

## **CHAPTER III**

### **RESEARCH METHOD**

This chapter presents the description of research method that includes research design, population and sample of the research, research instruments, data collection, and data analysis.

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

In conducting this research, the researcher uses correlational design. This is a kind of quantitative research which is concerning about seeking the correlation between two or more variables. Quantitative research is based on the measurement of quantity that is concluded based on research data. The data gathered are described numerically and the data are accounted to be heterogeneous and having different level of variations (Latief, 2015). This correlational research is quantitative non-experimental research which explain things that have occurred and examined relationship between things without any treatment of manipulation. The focus of the research is based on research data collected from all the sample that represent all the population.

Then this correlation research implements the testing of theory, quantitative research generates statistics through the use of research of survey. So that, this research is aimed to know whether there is a significant correlation between students' reading comprehension skill and personality type. Moreover, this also investigates that there is significant

difference achievement in students' reading comprehension between introvert and extrovert students.

### **B. Population and Sample**

According to Gay & Diehl (1992), research types also effect to the how big is the sample size. The sample size is presented as follow:

- 1) For descriptive research, the sample size is minimally 10% -20% of the population depends on the number of population.
- 2) The sample size for correlational research is minimally 30% from all subject population.
- 3) For causal-comparative is minimally 30 participants each group, the same as experimental research. For experimental research with tight experimental controls, the sample size is minimally 15 participants each group.

**Table 3.1**  
**The Population of The Research**

Class	The Number of Students
A	32
B	30
C	12
D	32
E	33
F	34
G	9
Total	182

The researcher wanted to investigate whether there is significant difference between introvert and extrovert students in reading

comprehension result and also whether there was a significant correlation between personality and reading comprehension. The participants were the second semester students of IAIN Kediri. There were 182 students counted as the population of this research. In order to determine the sample of this research, the researcher used the Gay & Diehl's (1992) formula. So, there were 55 students ( $30\% \times 182 = 54.6$ ) as the sample of this research.

### **C. Research Instrument**

The researcher needs a tool in conducting the research. The tool is called instrument. There are some kinds of instruments such as questionnaire, checklist, interview guide, and so on. In this research, the researcher used a questionnaire and reading test. The details of those instruments are as follow:

#### **1. Personality Questionnaire**

To measure the degree of students' introversion-extraversion personality type, the researcher used a questionnaire. The questionnaire used by the researcher was adopted from questionnaire developed by Carter (2005). This personality questionnaire was also used to determine the introvert and extrovert students. This questionnaire was closed-ended questionnaire which provided options to be chosen. There were three scales which were categorized into highly, average, and poorly introvert. The options in the questionnaire were constructed based on the scale. There were three options of statements that represented each scale in the

questionnaire. The participants were asked to choose the statement that was most appropriate with their own personality type.

The questionnaire adopted from Carter (2005) was measured based on the measured components on the following indicators:

**Table 3.1**  
**Blueprint of Introversion-Extraversion Personality**

No.	Aspects	Indicators	Questionnaire items
1	Sociability	Reserved and distant except to intimate friends	1, 4, 6, 9, 21
2	Excitements	Do not like excitement, distrust the impulse of the moment/event	2, 3, 11, 17, 23
3	Expenditure of energies	Reliable, take matters of everyday life with proper seriousness, pessimistic, quiet, retiring sort of person, and introspective	5, 12, 14, 18, 22
4	Risk-taking/ planning	Plans ahead, look before they leap, like a well-ordered mode of life	7, 8, 15, 19, 25
5	Interests in internal events	Fond of books rather than people and reading/writing rather than speaking	10, 13, 16, 20, 24

There were 25 questions items from the questionnaire which covered five different aspects of introversion-extraversion personality. Nevertheless, the researchers needed to modify several items in order to adjust to the Indonesian and campus culture context of the respondents as undergraduate degree of Islamic college. The items were 13, 19, 23, and

24 The data of the questionnaire were calculated by summing up the scores, in which each participant's choice on option a was scored 1, option b was scored 0, and the last option c would be scored 2.

**Table 3.3**  
**Scoring of Introversion-Extroversion Test**

Score	Indicator	Categorization
40-50	Extrovert Quiet	Extroversion
25-39	Extrovert	
Less than 25	Introvert	Introversion

## 2. Reading Comprehension Test

Reading test was adopted from Reading Comprehension Section test from TOEFL ITP Test from Longman (see appendix). The test consisted of 50 question in multiple choice form. The reading test section measures students' ability to read and comprehend academic texts that the students might come across in the academic environment. The reading test included 5 reading passages, with 9 to 10 questions each. The students had 60 minutes to answer all the questions.

