CHAPTER III

RESEARCH METHODOLOGY

A. Research method

In this research, the researcher using a quantitative research and using of quasi experimental method, because the aim of the method is to find effectiveness of a method, beside that to get data the researcher use pretest and posttest toward the subject of research. Research methodology is a way to systematically solve the research problem[1].

The variety of quasi experimental design can be divided into two main categories they are pre-test and post-test grop design. In this research, the writer applied quasi experimental that is pre-test and post-test design. Quantitative research is means for testing objective theories examining the relationships among variables[2].

The types available in experiments are[3] :

1. Pre experimental design

The researchers studies a single group and provides and intervention during the experiment. This design does not have a control group to compare with the experimental group.

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[1] C.R Kothari, *Research Methodology method and techniques*, New Age International (p) Limited publisher, 2004. P. 8
[2] John W. Creswell, *Research Design Qualitative, Quantitative, an Mixed Method Approaches – 3rd . Ed 2009 p.4*
[3] Creswell, *Research Design Qualitative, Quantitative, an Mixed Method Approaches p.158*

2. **True experiments**

The investigator randomly assigns the participants to treatments group.

3. **Quasi experiments**

The investigator uses control and experimental groups but does not randomly assign participants to groups. Creswell states that we can apply the pre-test and post-test approach to quasi experimental design.

B. The pleace and time

The writer tekes a place of this research at the first grade of SMAN 8 Pandeglang, which is located at JL. Mengger. The writer chooses that school to conduct this research because student in SMAN 8 Pandeglang felt difficult in English learning, and learning strategy such as writing the whole text is not effective, it makes students were bored in English learning process.

C. The population and sample

1. **Population**

Population is a group of individuals who have the same characteristic[4] . The population of the research is students, expecially the tenth grade of SMAN 8 Pandeglang. There are eight classes in the tent grade with 192 student.

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[4] John W. Creswell, *Education Research*, (University of Nebraska-Lincoln 4th – ed,2008) p.142

2. **Sample**

A sample is a subgroup of the target population of the target population that research plan to study for generalization about the target population[5]. The sample of this research is students at tenth grade of SMAN 8 Pandeglang. The research uses two clasesses. One class is x IPA that consist of 27 students as experimental class and the other one is X IPS that consist of 25 student as the control class.

D. **Instrument**

In this research, the writer use pre-test and post-test as instruments to know the effectiveness of The Use of English Comic-Strips in Teaching student Narrative text. Because with this test the writer would like to gives the score of comprehension on writing.

The writer give two kind of test, there are as follows:

1. Pre-test

The test is given to both of control class before giving treatment with comic – strips as a technique.

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[5] John W. Creswell, *Education Research*, p.142

2. Post-test

The post that is given tp both of control class after given the treatment non comic – strips as technique and experiment class after given treatment with comic –strips as a technique.

E. The Technique Data Collecting

In collecting the data, the researcher used test to know the student writing ability. Collecting data means identifying and selecting individuals for study. The technique collecting data used this research.

1. Pre-test

The pre-test provide a measure to experiment and control class. Pre-test used to first meeting to know the students writing ability before the treatment is given to the students.

2. Post-test

The post-test also administered after giving the pre-test and the treatment to know the students writing ability in making transactional in a students.

F. The Technique of Data Analyzing

For the next step of the research, the researcher process and analysis the data. The researcher compares the data between the experiment and control classes.

To find out the differences students' score by using comic strip, the researcher will use the statistical calculation of the 't' test.

In analyzing the result of the final test statistics of t-test is used with a significant degree 5% and 1% as follows:[6]

$$t_0 = \frac{M_1 - M_2}{\sqrt{\left(\frac{\Sigma x_1{}^2 + \Sigma x_2{}^2}{N_1 + N_2 - 2}\right)\left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

M_1 = Mean score of the experiment class

M_2 = Mean score of the control class

$\sum x_1^2$ = Sum of square deviation score in experiment class

$\sum x_2^2$ = Sum of square deviation score in control class

N_1 = Number of students of experiment class

N_2 = Number of students of control class

2   = Constant number

df   = Degree of Freedom (df = $N_1 + N_2 - 2$)

Next the writer will take the square root of the result:

1.   Determine Mean of Variable X_1:

$$M_{1 = \frac{\sum X_1}{N_1}}$$

2.   Determine Mean of Variable X_2:

$$M_{2 = \frac{\sum X_2}{N_2}}$$

3.   Determine score deviation of Variable X_1:

[6] Anas Sudjiono, *Pengantar Statistic Pendidikan* (Jakarta: Raja Grafindo Persada, 2019), 317.

$$x_{1= X_1 - M_1}$$

4. Determine score deviation of Variable X_2:

$$x_{2= X_2 - M_2}$$

5. The squaring of X_1, then add up; obtained Σx_1^2

6. The squaring of X_2, then add up; obtained Σx_2^2

7. Determine t_o :

$$\frac{M_{1-M_2}}{\sqrt{\left(\dfrac{\Sigma x_1^2 + \Sigma x_2^2}{N_1 + N_2 - 2}\right)\left(\dfrac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

8. Determining t-table in significance level 5% and 1% with df:

$$df = (N_1 + N_2) - 2$$