

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter presents the method that use to collect the data of research. It consists of the research design, the population and sample, the research instrument, the data collection technique, and the data analysis technique.

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

This research design is correlational research as one of quantitative research. Creswell (2002) defines that correlational research is statistical test to determine the tendency or pattern for two (or more) variables or two sets of data to vary consistently. It means that the researcher uses the correlation statistical test to describe and measure the degree of relationship between two variable of this research. In correlational research there are two parts of design, that are explanatory design and prediction design. However, in this research the researcher use explanatory design because the researcher explained the two variable of this research. Creswell (2012) defines that explanatory research design is a correlational research design in which the researcher is interest in the extent to which two variables (or more) covary, that is, where changes in one variable are reflected in changes in the other. The elaboration from experts above strengthens the reason why correlation method is perceived the best to reach the goals of this study.

## **B. Population and Sample**

Population and sample are two things that must be considered by the researchers when conducting research. Population is a group of individuals who has same characteristic and sample is a sub group of population that the researcher will learn in her/his study for generalizing about the target population (Creswell, 2012). Shone (2015) also mentions that population is the potential respondents of interest and sample is the respondents who selected from population to be observed. Population and sample are important to researcher to collect the data.

The population of this research is the students of second semester academic year 2018/2019 in English Department of IAIN Kediri. There are seven classes which consist of 30-35 students in each class and 30 students to try out the reading comprehension test. The researcher use simple random sampling to decide the sample. From the total population is 240 students, the researcher took 30% of it and get approximately 72 for the sample of this research.

## **C. Instrument the Research**

Instrument is needed by the research because it is a tool to help the researcher collect and analyze the data. Creswell (2014) says that an instrument is a tool for measuring, observing, or documenting quantitative data. The instrument may be a test, questionnaire, tally sheet, log, observational checklist, inventory, or assessment instrument. In this study, the researcher uses a test and questionnaires as the instrument of the research.

**Table 3.1 Blue Print of Reading Comprehension Test**

No	Indicator	Number of Items	Total
1	Literal Comprehension	Finding Details 2, 4, 5, 7, 9, 12, 14, 15, 19, 22, 23, 40	12
2	Inferential Comprehension	Inferring Main Idea 1, 3, 10	3
		Inferring Referents of Pronouns 6, 8, 10, 13, 17, 20, 27, 28, 29, 30, 31, 34, 39	13
		Drawing Conclusion 11, 18, 32, 33, 35	5
3	Critical Comprehension	Making Judgement 21, 24, 25, 26, 36, 37, 38	7
Total			40

The first instrument that used in this research is test. Tests are commonly used in quantitative research to measure attitudes, personality, self-perception, aptitude, and performance of research participant. According to Brown (2004), Test is a method of measuring person's ability, knowledge, or performance in given domain. In order to measure the students' ability, the researcher uses test. Test is important point in this research because the researcher wants to know the students' ability in reading comprehension. The researcher also used this instrument to identify the percentage of the students' ability in reading comprehension. The test of reading comprehension to collect the data about students' reading comprehension.

The researcher adapts some of the questions from practice test book for the TOEFL standart test. In this research, test is used to collect the data of students' reading comprehension that consists of 40 multiple choice items.

Before the test was given to the students, the researcher try to hold a tryout to make sure the test instrument is valid and reliable. In general, Validity refers to how accurately a method measures what it is intended to measure. If research has high validity, it produces results that correspond to real properties, characteristic, and variations. R-table at a significance value of 5%, if in each item of test the value of  $r\text{-count} > r\text{-table}$  then the item is said to be valid. Reliability is the degree to which a test consistently measures whatever it measures. The reliability test is referring to the alpha value, if the alpha value is greater than the r-table with a significance of 5% then the test instrument is reliable.

The score of validity and reliability test was analyze by using SPSS 22 version, from 40 items, 36 items are valid and 4 items are invalid. The invalid items are item number 6, 11, 22, and 37 and for main data the writer only took 25 valid items with the reliability value of Cronbach's Alpha 0.925. The complete result can be seen in appendix 4.1.

**Table 3.2 Blue Print of Reading Interest by Shaleh and Wahab**

No	Indicator	Sub-indicator	Number of Item		Total
			Positive	Negative	
1	Internal and social motivation	Focusing attention	1, 5	15	3
		Curiosity	8, 12	2	3
		Time spending	18	20	2
		Effort	13, 17		2
		Concluding	3, 19	6, 10	4
2	Emotional Factors	Pleasure	4	14	2
		Enthusiasm	9	16	2
		Impression	7,11		2
		Total			20

Beside the test, questionnaire is also the instrument that is used by the researcher. According to Maksum (2012), questionnaire is a group of questions which is used to state information that can be opinion or fact. It consists of statements and alternative answers for the students. It is used by the researcher in identifying and knowing the percentage of students' reading interest. Creswell (2002) states that on questionnaires, you ask some questions that are close ended and some that open ended. So, the researcher give some questions to the students, and the students are guided by the researcher to check on the blank box of the table.

