

THE EFFECT OF JIGSAW METHOD ON THE ABILITY OF THE FIRST YEAR STUDENTS OF FARMASI VOCATIONAL HIGH SCHOOL IN COMPREHENDING DESCRIPTIVE TEXTS

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Abstract: *This research aimed to find out whether there is any significant effect of using jigsaw method on the students' reading comprehension of descriptive texts. This research was conducted at Pharmacy Vocational High School Pekanbaru from November August to September 2018. The population was all of first year students in academic year of 2018/2019. The number of the entire population was 266. The writer used cluster random sampling technique to determine the sample. The participant of this research was 35 students of X.5 class. This research consisted of 6 experiment meetings. The instrument of the research was multiple choice test. In analyzing the data, the writer used a statistical analysis. The writer used t-test to compare the difference of students' score in pre-test and post-test. The mean score of the students before the treatment was 67.8571. The mean score of the students after the treatment was 80.4286. Moreover, from the statistical analysis, it was found out the T-test score (11.7) was higher than T-table (1.69). The finding showed that there was significant effect of jigsaw method on the students reading comprehension of descriptive texts. Based on this finding, it is suggested that Jigsaw method can be used by the teacher as an alternative method in the teaching of reading.*

Key Words: *Jigsaw Method, Reading Comprehension, Descriptive Texts.*

PENGARUH DARI PENGGUNAAN METODE JIGSAW PADA KEMAMPUAN TAHUN PERTAMA DI SMKF IKASARI PEKANBARU DALAM PEMAHAMAN MEMBACA TEKS DESKRIPTIF

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Abstrak: Penelitian ini bertujuan untuk mengetahui apakah ada pengaruh yang signifikan dari strategi jigsaw pada kemampuan pemahaman membaca teks deskriptif pada siswa. Penelitian ini diadakan di SMKF IKASARI Pekanbaru pada bulan Agustus sampai bulan September 2018. Populasi dalam penelitian ini adalah semua siswa tahun pertama pada tahun akademik 2018/2019. Jumlah seluruh populasi 266. Penelitian ini menggunakan teknik cluster random sampling untuk menentukan sampel. Pesertanya terdiri dari 35 siswa dari kelas X.5. Penelitian ini terdiri dari 6 pertemuan eksperimen. Instrumen penelitian ini adalah tes pilihan ganda. Dalam menganalisis data, peneliti menggunakan analisis statistik. Peneliti menggunakan T test untuk membandingkan nilai pre-test dan post-test siswa. Nilai rata-rata siswa sebelum dilakukan treatment adalah 67.8571. Nilai rata-rata siswa setelah treatment dilakukan adalah 80.4286. di. Selain itu, untuk analisis statistis ditemukan bahwa nilai T (11,7) lebih tinggi dari T-table (1.69). Hasil temuan menunjukkan bahwa ada pengaruh yang signifikan dari metode jigsaw pada kemampuan pemahaman membaca teks deskriptif pada siswa. Berdasarkan penemuan ini, disarankan bahwa metode jigsaw dapat digunakan oleh guru sebagai metode alternatif dalam pengajaran membaca.

Kata Kunci: *Strategi Jigsaw, Pemahaman Membaca, Teks deskriptif*

INTRODUCTION

In English, there are four skills that students should learn. Reading is one of them. According to Harmer (2001), reading is one of the important skills which have learned by the students in order to master English. Reading becomes an important skill for the students. Because reading is a way to get the information from a text in which this information will support learning process. In order to get the information, the students need to comprehend what they have read. According to Snowling (2009), the target of reading is understanding of the texts. Hornby (2000) states that comprehension is the power of understanding. Grellet (1998) states that reading comprehension involves understanding of words, seeing the relationship among words and concepts, organizing the ideas, recognizing the author's purposes and making judgment in evaluation. From those definitions, the students need to understand the meaning of word and sentence in which the sentences that obtain information. In this research, the writer focused on reading skill. Moreover, the students should improve their reading comprehension in learning because most of the activities required it. When the students do not have knowledge about reading skill, they faced some problems in learn English subject.

Based on the syllabus for the first year students of Senior High School which use the 2013 curriculum, one of text types that students should learn is descriptive text. Therefore all of first year students of Senior High School must do it well. However, based on the writer experience while doing teaching practice at Pharmacy Vocational High School Pekanbaru, the writer found that most of the students in this school get difficulty in comprehending descriptive text. The students could not identify the main idea, factual information and inference of the text, especially in reading descriptive text. It was happened because the students have limited vocabularies and they only focused on the meaning of each word without tried to comprehend the whole text. Besides, the students feel bored to read whenever they get a long text because they didn't have any idea about the meaning of the words that they are not familiar with. These factors made the students hard to comprehend the text maximally. In order to solve this problem, the writer interested used a method that can make the students interest in reading a text. The method that the writer used is Jigsaw method.

