## CHAPTER III

## RESEARCH METHODOLOGY

## A. Research Design

This research is a quantitative research. It uses a correlational research design. Creswell (2012) indicates in correlational research design, investigators use the correlation statistical to describe and measure the degree $\pi_{0}$ of association (or relationship) between two or more variables or sets of score. In brief, there are two variables in this research, the independent variable, and dependent variable. The independent variable is students' conscientiousness personality symbolized by " X " and the dependent variable is English achievement symbolized by "Y". This research would like to measure the degree of association or correlation among conscientiousness personality and English achievement at the eleventh grade student of senior high school 3

## B. Time and Location of the Research

This research was conducted at Senior High School 03 Mandau which is located on J1. Tuanku Tambusai, Simpang Padang Mandau. This research was held in April 2019.

1. Subject of the Research

The subject of this research is the eleventh grade students at Senior High School Mandau.
2. Object of the Research

The object of this research is the correlation between the students' conscientiousness personality and their English achievement.
D. Population and Sample of the Research

1. Population

The population of this research is all the eleventh grade students of Senior High School 03 Mandau. It has 12 classes: the number at the eleventh grade students of Senior High School 03 Mandau are 417 students. The specification of the population can be seen as follows:

Table III. 1
The Population of the Eleventh Grade Student of Senior High School 03 Mandau Duri

| NO | CLASS | NUMBER OF STUDENTS |
| :---: | :---: | :---: |
| 1 | XI MIPA 1 | 36 |
| 2 | XI MIPA 2 | 36 |
| 3 | XI MIPA 3 | 36 |
| 4 | XI MIPA 4 | 36 |
| 5 | XI MIPA 5 | 35 |
| 6 | XI MIPA 6 | 35 |
| 7 | XI IPS 1 | 34 |
| 8 | XI IPS 2 | 34 |
| 9 | XI IPS 3 | 34 |
| 10 | XI IPS 4 | 34 |
| 11 | XI IPS 5 | 33 |
| 12 | XI IPS 6 | 34 |
| TOTAL |  | $\mathbf{4 1 7}$ |

2. Sample

The population for this research is large enough to be taken all as the sample. According to Arikunto (2006.p.134) If the population more than 100 , the sample is taken between $10-15 \%$ up to $20-25 \%$ as the sample. So,




based on the idea the writer took $15 \%$ for each class to be the sample by using Simple Random Sampling. According to Creswell (2008.p.143) Simple Random Sampling, the researcher selected participants for the sample so that any individual had an equal probability of being selected from the population.

Table III. 2
Sample of the Research

| NO | CLASS | NUMBER OF STUDENTS | SAMPLE |
| :---: | :---: | :---: | :---: |
| 1 | XI MIPA 1 | 36 | 5 |
| 2 | XI MIPA 2 | 36 | 5 |
| 3 | XI MIPA 3 | 36 | 5 |
| 4 | XI MIPA 4 | 36 | 5 |
| 5 | XI MIPA 5 | 35 | 5 |
| 6 | XI MIPA 6 | 35 | 5 |
| 7 | XI IPS 1 | 34 | 5 |
| 8 | XI IPS 2 | 34 | 5 |
| 9 | XI IPS 3 | 34 | 5 |
| 10 | XI IPS 4 | 34 | 5 |
| 11 | XI IPS 5 | 33 | 5 |
| 12 | XI IPS 6 | 34 | 5 |
| TOTAL |  | $\mathbf{4 1 7}$ | $\mathbf{6 0}$ |

echnique of Collecting Data
To collect the data in this research, the writer used the questionnaire and Documentation.

1. Questionnaire

The questionnaire was used to collect the data dealing with Students' conscientiousness personality on their English achievement. The writer will use 4-point Likert Scale because to reduce the respondent to choose neutral (because easy to choose). On this research the writer provided 42 statements. Before the writer distributes the questionnaire to
the sample of this research, the questionnaire was tested by using software of SPSS 20.0 to check the validity and reliability of the questionnaire. According to Arikunto (2002) Shows each point of the scales as follows:

| Strongly Agree | $: 4$ |
| :--- | ---: |
| Agree | $: 3$ |
| Disagree | $: 2$ |
| Strongly Disagree | $: 1$ |

