

CHAPTER III

RESEARCH METHOD

This chapter discusses about time and place of the study, research type, research design, population and sample, variable of the study, Instrument, Try Out Instrument, Validity and Reliability of Instrument, Data Collection, and Data analysis.

A. Time and Place of the Study

This study had been done since October 21th – December 21th 2013 to collect all of the data. The data was gotten from the real condition of the eighth grade students of MTs Hidayatul Insan Palangka Raya. It is located at Sulawesi street.

B. Research Type

This study used quantitative research to gather the numerical data. Quantitative research was research carried out by collecting numerical data from sample drawn from a certain population. Quantitative research is inquiry employing operational definitions to generate numeric data to answer predetermined hypotheses or question. Thus, it finally attempted to generalize the research findings to the whole population through statistical analysis.¹

¹Donald Ary, Lucky Cheser Jacobs, Chris Sorensen and Asghar Razavie, *Introduction to Research in Education* (8th edition), Wadsworth: Cengage, 2010. p:648

C. Research Design

In this study, the writer used Content Analysis. The study wanted to describe about the problems in using reported speech in simple sentences. According to Ary et al Content analysis is widely used in education. The following are some of the purposes of content analysis in educational research:²

1. *To identify bias, prejudice, or propaganda in textbooks.* For example, a researcher might analyze high school history texts in a particular school district to determine how often women are mentioned and how much discussion is given in each mention.
2. *To analyze types of errors in students' writings.* For example, we could look at students' written work to classify spelling or grammatical errors and their nature and frequency.
3. *To describe prevailing practices.* For example, we could identify the entrance requirements of Big Ten universities by analyzing their bulletins.
4. *To discover the level of difficulty of material in textbooks or other publications.* For example, we could ask, "What is the vocabulary level of the fourth-grade social studies textbooks in this district?"
5. *To discover the relative importance of, or interest in, certain topics.* For example, we might analyze popular educational research textbooks to see the coverage given to qualitative research and changes in that coverage over time.

²*Ibid* p: 457

Content analyses may be done in an *emergent design* framework, or they may be done in a quantitative research framework with variables that are specified a priori and numbers that are generated to enable the researcher to draw conclusions about these specified variables.³

D. Population and sample

1. Population

Population is the whole of research subject. A population is defined as all members of any well-defined class of people, events, or objects.⁴ The writer chooses the eighth grade as research subject because the students had learned the material (reported speech). Thus, the writer chooses MTs Hidayatul Insan as the place of the study because of limited in power, time, and finance. The following table is shown the population of MTs Hidayatul Insan.

Table 3.1 the Number of Population

Class	Number of Students
VIII Usman bin Affan	39
VIII Abu Bakar	28
Total	67

³*Ibid*, p: 458

⁴*Ibid*, p: 148

2. Sample

Sample is a group selected from a population for observation in study⁵. In this study the writer used Cluster sampling to choose the sample because the writer took based on established class. The cluster sampling can be seen in the following table.

Table 3.2 The Number of sample

Genre	VIII Abu Bakar Class
Male	18
Female	10
Total	28

E. Research Instrument

In a study, instrument as a tool for collecting data plays a very significant role in that it greatly determines the result of the study.

1. Research Instrument.

Because there is one variable, namely: the problem of reported speech. For measuring these variables, the writer used test as instrument for measuring them in research. In this study, it was used written test. In this case, the writer orders the students to change reported speech in Indonesia

⁵*Ibid*, p: 649.

Language to reported speech in English Language. The test would be constructed in 22 items. It is consisted of three tenses. There are simple present tense, simple past tense and future tense.

2. Research Instrument of Try Out

The aim of instrument of try out is to know the test instruments are relevant to be given to the students. The writer would perform try out. It is used to know the validity of the test, reliability and level of difficulties of the test. The instruments try out would be tested to the other class of school of the population of the study but in the same level. The try out test would be administrated to the eight grade of Usman bin Affan class in MTs Hidayatul Insan Palangka Raya.

3. Research instrument Reliability

Reliability refers to the *consistency* of measurement- that is, how consistent the score or other evaluation results are from one measurement to another.⁶ In this study the writer will use split-half method. The reliability of test scores can also be estimated from a single administration of a single form of a test. The test is administered to a group of pupils in the usual manner and than is divided in half for scoring purposes.⁷ The formula of Kuder and Richardson is used to measure the reliability of the instrument.