**Table 3. 4**  
**The Specifications of Reading Test**

No	Indicators	Sub-indicators	Number
Part 1			
1	Finding ideas of the passage	Answer main idea questions correctly Recognize the organization of ideas	1, 11, 12, 21, 32, 41 44
2	Directly answered question	Answer stated detail questions correctly	2, 6, 8, 13, 17, 25,

			28, 35, 36, 42, 46
		Find unstated details	8, 15, 34
		Find pronoun referents	39
3	Indirectly answered questions	Answer implied detail questions correctly	6, 19, 21, 40, 48
4	Vocabulary questions	Find definitions from structural clues	23, 33, 37, 43, 47
		Determine meanings from word parts	7, 20, 24, 27, 45
		Use context to determine meanings of difficult words	4, 14, 16, 26, 29, 31, 49
		Use context to determine meanings of simple words	3, 5, 9, 18, 38,
5	Overall review questions	Determine where specific information is found	10, 31, 50

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Then, the reading assessment also adopted the TOEFL ITP reading assessment from Longman. Then, the score would be assessed using this following formula:

$$\text{Score} = \text{Right Answers} \times 2$$

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

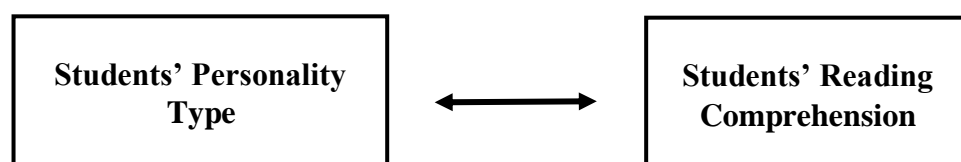
In collecting the data, the researcher uses some steps. The steps are as follow: The first step is distributing the questionnaire to the participants. In this step, the researcher distributed the questionnaire online at <http://bit.ly/extrotest>. The second step is conducting reading test. The reading test conducted online for 60 minutes at <http://bit.ly/ToeflReading>. Then, the researcher downloaded the file of the test from Google Drive and calculated the score. The third step is distributing the questionnaire to the participants. After getting the data from the questionnaire, the researcher

went to the last step which were scoring and tabulating the data of questionnaire and reading comprehension of students in *Ms. Excel* program.

### **E. Data Analysis**

In quantitative approach, data analysis is activity that is done after the data sources are collected. The data analysis technique in quantitative approach uses statistic method and analyzed using Statistical Program for Social Science (SPSS) 21.0 and Microsoft Office Excel 2016 to deal with the computing manner and to get further insight of each variable by tabulating the score of each variable.

To find the correlation between students' personality and their reading comprehension skill, the researcher analyzed the correlation of the variable data by using *Product Moment Correlation* if the distribution of the data was normal. Meanwhile, if the distribution data was not normal, the researcher used *Kendall's Tau Correlation*. Before that, the researcher calculated the statistical analysis consisted of test of normality using *Kolmogorov-Smirnov Test*.



To determine the correlation between two variables, there are standards of coefficient correlation. The score correlation is around 0 to 1, whether positive or negative. If the score correlation  $> 1$ , it means that there is wrong calculation. Then, if the score correlation is labeled negative, it shows that

the correlation between two variables is negative (Priyatno, 2018). To seek the correlation coefficient, the researcher used correlation formula below.

$$r_{xy} = \frac{N \cdot \sum x.y - (\sum X)(\sum Y)}{\sqrt{[N \cdot \sum X^2 - (\sum X)^2] [N \cdot \sum Y^2 - (\sum Y)^2]}}$$

where:

$r_{xy}$  = correlation coefficient between variable X and variable Y

$x$  = standard deviation of variable X mean score

$y$  = standard deviation of variable Y mean score

$\sum x.y$  = total of multiple of X and Y

$X^2$  = square of X score

$Y^2$  = square of Y score

$N$  = the total of observations

The interpretation of the coefficient correlation is presented in the table below:

**Table 3.5**  
**Table of Standard of Coefficient Correlation**

No	Coefficient Correlation	Meaning of Interpretation
1	0,00 – 0,199	Very Weak Correlation
2	0,20 – 0,399	Weak Correlation
3	0,40 – 0,599	Moderate Correlation
4	0,60 – 0,799	Strong Correlation
5	0,80 – 1,000	Very Strong Correlation