

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

In this chapter, the researcher would like to explain the methods of this research. It consists of the research design, subject of the research, technique and tools of Data Collection, technique of data analysis, and research procedures.

#### **A. Research Design**

In this study, researcher use a descriptive quantitative method to process data. In general, the descriptive quantitative method is a way to process data using elaboration with the support of previous relevant theories. Descriptive quantitative research is a method that attempts to collect quantifiable information for statistical analysis of the population sample (Marvasti, 2018). Descriptive Quantitative has a function to describe the results that have been obtained in the field to be able to become a scientific report that is in accordance with actual events. The purpose of a descriptive quantitative method is to describe events in the form of descriptions (Nassaji, 2015). The tool that the researcher had used in this research was the questionnaire. Where the questionnaire serves as the main tool in the research process. So the descriptive quantitative method was used in this study by collecting data using questionnaire.

#### **B. Subject of Research**

The subject of this research was Second Grade Students in MTS. Alma'arif NU Pontianak, The researcher used purposive sampling to select the sample. Purposive sampling is the selection of samples based on certain criteria, Marton (2013) states that purposive sampling is a sampling technique with certain considerations and criteria, In this case, the sample selection based on the criteria needed was tenth-grade students, The reason researcher chose this class was that when interviewing the teacher at school, those who had the lowest

vocabulary scores were students of second graders. In this school, second grade students were three classes, the researcher only chose one class to be sampled.

### **C. Techniques and Tools of Data Collection**

For the data needed in this research, it is very important to choose the right data collection techniques and tools. In collecting data, researcher used direct and indirect communication techniques. The direct communication technique is in the form of pre-observation and indirectly in the form of a questionnaire.

Pre-observation is a technique that researcher use in order to obtain general information from the place or environment to be studied in order to find out the background of the subject who involved. According to Fajar (2015) an observation or assessment made before an experimental intervention or procedure. While the questionnaire was used to determine the effect of learning style on vocabulary mastery by including questions that were relevant to the information needed by the researcher. According to Brancato (2015) a questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents through survey or statistical study. A more detailed explanation of the tools for collecting data in this study is described in the following section;

#### **1. Questionnaire**

According to Rohmatillah (2014) the questionnaire is a widely used and useful instrument for collecting survey information, providing structured, often numerical data, being able to be administered without the presence of the researcher, and often being comparatively straight forward to analyze.

The researcher used questionairre to measure students' self assessment. These questionares contained a number of the items or questions for the respondent. The total of the items were 15 items based on the indicators of the students' self assessment that had been explained

in the operational concept. The researcher used Likert scale in scoring each item in questionnaire. Like scale asked participants to respond to a series of statements by indicating whether they Always, Often, Sometime, Seldom, Never. Each option also had score based on the Likert Scale Rating below:

**Table 3.1. The Likert Scale Rating**

| Options   | Score |
|-----------|-------|
| Always    | 5     |
| Often     | 4     |
| Sometimes | 3     |
| Seldom    | 2     |
| Never     | 1     |

*Source: (Pranatawijaya, Widiatry, Priskila, & Putra, 2019)*

## 2. Test

To find out the students vocabulary mastery at the second grade students at MTS. Alma'arif Nu Pontianak, the researcher administered the test to assess students' vocabulary mastery by using the multiple choice test that consisted of 20 questions. Based on Brown (2000) multiple choice is easy to administer and can be scored quickly in test.

**Table 3.2 The Classification of Student's Score**

| Score  | Categories | Value |
|--------|------------|-------|
| 80-100 | Very Good  | A     |
| 70-79  | Good       | B     |
| 60-69  | Sufficient | C     |
| <59    | Less       | D     |

For further information about instruction of questionnaire, the writer showed the blueprint of students' learning style and vocabulary mastery.



**Table 3.3 The Blueprint of Student's Learning Style**

| Category              | Number of Items | Item                                      |
|-----------------------|-----------------|---|
| Visual Learners       | 5               | 1, 2, 3, 4, 5                             |
| Auditory Learners     | 5               | 6, 7, 8, 9, 10,                           |
| Kinesthetics Learners | 10              | 11, 12, 13, 14, 15, 16, 17,<br>18, 19, 20 |

*Sources: (Menold, Jablokow, Purzer, Ferguson, & Ohland, 2015)*

**Table 3.4 The Blueprint of Student's Vocabulary Mastery**

| Indicators          | Number of Items | Item               |
|---------------------|-----------------|--------------------|
| Meaning             | 5               | 1, 2, 3, 4, 5      |
| Synonym and Antonym | 5               | 6, 7, 8, 9, 10,    |
| Word Use            | 5               | 11, 12, 13, 14, 15 |
| Word Classes        | 5               | 16, 17, 18, 19, 20 |

*Source: (Setiawan, 2010)*

#### **D. Technique of Data Analysis**

##### **1. Questionnaire and Test Formula**

In order to determine the frequency of distribution of each item of the questionnaire, it is necessary to carry out a descriptive analysis of the questionnaire (Nassaji, 2015). In order to find out the total value of the entire questionnaire, the researcher actually adds up all the scores that the respondents got. This also applies to the test.

##### **2. The Correlation Formula**

To answer the research questions, the researcher calculated the relationship between the independent variable (Learning Style) and the dependent variable (Vocabulary Mastery), using the product moment

influence coefficient from Pearson (Gould, 2001). The formula is as follows;

$$r_{xy} = \frac{N\sum XY - \sum X \cdot \sum Y}{\sqrt{N(\sum X^2) - (\sum X)^2} \sqrt{N(\sum Y^2) - (\sum Y)^2}}$$

The researcher determined the interpretation table product moment scale that described the relationship between both variable as follow:

**Table 3.5. Interpretation of Correlation**

| Correlations Value (r) | Interpretation       |
|------------------------|----------------------|
| 0,000 – 0,200          | Very Low Correlation |
| 0,200 – 0,400          | Low                  |
| 0,400 – 0,600          | Moderate             |
| 0,600 – 0,800          | High                 |
| 0,800 – 1,000          | High Correlation     |

*Source: (Sugiyono, 2017)*

## E. Research Procedures

In order to achieve the research objectives, researcher was required to follow procedures which were divided into four, they were planning, processing, data processing and data reporting.

### 1. Planning

In this section, the researcher actually planed a research design that was in accordance with the procedures applicable in the IKIP PGRI Pontianak campus, especially in the English language education study program. Researcher prepare various equipment that was actually used in the research process in the field. Furthermore, the tools that the researcher used in this study were questionnaires and multiple-choice tests. The researcher also before distributing the questionnaires and multiple choice,

actually first carried out the validity and reliability of the two tools that had been intended.

## 2. Data Collection Process

The data collection process carried out by indirect communication techniques in form of questionnaire. Researcher had given questionnaire to respondents on January 22, 2022 to gained the data that researcher really need. Before submitting the questionnaire, the researcher made observations in the previous year, to be exact on November 20, 2021. The questionnaire was distributed in the form of a google form with several statements attached in the appendix. In addition, the researcher also used multiple choice to strengthen the data. The procedure of mutiple choice was the same as that applied to the questionnaire.

## 3. Data Processing

In data processing, there was analysis and interpretation to collect data. Researcher used questionnaire and conduct analysis in school involving one class consisting of Second Grade Students. Then the questions conducted on the report of the needs of the researcher used Google Form.

## 4. Data Reporting

In reporting data, researcher convey the results of data that were in accordance with those obtained in the field without manipulating the data at all. Then the final stage was the data report submitted in the form of a thesis.