

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

Determining the design is one of the important things in conducting a research. A research design is naturally the framework or plan for a study that is used as a pattern in collecting and analysing data (Prabhat & Mishra, 2015:18). Therefore, it becomes the basic thinking and planning process for the researcher in conducting a research. In other hand, Kothari (2004:31) stated that a research design is the adjustment of conditions for collection and analysis of data in a manner that aims to combine importance to the research purpose with economy in procedure. So, research design can be defined as all things related to collection and analysis of the data to get the research purpose.

This research was descriptive quantitative research with one variable. According to Prabhat & Mishra (2015:29) a variable is a part which can be various from one individual to another. The variable in this research was Analysis of vocabulary knowledge of the third grade students at SMK KANSAI Pekanbaru.

This study was held in the classroom. The researcher came to the classroom to provide guidance and set up some questions that were given to students in a test, to measure the natural ability of students in vocabulary knowledge. Students were asked to choose the correct answer from the test.

3.2 Location and Time

This research was conducted at SMK KANSAI Pekanbaru. It is located on jalan Damai Ujung No. 120 Kecamatan Tampan Pekanbaru. The researcher chose this place because the researcher had already done observations in the school when she did teaching practice (PPL), so the researcher was familiar with the students and the school environment. This research was conducted on March 2018.

3.3 Population and Sample of the Research

3.3.1 Population

Population had a main role that could be a target of investigation and the objective the process of data collection of the research. According to Salkind (2012:95), a population is a group of potential participants to whom you want to discover a result of a study. It means that, the group of students that will be participated in the research. In other hand, Prabhat & Mishra (2015:40) define Population as the whole accumulation of observations, which is the parent group from which a sample is to be formed. It shows that, population means that all of groups of students before being sampled.

The population of this research was all the third students in SMK KANSAI Pekanbaru. The amount number of population was 273 students. The population consisted of 9 (nine) classes. The population can be seen in the following table:

Table 3.1 Population of the Research

Class	Population	Male	Female
XII LK	15	15	0
XII MO 1	36	36	0
XII MO 2	38	38	0
XII MC 1	18	18	0
XII MC 2	32	32	0
XII TKJ 1	32	24	8
XII TKJ 1	31	25	6
XII AK	31	6	25
XII ADP	40	2	38
TOTAL	273	192	77

Note:

LK : Listrik

MO : Mesin Otomotif

MC : Motor Cycle

TKJ : Teknik Kmputer dan Jaringan

AK : Akuntansi

ADP : Administrasi Perkantoran

3.3.2 Samples

Sample is groups that get to represent the population. According to Salkind (2012:95), a sample is a part of that population. On other hand, Prabhat & Mishra (2015:41) define Sampling means selecting a given number of subjects from a decided population as representative of that population. So, sample is a little part of the population that will be subject of the research.

In this research, the researcher used Cluster Random Sampling. Cluster random sampling was used when in population found some group. It means that the population was divided into groups or units based on cluster not individually. Meanwhile, random here means that every students have the same chance chosen as sample according to their cluster. This is in line with Kothari (2004: 60) stated that random sampling refer to the sample that same composition and characteristics in population.

Based on the explanation above, the researcher made lottery to take the sample. First, the researcher writes all class names in piece of paper and put one of them and the researcher gets XII MO (Machine Automotive) 2 class as the sample that the number of students is 38. Thus, the sample of this research involves 38 students of XII MO (Machine Automotive) 2 class of the third grade students of SMK KANSAI Pekanbaru.

3.4 Research Instrument

Instrument used in this research was a test. There were 20 items in the test. For this research, the researcher used multiple choice item tests. It consisted

of verbs, adjectives in antonyms and synonyms. The test was given to the third grade students of SMK KANSAI Pekanbaru.

The instrument of the questions in the research is enclosed in Table 3.4 below. The kinds of questions and numbers that dealt with the research questions are explained in the table below.

Table 3.2 Instrument of Research

Indicators	Sub - Indicators	Number of Items
1. Antonyms	Verbs	1,2,3,4,5.
	Adjectives	6,7,8,9,10.
2. Synonyms	Verbs	11,12,13,14,15.
	Adjectives	16,17,18,19,20.
TOTAL		20

3.5 Data Collection Technique

The researcher used measurement technique in collecting data. The researcher gave test in form multiple-choice test. The tests consisted of 20 multiple choice items, which were used for giving interpretation toward data in tabulation. To get the accurate data, there were some stages of research that were done. Those stages are explained as follows:

1. The researcher asked permission to the Dekan of FKIP UIR for doing a research.
2. The researcher asked permission to the headmaster of SMK KANSAI Pekanbaru to do this research.

3. Then, the researcher asked permission to the English teacher of the third grade students of SMK KANSAI Pekanbaru for conducting the research.
4. After getting the permission for conducting the research, the researcher gave a test, especially multiple choices to the students to find out the data of vocabulary knowledge in the students.

3.6 Data Analysis Technique

Analyzing data is the process of analyzing the acquired from the result of the research. The data which was needed in this research is the knowledge of English vocabulary of the third grade students of SMK KANSAI Pekanbaru. The data obtained from the test were tabulated and classified. The following formula was used to know the percentage of the students' vocabulary knowledge.

Where:
$$FV = \frac{R}{N} \times 100$$

Note: FV = Difficultly Level.

R = the Number of Correct Answer.

N = Number of Respondent.

Heaton (1975:172)

1. After the data had been ready to be analyzed, the researcher interpreted the data by using the table.
2. Finally, the results of analyzing data were drawn in conclusion. To get the score of each students in the test, the researcher used the formula:

$$F.V = \frac{R}{N}$$

Where: F.V = Facility Value (index of difficulty)

R = the number correct answer

N = the number of respondents

Heaton (1975:172)

3. To know the level of students' ability in vocabulary knowledge, the researcher used percentage grading based on the following classification. According to Heaton (1975:98), stated that classify the score of the students that is excellent if they get score between 90 until 100, very good if they get score 80 until 89, good if students score 70 until 79, fair if they get score 60 until 69, and poor if students score 0 until 59.

Table 3.3 Classification of Students' Score

No.	Score Range	Classification
1.	90% - 100%	Excellent
2.	80% - 89%	Very Good
3.	70% - 79%	Good
4.	60% - 69%	Fair
5.	≤ 59%	Poor

Heaton (1975:98)