CHAPTER III

METHODOLOGY OF RESEARCH

A. The Method of Research

Research is equally important for social scientists in studying social relationships and in seeking answers to various social problems.[1] The experimental research attempts to explicate causal relationship between phenomena by intervening in the natural setting and controlling the relevant variables.[2]

Nunan has stated that "Experiment is a procedure for testing a hypothesis by setting up a situation in which the strength of the relationship between variables can be stated''.[3] Then in this research, she use quasi experiment, in which the research give certain treatment to experimental class to find whether there is significant of students' writing skill or not after being treated by using snowball throwing.

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[1] C.R. Kothari, *Research Methodology: Method and Techniques* (New Delhi : New Age International, 1990) p.1

[2] David Scoot and Robin Usher, *Research Education*, (New York: Designed and Patents Act, Press 2011) p.63

[3] David Nunan, *Research Method in Language Learning* (New York: Cambridge University Press, 1992) p.230

B. Place and Time

To examine the influences of using snowball throwing in teaching writing skill. In this research, she takes place in SMPN 3 Warunggunung. It is located at Jl. Raya Petir, Jagabaya Village-Sorok Warunggunung-Banten. This research was conducted from up to on the second semester in the academic year 2019/2020.

C. The Population and Sample

1. Population

Before the sample was collected, she had to determine the population. The population is all individuals of interest to the researcher.[4] Nunan has stated that, "A population is all cases, situations, or individuals or share one or more characteristic a set (or collection of all elements processing one or more attributes of interest".[5] So the population is taken of whole subject or person in study to get required data.

The population of this research is the second year students in academic year 2019/2020 conducted at SMPN 3 Warunggunung consisting 4 classes. There are about 105 students as the population.

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[4] Alan S. Kaufman and Nadeen L. Kaufman, *Essentials of Research Design and Methodology*, (Canada: John Wiley & Sons, Press, 2005) p.18

[5] Nunan, *Research Method*, p.231

2. Sample

In this research, she used purposive sampling to obtain the sample. Sampling is a process of selection and researching the type of sample and calculating the large sample that will be the object of research. According to Arikunto, purposive sampling is the process of selecting sample by taking subject that is not based on level or area, but it is taken based on the specific purpose.[6] The purpose of sampling is use some of individual to get information about population. With the purposive sampling the researcher can choose the sample those that representative and get represent of population.

Selection of the sample is very important step in conducting a research study. According to Dawson that, Sample is the researchers overcome this problem by choosing a smaller, more manageable number of people to take part in their research.[7]

David Nunan has stated that, "Sample is a subject of individual or cases from within the population."[8] The total of sample must be choose before doing research. In this research, the researcher tooks two classes as the samples of research; they are students in class VIII-A as experimental class which consists of 25 Students. While

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[6] Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, (Jakarta: Rineka Cipta. 2010) p.183

[7] Catherine Dawson, *Practical Research methods*, (United Kingdom: How To Books Ltd, Press, 2002) p.47

[8] Nunan, *Research Method*, p.231

students in class VIII-B as controlled class that consists of 25 students and they were taught without snowball throwing.

D. The Techniques of Data Collecting

The technique of data collecting in this research, she uses observation sheet in teaching and learning process and giving the test to the students. The writer obtained the data by conducting teaching activity and collecting students' test score from both experiment class and controlled class after have been taught writing skill.

The researcher consulted to the English teacher about the question she made, before giving the test to the students. Whether these question can be given to the students. She gave the same kinds of test for both the experimental class and controlled class.

The researcher uses observation and test as instrument of this research, then the test will used to collect the data from the object of the research.

1. Observation

The researcher uses observation to conducts the research used observation while treatment of snowball throwing technique 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 snowball throwing technique in writing descriptive text.

2. Test

A test is a method of measuring a person's ability or knowledge in a given domain.[9] According to Arikunto, test is a series of exercise or tools that used for measuring the competence, and skill which possessed by and individual or group.[10] The researcher used essay for the test. The test was given twice, pre-test and post-test. The pre-test was conducted at the first meeting before treatment. The post-test was conducted at the last meeting after given several time of treatments by using snowball throwing.

a. Pre-test

A pre-test is consisting of questions based on routine skills and problem-solving tasks.[11] Before the researcher teaches the material by using snowball throwing technique, the researcher asks to students to fill pre-test. Pre-test was given to the experimental and control class at the same way. The test will be given in essay. It consists of write the descriptive text at least 8 sentences. It is aimed to collect the data about student's writing

