

**THE EFFECT OF USING JIGSAW STRATEGY ON IMPROVING  
THE ABILITY OF THE FIRST YEAR STUDENTS OF SMAN 12  
PEKANBARU IN COMPREHENDING DESCRIPTIVE TEXTS**

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**Abstract:** *This experimental study is aimed at finding out whether the use of jigsaw strategy is effective to improve students' reading comprehension. This research was conducted at SMAN 12 Pekanbaru from September 27, 2017 to November 01, 2017. Cluster Sampling technique was used to choose 40 students as the participants. Data used in this research were the data about students' reading comprehension. Therefore, Reading Comprehension Test was used as the instrument. Then, the data were analyzed by using SPSS 23.0 for windows. The result of the research showed that there was a significant effect of jigsaw strategy on the students' reading comprehension. The mean score of the students before the treatment was 61.87, While the mean score of the students after the treatment was 80.77. Moreover, from the statistical analysis, it was found that the t-test score (22.5) was higher than t-table (2.03). Based on these findings, it is suggested that Jigsaw strategy can be used as an alternative strategy in the teaching of reading.*

**Keywords:** *Jigsaw Strategy, Descriptive Text, Experimental Research*

**PENGARUH PENGGUNAAN STRATEGI JIGSAW  
DALAM MENINGKATKAN KEMAMPUAN SISWA  
TAHUN PERTAMA DI SMAN 12 PEKANBARU  
DALAM MEMAHAMI TEKS DESKRIPTIF**

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**Abstrak:** Penelitian eksperimen ini bertujuan untuk mengetahui apakah ada pengaruh penggunaan strategi jigsaw dalam meningkatkan pemahaman membaca bahasa Inggris siswa. Penelitian ini dilaksanakan di SMAN 12 Pekanbaru pada tanggal 27 September 2017 sampai 02 November 2017. *Cluster Sampling Technique* digunakan untuk menentukan 40 siswa sebagai partisipan. Data yang digunakan dalam penelitian ini adalah data tentang kemampuan pemahaman membaca bahasa Inggris siswa, oleh karena itu tes kemampuan membaca bahasa Inggris digunakan sebagai instrument. Kemudian, data di analisa menggunakan SPSS 23.0 *for windows*. Hasil dari penelitian ini menunjukkan bahwa ada pengaruh yang signifikan dari penggunaan strategi jigsaw dalam meningkatkan pemahaman membaca bahasa Inggris siswa. Nilai rata-rata siswa sebelum dilakukan *treatment* adalah 61,87. Nilai rata-rata siswa setelah *treatment* dilakukan adalah 80,77. Selain itu, dari analisis statistik ditemukan bahwa nilai  $t(22,5)$  lebih besar dari  $t\text{-table}(2,03)$ . Berdasarkan penemuan ini, disarankan bahwa metode jigsaw dapat digunakan oleh guru sebagai strategi alternatif dalam pengajaran membaca bahasa Inggris.

**Kata Kunci:** Strategi Jigsaw, Teks Descriptive, Penelitian Eksperimental

## INTRODUCTION

Reading is one of the four language skills that should be mastered by the language learners in learning English. It is one of the important skills which has to be learned by the students in order to enrich their ability and knowledge. In reading, the students are expected to be able to comprehend what they have read.

Reading is a way to get the information from a text in which this information will support learning process. During the process of learning, English teachers usually present most of the materials in the written form, like handbooks or modules. To understand these materials, the students must have the ability to look at and get the meaning of written texts, that is called reading skills. According to William and Stoller (2002), "Reading is the ability to draw meaning from the printed page and interpret this information appropriately".

In addition, reading has many benefits that students get from the reading process. When the students read a text, they do not only get rich information but also increase their mastery of vocabulary, grammar, and punctuation. By reading, the students do not only get information but also improve their knowledge and ability in reading.

According to McNamara (2007), comprehension refers to the ability to go beyond the words, to understand the idea and the relationship between ideas conveyed in the text. In addition, reading comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language (Catherine, 2002). This will make students more successful in applying and improving everything that had been learned and understood.

According to Grellet (2010), there are two main purposes of reading namely reading for information and reading for pleasure. In the classroom practice, the purpose of reading is reading for information. In order to get the information, students need to comprehend what they have read. In order to do that, it is expected that students are good readers who are able to comprehend a text effectively and efficiently.

Based on the English syllabus of first year in the first semester on SMAN 12 Pekanbaru, there are three types of text that are introduced to the first year students, they are: descriptive texts, recount texts and narrative texts. In the Curriculum 2013, students are expected to be able to comprehend descriptive text.

Descriptive text is a text or reading material that describes someone, some place, or something (Hornby, 2000). The generic structures of descriptive text are identification and description. In comprehending this kind of text, the students are expected to be able to get the specific information, to find out the main idea or define vocabulary in context, to make inference according to the text, to identify the reference from the text and the students have to identify the text organization.

