

THE EFFECT OF JIGSAW TECHNIQUE ON THE ABILITY OF THE SECOND YEAR STUDENTS OF MTS KOTA INTAN IN COMPREHENDING DESCRIPTIVE TEXTS

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Abstract: *The objective of this research is to find out whether there is a significant effect of Jigsaw technique on the ability of the second year students of MTs Kota Intan in comprehending descriptive texts. This is a pre-experimental research with one group pre-test, treatment and post-test design. There are two classes in the first year. Class VIII A in the first semester of academic year 2018/2019 that consist of 25 students are chosen as the sample by using cluster random sampling technique. The instrument of the test is in the form of multiple choices which consist of 25 items about descriptive texts. To collect the needed data the treatments were conducted for six times. The students' scores were analyzed by using Microsoft excel 2010 and SPSS (Statistical Product and Service Solutions) version 23.00 for windows. The results of the data analysis show that the mean score of the pre-test is 59.36 and the mean score of the post-test is 70.40. It means that the value of t-test (7.440) is higher than t-table (2.064) at 5% the significance level. Therefore, the alternative hypothesis (H1) of this research is accepted. In other words, there is a significant effect of Jigsaw technique on the second year students of MTs Kota Intan in comprehending descriptive texts. The implication of this finding is to be beneficial for the teacher in teaching and learning English especially in teaching reading.*

Keywords: *Effect, Jigsaw Technique, Reading Comprehension, Descriptive Text*

PENGARUH TEKNIK MENGAJAR JIGSAW TERHADAP KEMAMPUAN SISWA KELAS 2 MTs KOTA INTAN DALAM MEMAHAMAI TEKS DESKRIPTIF

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Abstrak: Tujuan dari penelitian ini adalah untuk mengetahui apakah ada pengaruh yang signifikan dari teknik mengajar jigsaw terhadap kemampuan siswa kelas 2 MTs Kota Intan dalam memahami teks deskriptif. Ini adalah penelitian pre-experimental dengan satu kelompok desain pre-test, treatment dan post-test. Ada 2 kelas di tahun pertama. Kelas VIII A pada semester pertama tahun akademik 2018/2019 dipilih sebagai sampel dengan menggunakan teknik cluster random sampling. Instrumen tes ini dalam bentuk pilihan ganda yang terdiri dari 25 soal tentang teks deskriptif. Untuk mengumpulkan data yang dibutuhkan perlakuan dilakukan sebanyak enam kali. Skor siswa dianalisis dengan menggunakan Microsoft excel 2010 dan SPSS (statistical product and service solutions) versi 23.00 untuk windows. Hasil analisis data menunjukkan bahwa nilai rata-rata pre-test adalah 59.36 dan nilai rata-rata post-test adalah 70.40. Ini berarti bahwa nilai t-test (7.440) lebih tinggi dari nilai t-table (2.064) pada 5% tingkat signifikansi. Oleh karena itu, hipotesa alternatif (H1) dari penelitian ini diterima. Dengan kata lain, ada pengaruh yang signifikan dari teknik mengajar Jigsaw terhadap kemampuan siswa kelas 2 MTs Kota Intan dalam memahami teks deskriptif. Implikasi dari temuan ini bermanfaat bagi para guru dalam pengajaran dan pembelajaran bahasa Inggris khususnya dalam pengajaran membaca.

Kata kunci: Pengaruh, Teknik Mengajar Jigsaw, Pemahaman Membaca, Teks Deskriptif.

INTRODUCTION

As a foreign language in Indonesia, English is taught started from junior high school to university level. In learning English language, reading is one of the important skills that should be learned by students. Reading is one skill which has many contributions in enhancing and enriching students' knowledge. Reading is a crucial means of learning for students in order to gain new information or comprehend by using different understanding (Grabe and Stoller, 2001). The purpose of reading is comprehension of getting meaning of the text. It means that reading is the activity to comprehend the text and get information or messages from the writer.

