gets different text and certainly each member gets the different segment too, it is why in jigsaw reading, students become an expert of their own part. The success of each group depends on the participation of each individual in completing their task. This means the jigsaw reading technique effectively increases the involvement of each student in the activity.

2.3. Perception
The theories like Rungsun Mukon and Biing Hang-Juang (2008:98) have argued that perception is thus very much related to cognition. Some researcher often justifiably said that theory of perception is the area of psychology and neuroscience. One of them is Alva Noe e Evan Thomson which, in 2002, he have argued that perception is not occur that take place in the brain of the perceiver but rather is the act of perceptually guided exploration of the environment (p. 3).

In this study, perception is the process by which humans such as students interpret and organize sensation to produce a meaningful experience of the world. Sensation usually refers to the immediate, relatively unprocessed result of stimulation of sensory receptors in the eyes, ears, nose, tongue, or skin. Some of theories have interested to describe it. Goldstone, R.L argued, we are interested in describing mechanism of perceptual learning, and implementation these mechanisms in neural network models, (2004). From definition above, researcher concludes that students’ perception is the students’ opinion about something s a result of experience.

2.4. Reading Comprehension
Klingner (2007:2) defines reading comprehension as “the process of constructing meaning by coordinating a number of complex processes that included word reading, word and word knowledge, and fluency”. It refers to the ability in interpreting the words, understanding the meaning and the relationships between ideas conveyed in a text.

In line with Klingner, Lenz (2005:1) says “Reading comprehension is the process of constructing meaning from text”. In his theory, Lenz explains that the aim of all reading instruction is ultimately targeted at helping a reader comprehends a text. Reading comprehension involves at least two people that are the reader and the writer. The process of comprehension involves decoding the writer”s words and then using background knowledge to construct an approximate understanding of the writer message.

2.5. Research Framework
In this study, the researcher would be found the effectiveness of Jigsaw reading technique in promoting the students reading comprehension. For more details, all process in applying this study, can be seen on the scheme below:
3. METHODS
The design of this study was pre experimental design. This study would be used in terms of *one group pretest and posttest design*. It supported by Arikunto (2005: 212) who states that “one group pretest and posttest design is an experimental design which doing at one group experiment, without using comparison group”. There are two variables in this study. They were:

Independent variables : The use of Jigsaw technique

Dependent variables : (1) The students reading comprehension at class TKJ A of SMK 4 Kendari  
(2) The students perception

The number of population in this study are 97 students. (Taken from 3 class of TKJ). The type of population was homogeneity. It can be seen from the analysis of students’ English score on first semester in 2015/2016 academic years. In this study, the researcher took sample through simple random sampling by SPSS computer program.

The researcher gotten the students of class TKJ A of SMK 4 Kendari in 2015/2016 academic year as the sample of this study. The total sample were 32 students that consist of 18 students male and 14 students female. The procedure of this study is...
started by giving pre test to the students in the first meeting. Then, the researcher applied Jigsaw technique (treatment). The last procedure was post test. The technique of data analysis in this study was quantitative data analysis. Quantitative data was a technique to analyze and count the data. For more explanations, the researcher showed the procedure of Jigsaw techniques at class TKJ A SMK 4 Kendari. It can be seen on the following scheme:

4. FINDINGS AND DISCUSSION
4.1. Findings
Pre-test was conducted before implementing the treatment. It aimed to know the students reading comprehension before treatment. From the result of pretest of reading comprehension test, it found that 19 students or 59.37% students obtained high score, 10 students or 31.25 percent obtained average score, and 3 students or 9.37% students obtained low score. On pre-test score, no body students who got the very high and very low categories.
Post test was conducted after implementing the treatment. It aimed to know the students reading comprehension after treatment. From the result of posttest of reading comprehension test, it found that 9 students or 28.12% students obtained very high score, 20 students or 62.50% students obtained high score, 3 students or 9.37% students obtained average score, and nobody students who got the low and very low categories.

The pretest score and post test score had analyzed. Then, the researcher compared the pre-test and post test scores. The comparison of the students score can be seen on the following chart:
Based on the graph above, the researcher concluded there are differences from pre and post-test, where on very high categories, the students who got very high increased 28.12%, from the high categories increased 3.13%, from average categories decreased 21.88% and low categories decreased 9.37%. It means that the Jigsaw technique had affected the students reading comprehension.

Then, the researcher measured the use of Jigsaw technique in affecting the students’ perception about English teaching process through Jigsaw technique.

<table>
<thead>
<tr>
<th>Item</th>
<th>Favorable Statement</th>
<th>Unfavorable Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA</td>
<td>A</td>
</tr>
<tr>
<td>I</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>II</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>III</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>IV</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>V</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>VII</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>VIII</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>IX</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Based on the table above, the researcher concluded that, the students perceive was good. It can be seen from the number of students who chooses strongly agree and agree on the favorable statements. So do with the number of students who chooses disagree and strongly disagree on the unfavorable statements.

It showed that 23 students who choose SA and only 50 students who choose A on the favorable statement and the majority of students choose undecided. The result
of the favorable statement was not different with the students score on unfavorable statements. Where, majority of the students choose undecided and 21 students choose strongly disagree.