Based on the writer's observation and interview with an English teacher of SMAN 12 Pekanbaru while doing teaching practice from October to December 2016, the teacher said that reading is one of hard language skills in the first year students of the school. In addition, the teacher said that only 40% students in the first year were able to reach the minimum criteria of achievement (KKM) that is 75. It means that 60% students still have difficulties on comprehending descriptive text when the teacher gives the reading test.

Furthermore, in the teaching learning process, the writer observed that most of the first year students had problems in comprehending descriptive text. Firstly, they did not know several meanings of the words. This made them spent much time to find the main

idea in reading descriptive text. Secondly, the students got difficulties to identify the specific information such as the characteristic of person or animal, the location of the place, etc stated in the descriptive text. Thirdly, the students got difficulties to identify the reference and inference in descriptive text.

Considering the problems faced by the students in comprehending descriptive text, the teachers should find an effective strategy in teaching reading. The writer proposed to use Jigsaw strategy to improve students' reading comprehension. Mengduo & Xiaolin (2010) state that jigsaw strategy is a cooperative learning technique that has been studied in various ways by number of researchers and teachers in classes of different levels and subjects.

Aronson (2010) argue that jigsaw strategy provides the students have an opportunity to actively help each others build comprehension and they become active to give some ideas related to the topic given.

## **RESEARCH METHODOLOGY**

The research design of this study was pre-experimental which implements Jigsaw Strategy in reading class. According to Sugiyono (2014), there are three types of pre-experimental design, they are: One-Shot-Case-study, One Group Pretest-Posttest Design, and Intact-Group Comparison. In this research, the writer used the One Group Pre-test – Post-test design. This One Group Pretest-Posttest design involved a single group that is pretest ( $O_1$ ), exposes to a treatment (X), and post-test ( $O_2$ ). The success of the treatment is determined by comparing pretest and posttest.

The design in the present research is illustrated as follows;  $O_1$  is the pre-test and  $O_2$  is the post-test. Pre-test ( $O_1$ ) is aimed to find out the students' prior reading comprehension of descriptive text before the treatment is given. Treatment (X) is teaching reading descriptive text using jigsaw strategy. Post-test ( $O_2$ ) is aimed to see the score of the students' reading comprehension of descriptive text after taught by using jigsaw as a strategy in comprehending descriptive text.

The research was conducted at SMAN 12 Pekanbaru which is located on Garuda Sakti street KM 3, Pekanbaru. The data were collected for about two and half months, from Sept 27, 2017 to November 1, 2017.

According to Sugiyono (2008) population is a generalization which consists of: objects/subjects that have certain qualities and characteristics. The population of this research was the first year students of SMAN 12 Pekanbaru in the academic year 2016/2017. There were 11 classes in the academic year. Each of class consisted of thirty five up to fourty students. The total numbers of population was 420 students.

Sample is a small part of population. According to Gay (2000), sampling is the process of selecting a number of individual for study in such a way that represents the larger group from which they were selected. He also stated that if the population is large and spread out in an intact group that has similar characteristic, cluster sampling is useful. Cluster sampling is a sampling technique where the entire population is divided into groups, or clusters and a random sample of these clusters are selected. Therefore, the writer chose one class from eleven classes of the population as the sample. Finally the students of class X MIPA 5 of SMAN 12 Pekanbaru was chosen as the sample of this research which total number of students consists of fourty students.

**Table. 1**  
**The Population of the First Year Students of**  
**SMAN 12 Pekanbaru**

Classes	Total of Students
X MIPA 1	40
X MIPA 2	39
X MIPA 3	39
X MIPA 4	40
X MIPA 5	40
X IPS 1	39
X IPS 2	35
X IPS 3	39
X IPS 4	36
X IPS 5	37
X IPS 6	36
<b>Total</b>	<b>420</b>

In this study, the items of the test were about the component of the descriptive text. The tests served 5 text which include the components of reading comprehension and descriptive text with 30 questions. All the materials were adapted from the text books for Senior High School Students at X year and internet sources. The aspects being measured are finding main idea, factual information, reference, inference, vocabulary in context, and the social function of the text. The time allocation for each meeting is 2 x 45 minutes. For further information about the instruction of the text, the writer shows the blueprint of tests as follows:

**Table. 2 The Blueprint of Test**

NO	Components of reading Comprehending	Components of Descriptive Text	Items	The Number of items
1	Finding main ideas	Identification	5	1,7,13,19,25,
2	Finding factual information	Finding generic structure (identification, description)	5	2,8,14,20,26,
3	Finding the meaning of difficult words	Finding language features	5	3,9,15,21,27,
4	Finding references	-	5	4,10,16,22,28,
5	Finding inferences	-	5	5,11,17,23,29,
6	-	Finding social functions	5	6,12,18,24,30.

