

CHAPTER III

RESEARCH METHOD

This chapter presented: Research method, the variable of the research, the population and sample, the technique for collecting the data, the validity of the test, and the technique for analyzing the data

A. Research Method

The research method used the experimental method. Sugiyono (2017, p.107) states that "Experimental research is a research method used to find the effect of certain treatments on others under controlled conditions". The reason for using this research method is because an experiment was conducted in one class by providing treatment in the form of using audio-visual media to look at the effect on the ability to write the descriptive text of students. According to Sugiyono (2016, p.73), there are several forms of design experiments namely: pre-experimental design, true experimental design, and quasi-experimental design.

In this research, the researcher focussed on design quasi-experimental. According to Sugiyono (2015, p.114), quasi-experiments are research that is close to a real experiment. This research aims to test directly the effect of a variable on other variables and test the causal relationship hypothesis. The experimental design has a class experimental and control class, but the control class cannot function fully to control external variables that affect the implementation experiment.

This experimental research used a Nonequivalent research design Control Group Design. This research was conducted by comparing class experiments that used audio-visual media and the control class does not use audio-visual media, then both classes were evaluated and the results were compared. So the design used was quasi-experimental illustrated in Table 2 below:

Table 3.1 Research Design

Nonequivalent Pretest-Posttest Control Group design

Group	Pre Test	Treatment	Post Test
Experiment	O1	X	O3
Control	O2		O4

Source :Cresswel(2012)

Where:

X: Treatment

O1: Pre-test Experiment

O2: Pre-test Control

O3: Post-test Experiment

O4: Post-test Control

B. Variable of Research

According to Sugiyono (2016, p.38), the meaning of research variables is as follows: "A research variable is an attribute or trait or value of a person, object or activity that has certain variations determined by the researcher to study and then draw conclusions". Based on the relationship between one variable and other variables in this study, it consists of independent variables (independent variables) and dependent variables (dependent variables). The explanation is as follows :

1. Independent variables (Independent Variable)

According to Sugiyono (2016, p.39), the independent variables (independent variables) are as follows: "Independent variables are variables that affect or cause changes or the emergence of the dependent variable (dependent)". In this study, the independent variable is (X). According to the researcher, audiovisual media can be defined as the main component that can influence students, ability to write a descriptive text.

2. Dependent Variable (Dependent Variable)

According to Sugiyono (2016, p.59), the meaning of the dependent variable (dependent variable) is as follows: "Variables that are affected or become a result, because of the independent variables. The dependent variable is (Y) writing ability in descriptive text.

C. Population and Sample

1. Population

The first task in selecting a sample is to define the population of interest. According to Fraenkel and Wallen (2012, p.92) reveal that a population can be any size and that it will have at least one (and sometimes several) characteristics that set it off from any other. In educational research, the population of interest is usually a group of persons (students, teachers, or other individuals) who possess certain characteristics. however, the population may be defined as a group of classrooms, schools, or even facilities.

The population of this study was conducted at eighth-grade students of SMP Negeri 1 Runjung Agung consisting of 4 classes. there were about 107 students. the population was presented in Table 2:

Table 3.2

Population of Research

No	Classes	The Number of Students
1.	VIII.1	27
2.	VIII.2	27
3.	VIII.3	27
4.	VIII.4	26
		107

Source: SMP N 1 Runjung Agung

2. Sample

Sample is "part of the number of characteristics possessed by the population itself". According to Sugiyono (2017, p. 62), if researchers conduct research on large populations, while researchers have limitations, researchers use techniques of sampling. The goal is for the writer to take the subject instead based on strata, random, or region, but based on a purpose study. In this study, the sampling technique used is nonprobability sampling with purposive sampling technique. According to Sugiyono (2016, p.85) that: "purposive sampling is a sampling technique of data sources with a certain consideration. The reason for using the Purposive Sampling technique is because it doesn't all samples have criteria that match the phenomenon studied. Because of that, the researcher chose the purposive sampling technique that is determined by considerations or certain criteria that must be by the sample used in this study.

For this research, the researcher took two classes VIII.1 as the experimental group, and VIII.2 as the control group. The sample was described in the table below:

Table 3.3

Sample of Research

No	Classes	Group	Number of Students
1.	VIII.1	Experiment	27
2.	VIII.2	Control	27
			54

Source: SMP N 1 Runjung Agung

For analyzing the writing skill of Eighth Grade Students of SMP Negeri 1 Runjung Agung by using audio-visual media, the researcher used instrument writing tests. The data of the research was obtained in three ways as follows: The researcher teaches the students by using audio-visual media for 6 meetings. The first gave a pre-test for class experiment and control, the second treatment 4 meetings 2x45 minutes, after treatment next post-test class experiment and control. The material from the test is to make a descriptive text based on the topic. The procedure for collecting the data was as follows in Table 4:

Table 3.4

The procedure of Collecting the Data

No	Meeting	Topic	Technique
1	1	Pre-Test	Pre-Test
2	2	Descriptive Text My Pet	Treatment by using audiovisual media on students writing ability in descriptive text.
3	3	Descriptive Text People around us	Treatment by using audiovisual media on students writing ability in descriptive text.
4	4	Descriptive Text Things around us	Treatment by using audiovisual media on students writing ability in descriptive text.

5	5	Descriptive Text Tourism place	Treatment by using audiovisual media on students writing ability in descriptive text.
6	6	Post-Test	Post-Test

- a. Pre-test, before gave treatment the researcher gave a pre-test to the students to know their ability the writing descriptive text before gave audio-visual media.
- b. Treatment, the researcher applied audio-visual media in the teaching process the teacher gave motivated the students, the teacher show a video powerpoint and explain descriptive text, and gave questions that have a relation to the material's descriptive text.
- c. Post-test, after gave treatment the researcher gave a post-test to the students to know their writing ability in descriptive text gave audiovisual media.

