

CHAPTER III

RESEARCH METHODOLOGY

Research method that discussed, they cover: Research Type, Research Design, Population and Sample, Research Instrument, Data collection Procedure, Data Analysis Procedure.

A. Research Type

In working out this study the writer used quantitative. Rahardjo states that the philosophical fundamental of quantitative study is positivism that states about the reality can be separated from its subject. Because of that, its subject can be given a treatment outside its reality. So, it emphasizes on the external reality.¹

B. Research Design

Related to the faction of design, Karlinger states that, research design makes the research can answer the question of research as valid as, as objectives as, as precise as, and as efferent as possible. Research design is arranged and done based on full consideration in order can produce the empirical clue that has the strong relation to the research.²

¹ Mudjia Rahardjo, *Pengantar Penelitian Bahasa*, Malang : Cendikia Pramulya, 2002. P.47.

² Fred N Kerlinger, *Asas-asas Penelitian Bhavioral* , (Trans) Landing R Simatupang, Jogjakarta : Gajah Mada University Fress, 2006 .P.484-485.

The method used was method of Pre experiment. Experiment method was a method to test the effectiveness and efficiency of an approach , method , technique , or medium of teaching and learning . So that the results could be applied if it is good and not applied if not good in actual learning.

Ary et.al stated Pre experimental because they provide little or no control of extraneous variables. We do not recommend these designs; however, we realize they are still sometimes used in educational research. ³ In this study used pre experimental design because the writer took only one class as sample, there is not using class control and didn't use random technique took sample.

Mc Millan and Schumacher explained that there are three design included to pre-experiment.⁴ In this study , a single of used One – Group – Pretest –Posttest in this study, of the research comparing the results of the pretest and posttest in the study. Model used can be seen in the following table :

Table 3.1 Pre Experiment Using Pre- test and Post-test Design⁵

Y_1	X	Y_2
Pretest	Independent	Posttest

³Donald Ary, Jacobs , L.C, Razavieh, *Introduction to Research in Education* , New York : Wadsworth (engage learning), 2010.P.303

⁴ H, James McMillan and Schumacher Sally, *Research in Education A Conceptual Introduction*, United State: Longman. 2001. P.331

⁵ Donald Ary, Jacobs , L.C, Razavieh, *Introduction to Research in Education* , New York : Wadsworth (engage learning), 2010.P.304

C. Population and Sample

1. Population

Ary et.al stated that population is defined as all members of any well-defined class of people, events or object meanwhile the sample is a part of population. The population of this study was all the students' of Seventh Grade Students' at MTs An - Nur Palangka Raya.

Table 3.2 Number of Population

Name of School	Class		Total Students
	VII –A	VII –B	
MTs An-Nur Palangka Raya	37	30	67

2. Sample

Sample is a part of population. According to Ary, “ Sample is a group selected from population for observation in a study .⁶The writer have done study in the VII-b of MTs An-Nur Palangka Raya, the writer just took only one class as sample to study because the writer used pre-experiment design. There are 30 students as sample and present other students.

⁶ Donald Ary, Jacobs , L.C, Razavieh, *Introduction to Research in Education* , New York : Wadsworth (engage learning), 2010.P.649

D. Research Instrument

a. Test

Instrument is the generic term that researchers use for a measurement device (survey, test, questionnaire, etc.). To get the data, the writer used technique in this study. Here, the writer used a technique, namely test : Arikunto states that Tes adalah derenten pertanyaan atau latihan serta alat lain yang digunakan untuk mengukur keterampilan, pengetahuan, intelegensi, kemampuan atau bakat yang dimiliki oleh individu atau kelompok.⁷

According to Heaton test is geared to the teacher taken place, whereas in the latter case the teaching in geared to the test, standardized tests and public examination. The data are very important in the study. The data was needed to prove and support this study. By this collected data, the writer could measure the effectiveness of advertisement media in teaching vocabulary size at the seventh year students of MTs An- Nur Palangka Raya.

