

## **CHAPTER III**

### **RESEARCH METHODS**

This chapter presented the operational definition, method of study, population and sample, techniques data, techniques analysis data, validity and reliability

#### **a. Methodology**

##### **1. Method of the study**

To obtain the data needed in this study, the writer uses several data collection methods namely as follows :

##### **a. Test**

Margono (2009:170) stated that test is a set of stimulation which intent to obtain an answer that can be used as the basis for correction score point. Researcher used the test method. In using the test method, the researcher took all students to write in printed form. Steps from data collection are explained as follows:

- a. Prepare research instruments.
- b. Give tests to students. The test is given once.
- c. Collect the data in written form.
- d. Read and analyze the student writing

The test is a collection of questions given to students in some forms such as oral which can be called an oral test, written which is usually called a test written and in action. Actually the test is used to assess the results learning from students

related to cognitive abilities, namely mastery teaching materials in accordance with the objectives of education and teaching.

## **b. Population and Sample**

### **1. Population of the study**

Creswell (2018) population is a group of individuals who have the same or relatively similar characteristics, Rashid et al., (2018) stated that a population or a universe or an aggregate is any group of individuals (which may mean individual persons or individual objects) that has one or more characteristics in common that are of interest to the researcher. So, the writer concludes that a population is a group of individuals or items that have some characteristics from which data can be gathered and analyze.

The data of the subject in this study would show in the following table.

**Table 1 Population of the Study**

| <b>No</b> | <b>Class</b>     | <b>Total</b> |
|-----------|------------------|--------------|
| <b>1.</b> | <b>X IPS 1</b>   | <b>30</b>    |
| <b>2.</b> | <b>X IPS 2</b>   | <b>30</b>    |
| <b>3.</b> | <b>XI IPS 1</b>  | <b>29</b>    |
| <b>4.</b> | <b>XI IPS 2</b>  | <b>31</b>    |
| <b>5.</b> | <b>XII IPS 1</b> | <b>29</b>    |
|           | <b>TOTAL</b>     | <b>149</b>   |

*(Source of data: SMA Muhammadiyah Martapura in Academic year 2022/2023)*

## 2. Sample of the Study

According to Rashid et al., (2018), a sample is a subset of objects/things/units taken from the population complete set) for observation and study. In this study, the writer would use convenience sampling. Creswell (2018) states that in convenience sampling the writer selects participants or respondents that are chosen based on their convenience and availability. In this case, the writer cannot say with confidence that the individuals are representative of the population.

**Table 2 Sample of the Study**

| No | Class        | Total     |
|----|--------------|-----------|
| 1. | X IPS 1      | 30        |
| 2. | X IPS 2      | 30        |
|    | <b>Total</b> | <b>60</b> |

*( Source of data : SMA Muhammadiyah Martapura In AcademicYear2022/ 2023)*

### c. Technique for Collecting Data

#### 1. Validity

Validity is an important key to effective research. Validity is defined as the extent to which a concept is accurately measured in quantitative study (Heale & Twycross, 2015). It is defined as measuring research concept accurately. A test can be said validity the test measure the object to be measure and suitable with the criteria. In this study, the writer would use content validity. To have a content validity, the instruments are representative of some defined universe or domain of content. Content validity is the extent to which a measuring instrument provides adequate coverage of this topic under study. Content validity refers to the instrument must show that fairly and comprehensively cover the domain or item.

**Table 3 Specification Table of Test**

| <b>Objective</b>                                                     | <b>Indicator</b>                                 | <b>Test taker/ level</b>                                          | <b>Topic</b>                                                                                                              | <b>From of test</b> |
|----------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------|
| To find out the students' ability in comprehending a procedure text. | Aim/goal/ingredients, materials, steps, methods. | The test took the students of class X SMA Muhammadiyah Martapura. | The assessment of writing procedure text is seen from several aspects, namely titles, steps, tools names and ingredients. | Writing test.       |

## **2. Reliability**

According to Cohen (2012), “Reliable instruments are instruments , when used several times to measure the same object, will produce the same data”. An instrument is said to be reliable if it gives constant or consistent result if it is tested many times. Reliability testing in this study with involving raters or experts is called the agreement between raters (inter-rater reliability). According to Luoma (2014) inter-rater reliability means that different raters rate performances similarly. They do not necessarily need to agree completely, as two or more raters may see the salience of different features of performances slightly differently. The first rater is the writer and the second rater is teacher English.

