

CHAPTER III

METHOD AND PROCEDURES

This chapter presents: (1) research design, (2) research variables, (3) operational definitions, (4) population and sample, (5) data collection, and (6) research instrument analysis and (7) data analysis.

3.1. Research Design

In doing this study, the quasi experimental were used. Fraenkel and Wallen (2012) state that “Quasi experimental designs do not include the use of random assignment” (p. 275). I used Pretest-Posttest Non-equivalent Group Design. There were two groups, they were experimental and control group which both were given pretest and posttest. The experimental group was given treatment by using guided writing, but the control group was not.

The quasy experimental design of the study can be diagrammed as follows.

Experimental	:	O ₁	X	O ₂
Control	:	O ₃	—————	O ₄

Where:

O₁ : Pretest in experimental group

O₃ : Pretest in control group

X : treatment in experimental group using Guided Writing

O₂ : posttest in experimental group

O₄ : posttest in control group

3.2. Research Variables

In this study, there were two variables, they are independent and dependent variables. Creswell (2012) explains “Independent variable is an attribute or characteristic that influences or affects an outcome or dependent variable. Dependent variable is an attribute or characteristic that is dependent on or influenced by the independent variable” (p. 115). In this study, independent variable (X) used guided writing and dependent variable (Y) used descriptive writing achievement to the tenth grade students.

3.3. Operational Definitions

The title of this study is **“Using Guided writing Strategy In Teaching Writing Descriptive Text To The Tenth Grade Students Of SMA Muhammadiyah 6 Palembang.**

To avoid misunderstanding and misinterpretation, two terms are specified. They are:

First, Guided writing strategy is an activity given by the teacher in order to guide the students in composing a text. It can be in the form of a model text, an outline, or questions. In this study, guided writing strategy was applied by the researcher at SMA Muhammadiyah 6 Palembang.

Second, descriptive writing in this study means that writing which was produced by the students. Paragraph here means that is a group of sentences that tells about one idea. The students were also expected to write their own idea in good English. In this study, descriptive writing was done by the students of SMA Muhammadiyah 6 Palembang.

3.4. Populations and Samples

3.4.1. Population

The population of this study was all of the tenth grade students of SMA Muhammadiyah 6 Palembang. According to Fraenkel and Wallen (2012), “a sample in a research study is the group on which information is obtained. The larger group to which one hopes to apply the result is called the population (p. 91).

The total number of the students is 132 students divided into 4 class.

Table 1. Distribution of the Population

No.	Class	Genre		Number of Students
		Female	Male	
1.	X. Ipa A	14	16	32
2.	X. Ipa B	17	13	30
3.	X. Ipa C	12	17	32
4.	X. Ips A	18	20	38
Total		61	66	132

Source: Staff of SMA Muhammadiyah 6 Palembang in academic year 2017/2018

3.4.2. Sample

In this study, I used purposive sampling to choose the classes. According to Fraenkel and Wallen (2012), “purposive sampling is different from convenience sampling in that researcher do not simply study whoever is available but rather use their judgment to select a sample that they believe, based on prior information, will provide the data they need” (p. 100).

This method is applied after I had an interviewed and discussed with the teacher of English of the tenth grade students at SMA Muhammadiyah 6 Palembang. The teacher told me that most of students' writing ability in those classes was still low and they have same number of students. There were 64 students taken as the sample of this study, consisting of 32 students from X. Ipa A and 32 students from X. Ipa C. The distribution of the sample can be seen in table 2.

Table 2. Distribution of Sample

No.	Class	Genre_		Number of Students
		Female	Male	
1.	X. Ipa A	20	13	32
2.	X. Ipa C	19	14	32
Total		39	27	64

Source: Staff of SMA Muhammadiyah 6 Palembang in academic year 2017/2018

3.5. Data Collection

3.5.1. Test

A test is short examination of knowledge or ability, consisting of questions that must be answer that must be carried out. According to Brown (2004), "test is a method of measuring a person's ability, knowledge, or performance in a given domain" (p. 3). The purpose of the test was to measure students' writing achievement before and after the treatments in the experimental and control group. There were two kinds of test, they were pre-test and post-test for both experimental and control group.

3.5.1.1. Pre-test

Pre-test was given before the treatment. It was used to know the students' writing ability before the treatment. The test was done in writing test form. The topics of writing test in pre-test were My Idol, My school, and My pet. The kind of the text was descriptive.

3.5.1.2. Post-test

Post-test was given after the treatment. It was used to measure the students' writing ability of all learning tasks after treatment. The test was done in writing test form. The topics of writing test in post-test were My Idol, My school, and My pet. The kind of the text was descriptive.

3.5.1.3. Scoring

This test calculated the composition of essay test by using descriptive writing rubric adapted from Brown (2007) there were five aspects in scoring writing descriptive text. The five aspects were: content, consist of 30%, organization, consist of 20%, grammar consist of 20%, vocabulary, consist 15%, and the last mechanic, consist of 15%.

