

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. The Research Method

This research is used quantitative research which uses an experimental research as a part of quantitative research. The researcher chooses an experimental research because the researcher wants to know the effectiveness of English movie to improve students' vocabulary acquisition. Creswell argue that “An approach to testing theory by examining the relationship between research variables is called quantitative research. This variable, usually measured in an instrument, will be analyzed using statistical procedures. The final written report in this study has a set structure consisting of an introduction, discussion concerning theory and literature, methods, and results.”<sup>1</sup>

The researcher has used the quasi-experimental research as a particular research method. According to Nunan, “Experiments are conducted to determine the strength of the

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<sup>1</sup> John w. creswell, *Research Design Qualitative, Quantitative and Mixed Method Approaches*, (California: SAGE, 2014), 41

link between variables, which are defined as everything that does not remain constant.”<sup>2</sup> Ary argue that “quasi-experimental designs are considered worthwhile because they permit researchers to reach reasonable conclusions even though full control is not possible”.<sup>3</sup>

## **B. Place and Time of The Research**

This research has been conducted in SMAN 1 Ciomas. It is located on Jl. Raya Pasar Ciomas Kp. Sukapaksa Ds. Sukabares Kec. Ciomas Kabupaten Serang Provinsi Banten. The time of this research is about one month.

## **C. Population and Sample of the Research**

The population of the research is students of SMAN 1 Ciomas. The sample of this research is the first-grade students which consist of 30 students from X IPA 4 as a experiment class and 30 students from X IPA 5 as a control class.

## **D. The Research Instrument**

The instruments used in this study were pre-test, treatment, post-test. The pre-test was given at the first meeting

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<sup>2</sup> David Nunan, *Research Methods in Language Learning*, (USA: Cambridge University Press, 1992), 24-25

<sup>3</sup> Donald Ary, Lucy Cheser Jacobs, Christine K. Sorenses and Asghar Razavieh, *Introduction to Research in Education, 8th Edition*, (Wadsworth Cengage Learning, 2010), 316.

to find out how often students watched movies. Then the researcher will start his research by watching English movies with the students. After that the researchers will give a post-test to see how much new vocabulary they get after watching movie.

#### **E. The Technique Data Collecting**

For data collection in this study, researchers provided pre-test, treatment, post-tests. Pre-test and post-test were used to find out the results about the effectiveness of English movie “Onward to improve students’ vocabulary acquisition. Some of the procedures used to collect data in this study are as follows:

##### **1. Pre-test**

The pre-test was given before the treatment to find out how much vocabulary the students knew. The researcher will give a test, the test is a written test using multiple choice questions. This has been given at the first meeting to find out the student's vocabulary before being given treatment using the English movie. There are twenty questions that will be tested in the pre-test.

##### **2. Treatment**

Treatment is carried out after the pre-test. The researcher taught the experimental class using English movie as a medium for improving students' vocabulary acquisition. When learning in class, students are given a movie entitled Onward then they will watch the film and write the new vocabulary they get.

The test had been given after watching movie. The students will be given 10 multiple choice questions. The question based on the movie. This test is to find out how much vocabulary students get after watching to English movie.

### **3. Post-test**

Post-test is given to students after treatment. Students are given multiple choice questions that discuss the vocabulary in the movie, then they must answer the question. This test is designed to determine the increase in students' vocabulary after being taught using English movie media. The test is the same as in the initial test, there are twenty questions consisting of multiple choice questions.

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

Because this research used quantitative research which uses an experimental research, use pre-test and post-test. Then the researcher uses this test to measure the final test between experiment class. The step for statistic analyze that are:

1. Determining mean of variable X1 with formula:

$$M1 = \frac{\sum X1}{N1}$$

2. Determining mean of variable X2 with formula:

$$M2 = \frac{\sum X2}{N2}$$

3. Determining derivation score variable X1 with formula:

$$X1 = X1 - M1$$

4. Determining derivation score variable X2 with formula:

$$X2 = X2 - M2$$

5. Squaring X1 and X2

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

$$t_o = \frac{M1 - M2}{\sqrt{\left(\frac{\sum X1^2 + \sum X2^2}{N1 + N2 - 2}\right) \left(\frac{N1 + N2}{N1 \cdot N2}\right)}}$$

Note :

M1 = The average of post-test score of experiment class

M2 = The average of post-test score of control class

$\Sigma X1^2$  = Sum of the squared deviation score of experiment class

$\Sigma X2^2$  = Sum of the squared deviation score of control class

N1 = The number of experiment class

N2 = The number of control class

2 = Consonant number

#### 7. Analyzing effect size

$$r^2 = \frac{t^2}{t^2 + df}$$

Note:

$r^2$  = Effect size

$t^2$  = Result of t-test determine

df = Result degree of freedom

Percentage of variance explained,  $r^2$  according to the criteria of Gravitter

$0,01 < r^2 < 0,09$  = Small effect

$0,09 < r^2 < 0,25$  = Medium effect

$r^2 < 0,25$  = Large effect<sup>4</sup>

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<sup>4</sup> Frederick J Gravetter, Larry B. Wallnau, *Statistic For The Behavioral Science 10 Edition*, (USA: Cengage Learning, 2013), 283