[9] Brown, *Teaching by Principle*, p.384

[10] Arikunto, *prosedur Penelitian*, p.131

[11] Valsa Koshy, *Action Research for Improving Practice.* (Cromwell Press: Trowbridge, Wiltshire, 2005) p.58

skill before getting treatment. The test was administered to the second grade students at SMPN 3 Warunggunung.

b. Post-test

A post-test will be given after getting treatment for experimental class and control class. It was given in order to measure the changeable or influence of using snowball throwing and without using snowball throwing in teaching students' writing skill. The test is same as pre-test; there will be question in essay. It consists of write the descriptive text at least 10 sentences. The student was asked to answer the questions based on the paper instruction for experimental class. The test was administered to the second grade students at SMPN 3 Warunggunung.

E. Hypothesis

Hypothesis formulated to explain relationship two more variables as well to compare a variable. While Arikunto has stated that hypothesis is a temporary answer according to the problem of research, till it is evidenced by some of data collection.[12] Another way of saying this is that the hypothesis, the means, impels scientific investigation, the end. Like the propeller of a ship, which is hidden from view deep down but is

[12] Arikunto, *Prosedur Penelitian*, p.122

nonetheless absolutely necessary for the ship to move, the hypothesis is essential, subtle, and not always obvious.[13]

Mujid has defined "Hypothesis can be defined as a tentative explanation that accounts for a set of facts and can be tasted by further investigation, as we mentioned earlier.[14] The hypotheses of this research are proposed in terms of null hypotheses (Ha) and alternative hypotheses (Ho). They are follows:

1. The experimental hypothesis (Ha): There is a significant difference of using snowball throwing in teaching students' writing skill.
2. The null hypothesis (Ho): There is no significant difference of using snowball throwing in teaching students' writing skill.

F. The Technique of Analysis Data

After getting the data from analyzed pre-test and post-test, the technique of analysis data in this research uses T-test formula. According to Supardi quoted directly to Sudijono "T-test is one of the statistical tests used to test the truth or the falsity of the null hypothesis which states that between 2 samples taken randomly from the same

[13] K Srinagesh, *The Principles of Experimental Research*. (United States: Elsevier, 2006) p.75

[14] Daniel Mujid, *Doing Quantitative Research in Education*, (London: SAGE Publications Ltd, 2004) p.16

population, there is no significant difference"[15]. The aim of t-test to measure the final test score for two groups. To get know the result when taking the same test has the same score or not has the same score.

The researcher analyzed the data based on collected score data from pre-test and post-test of experimental class and control class.

The researcher has used the formula as follow:

$$t_o = \frac{M_1 - M_2}{SE_{M1-M2}}$$

t_o = The result of "t" to be finding

M_i = Average of X_1

M_2 = Average of X_2

SE_{M1-M2} = Standard average of error

X = Sum of the squared deviation score of Experiment class

Y = Sum of the squared deviation score of Control class

Calculation step :

a. Determining mean of variable X_1 and X_2 with the formula : $M_x = \frac{\sum X}{N}$

$$M_y = \frac{\sum Y}{N}$$

[15] Supardi, *Statistik Penelitian Pendidikan*, (Depok: Rajawali Pers), 268.

b. Determining Standar Deviation (SD)) of Mean X_1 and X_2:

$$SD_1 = \sqrt{\frac{\Sigma i^2}{N}} \qquad SD_2 = \sqrt{\frac{\Sigma y^2}{N}}$$

c. Determining Standard Error of Mean X_1 and X_2 :

$$SE_{M_1} = \frac{SD_1}{\sqrt{N_1 - 1}} \qquad SE_{M_2} = \frac{SD_2}{\sqrt{N_2 - 1}}$$

d. Determining Standard Error, Difference of Mean between X_1 and X_2 using the formula : $SE_{M1-M2} = \sqrt{SE^{2M1} + SE^{2M2}}$

e. Determining value of "t" using the formula : $t_o = \frac{M_1 - M_2}{SE_{M1-M2}}$

Finally, when the researcher knew the result, she concluded that if $t_o < t_{table}$ H_o is accepted. It means that there is no significant differences of using snowball throwing in teaching students writing skill of the second grade students of SMPN 3 Warunggunung. If $t_o > t_{table}$, Ha is accepted, it means that there is a significant of using snowball throwing in teaching students writing skill of the second grade students at SMPN 3 Warunggunung.