CHAPTER III

RESEARCH METHODOLOGY

This chapter discussed the following points, which were method of the research, research variable, operational definition, population and sample, technique for collecting the data, and technique for analyzing the data.

A. Method of the Study

In this study, the writer used quantitative research with correlational design. A correlation was a statistical test to determine the tendency or pattern for two (or more) variables or two sets of data to vary consistently (Creswell, 2012). In addition, Ibrahim et al., (2018), state that the correlation was the technique of data analysis in quantitative research which used to find out the correlation between two variables or more. The correlation was indicated by correlation coefficient represented with numbers from 0 to 1 showing the degree of relationship, and the direction of the correlation indicated with (-) showing negative correlation and (+) showing positive correlation.

So, from several definitions of correlation above, the writer concluded that, correlation was a research design to measure there was correlation or not between two or more variables. In this study, the writer used this method to measure there was a correlation or not between students' attitude toward blended learning and their achievement.

B. Variable of the Study

According to Rashid et al., (2018), a variable was the conditions or characteristics that an experimenter manipulates, controls or observes. In this

study there are two variable, namely independent variable (X) and dependent variable (Y). Creswell (2018), states that independent variables are those that (probably) cause, influence, or affect outcomes. They were also called treatment, manipulated, antecedent or predictor variables. Although dependent variables were the response or the criterion variable presumed to be caused by or influenced by the independent treatment conditions and any other independent variables. So, the variable in this study showed in the chart below.

C. Operational Definition

There were four major terms which needed to be defined operationally for the purposed study, they were:

a. Correlation was a method used to determine the level of the relationship between two or more variables.

b. Students' Attitude was the students' feeling after experiencing or participating in an blanded learning program using a mobile phone or computers.

c. Blended Learning was a method in teaching learning process with combine the modern learning (online learning) and traditional leraning (face to face).

d. Students' Achievement was the learning outcome to know the extent to which a students has achieved their educational goals that can be measure by standarized test such as students' original score in final examination.

D. Population and Sample

1. Population of the Study

Rashid et al., (2018) state that a population or a universe or an aggregate was any group of individuals (which may mean individual persons or individual

objects) that had one or more characteristics in common that are of interest to the researcher. So, the writer concluded that population was a group of individuals or items that have some characteristics from which data can be gathered and analyze. This study conducted in the eleventh grade students at SMK N 1 OKU. The data of the subject in this study showed in the following table.

Table 1 Population of the Study

No	Class	Number of Students
1	XI Financial Institution Accounting Class 1	36
2	XI Computer and Network Engginering Class 1	36
3	XI Computer and Network Engginering Class 2	36
4	XI Computer and Network Engginering Class 3	36
5	XI Multimedia Class	36
6	XI Business Bold Marketting Class	36
7	XI Office Management Automation Class 1	36
8	XI Office Management Automation Class 2	36
9	XI Office Management Automation Class 3	35
Total		**323**

(Source of data: SMK N 1 OKU in Academic Year 2021/2022)

2. Sample of the Study

According to Rashid et al., (2018), a sample was a sub-set of objects/things/units taken from the population complete set) for observation and study. In this study, the writer used purposive sampling. Ragab and Arisha (2018) state that purposive/judgment sampling was using judgement to select particularly

informative individuals would enable the researcher to meet research objectives. In this case, the writer choosed XI Computer and Network Engginering Class as a sample, with the reason because this class is generally apply blended learning to support their learning environment. In this class, apllied learning method with combine between modern learning using technology and traditional learning face to face. So, it was suittable for the writer to choosed this class as a sample of this study. The data of sample in this study showed in following below.

Table 2 The Sample of the Study

No	Class	Number of Students
1	XI Computer and Network Engginering Class 1	36
2	XI Computer and Network Engginering Class 2	36
3	XI Computer and Network Engginering Class 3	36
Total		**108**

(Source of data: SMK N 1 OKU in Academic Year 2021/2022)

E. Technique for Collecting Data

In quantitative data collection, the writer used an instrument to measure the variables in the study. An instrument was a tool for measuring, observing, or documenting quantitative data. It contains specifict questions and response possibilities that you establish or develop in advance of the study (Creswell, 2018). In this study the writer used questionnaire and documentation as instrument. Questionnaire was a set of questions used to collect data. Questionnaires cound be administered face-to-face by an interviewer, over a telephone, on the web or by self-completion. Ragab and Arisha (2018) state that, a

questionnaire was a general title that includes methods in which each person was asked to respond to an identical set of questions in a predetermined order at a certain point in time.

In this study, questionnaire used to gain the data from the respondents and to measure students' attitudes toward blended learning. To obtain the information about students' attitudes, there were ready-made close ended questions of students' perception questionnaires developed by Aladwan et al., (2018) that administered using form.

Table 3 Specification of the Questionnaires

Objective	Aspects	Number of Item	Total
To find out students' attitude of blended learning	1. Attitude of students of blended learning	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	13
	2. Students' negative attitudes of blended learning	14, 15, 16, 17, 18, 19, 20, 21, 22, 23	10
	3. Understanding the need for blended learning	24, 25, 26, 27, 28, 29, 30, 31, 32, 33,34	11
Total			**34**

Source by: Adopted from Aladwan et al., (2018)

While documentation used to get the data of students' original score of Final Examination to find out the students' achievement in English learning. The writer took the students' score from the students' English test score in the second semester of SMK N 1 OKU in academic years 2021/2022.

F. Technique for Analyzing Data

According to Creswell (2018), the process of data analysis involved making sense out of text and image data. It involves prepared the data for analysis conduct different analysis, move deeper and deeper into understand the data, representing the data, and making an interpretation of the large meaning of the data. So, data analysis was a technique to representation and interpretation of data which got from the questionnaire before.

To know students' attitude toward blended learning, the writer administered a questionnaire. In this study, the writer used SPSS 26 to process the data obtained from the questionnaire and to find out the correlation between students' attitude toward blended learning and their learning achievement. The data obtain from the questionnaire analyzed using SPSS 26 with descriptive statistics. Before analyze the questionnaire using SPSS, the writer used Guttman scale to count the result of questionnaire, in following below.

Table 4 Guttman Scale to Count the Questionnaire

Response	Value
Yes	1
No	0

Source by: Pranatawijaya et al., (2019)

After know the students' attitude toward blended learning, the writer analyze the students achievement in English learning. To analyze the criteria of students' achievement, the writer used criteria of students' score by Isa (2017). The criteria showed in the following table below:

Table 5 The Criteria of Students' Score

Range	Category
80 – 100	Excelent
70 – 79	Good
56 – 69	Average
40 – 55	Poor
< 40	Fail

Source by: Isa (2017)

After that, to find out the coefficient correlation between students' attitude toward blended learning and their achievement, the writer used the formula of Product Moment by Pearson. The statistical analysis done by using SPSS 26. Coefficient correlation was consulting with the table of coefficient correlation iterpretation of r table. The meaning of r table showed by using the interpretation of r value as follows:

Table 6 The Interpretation of r-value

Coefficient Interval	Correlation Degree
0.00 – 0.199	Very Low
0.20 – 0.399	Low
0.40 – 0.599	Middle
0.60 – 0.799	High
0.80 – 1.000	Very High

Source: Malik (2018)