Table III. 3
Blue Print of Conscientiousness Personality Questionnaire

| No | Indicator | Sub-Indicator | Number of Questionnaire |
| :---: | :---: | :---: | :---: |
| 1 | Competence | Efficient, self confident, thorough, resourceful, confident, intelligent, -confused | $1,3,5,7,9,11,13$ |
| 2 | Order | Organized, thorough, efficient, precise, methodological, absent-minded, careless | $2,4,6,8,10,12,14$ |
| 3 | Dutifulness | -defensive, distractable, -careless, -lazy, thorough, absent-minded, -faultfinding | $15,17,19,21,23,25,27$ |
| 4 | Achievement -striving | Thorough, ambitious, industrious, enterprising, determined, confident, persistent | $16,18,20,22,24,26,28$ |
| 5 | Self discipline | Organized, -lazy, efficient, -absentminded, energetic, thorough, industrious | 29, 31, 33, 35, 37, 39, 41 |
| 6 | Deliberation | -hasty, -impulsive, careless, -impatient, immature, thorough, moody | $30,32,34,36,38,40,42$ |


 Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporar 6uepun-бuepun !бunpu!!!の еł!! ソен
2. Documentation

According to Arikunto (2006), documentation is one of research instruments that use documents' record (written archive such as books, document, journal and so on) to get the data. In this research, the data about the students' English Achievement were obtained by used list of students' score in 2018/2019 academic year.

The score was documented by English teacher in the school that consists of score assessment aspect of knowledge (written test, assignments) and score assessment aspect of skills (practice tests, projects and portfolio). The category of students' score or English achievement based on curriculum (K13) as follows:

Table III. 4<br>The Category of Students' Achievement

| The Score Level Scale 1-100 | Category | Grade |
| :---: | :---: | :---: |
| $88-100$ | Very Good | A |
| $76-87$ | Good | B |
| $62-75$ | Enough | C |
| $\leq 61$ | Less | D |

## Validity and Reliability

## 1. Validity

Cresswell (2011) stated that validity is the individual's score from an instrument that make sense, meaningful; enable you, as the researcher, to draw conclusion from the sample you are studying to the population. It means that validity is the extent to which inference made from assessment
results are appropriate, meaningful, and useful in the terms of the purpose of the assessment.

## a. Validity of Questionnaire

The validity is the individual's scores from an instrument that make sense, meaningful, enable you as the researcher to draw good conclusion from the sample you are studying to the population (Creswell, 2008). It means that validity is the extent to which inferences made from assessment result are appropriate, meaningful, and useful in terms of the purpose of the assessment.

In this research, the researcher used constructed validity. The writer tested the instrument through SPSS 20.0 and the result as follows:

Table III. 5
Validity of conscientiousness personality questionnaire

| No | r obtain | r table | Ket. |
| :---: | :---: | :---: | :---: |
| 1 | 0.279 | 0.254 | Valid |
| 2 | 0.260 | 0.254 | Valid |
| 3 | 0.425 | 0.254 | Valid |
| 4 | 0.264 | 0.254 | Valid |
| 5 | 0.283 | 0.254 | Valid |
| 6 | 0.350 | 0.254 | Valid |
| 7 | 0.304 | 0.254 | Valid |
| 8 | 0.271 | 0.254 | Valid |
| 9 | 0.310 | 0.254 | Valid |
| 10 | 0.274 | 0.254 | Valid |
| 11 | 0.320 | 0.254 | Valid |
| 12 | 0.258 | 0.254 | Valid |
| 13 | 0.270 | 0.254 | Valid |
| 14 | 0.286 | 0.254 | Valid |
| 15 | 0.259 | 0.254 | Valid |
| 16 | 0.458 | 0.254 | Valid |
| 17 | 0.381 | 0.254 | Valid |
| 18 | 0.397 | 0.254 | Valid |
| 19 | 0.471 | 0.254 | Valid |
| 20 | 0.266 | 0.254 | Valid |
| 21 | 0.380 | 0.254 | Valid |
| 22 | 0.364 | 0.254 | Valid |


