

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. Research Design

The research is applying quantitative method. Having stated by Sugiyono, quantitative method is a method of data analysis that used quantitative or statistics with the aim to test the hypothesis that have been determined. He added that quantitative is a process of discovering the result by using the numeric data as a tool for finding the information about what the researcher wants to know. <sup>1</sup>

The researcher conducted the research by applying quasi experimental design. As Ary stated that quasi experimental designs are similar to randomized experimental designs in that they involve manipulation of an independent variable but differ in that subject are not randomly assigned to treatment group. <sup>2</sup>This research concerned on pre-test and post-test experimental group design. The treatment conducted only in Experimental Group.

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<sup>1</sup>Sugiyono, 2013. Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung: Alfabeta.124

<sup>2</sup>Ary, Donald. 2010. Introduction to Research in Education (8<sup>th</sup> Ed.). Boston: Cengage Learning,215

*Table 3.1 Quasi Experimental Design Illustration*

<b>Group</b>	<b>Pretest</b>	<b>Treatment</b>	<b>Posttest</b>
Experiment Class	O <sub>1</sub>	X	O <sub>2</sub>
Control Class	O <sub>3</sub>	...	O <sub>4</sub>

**Notes:**

- O<sub>1</sub> : Pre-test for the experimental class (before given treatment)
- X : Teaching writing descriptive text by english animated movie
- O<sub>2</sub> : Post-test for the experimental class (after given treatment)
- O<sub>3</sub> : Pre-test for the control class (before given the discussion)
- O<sub>4</sub> : Post-test for control class (after given discussion)
- ... : Teaching writing descriptive text by using discussion

In this design, an experimental group refers to group of students that learned writing descriptive text by watching english animated movie. The control group refers to a group of students that learned writing descriptive text by using discussion method. It is needed for comparison purposes. After conducted the pre-test, treatment and post-test, the data interpreted.

## **B. Research Variable**

This research concerned on independent and dependent variable:

1. Independent Variable
2. Dependent Variable

## **C. Population and Sample**

Every research conducted by a researcher required the data source for her research. In general, the data sources of the research called population and sample. From the selected population and sample, the researcher gained the data and also the information which answered the research problem.

### **1. Population of Research**

According Fraenkel and Wallen that “In educational research, the population of interest is usually a group of persons (students, teachers, or other individuals) who possess certain characteristics.”<sup>3</sup>The population of this research are the seventh grade of MTsN 1 Kota Serang. The population are from the seventh

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<sup>3</sup> Jack R. Fraenkel and Norman E. Wallen, *How To Design And Evaluate Research in Education* (New York: McGraw- Hill, 2009), 91.

grade of MTsN 1 Kota Serang . There are 329 and divide into 9 Classes ,because descriptive text will be taught at the seventh grade.

## **2. Sample of Research**

According to Fraenkel and Wallenthat “A sample is any part of a population of individuals on whom information isobtained.”<sup>4</sup>He assumed that sample is a part of quantity and characteristic of population. It seems difficult for the researcher to observe all of subject in population. So, it is better to took a representative of population to be the subject of research called sample.

In this research, the researcher used cluster sampling technique to took samples from population. Sukardistated that cluster sampling as a sampling technique that chooses the sample from group on the cluster. This sampling did not take the individuals in population but take the sample base on the group. It means that all of the population has an equal and independent chance of being included in the sample..The writer took two classes as sample research from the seventh grade students at

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<sup>4</sup>Jack R. Fraenkel and Norman E. Wallen, *How To Design And Evaluate Research in Education* (New York: McGraw- Hill, 2009), 105.

MTsN 1 Kota Serang. The writer took class VII I as Experimental class with 30 students and VII C as Control class with 30 students.

#### **D. Research Instrument**

In collecting data, the researcher used a set of writing test, which is proposed by Arikuntostates that test is sequence of question or practice than the other instrument that is used to measure reactivation, intelligence's knowledge, the ability of individual or group have.<sup>5</sup>

The rubric or composition to score the students' writing descriptive text according to Brown.

<b>Aspect</b>	<b>Score</b>	<b>Performance Description</b>
Content (C) 30%: - Topic - Details	4	The topic is complete and clear and the details are relating to the topic.
	3	The topic is complete and clear but the details are almost relating to the topic.

