

## **CHAPTER III**

### **RESEARCH METHOD**

#### **A. Research Type**

This research types was the quantitative research since it explains the effectiveness of using bilingual and monolingual cards in increasing young learners' English vocabulary. This research used quantitative research belongs to quasi-experimental design. The reason the researcher used this type of the research because it attempts to determine causal relationships by applying a treatment or condition to one group and comparing the outcome with a control group. The reason of a quasi-experiment is the inability to a randomly assign participants to some treatment conditions corresponding to a level of an independent variable (Dunn, 2001: 74). In quasi-experiment, both experimental and control groups had not been equated by randomization.

In order to determine the most effective media between bilingual cards and monolingual cards in increasing young learners' English ability in the third grade students in Surakarta. This research classified three groups: first experimental group, second experimental group and control group. The experimental groups were the group which given treatment (the group was taught by using bilingual card and monolingual cards) and the control group was a group which is taught with conventional media. The experimental groups and control group was given pre-test and post-test. Pre-test was given before the groups would be taught. The treatment

was only given by the researcher after pre-test. In the end of teaching-learning process, the research conduct post to know the most effective media. The design was formulated on explanation of Sugiyono (2013: 166):

**Table 3. Design Research**

<b>Group</b>	<b>Pre-test</b>	<b>Treatment</b>	<b>Post-test</b>
<b>First Experimental Group</b>	O1	X1	O2
<b>Second Experimental Group</b>	O3	X2	O4
<b>Control Group</b>	O5		O6

Source: Sugiyono (2013: 166)

Description:

O1 = Pre-test for first experimental group

O3 = Pre-test for second experimental group

O5 = Pre-test for control class

X1 = treatment by using bilingual cards

X2 = treatment by using monolingual cards

O2 = Post-test for the first experimental class

O4 = Post-test for the second experimental class

O6 = Post-test for the control class

According to the research design, the sample consists of three classes III-1, III-2, and III-3. The two classes: III-1 and III-2 were experimental class and one class III-3 was the control class. The treatment of bilingual card was only given to first

experimental class, i.e. class III-1. The treatment of monolingual card was given only to the second experimental class, i.e. class III-2. Moreover, the conventional medium was given to the control class, i.e. class III-3.

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

The place of the research was at SDIT Nurhidayah Surakarta. The research started in January 2019 and was officially ended in February 2019.

**Table 4. Table of time of the research**

<b>Time</b>	<b>Class</b>	<b>Material</b>
23-1-2019	III D (Control Class)	pre-test
24 -1-2019	III B (Experimental 2 Class)	pre-test
25-1-2019	III C (Experimental 1 Class)	pre-test
31-1-2019	III B (Experimental 2 Class)	my pets
1-2-2019	III C (Experimental 1 Class)	my pets
7 -2-2019	III B (Experimental 2 Class)	my pets
8-2-2019	III C (Experimental 1 Class)	my pets
14-2-2019	III B (Experimental 2 Class)	my family tree
15-2-2019	III C (Experimental 1 Class)	my family tree
21-2-2019	III B (Experimental 2 Class)	my family tree
22-2-2019	III C (Experimental 1 Class)	my family tree
27-2-2019	III D (Control Class)	post-test
28-2-2019	III B (Experimental 2 Class)	post-test
1-3-2019	III C (Experimental 1 Class)	post-test

### **C. Population and Sample**

Cresswell (2012) defines population as the larger group in the study, while sample is the small group this is observed. The process of selecting the sample that accurately represents the population is called sampling (Ary, Jacobs, & Sorensen, 2010; Creswell, 2012).

#### **a. Population**

The population of this research was student of elementary school class III of SDIT NurhidayahSurakarta in academic year 2018/2019. There are 135 students who were divided into four classes of the students class III, they are IIIA, IIIB, IIIC, and IIID.

#### **b. Sample**

The sample of this research was three classes from three schools. Two classes were experimental groups were taught by bilingual card and monolingual card. The one class is the control group taught by conventional media.

The researcher used IIIB as the experiment 1 class (bilingual card), IIIC as the experiment 2 class (monolingual card) and IIID as the control class. Thus, there are 34 students in experiment 1 class, 34 students in experiment 2 class and 33 students in control class.

