

CHAPTER III

RESEARCH METHOD

A. The Research Design

The type of this research was an experimental research which was intended to find out the effect of using Adapted Materials Strategy on reading comprehension in narrative text. According to Creswell (2008, p.295), “experiment is you test an idea (or practice or procedure) to determine whether it influences an outcome or dependent variable”. According to Cohen, Manion and Morrison (2005, p.211), “an experiment involves making a change in the value of one variable—called the independent variable—and observing the effect of that change on another variable—called the dependent variable”.

The design of this research was a quasi-experimental designs. There were two variables used in this research; they were independent variable (X) and dependent variable (Y). In this research, the independent variable (X) was used by Adapted Materials Strategy and dependent variable (Y) was students’ reading comprehension. In conducting this research, two classes of the eighth grade students of Islamic Junior High School As-Shofa Pekanbaru were participated. The researcher assigned the experimental and control classes, administered a pretest for both groups, conducted experimental treatment activities with the experimental class only and then administered a posttest for assessing the differences of the both classes. As mentioned by Creswell (2008):

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Table III.1
Research Design

Class	Pre-Test	Treatment	Post-Test
Experimental	O ₁	X	O ₃
Control	O ₂	-	O ₄

Where O : Observation
 X : Receiving particular treatment
 - : Without treatment

B. The Location and Time of the Research

This research was conducted at Islamic Junior High School As-Shofa Pekanbaru, Riau. It is located on As-Shofa street. This research was conducted from February 2017 until April 2017

C. The Subject and Object of the Research

The subject of this research was the eighth grade students of Junior High School As-Shofa Pekanbaru. The object of this research was the effect of using Adapted Materials Strategy on students' reading comprehension in narrative text.

D. The Population and The Sample of the Research

1. The Population

The population of this research was the eighth grade students of Islamic Junior High School As-Shofa Pekanbaru in 2016-2017 academic years. It had 6

classes. The number of the eighth grade students of Islamic Junior High School was 150 students.

Table III.2
The Population of the Research

No	Class	Total
1	VIII 1	24
2	VIII 2	25
3	VIII 3	25
4	VIII 4	26
5	VIII 5	24
6	VIII 6	26

2. The Sample

The population was too large to be taken as sample. According to Hartono (2015, 208), if the population is more than 100 persons, so the sample would be taken between 10-15% or 20-25% or more than it. So, the researcher took two classes to be taken as sample. The researcher used cluster random sampling in this research. According to Gay and Airasian (2000, p.120), sampling is the process of selecting a number of individuals for a study in such a way that they represent the large group from which they are selected. Cluster random sampling is most useful when the population is large on spread out over a wide geographic area. By rolling up the paper that contained classes' name and choosing two of them randomly. So, the researcher chose VIII 1 as an experimental class and VIII 5 as a control class. The total number of the sample was 48 students. It can be drawn as follows:

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Table III.3
The Sample of the Research

No	Class	Class	Students
1	Experimental Class	VIII 1	24
2	Control Class	VIII 5	24
Total			48

E. The Technique of Collecting Data

In the research, the researcher used a test and an observation list to collect data. Observation list was to know whether the strategy was applied or not by the researcher. It was filled by the English teacher as an observer during the researcher gave the treatment in experimental class. The test was used to find out the students' reading comprehension in narrative text. The form of the test was multiple choices. It consisted of 25 questions.

The researcher used pre-test and post-test in collecting data. Pre-test was used to know students' reading comprehension before doing treatment. In the activity of pre-test the students read the story in narrative text and found out the important information in the text for 40 minutes. After that, the researcher did the treatment by using Adapted Materials Strategy and gave them exercise. In the last meeting, the researcher gave the students post-test.

There were three activities that were crucial in collecting data by using the experimental research. They are:

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1. Pre-test

Pre-test was given by the researcher to the students taught before using Adapted Materials Strategy for experimental class and without using Adapted Materials Strategy for control class. It was done at the first meeting.

2. Treatment

The treatment was conducted for experimental class only by using Adapted Materials Strategy. It was given after the students did pre-test. Meanwhile, the control class was given another strategy instead of doing treatment.

3. Post-test

Post-test was given to the students after they were taught by using Adapted Materials Strategy for experimental class and without using Adapted Materials Strategy for control class.

