CHAPTER III

RESEARCH METHOD

This chapter discussed several things such as research design, population and sample, hypothesis, instrument to collect the data, data collection technique, data analysis procedure and testing hypothesis.

A. Research Design

This method use experimental reserach. Experimental is the best of the quantitative designs which is used to decide probable cause effect.[1]Experimental research is the way to find a causal relationship (relationship clause) in determining cause and effect.

The experimental research design is classified into pre-experimental design, true experimental, and quasi-experimental. Pre-experimental research does not have random assignment of objects to groups or other strategies to control extraneous variables. True-experimental research use randomization and provides maximum control of extraneous variables. Whether quasi-experimental research lack randomization but employ other strategies to provide some control over extraneous variables.[2] In this research, the researcher used pre-experimental research. Pre-experiment research involved only one group which was pretested, exposed to treatment, and post tested. The success of the treatment was determined by comparing the pretest and the posttest score.

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[1]John W. Creswell, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 4th edition (Boston: Pearson, 2011), p. 295.
[2]Donald Ary, *Introduction to Research in Education* (United States of America: Wadsworth Thomson Learning, 2002), p. 302.

The researcher gave treatment to the student. Before and after treatment, students were tested using (pre-test and post test). These tests will chose as they were available. To know the effect of mime story technique in students' vocabulary mastery, the scores of pre-test and post-test were compared. If the result of the pos-test after the treatment was higher than the pre-test, it means that mime story technique has affected the students' vocabulary mastery. The research design is as follows:

X1	X2

X

Notes:

X1: Pre-test

X2: Post-test

X: Treatment

3.1 Pre-experimental research plan

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┌─────────────────────────────┐
│  Preparing Test Instrument  │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│          Pre-Test           │──────────────┐
└─────────────────────────────┘              │
              │                               ▼
              ▼                    ┌────────────────────┐
┌─────────────────────────────┐   │      Compared      │
│           Result            │   └────────────────────┘
└─────────────────────────────┘              ▲
              │                               │
              ▼                               │
┌─────────────────────────────┐              │
│  Treatment of mime story    │              │
│         technique           │              │
└─────────────────────────────┘              │
              │                               │
              ▼                               │
┌─────────────────────────────┐              │
│          Post-Test          │──────────────┘
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│           Result            │
└─────────────────────────────┘
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Table 3.2 Treatments' Schedule

No	Activities	Date			
		25th July	28th July	1st August	4th August
1.	Pre-test	███████			
2.	Treatment		███████████████████████		
3.	Post-test				███████

B. Population and Sample

This study is conducted at SMP Al-Ikhlas Gresik. It takes place at Mulyorejo Village Panceng Gresik. The populations are students of the seventh grade. There are 35 students of the seventh grade.

C. Data Collection Technique

Data collection technique is the technique to collect the data that is needed by the researcher. In this research, the technique that is used by the researcher is administering test. The test was in form of students' worksheet. The test was unscrambling word. The students rearrange unscramble vocabulary word and give the number of the picture (see Appendix 3 and 4).

The researcher used vocabulary worksheet test to get the data. The researcher administered the test to all of respondents. The tests were conducted two times before and after getting treatment. Then it would be give scored in order to find out the score of the test. In this research, the techniques to collect the data were pretest, treatment, and posttest. The researcher conducted pretest before gave treatment to the students.

Treatment was conducted after the researcher gave pretest to the students. The researcher conducted treatment two meetings by giving mime story technique related to the topic in school standard at the school. This school use (KTSP) for standard curriculum.

3.3 Table of standard competence and basic competence

Standard Competence	Basic Competence
*2.*Listening Expressing meaning in oral texts functional and simple short monologue form of descriptive and recount to interact with the surrounding environment.	2.1 Expressing meaning in simple short monologue by using a variety of harsh language accurately, fluently, and thanks to interact with the environment. 2.2 Expressing meaning concept in simple short monologue by accurately, fluently, and thanks to interact with the environment.

According to school-based curriculum (KTSP), the seven grade students are demanded to be able to express interact with the environment. The instruction of the pre-test test was "Unscramble bad room vocabulary and number the picture". Therefore, based on the school-based curriculum (KTSP), the test had the appropriate content validity.

