

CHAPTER III

RESEARCH METHOD

A. Research Design

This research was experimental research. It is aimed to find out the effect of scaffolding strategy towards students' writing skill in recount text. Gay (2000: 367-368), the experimental research is the only type of research that can test hypotheses to establish cause-and effect relationship. It represents the strongest chain of reasoning about the link between variable. In an experimental study, the writer manipulated at least one independent variable control other relevant variables, and observed the effect of one or more dependent variables. The writer also defined experimental research is the most structured of all types of research. In an experimental study. The writer also selected the classes, decided what treatment would go to which class, controls extraneous variables, and measured the effect of the treatment at the end of the study.

Research Design basically involve two classes which was experimental class and control class. The experimental class is given a treatment by applying scaffolding strategy to improve their writing skill and the control class only by conventional strategy in writing.

This research used post-test only design, writer gave some treatments by scaffolding strategy. At the end of the research, the writer would have take post test to the students to know their skills in writing.

The process of the research can be represented by using illustration below

Table 3.1
The Table Research Design

<u>CLASS</u>	<u>TREATMENT</u>	<u>POST-TEST</u>
<u>A</u>	X1	Y2
<u>B</u>	X2	Y2

Where:

A : Experiment class

B : Control class

X1 : treatment for experiment class using scaffolding strategy

X2 : treatment for control class without scaffolding strategy

Y2 : post test for experiment and control class

UIN IMAM BONJOL
PADANG

B. Population and Sample

1. Population

According to Gay (2000:122) says that, population is the group of interest to the writer, the group to which she or he would like the result the study to be generally. The population of this research is class VIII students of SMPN 4 VII Koto Sungai Sarik Padang-Pariaman.

The number of population is divided into four classes. They are chosen as the population based on the assumption that they have basic knowledge in writing. The students of class VIII are spread on four classes that consist of 88 students. It can be seen from table below.

Table 3.2

**The Total of Students Class VIII of Junior High School 4
VII Koto Sungai Sarik Academic Year 2016/2017**

No	Class	Total of students
1	VIII. ¹	22
2	VIII. ²	23
3	VIII. ³	21
4	VIII. ⁴	22
Total		88

Notes: The teacher's book mark of JHS 4 VII Koto Sungai Sarik 2016/2017.

2. Sample

According to Gay (2000:121) sampling is the process of reflecting a number of individuals for a study in such way that the individual represent the large group which it is selected. He also states that a good sample is the one that representative of the population from which is selected.

In order to get the sample, the researcher applied cluster random sampling technique in which group will be randomly selected. As Gay (2000:110) states the cluster random sampling technique is a sampling that selected or population as sample randomly. By taking two of four classes, the samples that were chosen become class experiment and class control. To get representative sample for this research, the researcher does these steps:

- a. Collecting the Midterm test scores the entire students grade VIII from the teacher. **(See appendix 2)**
- b. Test of normality, test of normality has an objective to know the population normal or not. For this research, the normality test analyzed by using SPSS (*statistical product and service solution*) and was used Kolmogrov Smirnov and Shapiro Wilk. Based on that test the data stated normal if every classes has significance or probability score bigger than 0.05. It can be seen on the table below:

Tests of Normality

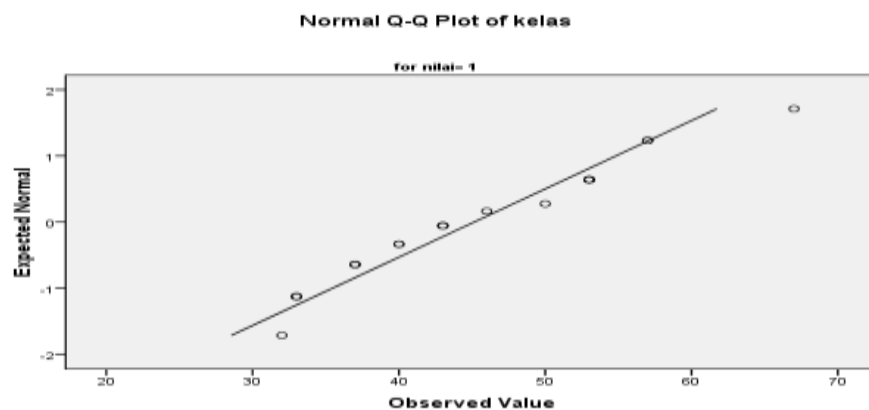
Nilai	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Kelas 1	.155	22	.182	.933	22	.139
8.2	.176	23	.062	.922	23	.075
3	.173	21	.099	.913	21	.064
4	.150	15	.200 [*]	.955	15	.598