According to the 2013 Curriculum, the second year students of junior high school should learn the descriptive texts. In this research, the writer chooses descriptive text because it is included in the syllabus for the second year students of MTs Kota Intan. As one of the text types, descriptive text is compulsory to be learnt by the second year students of junior high school. In this research, the writer introduces Jigsaw Technique as part of Cooperative Learning method to help the students in comprehend descriptive texts.

The use of cooperative learning method in teaching can motivate the students to be more active during the teaching and learning process. According to Nunan (2003), the work in cooperative learning teams is structured so that there is positive interdependence among the members in group: the learners feel that they are work together for mutual benefit. In cooperative learning, the students can share the information and knowledge to each other. Besides that, they also learn how to work together in team and try to give their contribution for the success of their team. Jacobs, Power & Loh (2002), defines cooperative learning as principles and techniques for helping students work together more effectively. There are many techniques in cooperative learning method such as Jigsaw technique, Think-Pair-Share, Three-Step-Interview, Round Table and others. In this research the writer will introduces Jigsaw technique as one of the cooperative learning methods to help the students in comprehending descriptive text.

Dollard & Mahoney (2015) mention a study examined jigsaw technique and found that students using the jigsaw performed better than students using a traditional teaching method. Johnson & Johnson (2009) also defined Jigsaw reading method as an efficient way for students to become engaged in their learning, learn a lot of material quickly, share information with other groups, minimize listening time, and be individually accountable for their learning.

Due to the statements mentioned above, the writer decides to conduct a research by applying a strategy that might be help the student ability in comprehending text especially descriptive texts entitled "The effect of Jigsaw Technique on the Ability of the Second Year Students of MTs Kota Intan in Comprehending Descriptive Texts".

METHODOLOGY

This research was conducted in MTs Kota Intan. The design of this research is a pre-experimental design. The population of this research is the second year students of

MTs Kota Intan in academic year 2017/2018. There are two classes of this class with the number of students is 51. The population can be seen in the following table.

**Table 1.1 The Population of the Second Year Stdudents
of MTs Kota Intan**

No	Class	Number of Students
1	VIII A	25
2	VIII B	26
Total		51

There are two classes in the population of the second year students of MTs Kota Intan but the writer only took one class as the sample. To know which class was taken as the sample, the writer used cluster random sampling. The writer provided two pieces of paper in which one of them was written the word “sample” and the other was blank paper (not written). Then the writer asked the chairman from both of class to take the folded paper. The class whose chairman took the paper with “sample” sign in it was selected as the sample of the research. The sample of this research was VIII A that consists of 25 students.

RESULTS AND DISCUSSIONS

After collecting the data, the writer analyzes the results of the research. The result of this research is presented by showing the result of T-test table comparing the different results of students’ reading ability in the pre-test and post-test. The data were collected by giving a reading test. The students answer 25 questions which contain five components, they are; main idea, finding factual information, reference, difficult word, and social function.

The results of this research show that the mean score of the post-test (70.40) is higher than the mean score of the pre-test (59.36). This result shows that the students’ scores after receiving the treatments by using jigsaw technique are better than the scores before using the treatment. The t-test shows that there is a significant difference between the results of the pre-test and the post-test. The data analysis shows that the t-test (7.440) is higher than the t-table (2.064). It means that alternative hypothesis is accepted and null hypothesis is rejected.

The Results of Pre-test

The pre-test was given by asking the students to answer 25 multiple choice type of questions about descriptive texts. The test was done before giving the treatments by applying jigsaw technique in teaching reading descriptive texts. This test is intended to know the students’ reading ability before the students got the treatment.

The result of the pre-test can be seen on table 4.1:

Table 1.2 The Result of the Pre- test

	Mean	N	Median	Mode	Std
Pre-test	59.36	25	60.00	52.00	9.56940

Table 1.2 shows that the mean score of the students in the pre-test is 59.36. According to the table criteria students' score, the mean score is classified into mediocre level. The median score is (60.00) and the mode score is (52.00).