The researcher adopts the questionnaire from Shaleh and Wahab (2004). Its consist of 20 items. The questionnaire using indicators which is proposed by Shaleh and Wahab (2004). It uses 5 alternatives answer based on Likert Scale types. Negative statement is on scale 1-5, in which 5 indicates no frequency and 1 reflects the most frequency. On the contrary, for positive statement, the rate is on scale 5-1, in which 5 indicates that they always do such kind of reading or the most frequency and 1 indicates that they never do such kind of thing in the questionnaire. For more details, the scale of reading interest questionnaire is presented in the following table.

**Table 3.3 Category Score of Likert Scale**

<b>Statement</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Positive	5	4	3	2	1
Negative	1	2	3	4	5

#### **D. Data Collection Technique**

The researcher used the google form to collect the data from students. Hence, students are given the link to login on <http://forms.gle/kwjsG8oUoUjr8AKw7> and answer the questionnaire and test of reading. As a result, the researcher was a captured or screenshot. The complete result can be seen in appendix 8. There are some techniques in collecting the data for this research they are test and questionnaire.

The first data collection of this research is test. This instrument is used by the researcher to get the data about the students' reading comprehension. The researcher used this instrument to know the percentage of their reading comprehension. The researcher tried out the reading test first, consists of 40 items. In this test there are 36 valid items from the result of try out test, the writer only took 25 items for main data and those were taken from practice test book for the TOEFL standart test.

The second data collection of this research is questionnaire. This instrument is as supporting instruments for the test. In this research, the researcher distributed the questionnaire to the students to know their reading interest score. The scoring of this questionnaire uses likert scale types. Likert's Scale was use to measure attitude, opinion, perception based on certain object or phenomenon. In this research, the researcher adopts the questionnaire from Shaleh and Wahab (2004). Its consist of 20 items that indicated the students' interest, 13 positive items and 7 negative items. The scoring for positive items are always (five points), often (four points),

sometimes (three points), seldom (two points), never (one point). In contrast, scoring for negative items are always (one point), often (two points), sometimes (three points), seldom (four points), never (five points). The questionnaire were given to the students consist of three indicators. The indicators are taken from Shaleh and Wahab (2004) about reading interest, they are: Internal motivation, Social motivation and Emotional factors.

In this research, the researcher asked the students to select one of the choices of any single items that they think and feel nearly match with their condition. The researcher used five options of the answer in order to the answer more effective reading reflecting the respondents life. They are consist of perception “always” on poin number 1, “often” on poin number 2, “sometimes” on poin number 3, “seldom” on poin number 4, and “never” on poin number 5.

#### **E. Data Analysis Technique**

The data analysis is the method that is used by the researcher to analyze the data from the research. After the data from reading interest and reading test were obtained, the first the researcher calculated the score of questionnaire. The questionnaire scoring procedure was to add up the number circled by students for each item as students’ total score. Then, analyze the descriptive statistic use SPSS 2.2 version to get the number of samples, the minimum score, the maximum score, mean, and standard deviation were obtained. Then, to interpret the level of students’ reading interest is shown in table below:

**Table 3.4 Level of the Students' Interest**

<b>Score</b>	<b>Categories</b>
76-100	High
60-75	Average
0-59	Low

The second, the researcher calculated the reading comprehension test score. Every correct answer gets 1 point to each number and gets zero for incorrect answer. The researcher calculated the result of students' reading comprehension test taken from the numbers of the right answer divided to the total number of the test then times 100. For the reading comprehension test, the researcher also analyze the descriptive statistic of reading comprehension score. Based on students' score qualification is used to see whether the students have good, fair, less and bad is shown in table below:

**Table 3.5 The Participants Score**

<b>Interval</b>	<b>Categorizes</b>
76-100	Good
56-75	Fair
40-55	Less
0-39	Bad

Before calculating the correlation between two variables. The researcher tries to conduct the testing requirement analysis such as the normality. This normality test is to know whether the data is normal or not because the normality data test that will decide the researcher in using parametric or non-parametric statistic. The technique that is used to test the normality data is Kolmogorov-Smirnov in SPSS 2.2 version. After the data was normal, the researcher calculated the data of students' reading interest



and their reading comprehension scores using *Pearson Product Moment Correlation* in the same program.

The last analysis is correlation testing. The correlation analysis is used to look for whether there is correlation or not between two variables. The result of correlation coefficient is then being interpreted to find out the strenght. The following is to interpret the result of correlation coefficient. The table can be seen below:

**Table 3.6 The Standart of Coefficient Correlation**

<b>Coefficient correlation</b>	<b>Interpretation</b>
0.800 – 1.000	Very high
0.600 – 0.800	High
0.400 – 0.600	Average
0.200 – 0.400	Low
0.000 – 0.200	Very low