CHAPTER III

METHODOLOGY OF THE RESEARCH

A. Research Method

The researcher will uses a quasi-experimental design to this research which is one of quantitative research method. The purpose of this design is to investigate   the use of story pyramid strategy on students reading comprehension narrative text. It means the method and instrument involve numerical measurement and the statistical quantification was conducted. So, the researcher has take two classes as an experimental class and control class. The classes will be given both pre-test and post-test. Before then (Post-test) the classes will be given treatment only for experimental class and it finished by post-test.

According to Nunan Experiment is a procedure for testing a hypothesis by setting up the situation in which the strength of relationship between variables can be tasted.[1] It means that in experimental research, we make some tests after giving the treatment to find out how far the influence of our method to the students. Jhon W. Creswell stated that in experimental research we test an idea (practice or

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[1] David Nunan, *Research Methods in Language Learning*. Cambridge University. 1992. p.230.

procedure) to determine whether it influences an outcome or dependent variable.[2] Experimental study itself can be defined as an objective, systematic, and controlled study to predict or control the phenomena. Nunan has stated that There are three type of experiment such as:

1. Pre-experiment : may have pre and post treatment tests, but lack a control group.

2. Quasi-experiment : has both pre and post tests and experimental and control groups but no random assignment of subject.

3. True-experiment : has both pre- and post tests, experimental and control groups, and random assignment of subject.[3]

In this research, the researcher uses quasi experiment research (pre test -post test non equivalent group design) to conduct the study. Pre test-post test non-equivalent-group design is an experimental design had two group: the first group obtain treatment, while the second group is control.

B. Research Place and time

The researcher conducts this research at SMAN 1 CIOMAS, on the first grade in academic year 2019/2020. The school is located at jl. Raya Pasar Ciomas, Sukabares, Kecamatan Padarincang Kabupaten Serang

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[2] John W Creswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and QualitativeResearch.* New Jearsey: Pearson Educational Research. 2008.P.309.

[3] David Nunan, *Research Methods in Language Learning*. Cambridge University. 1992. p.41.

Provinsi Banten. The reason why the researcher chooses this school because the researcher did the teaching practice (PPLK) at SMAN 1 CIOMAS. Therefore, she conducts this research on August 2019 until this research is finished. Then, back to my background of this research there were many students get difficulties especially in reading comprehension narrative text. The researcher expect, if this research, it will be applied in language teaching in various school, especially in SMAN 1 CIOMAS.

C. The Population and Sample

1. Population

According to Nunan, population is all cases, situations, or individuals who share one or more characteristic.[4] Sugiyono in Darwyansyah said that population is a generalization region consisting of the subject/object that have certain qualities and characteristic defined by the researchers to learn and the drawn conclusion.[5] Meanwhile, Cresswell said that population is a group of individuals who have some the same characteristic.[6] The population of this research is the students

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[4] David Nunan, *Research Methods in Language Learning*. Cambridge University. 1992. p.231.

[5] Darwyansyah. Metode Penelitian Kuantitatif dan Kualitatif. Penerbit Haja Mandiri. 2017. P. 106.

[6] Jhon W. Cresswell. *Educational Research: Planning, Conducting, and Evaluating, Quantitative and Qualitative Research, (Boston: Pearson Education).* 2012. P.142

SMAN 1 CIOMAS, especially the tenth grade that consist 344 students for ten classes.

2. Sample

Nunan says that Sample is a subset of individuals or cases from within a population.[7] According to Sugiyono in Darwyansyah Sample is part of the number and characteristics of population.[8] Creswell said that sample is a subgroup of the target population that the researcher plans to study of generalizing about the target population.[9] There are six classes of tenth grade in SMAN 1 CIOMAS. The researcher chooses two classes as a sample, they are class X IPA 1 consist of 34 students as experiment class and class X IPA 2 consist of 34 students as control class. The sample are selected by using random sampling technique.

D. **The Technique of Data Collecting**

The technique of data collecting explains about the way of collecting data for research. The quantitative data in the form of number are the result of students' reading assessment taken from pre-test and post-test. The researcher uses test as the instrument to collect the data. The researcher give the same kinds of test both the experimental class and

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[7] David Nunan, *Research Methods in Language Learning*. Cambridge University. 1992. p.232.

[8] Darwyansyah. Metode Penelitian Kuantitatif dan Kualitatif. Penerbit Haja Mandiri. 2017. P. 107.

