# CHAPTER III

# RESEARCH METHODOLOGY

This chapter discussed the operational definition, method of research, population and sample, technique for collecting data, validity and reliability, and index difficulty of the test, technique for analyzing data.

## A. Operational Definition

The title of this research is Students' Ability in Reading Descriptive at MTs Al-Azhar Center Baturaja and the following terms necessary to be define :

1. Ability

   Ability is one of the elements that shape a person's performance. Ability is measured from a person's capacity to do various tasks in a job.

2. Reading

   Reading is the activity of looking at printed words and understanding the information, or the act of saying those words out loud or interpreting those words.

3. Descriptive Text

   Descriptive text is text that contains descriptions of the properties of the object being described. With descriptive sentences, the reader seems to see, hear, and feel for himself what is conveyed in a text.

## B. Method of Research

In conducting this research, the researcher used descriptive qualitative method. According to Sugiyono (2017:147) the descriptive method can be

interpreted as a problem-solving procedure that is solved by describing the current state of the research subject/object (a person, institution, etc.) based on the facts that appear or are as they should be. Arikunto (2014) said that "the research method that only describes variable, indication or even, not rendering to examine some hypothesis".

Based on the explanation above, it can be concluded that the descriptive method with a qualitative approach is a method or way of solving problems in research and describing facts as they should. So, the qualitative descriptive method in this research is a method to determine students' ability to read descriptive texts in class VIII MTs Al-Azhar Center Baturaja.

## C. Population and Sample

### 1. Population of the research

Population is a collection of data that has the same characteristics and is an object of inference. Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. So the population is not only humans but also objects and other natural objects. The population is also not just the amount that exists in the object or subject under study, but includes all the characteristics possessed by the subject or object (Sugiyono, p. 117).

Researcher conduct the research at Mts Al-Azhar Center Baturaja. The population of this research were all students at Mts Al-Azhar Center

Baturaja, which consist of nine classes, namely grades eight. So the total of population are 260 students.

**Tabel 1**

**Population of the Research**

| No | Classes | The Number of Students |
|---|---|---|
| 1. | VIII A | 26 |
| 2 | VIII B | 25 |
| 3 | VIII C | 30 |
| 4 | VIII D | 31 |
| 5 | VIII E | 29 |
| 6 | VIII F | 28 |
| 7 | VIII G | 31 |
| 8 | VIII H | 30 |
| 9 | VIII I | 30 |
| | | 260 |

*Source: Mts Al-Azhar Center Baturaja.*

**2. Sample of the research**

The sample is part of the population that has the same characteristics as the population. The sample is part of the number and characteristics possessed by the population. If the population is large, and the population is not able to study everything in the population, for example due to limited funds, manpower and time, the researcher can use samples taken from that population. What is learned from the sample, the conclusion applicable to the population. For this reason, samples taken from the population must be truly representative (Sugiyono, p. 118).

The sampling technique in this research is Cluster Random Sampling. According to Sugiyono (2017) Cluster Random Sampling is taking sample members from a population that is carried out randomly without regard to

the strata in that population. Cluster Random sampling is a method as well as a technique for taking something from the population using a certain method. This method aims to make members of the population have the same opportunity and opportunity to be selected.

For the technique of taking random sampling can use three ways, namely; lottery, throwing currency and random numbers. in taking the sample the researcher used a lottery sampling technique. the researcher wrote the class names on the paper then randomly took papers so that they got class VIII I.

**Table 2**

**Sample of the Research**

| No | Classes | Number of Students |
|---|---|---|
| 1 | VIII I | 30 |
| | | 30 |

*Source: MTs Al-Azhar Center Baturaja.*

**3. Place of the Research**

The location of this research is the MTs Al-Azhar Center Baturaja which is located Jl. Colonel Wahab Uzir No. 608D, Sukajadi, Kec. East Baturaja, Ogan Komering Ulu Regency, South Sumatra.