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<sup>5</sup>Arikunto, S. 2010. *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: PT.Bumi Aksara

	2	The topic is complete and clear but the details are not relating to the topic.
	1	The topic is not clear and the details are not relating to the topic.
<b>Organization (O) 20% :</b> - Identification - Description	4	Identification is complete and description are arranged with proper connectives
	3	Identification is almost complete and description are arranged with almost proper connectives
	2	Identification is not complete and description are arranged with few misuse connectives
	1	Identification is not complete and description are arranged with misuse connectives
	4	Very few grammatical or agreement inaccuracies

Grammar (G) 20%: - Use present tense - Agreement	3	Few grammatical or agreement inaccuracies but not affect on meaning
	2	Numerous grammatical or agreement inaccuracies
	1	Frequent grammatical or agreement inaccuracies
Vocabulary (V) 15%	4	Effective choice of words and word forms
	3	Few misuse of vocabularies, word forms, but not change the meaning
	2	Limited range confusing words and word form
	1	Very poor knowledge of words, and not understandable
Mechanics (M) 15%:	4	It uses correct spelling, punctuation, and capitalization

<ul style="list-style-type: none"> <li>- Spelling</li> <li>- Punctuation</li> <li>- Capitalization</li> </ul>	3	It has occasional errors of spelling, punctuation, and capitalization
	2	It has frequent errors of spelling, punctuation, and capitalization
	1	It is dominated by errors of spelling, punctuation, and capitalization

## **E. Data Collecting Technique**

The researcher used three kinds of research instruments namely interview, observation and test. This technique is used in order to get specific data related to problem of research. The instruments of research will be discussed in the following paragraph.

### **1. Interview**

interview is one of technique collecting data , information,or opinion with conversation and test . both direct and indirect with data resource. This interview is referred to the student to get accurately data about their perception of using “ the effectiveness of english animated movie towards students’ writing descriptive text “



## 2. Observation

The writer observes respondents activities and the way to learn English writing descriptive text in the class. Information will be got from :

- a. The student's enthusiasm in teaching writing descriptive text.
- b. The situation into the class of English subject, especially in teaching and learning English animated movie in teaching writing descriptive text.

## 3. Test

According to Noam Chomsky "test one of method or process to know about student's ability, knowledge or performance (skills) in a given domain" <sup>6</sup> Then, the writer uses test to get data and information for student's value. In this research, the writer gives the students two tests. Test consists of pre-test and post-test. The test is purposed to find out whether students' writing score is better than before or not.

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<sup>6</sup>H. Douglas Brown, *Language Assessment Principles and Classroom Practice*, (New York: Longman, 2004) P. 3

a. Pre – test

The test includes 3 question related to the passage, it involves basic information of the text, it is intended to know the first condition of student writing descriptive text.

b. Post – test

The test includes 3 question related to the passage, it is intended measure how students writing descriptive text using English animated movie method. In addition , this test will describe the differences between both control and experiment class after treatment.

## **F. Technique of Data Analyzing**

To analyze the data ,the writer appliedthe following techniques :

1. Preparing the key
2. Correcting scoring the studentd' correct answer sheet
3. Computing the students' correct answer on the test.
4. After the data was collected, and then analyzing the data , to find out the resultof using English animated movie method in teaching writing descriptive test.

Quantitative is analyzed by statistic calculation of t-test with the formula are follow .<sup>7</sup>

- a. Determine Range, Interval class
- b. Make distribution frequency
- c. Determine mean, by formula:

$$\text{Mean} = M' + i \left( \frac{\sum fx'}{N} \right)$$

- d. Determining standard deviation, by formula:

$$SD = i \sqrt{\frac{\sum f.x'^2}{N} - \left( \frac{\sum f.x'}{N} \right)^2}$$

- e. Determine error standard

$$SE_{x^2} = \frac{SD x^2}{\sqrt{N-1}}$$

- f. Make the polygon graphic
- g. Determine average score

$$M = M_2 - M_1$$

- h. Determine difference of error standard

$$SE_{Mx} - SE_{My} = \sqrt{SE_{x^2} + SE_{y^2}}$$

- i. After getting the data from pre-test and post-test, the writer analyzis it by

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<sup>7</sup>Anas Sudijono, *Pengantar Statistik Pendidikan*, (Jakarta: PT Raja Grafindo Persada, 2014) 52,53,90,162 cet 53

using statistic calculation of T-test with the degree of significances 5 % and 1%. The formulas of T-test as follow:

$$t_0 = \frac{M_x - M_y}{SE_{M_x - SE_{M_y}}}$$

j. Comparison scores of experimental and control class.

### **G .Research Hypothesis**

Donald et al., in Introduction to Research in Education, said that a research hypothesis states the relationship one expects to find as a result of the research. It may be a statement about the expected relationship or the expected *difference* between the variables in the study.<sup>8</sup> A hypothesis is formulated to show the influence of two variable relationship . The study proposes the null hypothesis (H<sub>0</sub>) and alternative hypothesis (H<sub>a</sub>) which are formulated as follows:

$$H_a = X_1 \neq X_2$$

$$H_0 = X_1 = X_2$$

The alternative hypothesis (H<sub>a</sub>) is english animated movie effective in teaching writing descriptive text. Whereas, the null hypothesis (H<sub>0</sub>) in this study is english animated movie is not effective

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<sup>8</sup>Donald Ary, Lucy Cheser Jacobs and Chris Sorensen, *Introduction to Research in Education* (New York: CBS College Publishing, 2007), 91

in teaching writing descriptive text. Therefore, by rejecting the null hypothesis, the study was able to support the correctness of the alternative hypothesis, which means that the experiment works.