3.6. Research Instrument Analysis

3.6.1. Validity Test

Validity is an important key to effective research. Creswell (2012) explains “Validity is defined as the degree to which an instrument measures what it say it measures or purports to measure. In other word, validity is the development of sound evidence to demonstrate that the intended test interpretation (of the concept or construct that the test is assumed to measure) matches the proposed purpose of the test” (p. 164).

3.6.1.1. Construct Validity

According to Fraenkel and Wallen (2012), “Construct validity refers to the degree to which the totality of evidence obtained is consistent with theoretical expectations” (p. 162). After constructing the instrument related to some aspects measured, then it was consulted to achieve some expert judgments from at least three validators to evaluate whether the components of the instrument were valid or not to be applied in research activities. The characteristic of validators are: 1) they have experience in teaching English, 2) they have finished their magister degree, 3) their TOEFL score is more than 550, 4) their experience is in writing skill.

3.6.1.2. Content Validity

According to Fraenkel and Wallen (2012), “content validity refers to judgments on the content and logical structure of an instrument

as it is be used in a particular study” (p. 162). The specification of this skill or structures should be made based on the curriculum and syllabus.

Table 3. Table Specification

No	Objective	Indicator	Questions Number	Type of test
1	The students are able to arrange structure of text and write functional text of descriptive text.	The students are able to arrange structure of text and write functional text of descriptive text.	1	Writing test

3.6.2. Reliability Test

Reliability means the stability of the test score. According to Fraenkel and Wallen (2012), “reliability refers to the consistency of the score obtained-how consistent they are for each individual from one administration of an instrument to another and from one set of items to another” (p. 154). To estimate the reliability of the test, the writer used inter-rater reliability. According to Creswell (2012), “inter-rater reliability is a procedure used when making observations of behavior. It involves observations made by two or more individuals of an individual’s or several individual’s behavior” (p. 161).

In this study, I calculated the students’ score by using Spearman Rank Order Correlation. The following formula is used to analyze inter-rater reliability using Spearman Rank-Order Correlation (Rho) suggested by Hatch and Lazaraton, (1991, p. 451).

$$P=1-\frac{6(\sum d^2)}{N(N^2-1)}$$

Where:

P : Spearman Rank-Order Correlation

$\sum d^2$: The sum of the queried differences

N : Number of Sample

The test was reliable if the result of the data measurement is higher than 0.70. According to Fraenkel and Wallen (2012), state that “the reliability should be at least 0.70 and preferably higher”(p. 156).

3.7. Data Analysis

3.7.1. Data Description

Before the data was analyzed, distribution of the data was used to see the distribution of frequency the data and descriptive statistics.

3.7.1.1 Distributions of Frequency Data

In distributions of frequency data, the students' score, frequency, percentage is achieved. The distributions of frequency data were obtained from students' pretest-posttest scores in experimental and control group.

3.7.1.2 Descriptive Statistics

In descriptive statistics, number of sample, the score of minimal, maximal, mean, and standard deviation were analyzed. Descriptive statistics were obtained from students' pretest and posttest scores in experimental and control groups.

3.7.2. Pre-requisite Analysis

Before analyzing the data, pre-requisite analysis was done to see whether the data obtained was normal and homogeny. The following was the procedures in pre-requisite analysis.

3.7.2.1. Normality Test

Normality test is used to measure whether the obtained data (data form pretest and posttest in experiment and control) is normal or not. In measuring normality test, one-sample Kolmogronov Smrinov is used. The data are classified into normal whenever the p-output is higher than 0,05 (Flynn, 2003). To test the normality, the writer used Kolmogorov Smirnov in SPSS program. The normality test was used measure students' pretest and posttest score in both groups (experimental and control).

3.7.2.1. Homogeneity Tests

Homogeneity test is used to measure whether the obtained data is homogeny or not. It is used to measure students' pretest and posttest scores in control and experimental groups. According to Basrowi, "define the score is categorized homogeny when the p-output is higher than mean significant difference at 0.05 levels" (as cited in Herlina & Holandyah, 2015, p, 117). The homogeneity test is used to measure students' pretest and posttest scores in both groups

(experimental and control). In measuring homogeneity test, the writer used Leneve Statistic in SPSS program software.

3.7.3. Hypothesis Testing

In measuring the significant difference between two variables and significant difference more than two variables on students' writing descriptive by using guided writing, as follow:

- In measuring a significant difference, independent sample t-test used for testing student's posttest scores in control and experimental groups. A significant difference was found whenever the p-output is lower than 0.05 and t-obtained is higher than t-table 8.666 (with df =62).
- In measuring significant difference more than two variables, two ways ANNOVA was used for testing students' posttest scores in control and experimental groups. The significant difference was found whenever the p-output (0.000) is lower than 0.05 (df=2).