There are two hypothesis in making conclusion about homogeny of variance of data. They were:

\[ H_0 \quad = \text{Data variance was homogeny (}H_0\text{ accepted)} \]
\[ H_a \quad = \text{Data variance was not homogeny (}H_a\text{ accepted)} \]

**Table: Homogeny of data varians**

Test of Homogeneity of Variances

<table>
<thead>
<tr>
<th>Score</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.131</td>
<td>1</td>
<td>42</td>
<td>.720</td>
</tr>
</tbody>
</table>

The value of sig was 0.720 > 0.05. It was concluded that the data variance was homogeny.

After the researcher measured the data variance was homogeny, then, the researcher measure the normality of data. The researcher compared the students score on pre and post test with paired sample t test through SPSS IBM, it was important to check whether the score on pre and post test were distributed normally or not. Because the use of paired sample of t test would be applied if the data was homogeny and normally distribution. In this study, *Kolmogorov Smirnov* is applied to check the normality of distribution. The result of normality distribution can be seen on the following table:

**Table 5.17 The Normality of data distribution (NPar Tests)**

<table>
<thead>
<tr>
<th>One-Sample Kolmogorov-Smirnov Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Normal Parametersa,b</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Absolute</td>
</tr>
<tr>
<td>Positive</td>
</tr>
<tr>
<td>Negative</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
<tr>
<td>Pretest</td>
</tr>
<tr>
<td>Posttest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th>32</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Parametersa,b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>60.6250</td>
<td>75.7813</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>.096</td>
<td>.103</td>
</tr>
<tr>
<td>Negative</td>
<td>-.225</td>
<td>-.073</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.273</td>
<td>.581</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.078</td>
<td>.888</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.
The result of the above table indicated the pre and post test score were normally distribution. To determine the data was distributed normally, the value of data (sig.2) must be higher than alpha (α = 0.05). The table showed that the probability value (Asymp.sig) of pre test score was 0.078 and post test score was 0.888. The both of these values were higher than alpha. It can be concluded that the both score (pre and post test) were distributed normally. Hence, the score of students on pre and post test were acceptable to be analyzed through parametric statistic test in form of paired sample t test.

4.1.1. The Analysis of Paired Sample T-test on Pre and Post Test

The following tables showed the result of paired sample t test analysis of the students score on pre and post test.

**Table: Descriptive of data on pre and post test**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>60.6250</td>
<td>32</td>
<td>10.43413</td>
<td>1.84451</td>
</tr>
<tr>
<td>Posttest</td>
<td>75.7813</td>
<td>32</td>
<td>10.28696</td>
<td>1.81850</td>
</tr>
</tbody>
</table>

The above table showed that the students’ mean score on pretest was 60.62 with the number of students who followed this test was 32 students. After the researcher applied Jigsaw technique, the students mean score was 75.78 with the number of students who followed the post test was 32 students. It means that, Jigsaw technique had improved the students means score from 60.62 be 75.78 or improved 15.16.

**Table: The result of paired sample t test analysis**

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1 Posttest - Pretest</td>
<td>15.15625</td>
<td>7.56524</td>
<td>1.33736</td>
<td>12.42869</td>
<td>17.88381</td>
<td>11.333</td>
<td>31</td>
</tr>
</tbody>
</table>

The table showed that the probability value (Sig. 2 tailed) was 0.000 and t count 11.33 on degree of freedom was 31. The value of t table was 2.039 (df = 31)

In the same manner as on the before chapter, there are two directional hypothesis as criteria in taking the conclusion on this study. They were: If \( \alpha > 0.05 \) or t count < t
table, it means that there was no significant effect of using Jigsaw technique on the students reading comprehension and the students’ perception (H₀ is accepted)

If $\alpha \leq 0.05$ or $t \text{ count} > t \text{ table}$, it means that there was a significant effect of using Jigsaw technique on the students reading comprehension (H₁ is accepted).

Based on the result of SPSS, it showed the probability value Asymp (Sig. 2 tailed) was $0.000 < 0.05$ ($p \leq 0.05$) and $t \text{ count} = 11.33 > t \text{ table} (2.039)$. It means that the second hypothesis was accepted. Where, the Jigsaw technique gave a significant effect on the students reading comprehension at first grade of SMK 4 Kendari.

5. CONCLUSIONS

All stages in this research were completely done. Starts from observations, pretest, treatments and posttest. The research began on April 2016 and ended on May 2016 during the second semester of the academic year of 2015/2016. The description of the students’ perception and the students reading comprehension can be drawn to generalize this study:

- a. The students’ reading comprehension in this study are improved. It means there is a significant effect on the use of Jigsaw technique in teaching reading comprehension. It can be seen from the students mean score on pretest was 60.62 and the students mean score on posttest was 75.78. It means that, Jigsaw technique had improved the students means score from 60.62 be 75.78 or improved 15.16.

- b. Jigsaw technique gave a significant effect on the students reading comprehension at first grade of SMK 4 Kendari. It can be seen from the result of SPSS, it showed the probability value Asymp (Sig. 2 tailed) was $0.000 < 0.05$ ($p \leq 0.05$) and $t \text{ count} = 11.33 > t \text{ table} (2.039)$. It means that the second hypothesis was accepted.

The students’ perception was good. Because there are development of the students answer the questionnaire. Where the number of students whose disagree and strongly disagree on unfavorable statement were increased.

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