Data used in this research are the data about students reading comprehension. The writer gave multiple choice test as the instrument. The data was analyzed by using statistical analysis. In order to compare the results of students' reading comprehension in the pre-test and the post-test, the t-test technique was used in SPSS 23.0 for windows.

The writer used t-test to compare the difference of students' score in pre-test and post-test.

The classification of students' scores by Arikunto (2013) was used to score students' work and classify students' scores in the pre-test and the post-test.

**Table.2 The Classification of Students' Scores**

Test Score	Level of Students' Comprehension
80-100	Very Good
66-79	Good
56-65	Mediocre
40-55	Poor
0-39	Very Poor

Adopted from Arikunto (2013)

## FINDINGS AND DISCUSSION

### *Findings*

As mentioned before, the objectives of this research is to find out if there is any significant effect of using jigsaw strategy on improving the ability of the first year students of SMAN 12 Pekanbaru in comprehending descriptive texts. The first step that the writer did was giving a try out, it was necessary to do try-out in order to measure the validity and reliability of the test.

Before the pre-test was administered, a try out was administered in order to find out the reliability and the validity of the test. The try out was conducted to see whether the test was too difficult or too easy for the purpose of the research. In this study, the try out was administered to the students who are not involved as the sample.

After being calculated, it was found that the mean score of the try-out was 61.10. Its standard deviation was 11.626. After obtaining the mean score and standard deviation, the reliability of the try-out can be calculated. The reliability of the items was 0.47. This means that reliability of the test was high. It can be concluded that the items of this instruments that were used in this research were valid and reliable.

The next is giving a pretest, the writer conducted a pretest to see the entry behavior before Jigsaw Strategy was applied. The pre-test consists of 30 items. It was found that the mean score of the students' reading comprehension in the pre-test was 61.87. The score is quite good but still not reach the minimum criteria of achievement. The minimum criteria of achievement for the first year students is 75.

After getting the students' scores of the pre-test, the writer did four meetings for the treatment. The time allocation was around 90 minutes. The writer applied jigsaw strategy as a strategy which is adapted from Aronson (2010).

During the treatment, the writer tried to see the improvement of the students' reading comprehension. The following are the procedures that the writer used in doing the treatment based on jigsaw strategy in reading comprehension.

First, the writer guided the students to understand about the components of descriptive text. Then, the writer divided the students into 8 groups, each group consisted of five members.

The next is appoint group leader for each group and distributes reading text and exercise sheets to students. Each four groups will have different reading text from the other groups. The students were given around five minutes to read the topic. After that the writer asked the students to make expert group. The students are asked to discuss and make a report about the discussion.

When the students already finish their discussion, the writer asked the students back to their jigsaw group and present 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. At the end of the session, the writer review the topic and give a chance to the student to asking about the topic. The last, the writer give exercise in order to know the students' understanding after reading activity.

The last is giving a post-test. The post-test was conducted after doing the pre-test and the treatment. The post-test used the same test with the pre-test in order to measure the difference before and after the treatment. It was found that the mean score of the students' reading ability in the post-test was 80.77

### ***Discussion***

Based on the description of the data, it can be interpreted that the use of jigsaw strategy is applicable for teaching reading in descriptive text. The research result shows that the post-test score is better than the pre-test score which indicated the improvement of students' reading comprehension in descriptive text.

## **CONCLUSIONS**

Based on the discussion of data findings and discussion in the previous chapters, the writer concludes that jigsaw strategy gives significant effect to students in comprehending descriptive texts especially for the students at the first year students of SMAN 12 Pekanbaru. The results of this research can answer the research question that "Is there any significant effect of using jigsaw strategy on improving the ability of the first year students of SMAN 12 Pekanbaru in comprehending descriptive text?", it can be seen that the score from the post-test was higher than the pre-test. The use of jigsaw strategy can help the students in order to gain information from the text effectively and efficiently because it gives students an identifiable structure to follow for reading and interacting with the material.

It was found that the score of t-test (22,5) was much higher than the t-table (2.03). The value of the paired samples t-test was high too which was 0,827 which means that the correlation between jigsaw strategy and students' reading comprehension was very strong. It also means that the alternative hypothesis was accepted and the null hypothesis was rejected.

Furthermore, the use of jigsaw strategy gives positive learning environment in the classroom. The use of jigsaw strategy also enhanced the students' participation and interaction during the learning activities.

## SUGGESTIONS

Based on the conclusion earlier, the writer would like to offer some suggestions to English teachers, students and the next researchers. First, English teachers are suggested to use jigsaw strategy to improve students' ability in comprehending descriptive texts. Second, the students are expected to participate actively in learning process so the jigsaw strategy used by the teacher can work properly. The last, the next researchers are suggested to use controlling class, so the result that the next researchers got might be more accurate from the previous research, since the next researchers will get the comparison when the treatment result are evaluated.

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