## D. Technique for Collecting Data

According to Brown (2004) a test is a method of measuring a persons ability, knowledge, or performance in a given domain. in this research the technique and collecting the data, the researcher used test. the form of the test

is multiple choice tests. the total of test items were 30. It was given after doing the try out the test was distributed to find out and discribe how the eight grade students' ability in reading descriptive text at MTs Al-Azhar Center Baturaja.

## E. Validity and Reliability, and Index Difficulty of the Test

### 1. Validity Test

Validity is the most important idea to consider when preparing or selecting an instrument for use. Fraenkel and Wallen (2012) Validity is refers to the appropriateness, meaningfulness, correctness, and usefulness of the inferences a writer makes. A test in this research is measured by looking to the syllabus. If a piece of research in invalid then it is worthless. Validity is thus a requirement for both quantitative and qualitative/ naturalistic research.

In this research, techniques and data collection is used test. The test was used in this research is a reading test consisting of 30 multiple choice questions. the multiple choices are used in testing the students' mastery in grammar, vocabulary, reading comprehension, and aural comprehension. In creating the test, the descriptive text researcher was make test questions based on the syllabus, where the writer conducts trials by conducting tests. The test consisted of 5 indicators and it was accumulated to 30 points.. In order for the test to have good content validity, the authors arrange the test specifications as follows :

**Table 3**

**Specification of Test Items**

| Material | Basic Competencies | Indicator | The Distribution | Total |
|---|---|---|---|---|
| Descriptive Text | Understanding the social function, text structure, and linguistic elements of descriptive text by stating and asking about descriptions of people, animals, and objects, very short and simple, according to the context of their use. | 1. Identify the meaning in descriptive text. | 9, 19, 25, 27, 29. | 5 |
| | | 2. Identify main idea in descriptive text. | 3. | 1 |
| | | 3. Identify the information contained in descriptive text. | 4, 5, 6, 15, 16, 21, 22, 23, 26, 28. | 10 |
| | | 4. Identify the structure of descriptive text. | 7, 8, 10, 11, 12, 13, 14. | 7 |
| | | 5. Guess the meaning and vocabulary. | 1, 2, 17, 18, 20, 24, 30. | 7 |
| | | | | 30 |

The researcher did try out on May 19th, it was done to non sample students at MTs Al- Azhar Center Baturaja of class VIII.H which was consisted of 30 students. The result of try out was presented on the table below :

**Table 4**

**The Students' Score in Try Out of The Instrument**

| NO | Students Code | Total of Answer | | Score |
|---|---|---|---|---|
| | | TRUE | FALSE | |
| 1 | APA | 22 | 8 | 73,26 |
| 2 | AMA | 26 | 4 | 86,58 |
| 3 | AR | 2 | 28 | 6,66 |

| | | | | |
|---|---|---|---|---|
| 4 | ARLP | 27 | 3 | 89,91 |
| 5 | AEM | 2 | 28 | 6,66 |
| 6 | AFM | 27 | 3 | 89,91 |
| 7 | BK | 23 | 7 | 76,59 |
| 8 | CZR | 24 | 6 | 79,92 |
| 9 | DP | 3 | 27 | 9,99 |
| 10 | DL | 8 | 22 | 26,64 |
| 11 | DAP | 22 | 8 | 73,26 |
| 12 | EA | 3 | 27 | 9,99 |
| 13 | ER | 23 | 7 | 76,59 |
| 14 | FY | 19 | 11 | 63,27 |
| 15 | FM | 13 | 17 | 43,29 |
| 16 | GAN | 26 | 4 | 86,58 |
| 17 | IM | 3 | 27 | 9,99 |
| 18 | JV | 27 | 3 | 89,91 |
| 19 | KMA | 22 | 8 | 73,26 |
| 20 | LMQ | 9 | 21 | 29,97 |
| 21 | MCA | 25 | 5 | 83,25 |
| 22 | NSAW | 18 | 12 | 59,94 |
| 23 | PDK | 7 | 23 | 23,31 |
| 24 | RA | 5 | 25 | 16,65 |
| 25 | SSM | 16 | 14 | 53,28 |
| 26 | SO | 9 | 21 | 29,97 |
| 27 | TJS | 20 | 10 | 66,6 |
| 28 | TAS | 4 | 26 | 13,32 |
| 29 | UAY | 17 | 13 | 56,61 |
| 30 | VAS | 23 | 7 | 76,59 |
| Total | | 475 | 425 | 1.485,18 |
| Mean | | 15,8 | 14,1 | 49,50 |

