

CHAPTER III

RESEARCH METHODOLOGY

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

A. Method of the Study

In conducting this study, the researcher used descriptive quantitative method. According to Creswell (2012) “a quantitative research study was needed to explore this phenomenon from the perspective of distance education students”. So , that in describing an analysis students’ ability in using part of speech in writing descriptive paragraph, the writer gained quantitative research in which the researcher would collecting the data, analysis the and draws conclusions.

Arikunto (2010), said that “the research method that only describes variable, indication or even, not rendering to examine some hypothesis”. By using data, analyzing and tabulating about an analysis students’ ability in using part of speech of seventh grade of MTS N 1 OKU.

1. Operational Definition

There were some major terms which are needed to be define operationally for the purposed study an analysis students’ ability in using part of speech of seventh grade students at MTS N 1 OKU :

1. Ability

Ability was measured in the term of constitutional different between individual when other factors were ruled out, method for which are suggested.

2. Part of Speech

The way a word was used in a sentence determines which part of speech it was.

B. Population and Sample

1. **Population of the Study**

Population was the whole subject of research Arikunto (2013). Population was a grouped of individuals who gave the same characteristic and from which a sample could be took. In other word, population was a large number of the research object which was going to be investigate in the research study. According to Cresswell (2012), the population was the group of individuals having one characteristic that distinguishes them from other group. It mean that population was a grouped of element or cases, whether individuals,object,or event that conforms to specific criteria and to which the researcher intends to generalize the result of their research.

So, the population to this study is all students of Seventh Grade at MTS N 1 OKU in academic year 2021/2022 which consist of six class of the seventh grade of MTS N 1 OKU in academic year 2021/2022 as showed in this following table below:

Table 1.
Population of the Study

No	Class	Total
1.	VII A	30
2.	VII B	25
3.	VII C	30
4.	VII D	30
5.	VII E	30
6.	VII F	30
Total		175

Source: MTS N 1 OKU

2. Sample of the Study

One of the most important steps in the research process is the selection of the sample of individuals who will participate. Samplings refers to the process of selecting these individuals. According Frankel and Wallen (2012), a sample in a research study is the group on which information is obtained. In this study, the writer used cluster random sampling. According Frankel and Wallen (2012), the selection of groups, or clusters, of subjects rather than individuals was known as cluster random sampling. Cluster random sampling was similar to simple random sampling except that grouped rather than individuals were randomly selected (that was, the sampling unit was a group rather than an individual). In doing to test writer used random sampling in class. Sample try out consist 30 students and

sample of study consist 85 students. As a result the distribution of the sample was presents in below :

Table 2
Sample of Study

No	Class	Total
1.	VII A	30
2.	VII B	25
3.	VII C	30
Total		85

(Source : MTS N 1 OKU, AcademicYear 2021/2022)

C. Technique for Collecting Data

In this study, the writer collected the data by using writing test. According to Arikunto (2013), test was a set of question which is used to measure students' ability. He also says that "a test is valid if it measures what was purpose to measure person ability". According to Ary (2010) test were a set of stimuli presented to individual in order to elicit responses on the basis of which a numerical score can be assigned. Test was usually used as one of instrument in study. The test was finding out the students' ability in using part of speech of seventh grade students of MTS N 1 OKU. The test consist of 40 items multiple choice about adjectives, verb, pronoun and preposition. The test items adapted from the LKS seventh grade students.

D. Validity and Reliability

1. Validity of the Test

According to Cohen et.al (2007, p. 105), validity of the test was an essentially a demonstration that a particular instrument in fact measures what it purpose to measures. In this study, the writer measured the content validity of the test. Cohen et.al (2007, p. 109) states that validity was an important key to effective research if a piece of research is in valid then it is worthless. Content validity refers to the instrument must show that fairly and comprehensively covers the domain or item that is purports to cover. In order that the test had content validity, the writer devised the test accordance with the purpose of the test that is to measure students' reading comprehension. The specification of the test was presented on the table 3 below:

**Table 3.
Test Specification**

Objective	Indicator	Material	Number of item	Form of the test
To find out students ability in understanding part of speech in sentence	The students are able to answer the correct multiple choice the part of speech in sentence	-adjective	10	Multiple choice
		-verb	10	
		-pronoun	10	
		-preposition	10	
Total				40

To check whether the instrument has a good validity or not, the writer checked the difficulty index of the instruments. The writer used the SPSS version 21.00. the writer used non sample class for trying out the instrument, which was consisted of 30 students sample of try out of non sample at MTS Negeri 1 OKU. To analyzed the validity of the instrument based on SPSS, the writer 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 0,361 with (df= N-2= 28) .

Table 4
The Result Validity of Question

Conclusion	Number of Question	Total Number of Question
Valid	1,2,3,5,6,7,8,10,11,12,13,14,15,16,17,18,19,20,21,22,24,25,26,27,28,29,30,31,32,33, 35,36,37,38,39	35
Invalid	4,9,23,34,40	5
Total		40

Based on the distribution of the table above, the writer found there were 5 items were invalid they were item 4, item 9, item 23, item 34, and item 40, and there were 35 items were valid. So, the writer used 35 items for the research instrument.

2. Reliability of the Test

Reliability was essentially a synonym for consistency and reliability over time, over instruments and over groups of respondents Cohen, et al., (2007, p. 117). To estimate the instrument was reliable or not, the writer found the reliability by using Cronbach Alpha Test. The writer used SPSS 21 program to

calculate the reliability of the instrument .to know whether the test items are reliable or not , the writer concluded two hypothesis as follow:

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

Based on the analysis, it was found that the Cronbach’s Alpha Point was 0,972, it was more than 0,70. So, it meant that the items of the instruments were reliable and could be used as the instrument of the research. And the result of reliability of tryout was:

Table 5
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.974	.972	40

E. Technique for Analyzing the Data

1. Scoring

In calculating the individual score of the test the writer used the formula as follows:

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

Source: Majid, 2009

Where:

S : Score of test

B : The total of correct answers

N : The total of questions

- b. To get the students' average correct answer of the test the writer calculated the following formula

$$X = \frac{B}{t \times N} \times 100\%$$

Source: Majid, 2009

Where:

X = Percentage of students' correct answer

B = Total of students' correct answer

N = Total number of test item.

T = Total of students

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

Table 8
Score Range and Criteria

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)