The data of the students' average achievement for each component of reading comprehension can be seen on table 4.2:

Table 1.3 Students' Ability for Each Component of Reading Comprehension in the Pre-Test

No	Components of Reading	Average
1	Main Ideas	3.25
2	Factual Information	2.92
3	References	2.8
4	Difficult Words	2.84
5	Social Functions	2.96

Table 1.3 shows that the higher score of reading for the students in the pre-test is in the main idea component (3.25). The second higher score is in the social function component (2.96). The third is in the factual information component (2.92), followed by difficult word (2.84). The lower score of reading for the students is in the reference component (2.8).

The percentage of the students' scores can be seen in the table 1.4 bellow:

Table 1.4 The Percentage of the Students' Scores in the Pre-test

No	Range	Ability Level	Frequency	Percentage %
1	81-100	Excellent	0	0%
2	61-80	Good	10	40%
3	41-60	Mediocre	14	56%
4	21-40	Poor	1	4%
5	0-20	Very Poor	0	0%
Total			25	100%

Table 1.4 shows that 10 students (40%) are in *good* level, 14 students (56%) are in *mediocre* level and 1 student (4%) is in *poor* level. There is no student in *Excellent* and *very poor* levels.

The Results of the Post-Test

After conducting the pre-test, the writer taught the students by implementing jigsaw technique. After that, the post test was given by asking the students to answer 25 questions about descriptive texts. It was done after treatment process. This test was intended to know the students' reading achievement after being taught using jigsaw technique.

The result of the pre-test can be seen on table 1.5 below:

Table 1.5 The Result of the Post-test

	Mean	N	Median	Mode	Std
Post-test	70.40	25	72.00	52.00	8.79394

Table 1.5 shows that the mean score of the students in the post-test is 70.40. According to the table criteria students' score, the mean score is classified into good level. The median score is (72.00) and the mode score is (72.00).

The data of the students' average achievement for each component of reading comprehension can be seen on table 1.6:

Table 1.6 Student's Ability for Each Component of Reading Comprehension in the Post-test

No	Components of Reading	Average
1	Main Ideas	3.72
2	Factual Information	3.68
3	References	3.28
4	Difficult Words	3.32
5	Social Functions	3.48

Table 1.6 shows that the higher score of reading for the students in the pre-test is in the main idea component (3.72). The second higher score is in the factual information component (3.68). The third higher score is in the social function component (3.48), followed by difficult word (3.32). The lower score of reading for the students is in the reference component (3.28).

The percentage of the students' scores can be seen in the table 4.6 below:

Table 1.7 The Percentage of Students' Score in Post-test

No	Range	Ability Level	Frequency	Percentage %
1	81-100	Excellent	3	12%
2	61-80	Good	17	68%
3	41-60	Mediocre	5	20%
4	21-40	Poor	0	0%
5	0-20	Very Poor	0	0%
Total			25	100%

Table 1.7 shows that 3 students (12%) are in *excellent* level, 17 students (68%) are in *good* level and 5 students (20%) in *mediocre* level. While, there is no students that achieve *poor* and *very poor* level.

In addition, there are differences in data presentation between before the treatment and after the treatment using jigsaw technique. The data show that the scores after being taught by using jigsaw technique were better and higher than is before using jigsaw technique.

The Comparison between the Results of the Pre-test and the Post-Test

After calculating the results of both tests, the differences can be presented. The result can be seen in the following table 1.8:

Table 1.8 Paired Samples Statistics

Test	Mean	N	Std. Deviation	Std. Error Mean
PRE TEST	59,36	25	9,56940	1,91388
POST TEST	70,40	25	8,79394	1,75879

Table 1.8 shows that the mean score of the post-test (70.40) is higher than the mean score of pre-test (59.36). It shows that there is an improvement in the post-test, because the mean score of post-test increase to 70.40. The comparison level scores can be seen in the table 1.9 below:

Table 1.9 The Comparison Level Scores in the Pre-test to the Post-test

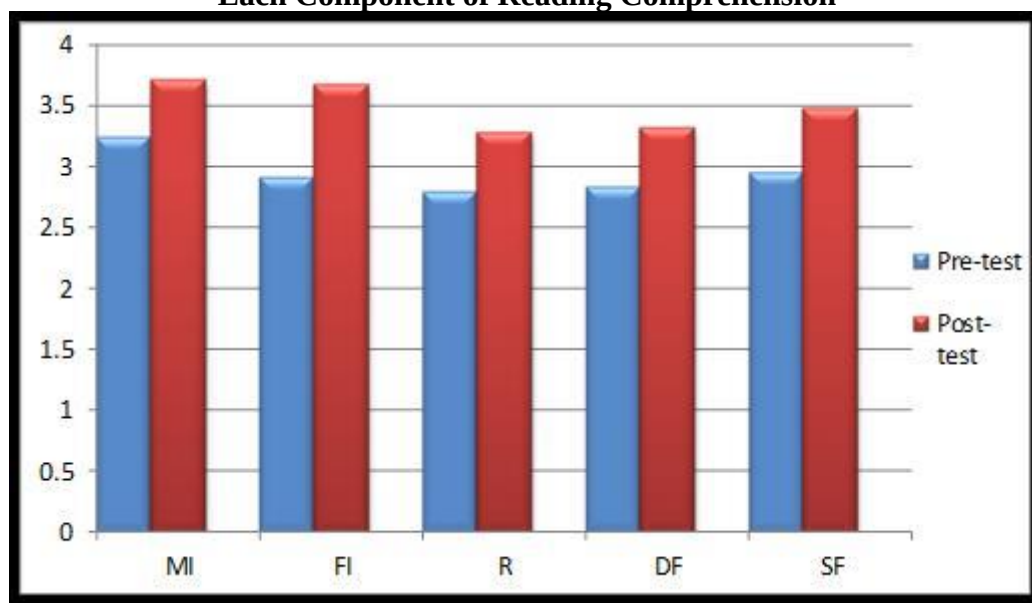
Test Score	Level of Comprehension	Pre-test		Post-test	
		Frequency	Percentage	frequency	Percentage
81-100	Excellent	0	0%	3	12%
61-80	Good	10	40%	17	68%
41-60	Mediocre	14	56%	5	20%
21-40	Poor	0	0%	0	0%
0-20	Very Poor	0	0%	0	0%

Table 1.9 shows that there is an improvement in term of the level score of students' reading comprehension from the pre-test to the post-test after applying the treatment. In the pre-test, 4% of students are in *poor* level and 56% of students are in *mediocre* level; while in the post test, there is no student in *poor* level and students who are at the *mediocre* level reduced to 20%. Furthermore, the comparison of the students' average achievement for each component of reading comprehension can be seen in the following table 1.10:

Table 1.10 Comparisons between the Results of the Pre-test and the Post-test for Each Components of Reading Comprehension

Components of Reading	Average	
	Pre-test	Post-test
Main Ideas	3.25	3.72
Factual Information	2.92	3.68
References	2.8	3.28
Difficult Words	2.84	3.32
Social Functions	2.96	3.48

Chart 1.1 Comparisons between the Results of the Pre-test and the Post-test for Each Component of Reading Comprehension



The data description above showed that the students' average score of each components of reading increased. In addition, the improvement of the students' average score in the pre-test and the post-test is in *good* level.

The Result of the T-test Table

In this research, the “t” test formula is used to compare the pre-test and the post-test results in determining whether the hypothesis could be accepted and also measuring whether the instruments in treatment could give an effect on student's reading comprehension or not.