| No | r obtain | r table | Ket. |
| :---: | :---: | :---: | :---: |
| 23 | 0.273 | 0.254 | Valid |
| 24 | 0.336 | 0.254 | Valid |
| 25 | 0.295 | 0.254 | Valid |
| 26 | 0.281 | 0.254 | Valid |
| 27 | 0.353 | 0.254 | Valid |
| 28 | 0.315 | 0.254 | Valid |
| 29 | 0.344 | 0.254 | Valid |
| 30 | 0.269 | 0.254 | Valid |
| 31 | 0.284 | 0.254 | Valid |
| 32 | 0.266 | 0.254 | Valid |
| 33 | 0.278 | 0.254 | Valid |
| 34 | 0.335 | 0.254 | Valid |
| 35 | 0.276 | 0.254 | Valid |
| 36 | 0.293 | 0.254 | Valid |
| 37 | 0.289 | 0.254 | Valid |
| 38 | 0.317 | 0.254 | Valid |
| 39 | 0.265 | 0.254 | Valid |
| 40 | 0.322 | 0.254 | Valid |
| 41 | 0.338 | 0.254 | Valid |
| 42 | 0.271 | 0.254 | Valid |

## 2. Reliability

Reliability has to do with accuracy of measurement. This kind of accuracy was reflected in obtaining the similar results when measurement was repeated on different or by different person. The characteristic of reliability is sometimes termed consistency (Brown, 2003). And this research is internal consistency reliability. According to Crasswell (2012), internal consistency reliability is the instrument administered once; using one version of the instrument. The table below is the categories of reliability test used in determining the level of reliability of the test.

Table III. 6
The level of Acceptable Reliability

| No | Reliability | Validity |
| :---: | :---: | :---: |
| 1 | $>0.90$ | Very high |
| 2 | $0.80-0.90$ | High |
| 3 | $0.70-0.79$ | Reliable |
| 4 | $0.60-0.69$ | Marginally/Minimally |
| 5 | $<0.60$ | Unacceptably low |

(Cohen,Manion,\& Morison,2007:506)

## a. Reliability of Questionnaire

To obtain the reliability of questionnaire given, the researcher used SPSS 20.0 Program to find out whether the questionnaire was reliable or not.

Table III. 7
Reliability Statistic of Conscientiousness Personality Questionnaire

| Cronbach's Alpha | N of Items |  |  |
| :--- | :--- | :--- | :--- |
|  | .724 |  | 42 |

Based on the table above, it can be seen the value of Cronbach's alpha is 0.824 . The value is higher than the standard Cronbach's alpha which is 0.60. Therefore, it can be concluded the questionnaire is reliable, and the level of reliability is reliable.

## G. Technique of Data Analysis

1. To analyze the data of the students' Conscientiousness Personality, the writer used this following formula:

$$
\mathrm{P}=\frac{f}{N} 100 \%
$$

Where:
P = number of percentage
f = Frequency
$\mathrm{N}=$ number of sample
Riduwan (2011, p.41) indicated the scale to classify the gained percentage of questionnaire as follows:

Table III. 8
Percentage of Conscientiousness personality Questionnaire
2. To analyze the data of students' English achievement, the writer will use this following score category:

Table III. 9
The Category of Students’ Achievement

| The Score Level Scale 1-100 | Category | Grade |
| :---: | :---: | :---: |
| $88-100$ | Very Good | $\mathbf{A}$ |
| $76-87$ | Good | B |
| $62-75$ | Enough | C |
| $\leq 61$ | Less | D |

1) To analyze whether there is any correlation between these two variables (Students' conscientiousness personality and their English achievement), writer analyzed the data by using Pearson Product Moment Formula through SPSS 20.0. The product moment correlation coefficient was obtained by considering the degree of freedom (df) $=$ $\mathrm{N}-\mathrm{nr},(\mathrm{N}=$ number of sample, $\mathrm{nr}=$ number of variable $)$ Statistically, the hypotheses are:
$\mathrm{H}_{\mathrm{a}}:$ Sig. $<\alpha(0.05)$
$\mathrm{H}_{0}: \operatorname{Sig} \geq \alpha(0.05)$
$H a$ is accepted if $r o \geq$ rtable or there is a significant correlation between students＇conscientiousness personality and their English Achievement．

Ho is accepted if ro＜rtable or there is no significant correlation between students＇conscientiousness personality and their English achievement．

Then，the strength of correlation is interpreted based on coefficient correlation in the table below：

Table III． 10
The Interpretation of Correlation Coefficient

| Coefficient Interval | Interpretation |
| :---: | :---: |
| $0.80-1.000$ | Very Strong |
| $0.60-0.799$ | Strong |
| $0.40-0.599$ | Strong enough |
| $0.20-0.399$ | Weak |
| $0.00-0.199$ | Very weak |

Adopted from（Ridhuwan，2010）