a. Lilliefors Significance Correction

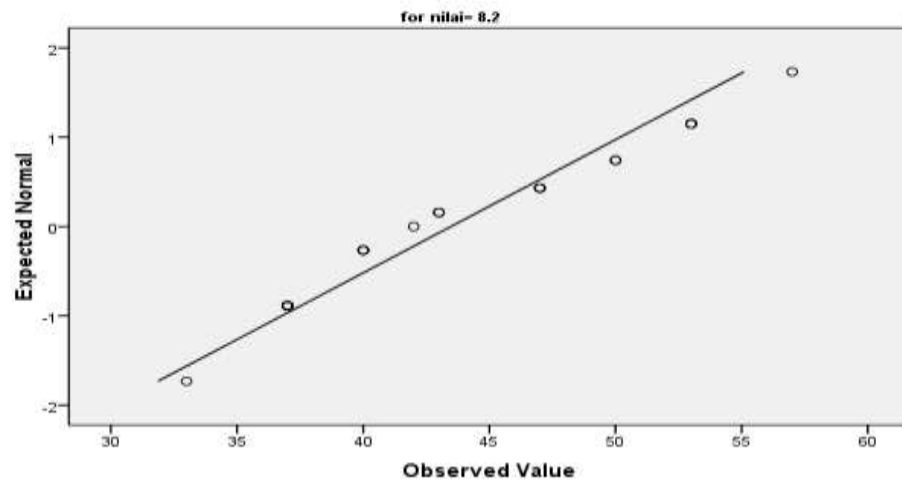
*. This is a lower bound of the true significance.

Based on the table of analysis of *Normality Test* above, it can be seen that the significance of all the classes bigger than 0.05 in both Kolmogorov-Smirnov and Shapiro-Wilk.

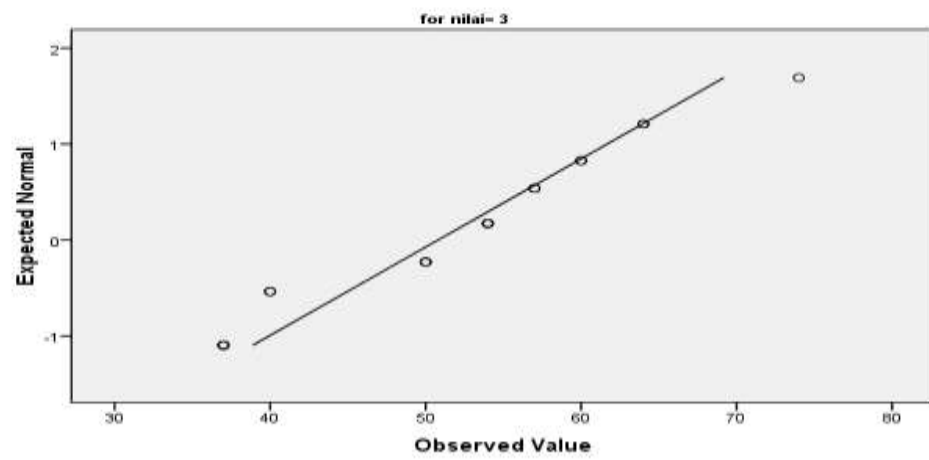
To see whether the sample normal or not in distribution, researcher also used of Q-Q plot, the data was normal if the distribution of data plot be in the surrounding of aslant and athwart line. From the normality test, researcher got the output as below:

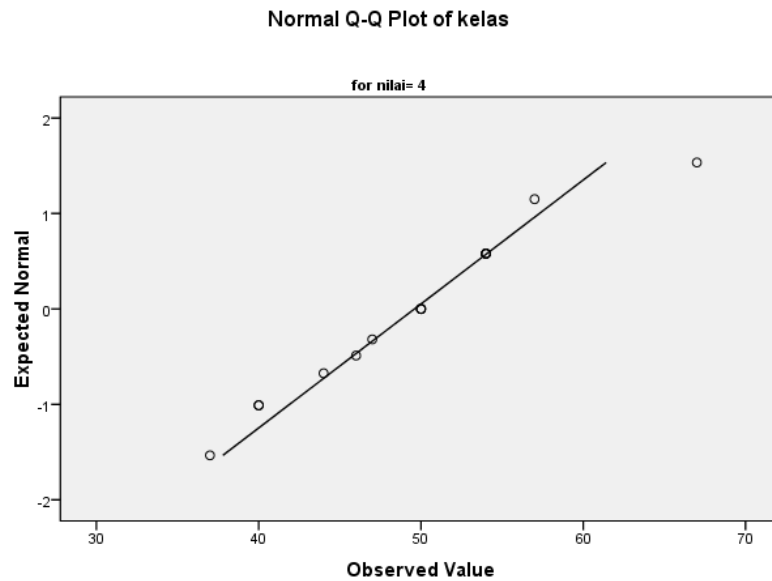


Normal Q-Q Plot of kelas



Normal Q-Q Plot of kelas





From the charts of normal Q-Q Plot above. It can be seen that the drops spread around the line. So, it can be concluded that the distribution of all the population were normal.

- c. After doing the normality test, researcher analyzed the homogeneous variation test to know whether the sample homogeneity or not. It had been conducted by using SPSS with levene test. If the data are significant or more than 0, 05, it means that the data is homogeneous.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Kelas	Based on Mean	2.370	3	77	.077
	Based on Median	1.750	3	77	.164
	Based on Median and with adjusted df	1.750	3	64.921	.165
	Based on trimmed mean	2.351	3	77	.079

The decision of column *test of homogeneity of variance* had shown that the significance is bigger than 0.05, so it can be concluded that all the class are homogeny.

- d. After analyzing the homogeneity test, researcher decided to choose two classes as the sample of the research as randomly by using flapping coin. At last the writer got class VIII 4 as an experimental class and VIII3 as control class.

C. Place and Time of Research

This research will be conducted at Junior High School 4 VII Koto Sungai Sarik Padang-Pariaman. Thisresearch was done six times meeting started on November 2nd 2017 until November 30th 2017.The treatment was conducted at class VIII.4. The writer gave treatments for experiment class. After giving treatment in classroom activities, the writer gave post test in order to know the students' writing skill and to see whether the effect of scaffolding strategy gives significant effect to students' writing skill, the writercompared the result of post test in experiment class and control class.

D. Instrument

According to Sugiyono (2012: 133) instrument of research is used to measure a value of the research's variables. In this study, the instrument of the research is writing test. Before giving the test, the writer tried the test to students in order to make sure whether they understand the instruction or not. The teacher taught writing skill through scaffolding strategy.

Before the test were used, the instrument test had done. A test must have content validity if it measures what is going to be measured. Validity is one of crucial requirements which had to be tested in a research instrument (Heaton, 1995, p 159). According to Gay (2000:191), validity is the most important quality of a test. It is the degree to which a test measures it was supposed to measure and consequently, permitted appropriate interpretations of test scores. Validity based on the Curriculum and syllabus. The writer used the Curriculum or syllabus and teaching material to construct the test.

Table 3.3
Blueprint of Writing Test

No.	Component of Writing Test	Indicator	Topic	Number of Item
1.	Content	The students are able to write down a paragraph in good content, organization,	1. Holiday to the beach	1
2.	Organization		2. Spending holiday at home	1
3.	Vocabulary			

4.	Language Use	vocabulary, language use and mechanic	3. Unforgettable moment	1
5.	Mechanic			
			4. My last holiday	1
			5. Being late	1
			6. My last party	1

Table 3.4: Sample of Instrument in Giving Writing Scores for Experimental Class

No	Name of students	Categories					Total scores
		Content (30)	Organization (20)	Vocabulary (20)	Lg. use (25)	Mec. (5)	
1.							
2.							
3							
4...							
...							

E. Procedure of the Research

Teaching writing process should be implemented as creative and communicative as possible by the classroom practitioners since writing is the highest competence that has to be acquired by the language learners. The researcher uses three steps to achieve the goal of the research; they are preparation, application, and finishing.