[9] Jhon W. Cresswell. *Educational Research: Planning, Conducting, and Evaluating, Quantitative and Qualitative Research,* (Boston: Pearson Education). 2012. P.142

control class, and she uses observation sheet to know how students' response after they were taught using story pyramid strategy.

1. Observation

The researcher conducted this research used observation while treatments of story pyramid strategy is given after pre-test. The English teacher and students in the class observed and monitor how the researcher facilities and how students activities as long as learning activities using story pyramid strategy in reading comprehension narrative text.

2. Test

The instrument of collecting data in this research is test. The researcher used multiple choices type with four options (a,b,c, and d) and essay for test. According to Brown a test is a method of measuring a person's ability, knowledge, or performance in a given domain. Test is instrument that provides an accurate measure of the test-takers's ability within a particular domain.[10] The test will be given twice, pre-test and post-test for both experimental class and control class. Pre-test conducted at the first meeting before treatment and post-test conducted after treatment using story pyramid strategy.

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[10] H. Douglas Brown. *Language Assessment: Principles and Classroom Practice*. Pearson Eduaction. 2004. P.4.

a. Pre- test

Before the researcher teach new material by using story pyramid strategy, the teacher asks student to complete pre-test. Pre-test was given to the experimental and control classes in the same way. The test will be given in multiple choice and essay. It consists of 10 multiple choice and 5 essay. Scoring of test for multiple choice for the right answer will be given 1 point, for essay if the right answer will be given 2 point. It is aimed to know student ability in material of reading which given by the researcher before getting treatment. The test adapted from text-narrative.blogspot.com/telaga-warna.html?m=1.

b. Post-test

Post-test will be given at the end to the experimental class and control class. It was given in order to know students achievement after they were taught by using story pyramid strategy (experimental class) and without using story pyramid strategy (control class). The test is same as pre-test, there will be question in multiple choice and essay. It consists of 10 multiple choice and 5 essay. Scoring of test for multiple choice if the right answer will be given 1 point, for essay will be given 2 point for the right answer. The students will be given a text and story pyramid worksheet to answer the question but in the different text. The test

adapted from https://freeenglishcourse.info/narrative-analysis-on-malin-kundang-story/.

Rubric indicators of reading comprehension (multiple choice)

Reading Text	Aspect of Reading comprehension	Indicators	Item Number
Descriptive	Literature	identifying structure of the text identifying main idea	1, 2, 4,6
		identifying important point	8
		Identifying word reference in the text	5
		identifying meaning of word/ phrase/ sentence	10
		Identifying detailed information written	3,7, 9

Rubric indicators of reading comprehension (Essay)

Reading Text	Aspect of Reading comprehension	Indicators	Item Number
Descriptive	Literature	identifying type of text	1, 2
		identifying detailed information written	3,4
		Identifying moral value	5

For scoring the test the writer will use standard of absolute:

Multiple choice: students' score x 1 = 10 x 1 = 10

Essay   : students' score x 2 = 5 x 2 = 10

Multiple choice score + essay score x 5 = 10 + 10 x 5 = 100

E. The Technique of Data Analysis

In this technique of data analyzing the researcher used t-test. The aim of t-test was to comparing mean score of two groups. After the data have been collected, the data are analyzed by using descriptive analysis. To get know the result when taking the same test has the same score or

not has the same score. To analyze the data collected from the instrument of research that is pre-test and post-test.

The researcher will analyze the t-test data by using Anas formula[11]

1. Determine mean variable X1 with formula

$$M_1 = \frac{\sum X1}{N1}$$

2. Determine of variable X2 with formula

$$M_2 = \frac{\sum X2}{N2}$$

3. Determine deviation score variable X1 with formula

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

4. Determine deviation score variable X2 with formula

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

5. Analyzing the result by using calculation of t-test as follow:

$$t = \frac{M1 - M2}{\sqrt{\frac{\left(\sum X_1{}^2 + X_2{}^2\right)\left(N_{1+N_2}\right)}{(N1 + N2 - 2)N_{1 \cdot N_2}}}}$$

Note :

M_1 = The average score of experiment class

M_2 = The average of control class

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[11] Anas Sudijono, *pengantar Statistik Pendidikan* (jakarta: PT Grafindo, 2014), P.317

X_1 = Sum of the squared deviation score of control class

X_2 = Sum of the squared deviation score of experiment class

N_1 = The number of experiment class

N_2 = The number of control class