Based on the table above it was found that theb students'mean score in try out test was 49,50 . To check whether the instrument had good validity or not, the researcer used SPPS 26 program. The researcer determined the significance level (α) of the test was 0,05 or 5% from the confidence interval 95%, and the value $r_{table}$ of this test was 0,374 with (df= N-2= 28) .To know

whether the test items were valid or not, the researcer conclude two hypotheses as follow :

a) If the critical value (rscore) was positive and more that (rtable), it was meant that the items was valid.

b) If the critical value (rscore) was negative and less that (rtable), it was meant that the items was invalid.

The result of instrument validity was shown as table 5.

**Table 5**

**The result of instrument validity**

| Items | R Obtained | R Table | Criteria |
|---|---|---|---|
| 1 | ,171 | 0,374 | Invalid |
| 2 | ,897 | 0,374 | Valid |
| 3 | ,709 | 0,374 | Valid |
| 4 | -,015 | 0,374 | Invalid |
| 5 | ,677 | 0,374 | Valid |
| 6 | ,762 | 0,374 | Valid |
| 7 | ,569 | 0,374 | Valid |
| 8 | ,514 | 0,374 | Valid |
| 9 | ,577 | 0,374 | Valid |
| 10 | ,514 | 0,374 | Valid |
| 11 | ,826 | 0,374 | Valid |
| 12 | ,467 | 0,374 | Valid |
| 13 | ,561 | 0,374 | Valid |
| 14 | ,756 | 0,374 | Valid |
| 15 | ,171 | 0,374 | Invalid |
| 16 | ,612 | 0,374 | Valid |
| 17 | ,403 | 0,374 | Valid |
| 18 | ,514 | 0,374 | Valid |
| 19 | ,467 | 0,374 | Valid |
| 20 | ,709 | 0,374 | Valid |
| 21 | ,171 | 0,374 | Invalid |
| 22 | ,514 | 0,374 | Valid |

| | | | |
|---|---|---|---|
| 23 | ,525 | 0,374 | Valid |
| 24 | ,709 | 0,374 | Valid |
| 25 | ,709 | 0,374 | Valid |
| 26 | ,709 | 0,374 | Valid |
| 27 | ,897 | 0,374 | Valid |
| 28 | ,709 | 0,374 | Valid |
| 29 | ,826 | 0,374 | Valid |
| 30 | ,612 | 0,374 | Valid |

After the researcer did test validity to the instruments, the researcer concluded that from 30 items, there were 4 items were invalid. So, the researcer just used 26 items which were valid as the instrument of test in this research.

**2. Reliability Test**

Reliability refers to consistency of scores or answers from one administration of an instrument to another, and from one set of items to another. Frankel and Wallen (2012). The estimate the instrument was reliable or not, the researcher found the reliability by using Cronbach Alpha Test. The researcher used SPSS 26 program to calculate the reliability of the instrument to know whether the test items are reliable or not , the researcher concluded two hypothesis as follow:

a) If the Cronbach alpha point was more than 0.70, it means that items were reliable.
b) If the Cronbach alpha was less than 0.70, it means that the items were not reliable.

The result calculation of reliability statistic was as follow :

**Tabel 6**

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,945 | ,941 | 30 |

**3. Index Difficulty of the Test**

To check To check the difficulty index, the researcher use the following formula:

$$P = \frac{B}{JS}$$

*Source : Arikunto(2014)*

Where :

P: The difficulty index.

B: Right number of students.

JS: Total number of students.

To determine the category of the item difficulty level index, the following criteria are used:

• If then the test item has difficulty in the difficult category.

• If then the item has difficulty in the middle category.

• If then the item has difficulty in the easy category.