According to Gunter, Estes and Jan (1995), Jigsaw strategy is effective and efficient for reading subject, because it is not necessary for the teacher to explain the whole theory about the type of texts. It is enough to explain the social function, then to ask the students to find themselves further information. Because the material about reading text has been served in the students' textbook, therefore, they can read the text by themselves. Suyanto (2012) states that the implementation of Jigsaw method in the teaching and learning process can make students more responsible. Therefore, they directly and actively take a part in comprehending a problem and fix it together in a group. Qiao Mengduo (2010) states that Jigsaw is able to increase students' learning since; it is no threat for many students, it increase the amount of student participation in the classroom, it reduce the need for competitiveness, and it reduce the teacher's dominance in the classroom. It means that Jigsaw make the students more responsible by working together in small groups.

Based on the discussions above, the writer carried out pre-experimental research there is entitle "The Effect of Jigsaw Method on The Ability of The First Year Students of Farmasi Vocational High School Pekanbaru in Comprehending Descriptive Texts"

RESEARCH METHODOLOGY

This research is conducted at Pharmacy Vocational High School Pekanbaru which was located on Bangau Sakti street, Pekanbaru. The data were collected from August to September. The treatment was conducted for four meetings. The population of this research is the first year students of Pharmacy Vocational High School Pekanbaru in the academic year 2018/2019 which total numbers of the whole students are 266 students. The sample of this research is the X.5 of Pharmacy Vocational High School Pekanbaru which is the number of students of class is 35 students.

The procedures consist of eight stages:

- 1) Dividing students into 4 person Jigsaw groups.
- 2) Appointing one student from each group as the leader.
- 3) Dividing the texts or topics into 8 components.
- 4) Giving students time to read the topic at least twice and become familiar with the topic.
- 5) From temporary “expert group” by having one student from each Jigsaw group join other students assigned to the same component. Give students to the expert groups time to discuss the main point of their component and to rehearse the presentation they will make to their Jigsaw group.
- 6) Bringing the student back into their Jigsaw group.
- 7) Asking each student to present her or his component to the group. Encourage others in the groups to ask questions for clarification.
- 8) After the discussion was done, the students were asked to discuss and made a report about the discussion.

The data were analyzed by using statistical analysis. In order to compare the results of students “written test through the pre-test and post-test, the t-test was used by employing SPSS 23.00. The writer discovered the complete results including the mean, variance and how the accuracy the data of the test. The writer chooses t-test to compare the differences of students” scores in the pre-test and the post-test.

RESULTS AND DISCUSSIONS

Results

The objective of the research was to find out whether or not there is significant effect of Jigsaw method on reading comprehension of descriptive texts of the first grade students of Pharmacy Vocational High School Pekanbaru. The data were collected by giving a reading comprehension test to the students both in the pre-test and post-test. The materials for the test were about descriptive texts and the test consists of 40 items in the form of multiple choices.

Pre-test and post-test had been conducted. Pre-test was conducted in order to find out students’ reading comprehension before Jigsaw was exposed. Meanwhile, post-test was conducted after treatment was applied.

1. The Result of Try-out

Before the test was given to get the data, it was necessary to do try-out in order to measure the validity and reliability of the test. The try out consisted of 40 items reading comprehension. The try-out was carried out in another class. It was in X Pharmacy 1 while the the research was conducted at X Pharmacy 5. The result showed that three items were rejected because those three items were too easy. Those items were number 10 (Reference), 23 (Generic Structure), and 25 (Factual Information). After the writer found those three items were rejected, the writer revised them. (for further information, see appendix)

2. The Result of Pre-test

The pre-test was given to the students in order to know their reading comprehension in descriptive text before they had been taught by using Jigsaw method. The result of pre-test was shown in the following table

Table 1. Descriptive Statistics of Pre-test Score

	N	Minimum	Maximum	Mean	Std. Deviation	Std. Error Mean
Pre-test Score	35	50	82,5	67.8571	9.01679	1.52412

Table (1) shows that the mean score of students is 67.8571. Meanwhile, the minimum score that students reached in pre-test is 50 and the maximum score is 82,5.

After getting the scores of the pre-test, the writer applied the treatment to the students. The treatment is as follows:

First, the writer guided the students to understand about the components of descriptive text and reading comprehension. In this meeting, almost all of the students didn't understand about the components of descriptive texts and reading comprehension by using jigsaw method. In this part, the writer expected that the students understand about the components easily. Afterthat, the writer divided the students into group of four (jigsaw group). The writer chose one student from each group as the leader. After that, the writer distributed the descriptive texts about 'places' to the students. The students were given around five minutes to read the topic. After that the writer asked the students to make expert groups. Each group has 8 members. There were 8 components of descriptive texts and reading comprehension and each group discussed about 2 components. While the discussion was going on, some students were noisy and it was a little bit hard to control them since they were not used to this group situation. After the discussion was done, the students were asked to discuss and made a report about the discussion.