Table 1.11 Paired Sample Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pretest-Posttest	11,04000	7,41889	1,483787	7,97763	14,10237	7,440	24	.000

$$\begin{aligned}
 \mathbf{t\text{-}table} &= n-1 ; \alpha/2 \\
 &= 25-1 ; 0,05/2 \\
 &= 24 ; 0,025 \\
 &= 2,064
 \end{aligned}$$

Finally, to prove the hypothesis, the data is calculated by using t-test formula with assumption as follows:

1. If $t\text{-test} > t\text{-table}$, the Null Hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted.
2. If $t\text{-test} < t\text{-table}$, the Null Hypothesis (H_0) is accepted and alternative hypothesis (H_a) is rejected.

The result of the t-test is 7,440. Meanwhile the result of the t-table is 2,064. The result of the t-test (7.440) is higher than the result of the t-table (2,064). Therefore, it can be concluded that there is a significant difference between the pre-test and post-test. In other words, the alternative hypothesis of this research “there is a significant effect of jigsaw technique on the ability of the second year students of MTs Kota Intan in comprehending descriptive texts” is accepted and the null hypothesis is rejected.

Discussions

Based on the data, after applying the treatment, there is an improvement in the students' reading ability in comprehending descriptive texts. The data analysis shows the result of the application of Jigsaw technique on students' reading comprehension. The average score of the students' reading comprehension in the pre-test is 59.36. It is categorized as mediocre level. On the other hand, the average score of the students' reading comprehension in the post-test is 70.40 which are categorized as good. It shows that the post-test result is better than the pre-test result. It indicates that there is an improvement in the students' reading comprehension ability.

The results of pre-test are categorized in a mediocre level. There are ten students (40%) in good level, fourteen students (56%) are in mediocre level, and one student (4%) is in poor level. Meanwhile in the post-test, it is categorized in a good level with three students (12%) are in excellent level, seventeen students (68%) are in good level, and five students (20%) are in mediocre level. There is an improvement in term of the score level of students' reading comprehension from the pre-test to the post-test after applying the treatment. In the pre-test, 4% of students are in *poor* level and 56% of students are in *mediocre* level; while in the post test, there are no student in *poor* level and students who are at the *mediocre* level reduced to 20%.

Based on the results of the pre-test and the post-test, the students' mean score for each component of reading comprehension in the post-test are increases. The writer found out that from the five components of reading comprehension stated by King and Stanley (1989), the lowest scores in the pre-test and the post-test are in terms of reference with the scores of (2.8) and (3.28). It happened because the students were not able to comprehend the explicit or implicit messages from the text. Meanwhile, the highest scores in the pre-test and the post-test are in terms of main idea with scores of (3.25) and (3.72).

Finally, the finding of this research shows that: There was a significant effect of using Jigsaw technique on the ability of the second year students of MTs Kota Intan in comprehending descriptive texts. The data analysis shows that the t-test is higher than the t-table ($7,440 > 2,064$). Hence, the alternative hypothesis is accepted. It can be stated that Jigsaw technique is valuable and effective to improve the reading comprehension ability of the second year students of MTs Kota Intan.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the research findings, the writer makes some conclusion as follows; First, after analyzing the data of this research, it can be seen that there was an improvement of students' mean score on the post-test after taught by using jigsaw technique. Second, the data show that the use of jigsaw technique gives significant effect on the students' ability in comprehending text especially descriptive text. It was proved that the result of the post-test (70.40) was higher than the result of pre-test (59.36). Third, alternative Hypothesis (H_a) was accepted since the value of t-test (7.440) was higher than t-table (2.064). It means that there was a significant effect of jigsaw

technique on the ability of the second year students of MTs Kota Intan in comprehending descriptive text.

Recommendations

In connection with conclusion, the writer would like to give some recommendations;

First, for the English teachers, they should use an interesting strategy to make the teaching and learning process effective and efficient. So the students will be interested in learning. Besides, the teachers can apply jigsaw technique as a teaching strategy in reading comprehension especially in teaching descriptive text since it proves that this strategy gives significant effect on students' reading comprehension.

Secondly, for the students. They have to force themselves to read more in order to get more knowledge and increase their vocabulary.

Thirdly, both of the teacher and students should collaborate in teaching and learning process to make them easier solve the problems faced in teaching and learning process.

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