*Source : Arikunto(2014)*

For the middle item category, this item can be used as the next test instrument item. For the difficult and easy item categories, it is possible that the item cannot be used as an instrument

**Table 7**

**Index of Difficulty of Criteria**

| Index of Difficulty | Interpretation |
|---|---|
| P ≤ 0,3 | Difficult |
| P 0,31 – 0,69 | Middle |
| P ≥ 0,70 | Easy |

*Source : Arikunto(2014)*

Based on calculation the result of index difficultof test items was describe on the table below :

**Table 8**

**Index Difficulty of the test**

| Items | Number of Students | Students' Answer item X Correctly | Difficulty Index | Criteria |
|---|---|---|---|---|
| 1 | 30 | 6 | 0,2 | Difficulty |
| 2 | 30 | 17 | 0,56 | Middle |
| 3 | 30 | 16 | 0,53 | Middle |
| 4 | 30 | 27 | 0,9 | Easy |
| 5 | 30 | 18 | 0,6 | Middle |
| 6 | 30 | 15 | 0,5 | Middle |
| 7 | 30 | 15 | 0,5 | Middle |
| 8 | 30 | 17 | 0,56 | Middle |
| 9 | 30 | 15 | 0,5 | Middle |
| 10 | 30 | 15 | 0,5 | Middle |
| 11 | 30 | 18 | 0,6 | Middle |
| 12 | 30 | 18 | 0,6 | Middle |
| 13 | 30 | 15 | 0,5 | Middle |
| 14 | 30 | 17 | 0,56 | Middle |
| 15 | 30 | 6 | 0,2 | Difficulty |
| 16 | 30 | 16 | 0,53 | Middle |
| 17 | 30 | 17 | 0,56 | Middle |
| 18 | 30 | 15 | 0,5 | Middle |
| 19 | 30 | 18 | 0,6 | Middle |

| | | | | |
|---|---|---|---|---|
| 20 | 30 | 16 | 0,53 | Middle |
| 21 | 30 | 6 | 0,2 | Difficulty |
| 22 | 30 | 17 | 0,56 | Middle |
| 23 | 30 | 20 | 0,66 | Middle |
| 24 | 30 | 16 | 0,53 | Middle |
| 25 | 30 | 16 | 0,53 | Middle |
| 26 | 30 | 16 | 0,53 | Middle |
| 27 | 30 | 17 | 0,56 | Middle |
| 28 | 30 | 16 | 0,53 | Middle |
| 29 | 30 | 18 | 0,6 | Middle |
| 30 | 30 | 16 | 0,53 | Middle |

The researcher distributed the result of index difficulty of each items on the following :

**Table 9**

**Index Difficulty of Question**

| P(Index Difficulty) | Interpretation | Number of Question | Total Number of Question |
|---|---|---|---|
| P ≤ 0,3 | Dificulty | 1,15,21 | 3 |
| P 0,31 – 0,69 | Middle | 2,3,5,6,7,8,9,10,11,12,13,14,16,17, 18,19,20,22,23,24,25,26,27,28,29,30 | 26 |
| P ≥ 0,70 | Easy | 4 | 1 |

*Source : Sudijono (2012 p. 372)*

## F. Technique for Analyzing Data

1. Scoring the students' answer the researcher used the following formula:

$$SS = \frac{S}{N} \times 100$$

Where :

SS = Students score

S = Students correct answer

N = Maximum score

To classify individual score that the students obtained in discovering the key ideas with the following category

**Tabel 10**

**Score Range and Qualification**

| No | Score Range | Scale | Score Category |
|---|---|---|---|
| 1 | 80-100 | A | Very good |
| 2 | 66-79 | B | Good |
| 3 | 55-65 | C | Fair |
| 4 | 46-54 | D | Poor |

*(Source; Nurgiyantoro, 2010, p. 253)*

2. Percentage analysis is used in analyzing the data of the test. The formula as follow:

$$\mathbf{X = \frac{F}{N}\ X\ 100\%}$$

Where :

X= result of percentage

F= total number of students' score range

N= total number the sample

*Sugiyino (2015)*