When the students already finished their discussion, the writer asked the students back to their Jigsaw group and presented their report to their Jigsaw teammates. Each

student in the Jigsaw group has the same time to present the report in front of Jigsaw teammates.

After jigsaw method was conducted on the first meeting, on the next meeting, the writer used the same treatment but the writer used different text. On this meeting there were still some students that didn't understand about components of descriptive text and reading comprehension, but by using jigsaw method they could fix this problem together in expert group. On the third meeting, the writer still used the same treatment. In this meeting, the students already enjoyed reading and they already knew how to find the components of descriptive texts and reading comprehension. They were accustomed to jigsaw, so that, it was easier to control them in the learning process. On the last meeting most of the students already understood about the components of descriptive text and reading comprehension.

By using jigsaw method, it would be easier for the students to catch the main idea, factual information, generic structure, inference, reference, social function, vocabulary and language feature because they had to share each other from what they had. In the other hand, using Jigsaw method was helpful to increase students' willingness to read the text. The students were interested and enjoyed learn the descriptive text by using this method.

3. The Result of Post-test

Post-test was conducted to find out the effect of the students' reading comprehension ability after Jigsaw was applied. Table (4.2) represents the results.

Table. 2 Descriptive Statistics of Post-test Score

	N	Minimum	Maximum	Mean	Std. Deviation	Std. Error Mean
Post-test Score	35	62,5	97,5	80.4286	9.01679	1.52412

Based on table (2) the mean score of 35 students is 67.8571. Meanwhile, the minimum score which students got in post-test is 62,5 and the maximum score is 97.5.

4. The Result of T-test

In this research, t-test was carried out to compare the pre-test and post-test results in determining whether the alternative hypothesis (H_a) could be accepted and Jigsaw method could give a statistically significant difference between the achievement of students' score in pre-test and post-test.

In performing pre-experimental research with one group pre-test and post-test design, hypothesis is tested at the 0.05 level of significance. The mean of pre-test score (\bar{X}) achieved by the first year students is 67.8571. The difference could be seen in their

mean score as shown in post-test results (Y) that is 80.4286. The margin of pre-test and post-test achieved is 11.0536.

Table 3 Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	67.8571	35	9.01679	1.52412
Post-test	80.4286	35	9.40286	1.58937

Table (3) shows that the total number of students of pre-test and post-test are 35 students. The mean score of pre-test is 67.8571 and the mean score of post-test is 80.4286. The difference of the mean score between pre-test and post-test is 11.0536. The gap of mean score shows the difference indicated an effect of students' ability in reading comprehension after Jigsaw method was exposed in learning descriptive texts. Standard deviation is a values spread in the sample, while standard error mean is an estimate of the mean. The spread of values in the sample pre-test is 9.01679, while standard error of mean is 1.52412. The standard deviation of post-test is 9.40286 and standard error of mean is 1.58937

Table 4 Paired Samples t-test

Table 7: Paired Samples t-test								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig.(2-tailed)
				Lower	Upper			
Pre-test Post-test	12.5714 3	6.31541	1.06750	-14.7408 5	-10.40201	11.77 7	4	.000

Table (4) shows the result of the t_{obs} is -11.777, meanwhile t-table is 1.69092 (see appendix). Although the t_{obs} has negative value, it really makes no difference because both signs are interpreted in the same way (Hatch and Lazaraton, 1991). The result showed that t_{obs} is higher than t_{table} ($11.777 > 1.691$). It can be concluded that there is a differences between the pre-test and the post-test. Jigsaw method could give a statistically significant difference between the achievement of students' score in pre-test and post-test. The alternative hypothesis of this research, "There is a significant effect of Jigsaw Method on reading comprehension of descriptive texts of the first year students of Pharmacy Vocational High School Pekanbaru" is accepted.

$$\begin{aligned}
 t_{table} &= n-1 (\alpha 5\%) \\
 &= 35-1 (\alpha 5\%) \\
 &= 34 (\alpha 5\%) \\
 &= 1.691
 \end{aligned}$$

5. Result of Normality

After presenting the pre-test and post-test result, the normality of the data is analyzed. Normality test is used to determine if the data of the students' scores on writing test of descriptive text in the pre-test and post-test is well-modeled by normal distribution. If the sample data is normal, then the sampling distribution is also normal.