D. Technique for Collecting the Data

The technique for collecting data in this study was the writing test. The essay was a method of measuring a person's ability, knowledge, or performance in a given domain. In collecting the data, the would used essay test. The test would be administered twice pre-test and post-test. The pre-test has been given at the first time to the students to measure their ability in descriptive text learning before teaching using audio visual media. Then, the post-test was used to find out the students writing descriptive text after treatment. To measure students'

effectiveness, the researcher will compare the result of pre-test and post-test using SPSS 22. The *reason* for comparing the pre-test and post-test is to find out effective or not the use of audio-visual media on writing ability in descriptive text after the treatment.

E. Validity of the Test

Validity is an important key to effective research. Validity is defined as the extent to which a concept is accurately measured in a quantitative study(Heale&Twycross,2015). It is defined as measuring research concept accurately. A test can be said validity the test measures the object to be measured and suitable with the criteria. In this study, the researcher would use content validity, to have content validity, the instruments are representative of some defined universe or domain of content. Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study. Content validity refers to the instrument that must show fairly and comprehensively cover the domain or item that is purpose covered.

Table 3.5

Specification Table of Test

Object of test	Test taker/ level	Indicator	Topic	Type of test
Students are able to write descriptive texts through	The test took the students of class VIII.1 and	To know the student's ability in writing	The assessment of writing descriptive text is seen from	Essay Test The theme

audio-visual media	VIII.2 of SMP N 1 Runjung Agung.	descriptive text	several aspects, title, description of objects, animals, or people, use of language, and closing sentences.	is animal (cat)
Total				1

F. Techniques for Analyzing the data

1. Analyzing Students' Score

The researcher was helped by the two raters the teacher and the researcher who determined the student's writing score in descriptive text. To determine the student's writing score, the researcher used the writing rubric by Cohen, A.D (2012). The writing rubric is intended to be used as a guide in making the writing scoring scheme suitable to be applied to score students writing. The scoring system of writing consists of four aspect. Thus, the researcher focuses on the aspect of writing for the purpose of this study, namely content, grammar, vocabulary, and function. As the text type which was used in this research was a descriptive text, therefore the criteria to score students writing were based on the

characteristics of a descriptive text. The following table presents the scoring scheme of writing which was used in this

Table 3.6
Scoring rubric writing

Component of Writing	Score	Level	Indicator
Content	5	Very Good	Very good in mastering the problem; the content is very solid complete and comprehensive; very appropriate with the problem and title.
	4	Good	Mastering the problem; the content is adequate; almost complete and comprehensive; appropriate with the problem and title.
	3	Sufficient	The content is adequate, but is
	2	Fair	less detail. The problem mastery is limited; the content is not adequate enough; less complete.
	1	Poor	Does not master the problem;

			the content is not sufficient; not relevant with the title and problem; there is not enough material to evaluate.
Grammar	5	Very Good	Very effective in using simple and complex sentences; less errors in using grammar, sequence sentences, phrase and word form,preposition,etc.
	4	Good	Effective in using simple sentences, some errors in using grammar, sequence sentences, phrase and word form preposition,etc.
	3	Sufficient	Quiteeffective in the use of grammar but there are some sentences that are misplaced
	2	Fair	Error and difficult in using grammar, sequence sentences, phrase and word form,preposition,etc.
	1	Poor	Almost not mastering the grammar; full errors in

			grammar; cannot be understood; not enough material to evaluate.
Vocabulary	5	Very Good	Repertory of words is wide , the chosen and use of exact and effective words ,mastery in word form and formation.
	4	Good	Repertory of word is enough,the chosen and use of words occasional not exactly, but the meaning not obscured.
	3	Sufficient	Repertory of words are limited, most errors in choosing words,the meaning is hazy and obscured.
	2	Fair	Repertory of words are very limited until can not communicate the meaning less informative to evaluate.
	1	Poor	Repertory of words there is not any
Function	5	Very Good	Comprehence to the punctuation ,less error in

			spelling,punctuation, the use of capital letter,arrange of paragraph.
	4	Good	Occasional error in applying the rule, but not hazy the main content and meaning.
	3	Sufficient	Most error in applying the rule of the spelling and writing difficult to read the writing, main content and meaning are hazy.
	1	Fair	Does not master the rule of the spelling and writing , full error in spelling, punctuation, the use of capital letter, arrange paragraph.
		poor	Difficult to read the writing, not enough information to evaluate.

Source: Cohen, A.D (2012)

$$\text{Final Score: } \underline{5C+5G+5V+5F} \times 100$$

20

To make a description of students' score the researcher uses the score range and the criteria. It is shown in the following table:

Table 3.7

The Score Range Of Criteria

Score Range	Predicate
80-100	Very Good
70-79	Good
60-69	Sufficient
50-59	Foor
<49	Very Poor

Source : (Sudijono 2012)

2. The Percentage of The Data

The data obtained from the test is percentage by using the formula follow:

$$P = \frac{F}{N} \times 100\%$$

Where :

P = Percentage

F = Frequency of The Students

N = Number of Students

3. The Analyzing of Paired Sample T-Test

After collecting the data, the researcher analyzed the data and compared all the data by using Paired sample t-test. In this research after getting the score of pre-test and post-test in the experimental group, the researcher began to analyze the data using paired sample statistics with the program SPSS 22.