| <b>Kappa</b>      | <b>Interpretation</b>           |
|-------------------|---------------------------------|
| <b>&lt;0</b>      | <b>Poor Agreement</b>           |
| <b>0.0-0.20</b>   | <b>Sligh Agreement</b>          |
| <b>0.21-0.40</b>  | <b>Fair Agreement</b>           |
| <b>0.41-0.60</b>  | <b>Moderate Agreement</b>       |
| <b>0.61-0.80</b>  | <b>Substantial Agreement</b>    |
| <b>0.81-0.100</b> | <b>Almost Perfect Agreement</b> |

## 1. Technique for Analyzing Data

The data would analyze by using scoring rubric writing assessment. A scoring rubric is an efficient tool that you to objectively measure student performance on an assessment activity (Cohen, 2012). To check the students' writing test, the writing assessment below:

**Table 5 Scoring Rubric Writing Assessment Below.**

| <b>Component of writing</b> | <b>Score</b> | <b>Level</b> | <b>Indicators</b>                                                         |
|-----------------------------|--------------|--------------|---------------------------------------------------------------------------|
| Content (C)                 | 4            | Very good    | Present the information with chosen detail across the paragraph.          |
|                             | 3            | Good         | Present the information with detail in parts of the paragraph.            |
|                             | 2            | Fair         | Present the information with some details.                                |
|                             | 1            | poor         | Present no clear the information.                                         |
|                             | 4            | Very good    | Good in vocabulary choice.                                                |
|                             | 3            | good         | Error in vocabulary choice a few and do not interfere with understanding. |

|                |   |           |                                                                                               |
|----------------|---|-----------|-----------------------------------------------------------------------------------------------|
| Vocabulary (V) | 2 | Fair      | Error in vocabulary choice are and somethings they interfere with understanding.              |
|                | 1 | Poor      | Many error in vocabulary choice that severally interfere with understanding.                  |
| Grammar (G)    | 4 | Very good | Good grammar.                                                                                 |
|                | 3 | Good      | Error in grammar choice a few and do not interfere with understanding.                        |
|                | 2 | Fair      | Error in grammar choice are and something they interfere with understanding                   |
|                | 1 | Poor      | Many error in grammar choice that severally interfere with understanding.                     |
|                | 4 | Very good | Good spelling, punctuation and capitalization.                                                |
|                | 3 | Good      | Error in spelling, punctuation and capitalization are few.                                    |
|                | 2 | Fair      | Error in spelling, punctuation and capitalization and sometimes interfere with understanding. |

|               |   |      |                                                                                               |
|---------------|---|------|-----------------------------------------------------------------------------------------------|
| Mechanics (M) | 1 | Poor | Error in spelling, punctuation and capitalization and severally interfere with understanding. |
|---------------|---|------|-----------------------------------------------------------------------------------------------|

Cohen, A.D., *Assessing Language Ability in the classroom*. 2<sup>nd</sup> ed. (2012)

To make description of students score the writer uses the score range and criteria.

It shown on the following table:

**Table 6 The score range of criteria**

| Score Range | Predicate  |
|-------------|------------|
| 80-100      | Very Good  |
| 70-79       | Good       |
| 60-69       | Sufficient |
| 50-59       | Poor       |
| <49         | Very Poor  |

(Sudijono, 2012)

Final Score :  $\frac{\text{Score Obtained}}{\text{Max Score}} \times 100 \%$

Where :

X= result of percentage

F= total number of students' score range

N= total number the sample

(Source:Hatch & Farhady, 2015: 43)



## 2.The Tentative Schedule

The tentative schedule is used to help the writer in estimating how long her research can be finished, this schedule can motivate her in order to finish her research in accordance with her schedule. The writer hopes by using tentative schedule, the sequences of activities in this research would be arranged systematically. The tentative schedule is shown in table 7 below:

**Table 7 The Tentative Schedule**

| NO | Phasing of the study                 | Month |   |   |   |   |
|----|--------------------------------------|-------|---|---|---|---|
|    |                                      | 1     | 2 | 3 | 4 | 5 |
| 1  | Preparing of the research            | X     | X |   |   |   |
| 2  | Collecting the Data                  |       |   | X |   |   |
| 3  | Processing the Data                  |       |   |   | X |   |
| 4  | Arrange the Manuscript of the Thesis |       |   |   | X |   |
| 5  | Final Examination                    |       |   |   |   | X |







