CHAPTER III

RESEARCH METHODOLOGY

A. Method of The Research

In this research, the writer used the experimental researh because it examined the hypothesis proposed to verify whether the use of the Foldables strategy in theaching writing in narrative paragraph gave a better effect to students' writing ability or not. Quasi-Experimental design was used in this research. Creswell, (2012, p. 309) stated Quasi-Experiment include assignment but not random assignment of participant to group. The type used was nonequivalent control group design. According to Cohen, et al (2007, p. 283), the experimental groups are separated from the non-equivalent control group that indicates the experimental and control groups that have not been equated by randomization.

The design from this research referred to the use of experimental class and control class in giving treatment. The experimental class was treated by using Foldables strategy and control class was treated without using Foldables strategy, it means that it was treated by conventional technique. Both of classes were provided with the same tests, those were pre-test and post-test. The scores were compared to determine the effectiveness of the treatment. This research was conducted in 8 meetings. The design of this research can be illustrated as follows:

Table III.I
Table of Research Design

Group	Pre-test	Treatment	Post-test
Experimental	O_1	X	O_3
Control	O_2	-	O_4

Where:

E : Experimental Group
C : Control Group
O_1 : Pre-test in experimental group
O_2 : Pre-test in control group
O_3 : Post-test in experimental group
O_4 : Post-test in control group
X : Treatment

Based on the table above, treatment was only given to the experimental group. The experimental group was treated by learning narrative paragraph writing by using Foldables strategy, while the control group did not receive any treatments.

After giving particular treatment to the experimental group by using Foldables Strategy, the scores between experimental and control groups were analysed by statistical analysis. It aimed at finding out whether there is or not the significant effect of using foldables strategy on students' writing ability on narrative paragraph.

B. Time and Location of the Research

The research was conducted from August to September 2016. The location of this research was at State Senior High School 1 Bandar Petalangan of Pelalawan regency. It is located in Bandar petalangan, Pelalawan Regency.

C. Subject and Object of the Research

1. Subject of the Research

Subject of the research was the second year students of State Senior High School 1 Bandar Petalangan of Pelalawan Regency in 2016/2017 academic year.

2. Object of the Research

There were two objects of this research, Foldables strategy and writing ability on Narrative paragraph.

D. Population and Sample of the Research

1. The Population

The population of this research was the second year students of State Senior High School 1 Bandar Petalangan of Pelalawan regency in 2016/2017 academic year. There were six classes. The total number of the second year students at state Senior High School 1 Bandar Petalangan of Pelalawan Regency was 115 students.

Table III.2
Total Population of the Second Year Students at State Senior High School 1 Bandar Petalangan of Pelalawan Regency

No	Class	Population
1	XI IPA I	19
2	XI IPA 2	20
3	XI IPA 3	19
4	XI IPS 1	19
5	XI IPS 2	20
6	XI IPS 3	18
Total population		115

2. Sample of the Research

Because the number of total population was quite large, thus the writer took the sample of the population of the research. In this research, the writer used random sampling technique, especially cluster random sampling. According to Lodico at al (2006, p. 145), random sampling is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample. Gay and Airasian (2010:129) continue their explanation that Cluster sampling randomly select the groups, not individuals.

In this research, the writer took two classes from total population of six classes. Class XI IPS 3 (18 students) was an *experimental* group, and class XI IPA 1 (18 students) was a *control* group. So, the total of sample was 37 students.

The specification of the research sample can be seen in the table below:

Table III.3
The Sample of the Research at State Senior High School 1 Bandar Petalangan of Pelalawan Regency

No	Classes	Population
1	XI IPA 1	19
2	XI IPS 3	18
Total		37

E. Technique of Collecting the Data

The writer used a technique in collecting the data in which written test was an instrument to collect the data. The test was given twice, before and after treatment (pret-test and post-test) intended to obtain the students' ability

in writing narrative paragraph of the second year students at State Senior High School 1 Bandar Petalangan of Pelalawan Regency.

1. Test

The test was a way to find out the students' ability about the lesson. In this research, the test focused on the narrative material. This test was designed based on the curriculum and the syllabus of SMA Grade XI semester I about narrative paragraph. The test was the writer asked the students to write a narrative paragraph. The purpose of the test was to measure the students' ability in writing narrative paragraph. The test was given at after treatment. From the test, the writer knew the students' improvement in writing narrative paragrahp.

a. Pretest

For experimental group pre-test was given before the treatment by using of Foldables strategy and it was administered for about six meetings and for control group the teacher did not teach Foldables strategy, but she only used conventional strategy in teaching process. For test the students wrote a narrative paragraph based on teachers' instruction.The test given was the same as given in the pre- test.

b. Posttest

Both of classes, control group and experimental group, were given the same test as given in the pre- test. After the test, the result was assessed by 2 raters. It can be seen as follows:

Table III.4
ASSESSMENT ASPECTS OF WRITING NARRATIVE ESSAY

Name: _____ Class: _____

No	Aspects Assessed	Score			
		1	2	3	4
1	Content				
2	Organization a. Orientation b. Complication c. Resolution				
3	Vocabulary				
4	Language Features a. Action Verb b. Past Tense c. Temporal Conjunctions and temporal circumtances				
5	Spelling & Punctuation				
Total					
Maximum Score		20			

Explanation of score:

1 = incompetent

2 = competent enough

3 = competent

4 = very competent

Final Score = $\frac{Total\ Score}{Maximum\ Score}\ x\ 80$

Five aspects above were used to assess students' ability in writing narrative paragraph. The result was analyzed to get the gain, from the gain, the writer could conclude whether Foldables strategy was an effective strategy to improve students' ability in writing narrative paragraph or not.

E. Technique of Data Analysis

In order to find out whether or not there was a significant effect on students' writing ability taught by using Foldables strategy, the writer had to compare the data both of classes, the data were analyzed statistically. In analyzing the data, the writer used the pre-test and post-test score of experimental and control group as the data of the research. The data were analyzed by using T-test (independent sample t-test) and effect size. It was calculated by using software SPSS 16.0 version. The significant value was employed to see whether there was significant effect of using Foldables strategy on students' writing ability on narrative paragraph.

Statistically, the hypotheses are formulated as:

H_o : Sig. (2 Tailed) > 0.05

H_a : Sig. (2 Tailed) < 0.05

H_a is accepted if Sig. (2 Tailed) < 0.05 or there is a significant effect of Foldables Strategy on students' writing ability in narrative paragraph.

H_0 is rejected if Sig. (2 Tailed) > 0.05 or there is no significant effect of Foldables Strategy on students' writing ability in narrative paragraph.

F. The Validity and Reliability of the Test

The tests used to test students' writing ability should be valid and reliable. Hughes (2003, p. 26) stated that if the test measures accurately what it is intended to measure, means the test can be valid. In this research, the writer used content validity to know the validity of writing ability test.

Regarding the statement, Sugiyono (2015, p. 176) noted that content validity is a kind of test that is used to measure achievement and the effect of treatment or program. It means that to measure the students' achievement, the test must be created based on the material that they had known.

The reliability of a test concerns with its precision as a measuring instrument. It was supported by Brown (2003, p. 20) who defined that a reliable test is a test which is consistent and dependable. It means that a test was said to be reliable if it gave the same results when it was given on different occasions or when it was used by different people.

In this research, the writer used the rater agreement type of reliability concerned with inter rater reliability as the scores were given by two raters.

Table III.5
Pearson Correlation

Correlations

		Rater 1	Rater 2
Rater 1	Pearson Correlation	1	.712**
	Sig. (2-tailed)		.001
	N	19	19
Rater 2	Pearson Correlation	.712**	1
	Sig. (2-tailed)	.001	
	N	19	19

To find out whether there is a significant correlation between rater 1 and rater 2, Sig. (2 tailed) has to be *less* than **0.05**. Based on the data above, the value in Sig. (2 tailed) was 0.001, it can be noted that 0.01 was less than 0.05, it means, there is a significant correlation between rater 1 and rater 2. In other words, the written test was reliable. Then, the writer calculated by using

Spearman-Brown prophecy formula in order to know the classification of reliability. The formula could be seen as follows:

$$r_{tt} = \frac{nr_{A,B}}{1 + (n-1)r_{A,B}}$$

where:

r_{tt} = Inter-rater reliability

n = The number of raters whose combined estimate the final mark for the examines

r_{AB} = The correlation between raters,or the average correlation among all raters if there are more than two

While, the calculation of it was as follows:

$$r_{tt} = \frac{nr_{A,B}}{1 + (n-1)r_{A,B}}$$

$$r_{tt} = \frac{2\ x\ (0.712)}{1+(2-1)x\ 0.712}$$

$$r_{tt} = \frac{1.424}{1.712}$$

$r_{tt} = 0.8317$

The following table is the categories of reliability test used in determining the level of the reliability of the test (Tinambunan, (in Putriani, 2011, p. 35)):

Table III.6
The Categories of Reliability

No	Reliability	Level of reliability
1	0.0 - 0.20	Low
2	0.21 - 0.40	Sufficient
3	0.41 - 0.70	High
4	0.71 - 1.0	Very High

From the result of calculation above, the writer concluded that the inter-rater reliability in this research was 0.8317. It was categorized into very high level.

G. Test of Homogeneity

In order to find out whether the objects researched had the same variance or not, the the writer described the homogenity of analysis as follows:

Table III.7
Test of Homogeneity

Test of Homogeneity of Variances

Pretestscore

Levene Statistic	df1	df2	Sig.
2.190	1	35	.148

By orienting to the table IV.11, it was found that the *significance* was .148. It shows that ***Sig* > *α* = .148 > 0.05**, it can be concluded that both of groups data are homogeneous.