In this study, the writer used vocabulary test, the writer used objective test, objective test is frequently criticized on the grounds that they are simple to answer than subjective examinations.⁸ The writer used multiple choice test , multiple choice techniques to tasting the same as perspective is to drawing , only through a true appreciation and mastery of these techniques is would –be test constructor able to throw aside the limitations imposed by them and

⁷ Suharsimi Arikunto, *Prosedur dan Penelitian Suatu Pendekatan Praktek*.P.,127.

⁸ J.B Heaton , *writing English Language test*.P.12

discover newer and improved techniques of tasting.⁹ The test divided into two tests, pre-test and post-test. The pre-test would give to the students before the treatment and the post-test after the treatment. In the case of the Vocabulary Size Test which is a multiple-choice test, 70 items were sufficient to obtain a good level for the whole test.¹⁰

E. Instrument Try Out

The writer was obtain the instrument quality consisted of the instrument validity. For the try out test conducted twice each on VII-a at MTs An-Nur Palangka Raya. The writer was gave try out of test item for the seventh Grade students at MTs An-Nur. The writer gave try out on 8th and 13th May 2015.

The first try out the writer gave 100 items in multiple choice and the second try out the writer gave 40 items multiple choice as. The writer gave time 1 hour to answered questions. Try out hold twice, it was because the first calculation result found there were 40 items was not invalid, so the writer received and tried out II so that all the items test were valid. The procedures of try out were:

The first try out on May, 8th 2015

1. The writer tried out the test items to the students who would be students' try out.
2. The writer collected the answers and gives score the respondent.

⁹*Ibid.*,P.14

¹⁰ Paul Nation, Measuring vocabulary size in an uncommonly taught language, New Zealand : Victoria University of Wellington.P.6

3. The analyzed the respondent's score to find out instrument validity.

The second try out on May, 13th 2015 :

1. The writer tried out the test items to the students who would be students' try out.
2. The writer collected the answers and gives score the respondent.
3. The analyzed the respondent's score to find out instrument validity.

F. Instrument validity

Validity is the most important consideration in developing and evaluating measuring instruments. Historically, validity was defined as the extent to which an instrument measured what it claimed to measure. The focus of recent views of validity is not on the instrument itself but on the interpretation and meaning of the scores derived from the instrument.¹¹

1. Content Validity

According to Heaton, a good test should possess' validity: that is it should measure what it is intended to measure and nothing else. If a test does this, it said to be valid. All of the test items must relate to what students learned. In this study the instrument for collecting the data must be valid. It means the items in the instrument are equal and proportional in

¹¹ Donald Ary, Lucy Cheser Jacob, Crish Corense, Asghar Razavieh, Introduction to Research in Education, Eight Edition, Canada : Wadsworth, Cengage Learning, 2010. P.225

their distribution as the indicators of test.¹² Djiwandono said that try out could be done several times to obtain good instrument test.¹³

2. Construct Validity

Construct validity is capable of measuring certain specific characteristics in accordance with theory of language behavior and learning.¹⁴

The item test is constructed based on the material given in classroom namely vocabulary size. The instrument measures certain specific of function and content vocabulary.

Table 3.3
Specification of vocabulary test

No	Class / semester	Indicator test	Number test	Vocabulary Type	Percentage
1.	VII/2	Identification Synonym	1- 9	Content words	12.85 %
2.		Identification Antonym	10 - 23	Content words	20 %

¹² J.B. Heaton, *Writing English Language Test*, Longman, 1974, P.154

¹³ M.Soenardi Djiwandono, *Tes Bahasa Dalam Pengajaran*, Bandung : ITB, 1996.P.19

¹⁴ *Ibid.*, p.154

3.		Part of speech	24 – 60	Function and content words	51.42 %
4		the closest meaning to the key word	61 – 70	Content words	14.28 %
		Total			100 %

Test Instruments are based syllabus, syllabus used was based curriculum KTSP, because where research is still using curriculum ktsp, there are 70 items as instrument test. Before being used as test instrument, instrument has been validated after try out

G. Data Collection Procedure

- 1.The writer has done observed such as the number of class, students, and teacher in the MTs An-Nur Palangka Raya.
- 2.The writer gave try out I at VII-A in the MTs An-Nur Palangka Raya on May, 8th2015.The writer gave 100 item of multiple choice test, students were gave 90 minutes.
- 3.The writer gave try out II at VII-A in MTs An-Nur Palangka Raya on May13th, 2015.The writer given 50 item of multiple choice test, students were gave one hour.