1. Preparation

- a. Writer made research schedule
- b. Research considers the material based on syllabus
- c. Writer prepared the lesson plan and instrument

2. Application

Table 3.5
Treatment Procedure for Experimental Class

No	Time	Teaching Activity	Teacher Activity	Students Activity
1	15 Minutes	Pre Activity	<p>(Apperception)</p> <ul style="list-style-type: none"> • Teacher greets the students • Teacher checks student attendance • Teacher ask the students about the last material <p>(Motivation)</p> <ul style="list-style-type: none"> • Teacher give the students motivation • Explain the new material 	<ul style="list-style-type: none"> • Respond to teacher • Present • Review last material • Students pay attention to the teacher
2	60 Minutes	Main Activity	<p>(Exploration)</p> <p>1. Choosing an appropriate topic</p> <ul style="list-style-type: none"> • The teacher identifies an appropriate topic for scaffolding implementation <p>(Elaboration)</p> <p>2. Explaining and modeling scaffolding strategy</p> <ul style="list-style-type: none"> • Teacher explain the scaffolding by giving opportunity to students to write a writing plan based on their analysing the text. 	<ul style="list-style-type: none"> • Students choose the topic • Students analyze the author text and write the writing plan

			<p>(Confirmation)</p> <p>3. Giving guided practice</p> <ul style="list-style-type: none"> • The teacher orientates his work in front of the students • The teacher asks the students to set their own pace through writing plan while they are in writing process • The teacher asks the students to use the text patterning to generate new text in writing process. 	<ul style="list-style-type: none"> • Students pay attention to the teacher and refer it for writing. • The students write new text through their writing plan • The students use text patterning for their writing.
3	15 Minutes	Post Activity	<ul style="list-style-type: none"> • Teacher and student review and conclude the lesson • Teacher give reflection • Teacher tell the next material • Teacher close the class 	<ul style="list-style-type: none"> • Students conclude the material • Students response about the lesson • Students pay attention

Table 3.6
Treatment Procedure for Control Class

No	Time	Teaching Activity	Teacher Activity	Students Activity
1	15 Minute s	Pre Activity	<p>(Apperception)</p> <ul style="list-style-type: none"> • Teacher greets the students • Teacher checks student attendance • Teacher ask the students about the last material <p>(Motivation)</p> <ul style="list-style-type: none"> • Teacher give the students motivation • Explain the new material 	<ul style="list-style-type: none"> • Respond to teacher • Present • Review last material • Students pay attention to the teacher
2	60 Minute s	Main Activity	<p>(Exploration)</p> <ul style="list-style-type: none"> • Teacher Encourage students to write English such as: have you ever know about recount text? • Teacher write a topic of on the whiteboard <p>(Elaboration)</p> <ul style="list-style-type: none"> • Teacher divide students in to several groups • Teacher identifies the characteristic of the recount text and ask the students about what tenses use in recount text • Teacher ask the students' to write recount text about 	<ul style="list-style-type: none"> • Students Respond • Students see the topic on the whiteboard • Students sit in their group • Students discuss with teacher about the text and answer the teacher question • Studentsmake recount text about holiday to

			<p>their that have holiday to the beach in accordance with the example that has been given alternately</p>	the beach
			<p>(Confirmation)</p> <ul style="list-style-type: none"> • Teacher ask students to write their writing in a piece of paperwhile they are in group. 	<ul style="list-style-type: none"> • Students write recount text in a piece of paperwhile they are in group about their holiday to the beach with a social function, the structure of the text, and linguisticelemens appropriate to the context.
3	15 Minutes	Post Activity	<ul style="list-style-type: none"> • Teacher and student review and conclude the lesson • Teacher give reflection • Teacher tell the next material • Teacher close the class 	<ul style="list-style-type: none"> • Students conclude the material • Students response about the lesson • Students pay attention

3. Finishing

- Giving test to experimental and control class in the last meeting.
- Processing data toward experimental and control class
- Taking conclusion of the study from the authentic material data collection

F. Technique of Data Collection

The data will be collected by giving writing test. Data of this research was the students' scores of writing test and post-test. Writing test will be given to both classes (experimental and control class). In addition, post-test gave to recognize that how far the ability of students in writing after the writer conducted the treatment.