D. Instrument of Data Collection

Research instrument refers to any equipment used to collect the data.[3] Based on Ary, selecting appropriate and useful measure instruments is critical to

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[3]Suharsimi Arikunto, *Prosedur Penelitian (Suatu Pendekatan Praktik)* (Jakarta: Rineka Cipta, 2010), p. 262.

the success of any research study.[4] One valuable technique to measuring instruments for educational research is use tests. A test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. This score, based on a representative sample of the individuals' behavior, was an indicator of extend to which the objects has the characteristic being measured.

There were two kinds of test that was used by researcher. The tests were called by pretest (X1) and posttest (X2). In this research, the researcher also gave treatment (X) to the students. As in the explanation in the research design, the researcher gave pretest first and continued by conducting treatment then the last were posttest.

1. Pre-test is a test which is given before the treatment. The purpose of giving pre-test was to know about the students' vocabulary mastery. The test was in the form of written test (see appendix 3). The test would administrate in a classroom during school hours. The research instructed the students to do the test. There were 15 number of tests that was tested before conducted the treatment. The researcher gave 30 minutes to do the pretest.

2. Post-test is a test which is given at the end of the research. The purpose was to measure how far the students understand the lesson and also to know whether the mime story technique has affect students vocabulary mastery at seven grade of SMP Al-Ikhlas Gresik. Same as pretest, the researcher gave

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[4]Donald Ary, Lucy Cheser Jacob, and Chris Sorensen, *Introduction to Research in Education* (USA: Wadsworth, Cengage learning, 2006), p. 200.

15 number test and limit the time 30 minutes to do the entire test. (For more detail about posttest, see appendix 4).

E. Data Analysis

After the pre-test and post-test were conducted, the next step was analyzing the result of the treatment based on the data. The researcher uses statistics to analyze the data. Parametric statistics is used to know the result of the hypothesis. The test is compared with the average of two samples with the interval. It means two sample that have the same of population and sample in the different time.[5]

In this research, the researcher wants to know the improvement of the different mean. So, the researcher uses t-test to test the hypothesis. The independent-samples t test evaluates the difference between the means of two independent or unrelated groups. That is, the researcher evaluate whether the means for two independent groups are significantly different from each other. The independent-samples t test is commonly referred to as a between-groups design, and can also be used to analyze a control and experimental group. With an independent-samples t test, each case must have scores on two variables, the grouping (independent) variable and the test (dependent) variable. According to Suharsimi Arikunto, the t-test formula can be used to analyze pre-experimental results using a pretest and posttest with one group design[6]. The function of t-test

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[5]Sugiyono, *Statistika untuk Penelitian* (Bandung: Alfabeta, 2010), p. 127.
[6]Arikunto, *Prosedur Penelitian (Suatu Pendekatan Praktik)*, p. 349.

is to evaluate whether the mean value of the pre-test differs significantly from the mean value of the post-test. The formula is used in the t-test formula is:

$$t = \frac{Md}{\sqrt{\frac{\sum x^2}{N(N-1)}}}$$

Notes;

Md   = mean from difference of pretest and posttest

Xd   = deviation of each objects (d-Md)

$\Sigma x^2 d$ = the squared deviations

N   = Objects of sample

d.b   = determined by N-1

F. Research Variables and Hypotheses

1. Variables

According to Arikunto variables are the objects of the experiment or the focus on an experiment.[7] Another definition, variable is something that may vary. There are two types of variables. They are:

a. Independent variable is one condition which is manipulated by the experimenter. Creswell states that independent variable called treatment conditions or factors in an experiment.[8]Mime story technique is the independent variable.

b. Dependent variable is the one that measures the influence of the independent variable. Creswell defines that dependent variable is the

[7]*Ibid.*, p. 161.
[8]Creswell, *Educational Research*, p. 128.

response or the criterion variable presumed to be caused or influenced by the.[9] Independent treatment conditions. Based on the definition, the dependent variable of this study is the students' vocabulary mastery of surrounding objects. Score of oral performance test.

2. Hypotheses

Tuckman explains that a hypothesis can be defined as an expectation about events based on generalizations of the assumed relationship between variables.[10] There were two hypotheses of this study. There are:

a. There is significant effect of using mime story technique in students' vocabulary mastery of surrounding subjects.

b. There is no significant effect of using mime story technique in students' vocabulary mastery of surrounding subjects.

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[9]*Ibid.*, p. 129.
[10]B.W. Tuckman, *Conducting Educational Research* (Harcourt Brace Jacobovits, 1978), p. 27.