4. The writer gave pretest at VII-b in the MTs An-Nur Palangka Raya on May 15th, 2015. The writer gave 70 item of multiple choice test, students were gave one hour.
5. The writer gave the first treatment in VII-b on Friday, May 22nd 2015. The writer used advertisement as media. The writer taught used advertisement as media to increased vocabulary size, the material about descriptive text and the topic was a famous people.
6. The writer gave the second treatment in VII-b on Tuesday, May 26th 2015. The writer taught used advertisement as media to increased vocabulary size, the material about descriptive text and the topic was a food and drink product.
7. The writer gave the second treatment in VII-b on Friday, May 29th 2015. The writer taught used advertisement as media to increased vocabulary size, the material about song text and the topic was peace.
8. The writer gave posttest toward the students at VII-B class in the MTs An – Nur Palangka on May 29th 2015. The writer gave 70 item of multiple choice test, students were gave one hour.
9. The writer analyzed the data obtain into calculation, with manual and using SPSS 18.0.
10. The writer interpreted the result of data analysis.
11. The writer conducted the result of data analysis

H. Data Analysis Procedure

The writer gave twice try out at VII-a in the MTs An-Nur Palangka Raya, the first try out , the writer giave 100 multiple choice and the second try out the writer gave 50 multiple choice. And then the writer validated result of try out into a valid instrument pre test and post test. The writer gave pre-test at VII-B class MTs An-Nur Palangka Raya, there are 70 items of multiple choice test. And then the writer taught at VII-b the writer gave treatment used advertisement as media in teaching, found the influence of using advertisement as media to increased vocabulary size. After completed of treatment, the writer gave post-test.

Result of study and test of students in a research to got from vocabulary test. Students must master 3.000 vocabulary size. There are 70 items vocabulary test. The list of two table materials, showed about the score of test pretest. And test posttest of vocabulary size. Criteria of evaluation from these test using win lose system by choosing A, B, C, or D. Students given the task and finish it within 1 hour . After finishing the task students submit to the writer.

The writer analyzed the data with a few of way, they are :

1. The writer collected the result of test

$$\text{Point} = \frac{\text{True Answer}}{\text{question items}} \times 100$$

2. The writer gave score for the students that suitable with the criteria.

3. The writer arranged into for the table.¹⁵
4. The writer calculated the mean score with the formula:

$$M = \frac{\sum fx}{N}$$

Where :

M = Mean

f = frequency of score

x = Score

N = Number of test

5. The writer calculated Standard Deviation and Standard Error with the formula:

a. Standard Deviation

$$SD = \sqrt{\frac{\sum fx^2}{N}}$$

b. Standard Error

$$SEM_D = \frac{SD_D}{\sqrt{N-1}}$$

¹⁵Suniati, "Teaching Vocabulary through total physical Respond (TPR) Method to the first Grade of MtsN-1 Model Palangka Raya Academic year 2005/2006", Thesis, Palangka Raya: UNPAR, 2006. p. 31.

6. The writer calculated Mean, Standard Deviation and Standard Error used SPSS 18.0. Program.
7. The writer analyzed testing normality and homogeneity of pre test and post test score used SPSS 18.0 Program.
8. The writer analyzed testing hypothesis using T_{test} of pre test and post tset score used SPSS 18.0 Program.
9. The writer analyzed testing hypothesis using One Sample T_{test} of pre test and post tset score used SPSS 18.0 Program.
10. The writer interpreted the result of study.