The scoring of this research based on students skill in writing such as content, organization, vocabulary, language use, mechanics. There are many scoring in writing abilities. According to Jacob (1981: 90)) scoring technique as follow:

Table 3.7
Writing Score by Jacob

Aspects	Scores	Criteria
Content	a. 30-27	a. Excellent to very good: knowledgable, substantive, thorough development, relevant to assigned topic
	b. 26-22	b. Good to average: some knowledge of subject, adequate range. Limited development, mostly relevant to topic, but lack detail
	c. 21-17	c. fair to poor: limited knowledge of subject, little substance,

	d. 16-13	inadequate development topic d. very poor: does not show knowledge, non substantive, not pertinent
Organization	a. 20-18 b. 17-14 c. 13-10 d. 9-7	a. excellent to very good: fluent expression, ideas clearly stated, well organized, logical sequence b. good to average: somewhat choppy, loosely organized but main ideas stand out, limited support, c. fair to poor: non fluent, ideas confused, lack logical development d. very poor: does not communicate, no organization,
Vocabulary	a. 20-18 b. 17-14	a. excellent to very good: effective word and usage, word form mastery, appropriate register b. good to average: adequate range, occasional error of word, but meaning not obscured c. fair to poor: limited range, frequent error of

	c. 13-10 d. 9-7	word, meaning confused or obscured d. very poor: essentially translation, little in knowledge of english vocabulary, not enough to evaluate
Language Use	a. 25-22 b. 21-18 c. 17-11 d. 10-5	a. excellent to very good: effective complex construction, few errors of agreement, tense, word, articles, pronouns and prepositions b. good to average: effective but simple constructions, minor problem in complex construction, several errors of agreement, word, articles, pronouns, prepositions but meaning seldom obscured c. fair to poor: major problems in simple/complex constructions, frequent errors of agreement, tenses, word, articles, meaning confused d. very poor: virtually no mastery of sentence constructions rules
Mechanics	a. 5 b. 4	a. excellent to very good: demonstrations mastery of conventions b. good to average: occasional errors of

	c. 3	spelling, puctuations capitalization but meaning not obscured
	d. 2	c. fair to poor: frequent errors of spelling, puctuation, capitalization, meaning confused d. very poor: no mastery conventions dominated errors of spelling, puctuation, capitalization.

Source: Jacob theory (1981: 90)

G. Technique of Data Analysis

1. Normality Testing

This test is used to know whether the distribution of each variable is normal or not. Testing normality is done by applying kolmogorof-sminov and shapiro-wilk test by using computer program called SPSS (statistical product and service solution) version 16. The criteria of normality test are significance, if the score analysis is biggest than standard significant five persen (0.05). If the score analysis is biggest than standard significant, the data distribution is normal.

2. The Homogeneity Testing

This test is used to see whether the sample which sample from population have the same characteristic as population or not. The formula which is used in this test is analyzed by using SPSS (statistical product and service solution).

Technique that will be used to analyze the data is statistical procedures by using a set of test. It is used to see the different quality of the students writing with and without implementing Scaffolding strategy. Furthermore, the data is analyzed by using T-test formulas as suggested by Sudjana (2005:239). T-test formulas develop which is presented as follow: in analyzing the students' test score, some step are done before analyzing the different mean by using T-test formula as follows;

- a. This formula is applied to decide mean of students' test score in experimental and control class

$$X_1 = \frac{\sum F_1 X_1}{\sum F_1} \text{ (Experimental class)}$$

$$X_2 = \frac{\sum F_2 X_2}{\sum F_2} \text{ (Control class)}$$

- b. This formula is used to decide standard deviation of experimental class;

$$S^2 = \frac{n_1 \sum F_1 - X_1^2 - (\sum F_1 X_1)^2}{n_1 (n_1 - 1)}$$

- c. This formula is used to decide standard deviation of control class;

$$S^2 = \frac{n_2 \sum F_2 - X_2^2 - (\sum F_2 X_2)^2}{n_2 (n_2 - 1)}$$

The formula of T-test is as follows (Sudjana:1996)

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \quad S = \sqrt{\frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1 + n_2 - 2}}$$

Where

t = the value of t calculated (observer) obtained

\bar{X}_1 = Mean score of experiment sample

\bar{X}_2 = Mean score of control class sample

n_1 = the number of subject of experiment class

n_2 = the number of subject of control class

S_1^2 = standard deviation of experiment class

S_2^2 = standard deviation of control class

In this research, hypothesis testing is:

H_i = if t-table is smaller than t-test, it means that Scaffolding strategy gives positive effect on the students' writing skill.

H_0 = if t-table is bigger than t-test, it means that Scaffolding strategy does not give positive effect on students' writing skill.

As stated before, if the result of t-test is smaller than t-table at the level of significance $\alpha 0.05$. It can be concluded that there is no positive effect of Scaffolding strategy on writing skill. In other word, if the result of t-test is bigger than t-table, it shows that the null hypothesis is rejected.