According to Arikunto (2009), there is a classification to maintain the students' score as follows:

Table III.4
The Classification of Students' Score

Score	Categories
80-100	Very Good
66-79	Good
56-65	Enough
40-55	Less
30-39	Fail

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F. Validity and Reliability of the Test

1. Validity of the Test

Fraenkel and Norman (2006, pp. 150-152) have stated that the term of validity in the research refers to appropriateness, correctness, meaningfulness, and usefulness of the specific inferences researchers make based on the data they collect. The data were analyzed by SPSS 20. The standard value of validity was $r_{item} > r_{table}$. Based on the try out result, it was determined that all of the items were valid. The result of try out is as follows:

Table III.5
The Items Validity of Pre-Test

Item Number	r-item	r-table	Result
1	0.32	0.28	Valid
2	0.30	0.28	Valid
3	0.30	0.28	Valid
4	0.35	0.28	Valid
5	0.30	0.28	Valid
6	0.29	0.28	Valid
7	0.30	0.28	Valid
8	0.29	0.28	Valid
9	0.30	0.28	Valid
10	0.30	0.28	Valid
11	0.31	0.28	Valid
12	0.33	0.28	Valid
13	0.34	0.28	Valid
14	0.30	0.28	Valid
15	0.30	0.28	Valid
16	0.32	0.28	Valid
17	0.30	0.28	Valid
18	0.34	0.28	Valid
19	0.30	0.28	Valid
20	0.32	0.28	Valid
21	0.30	0.28	Valid
22	0.33	0.28	Valid
23	0.30	0.28	Valid
24	0.32	0.28	Valid
25	0.29	0.28	Valid

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2. Reliability of the Test

Gay and Airsian (2000, p.169) stated that reliability is the degree to which a test consistently measures whatever it is measuring. The testing of students' reading comprehension must have reliability in order to get the same scores obtained when the test is consistent and dependable. It can be concluded that reliability is used to measure quality of the test score and consistency of the test. According to Cohen et.al, (2007), the guidelines for reliability is as follows:

Table III.6
The Category of Reliability

No	Reliability	Category
1	>0.90	Very highly reliable
2	0.80-0.90	Highly reliable
3	0.70-0.79	Reliable
4	0.60-0.69	Minimally reliable
5	<0.60	Unacceptably low reliability

In this research, the researcher used SPSS 20 to calculate the reliability of test.

The result of test reliability is as follows:

Case Processing Summary

		N	%
Cases	Valid	48	100.0
	Excluded ^a	0	.0
	Total	48	100.0

Reliability Statistics

Cronbach's Alpha ^a	N of Items
.712	25

The reliability of test was 0.712. It is categorized into reliable level.

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G. The Technique of Data Analysis

In order to find out whether or not there is a significant effect of using Adapted Materials Strategy on students' reading comprehension in narrative text, the data were analyzed statistically. In analyzing the data, the researcher used score of post-test of the experimental and control class. In order to get the answer, the researcher analyzed the data by using SPSS 20 as follows:

1. Independent Sample T-test

According to Hartono (2010), T-test is used to measure the significant difference between two mean samples from two variables. Hence, Miles and Philip (2007) also defined that the Independent sample t-test is usually the most powerful and this test can spot significant differences in data. In using independent sample t-test, the researcher had to make three assumptions about the data:

1. The data are measured.
2. The data within each group are normally distributed.
3. The standard deviations of the two groups are equal.

Hartono (2015, p.177) noted that the function of independent sample t-test is to find out whether there is a significant difference between two variables or not. To know about that, the researcher can look at the sig. (2-tailed) which appears under the section labeled t-test for equal of means.

2. Effect Size

The researcher used effect size in this research to find out if there is a significant effect of using Adapted Materials Strategy on students' reading

comprehension at Islamic Junior High School As-Shofa Pekanbaru. According to Field (2009), effect size is really more useful when we want to describe a focused effect. If the correlation coefficient has a value of 0 means there is no effect, and if the correlation coefficient has a value of 1 means that there is a strong effect. So, the researcher decided to use effect size also in this research.

According to Pallant (2010), the formula of eta squared is as follows:

$$\eta^2 = \frac{t^2}{t^2 + (N1 + N2 - 2)}$$

Where:

η^2 = eta squared

$t^2 = t_0$

N = number of students

The guidelines proposed by Cohen (1998, pp. 284-287) as quoted in Pallant for interpreting these values are:

.01 = small effect

.06 = moderate effect

.14 = large effect

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