This research used purposing sampling technique. It means that the researcher chose three groups purposively based on the level competence and three of classes had the same level. The research also gives attention for the students'

mastery vocabulary. The researcher ensures that three classes have some have level in vocabulary treasure. The attitude of students also is a concern of researchers. From the four classes, one class is a quieter class than other classes and the other three classes are quite attractive.

#### **D. Variable of The Research**

There were two variables of this research; there are independent variable and dependent variable. Independent variables (X) used in this study were bilingual card and monolingual card as media in increasing young learners' English vocabulary. The first independent variable is the class which is taught using bilingual card as treatment. The second independent variable is the class which is taught using monolingual card as the treatment. Then the control group was taught without using those media. While dependent class (Y) was the young learners' vocabulary ability.

#### **E. Technique and Instrument of Data Collection**

##### **1. Techniques of Data Collection**

In this research, the researcher collects the data by conduct the pre-test and post-test. The aim of the test to measure the students' vocabulary ability before and after treatment applied.

##### **2. Instrument of Data Collection**

The instrument of this research is worksheet in the form of vocabulary tests.

## **F. Validity and Reliability of Instrument**

Validity is considered as the most important term in developing the instruments of research. An instrument would be valid if it measures what is intended measure. Validity is if a test is measuring accurately what it is intended to measure. This research used content validity. The examination of data validity using content validity aims to examine compatibility between the goal and description of the research problem (Nurgiyantoro, 202: 339). The researcher organized the test instrument based on the standard competence and basic competence of the curriculum used in Elementary school. It also validated by the expert judgment.

According to Brown (2004: 20), a test can be said reliable test if it was consistent and dependable. It means that if the data tested on two different occasions should yield similar result. In this research, the researcher used iteman 4.3 version program to measure the reliability of instrument. The result of reliability coefficient of pre-test and post-test was 0.791 with the reliability coefficient is at least 0.7. Therefore, the pre-test and post-test were reliable as the research instrument.

## **G. Data of Technique Analysis**

According to the Cresswell (2012: 166) about the types of analysis that was used during the experiment; repost the descriptive statistic calculated observations and measures at the pre-test nor post-test stage of experimental designs, indicate the inferential tests was used to examine the hypotheses in the study. In this term there are some techniques to analyze data of the research, as follows:

## **1. Descriptive Analysis**

The descriptive analysis used to describe and interpret the data from the sample and population. Descriptive analysis has two parts, they are: the result of the mean and the standard deviation. Hatch and Farhady (1982: 39) indicate that descriptive analysis is statistics used to summarize data. There are two descriptive analyses in this study: mean and standard deviation. Hatch and Farhady (1982: 55) state that mean is commonly used measurement of central tendency because the mean takes all score into account. The mean is same as average of score. While Hatch and Farhady (1982: 57) state that standard deviation is used to measure variability. The larger the standard deviation, the more variability from the central point in the distribution and the smaller the standard deviation, the closer the distribution is to the central point.

## **2. Inferential Analysis**

### **a. Normality Test**

Normality test is applied to know whether the data distribution is normal or not. Therefore the researcher used *Kolmogorov-Smirnov* test. The formula of *One Sample Kolmogorov Smirnov* as stated by Sugiyono (2010: 156) is presented as follows:

Based on the significance level, the conclusion can be derived:

- 1) If the significance probability  $> 0.05$ , the data have a normal distribution.

2) If the significance probability  $< 0.05$ , the data deviate from normal distribution.

**b. Homogeneity test**

In this term the test was applied to know whether the sample variants was homogenous or not. This test was accounted by using Leven test. The formula of this is as the follows:

Based on the significance level, the conclusion can be derived:

- 1) If the significance probability  $> 0.05$ , the variance is homogenous.
- 2) If the significance probability  $> 0.05$ , the variance is not homogenous.

**c. Hypothesis Test**

The researcher used standard of ANCOVA to test of the data which were normal distribution and the variances were homogeneous. The testing standard of ANCOVA was used is that the null hypothesis ( $H_0$ ) is acceptable if the rate of probability gains is greater than 0.05. While, the null hypothesis ( $H_0$ ) is rejected if the rated probability is lower than 0.05. Then, to find out the most effective medium, the researcher used Least Significant Differences (LSD).