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		35
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	6.04828383
	Absolute	.107
Most Extreme Differences	Positive	.090
	Negative	-.107
Kolmogorov-Smirnov Z		.634
Asymp. Sig. (2-tailed)		.816

a. Test distribution is Normal.

b. Calculated from data.

Table 5 shows that the value of Asymp. Sig. (2-tailed) is 0.816. The result showed that the Asymp. Sig. (2-tailed) is higher than 0.05 (the value of α). It means that the distribution is normal.

6. Result of Linearity

After presenting the normality of both pre-test and post-test, linearity of the data was analyzed. Linearity is the property of relationship or function that assesses whether one independent variable explain the dependent variable. The result can be seen in the following table:

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
posttest * pretest	(Combined)		2322.061	12	193.505	6.224	.000
	Between Groups	Linearity	1762.292	1	1762.292	56.681	.000
		Deviation from Linearity	559.769	11	50.888	1.637	.157
	Within Groups		684.010	22	31.091		
	Total		3006.071	34			

Table 6 shows that the value sig. of deviation from linearity is 0.422. It means that the value is higher than 0.005. Based on the criteria, if the value sig > 0.05, then, there was a linearity between dependent variable and independent variable in this research.

Discussion

Based on the description of data, it can be stated that Jigsaw method is applicable for teaching descriptive texts. According to Sharan (1994), Jigsaw is a method that can help students study the material by teaching each other in which the students involved and has active role in teaching and learning to get deep understanding. The result shows that the post-test is better than the pre-test which indicated the improvement of students' reading comprehension in descriptive texts.

There is a statistically significant difference between pre-test and post-test. The achievement of students' reading comprehension ability was measured between pre-test and post-test. The improvement achieved might have been attributed to the way they being taught by Jigsaw.

Based on the research design, there are three steps to collect the data. Pre-test was the first step conducted to find out the students' reading comprehension ability in reading descriptive text before treatment was applied. Multiple choices test was designed as an instrument in order to collect the data. It was used for both pre-test and post-test. The writer developed a set of multiple choice test on five descriptive texts. Test items had 4 choices only one of which is correct. The students were instructed to read the descriptive texts, one at a time, answers the question by circling the correct choice. The components of reading comprehension and the components of descriptive text are the indicators of instrument. Students' scores on the test were collected as quantitative data in this study.

The treatment was the second step. Jigsaw was exposed in teaching reading of descriptive text. There were four meetings in the application of Jigsaw. The writer got the permission from the English teacher to teach the students about descriptive text by applying Jigsaw.

Post-test was the last step. It was conducted after treatments were applied in teaching reading descriptive texts. It was conducted in order to find out whether or not there is significant effect of jigsaw method on the ability of the first year student of Pharmacy Vocational High School Pekanbaru in Comprehending Descriptive Text.

The result of try-out showed that three items were rejected because those three items were too easy. Those items were number 10 (Reference), 23 (Generic Structure), and 25 (Factual Information). After the writer found those three items were rejected, the writer revised it. Then, the result of pre-test showed that the mean score of students was 67.8571. Meanwhile, the minimum score that students reached in pre-test was 50 and the maximum score was 82,5. Furthermore, the result of post-test showed that the mean score of 35 students was 80.4286. Meanwhile, the minimum score which students got in post-test was 62,5 and the maximum score was 97.5. Lastly, the result of t-test showed t_{obs} is higher than t_{table} ($11.777 > 1.691$). Therefore, it can be concluded that there is a difference between the pre-test score and the post-test score. In other words, the alternative hypothesis of this research, "There is a significant effect of Jigsaw Method on reading comprehension of descriptive texts of the first year students of Pharmacy Vocational High School Pekanbaru" is accepted.

CONCLUSION AND RECOMMENDATION

Conclusion

The main purpose of this pre experimental research is to find out whether or not there is a significant effect of jigsaw method on the ability of the first year student of Pharmacy Vocational High School (SMKF) Ikasari Pekanbaru in Comprehending Descriptive Text.

Based on the result of the data analysis, it is concluded that that there is a significant difference between the results of pre-test and post-test. Hence, it can be stated that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_o) is rejected. In conclusion, this research has answered the research question namely that, there is significant effect of jigsaw method on the ability of the first year student of Pharmacy Vocational High School (SMKF) Ikasari Pekanbaru in Comprehending Descriptive Text

Recommendations

1. The Teachers

This study can be helpful for English teacher to use as reference in planning a better teaching strategy in teaching reading and give information to English teachers about the student's comprehension in reading descriptive text.

2. The Students

The students are expected to be able to get more motivation to read and also understanding what they read. By apply this method, may the student will never get bored anymore in reading section.

3. The Writer

The result of the study teach her to provide more understandings of using Jigsaw in teaching reading which will be useful for her future teaching. It is also can be used to give some experience and add new knowledge on teaching student's reading comprehension.

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