⁶*Ibid.*,p.86

⁷Norman E Grolund, *Measurement and Evaluation in Teaching* 5th edition, New York: Macmillan Publishing Company, 1985,p.92

$$(KR21) = \frac{K}{K-1} \left(1 - \frac{M(K-M)}{Ks^2} \right)$$

Where

K = the number of items in the test

M = the mean (arithmetic average) of the test scores

s = the standard deviation of the test scores.

The qualification of reliability as follows:

0,800 – 1,000 = Very high Validity

0,600 – 0,799 = High Validity

0,400 – 0,599 = Fair Validity

0,200 – 0,399 = Poor Validity⁸

$$(KR21) = \frac{K}{K-1} \left(1 - \frac{M(K-M)}{Ks^2} \right)$$

As follows:

K = 30

M = 15.5

⁸SuharsimiArikunto, *ProsedurPenelitian*, p. 189

$$s = 5.372$$

$$(KR_{21}) = \frac{30}{29} \left(1 - \frac{15.5(30 - 15.5)}{30 \times 5.372^2} \right)$$

$$= 1.034 \left(1 - \frac{224.75}{865.75} \right)$$

$$= 1.034 \times (1 - 0.259)$$

$$= 0.766$$

Based on the result above, it could be concluded that the result of reliability of KR_{21} was 0.766. Based on the qualification of reliability, if the value was on 0,600 – 0,799. There was high validity of instruments.

4. Research instrument Validity

Validity means what extent of accurate in a measure tool in doing the function. A measuring test or instrument has high validity when the instrument does the measure function or gives the result of measuring that is suitable with the function.⁹

According to Heaton, Validity is differentiated into three kinds, namely face validity, construct validity, and empirical or statistical validity. A test is said to have face validity if the test items look right to other testers, teachers, and students so that it looks like it is measuring what it claims to

⁹Djaali dan Pudji Muljono, *Pengukuran dalam*, p. 49

measure. In addition to having face validity, test validity can be indicated by its construct. A test has construct validity; it is capable of measuring certain specific characteristics in accordance with a theory of language behavior and learning.¹⁰

5. Index of difficulty

The index of difficulty (or the facility value) of an item simply shows how easy or difficult the particular item proved in the test. The index of difficulty (F.V.) is generally expressed as the fraction (or percentage) of the student who answered the item correctly. It is calculated using the formula: ¹¹

$$F.V = \frac{R}{N}$$

F.V = Index of the difficulties (Facility Value)

R = the number of correct answers (Represent)

N = the number of the students taking the test

To interpret the index of difficulty, it used Robert L. Thorndike and Elizabeth Hagen's interpretation.¹²

P < 0.30 = Difficult

P 0.30-0.70 = Fair

¹⁰J.B Heaton, *Language Testing*, London: Longman, 1987, p. 153

¹¹*Ibid.*, p. 125

¹²Anas Sudijono, *Pengantar Statistik Pendidikan*, Jakarta: Ciputat Pres, 2000, p.372

$P > 0.70$ = Easy

F. Data Collection Procedures

In collecting the data, the writer used some steps as follows:

1. The writer observed the location, the number of class, the number of students, and class activities.
2. After doing the observation, the writer determined the class into try out class and sample of research by using cluster sampling.
3. The writer organized research instrument.
4. The writer tried out research instrument on Thursday, 31st October 2013 at 10.00-11.20 at VIII Usman bin Affan Class.
5. The writer identified the students' try out test.
6. The writer calculated the index difficulties of try out test.
7. The writer calculated consistency of reliability.
8. The writer reorganize research instrument.
9. The writer gave the test to students on Monday, 11st November 2013 at 10.00-11.20 at VIII Abu Bakar Class.
10. The writer analyzed the students answer.
11. The writer concluded the data.

G. Data Analysis

To analyses the data finding, the writer used as follows:

1. The writer identified the students' answer.
2. The writer underlined the wrong word from the sentences.
3. The writer classified the students answer into surface strategy taxonomy.
4. The writer reconstructed answer into right sentences.
5. The writer discussed data finding about result of this study.
6. Concluded.