

CHAPTER III

RESEARCH METHODOLOGY

A. Research Type

In this study, the research will use quantitative approach. It is because the researcher measured the students' writing ability by tests; pretest and posttest. Creswell stated that a quantitative study, consistent with the quantitative paradigm, is an inquiry into a social or human problems based on testing a theory composed of variables, measured with numbers, and analyzed with statistical procedures, in order to determine whether predictive generalizations of the theory hold true

B. Research Design

This study used the quantitative approach. According to Dornyei, "Quantitative research involves data collection procedure that result primarily in numerical data which is then analyzed primarily by statistical method".¹

The research design of this study is categorize as an experimental research about using idea listing in experimental study focuses on a treatment and outcome, This study may also include two classes of 8th grade student' that's 8.A and 8.B of SMP AN-NUR Palangka Raya, as the context in which the experiment is conducted the two classes.

The treatment is given for experimental group (X). Post-test is given for both of groups to measure the score of students after the treatment is given (Y1 and Y2). In this experimental, idea listing is used as a technique in teaching Writing for experimental group.

¹Dornyei Zoltan, *Research Method in Applied Linguistics Quantitative, Qualitative A Mixed Methodologies*, p. 24

3.1 Table the scheme of Quasi Experimental Design

Subject	Per-test	Treatment	Post-test
Experiment	Y1	X	Y2
Control	Y1	-	Y2

Where:

A : experimental group

B : control group

X : treatment

Y2 : post-test

Y1 : pre-test

In this study, the writer took the seven grade students of MTS AN-NUR Palangka raya in the 2016/2017 academic year as the subject of the research. The subject divided into two groups, the first group was become experiment group that taught by idea listing and the second group was become control group that taught by picture media.

C. Population and Sample

1. Population

A population is defined as all members of any well - defined class of people, events, or objects.² According to Darmawan, population is source of the data in research that has quantity amount and wide.

In this research, the population of the study was all students of the eighth grade students in MTS ANNUR Palangkaraya in the 2016/2017 academic year.

² Donald Ari, Lucy Chesar Jacobs, Chris sorensen, Asghar Razavieh, *introduction to research in education*, Eight Edition, 2010, p. 316

3.2 Table the number of student grade of SMP AN-NUR Palangka Raya.

No	Classes	The number of Students
1	VIII- A	30
2	VIII – B	28
	Total	58

2. Sample

The small group that is observed is called a sample. A sample is a portion of group of a population.³ Sample is part of population.⁴ To take sample, the writer uses cluster sample technique in this study, the writer took VIII A and VIII B classes.

The writer determined the two classes into two groups. They were VIII A Has experimental group and VIII B as control group.

3.3 Table the number of sample

No	Classes	Groups	Number of the students
1	VIII – A	Experimental	30
2	VIII – B	Control	28
	Total		58

D. Instrument Of The Study

The data are very important in the study. The data were need to prove and support this study. By this collect data, the researcher could measure the effect of idea listing

³ Donald Ari, Lucy Chesar Jacobs, Chris sorensen, Asghar Razavieh, *introduction to research in education*, Eight Edition, 2010, p. 148.

⁴ Deni, Darmawan, *Metode Penelitian Kuantitative*, Bandung: PT. Remaja Rosdakarya, 2013, p.138.

technique on the students' ability in writing descriptive paragraph at MTS AN-NUR Palangka Raya. There are two instrument that would be use in the study to get the data, namely, test and documentation.

Test

Brown states a test, in plain words, is a method of measuring a person's ability or knowledge in a give domain.⁵ A test is an instrument or procedure design to elicit performance from learners with the purpose of measuring their attainment of specific criteria. Tests are almost always identifiable time periods in a curriculum when learners muster all their faculty to over peak performance, knowing that their responses are being measure and evaluate. Tests can be useful devices among other procedure and tasks design to assess students.⁶ Test are valuable measure instruments for educational research. A test is a set of stimuli present to an individual in order to elicit respons on the basis of which a numerical score can be assigne.⁷

The test is a systematic procedure propose by the Evaluators to compare the behavior of two or more students. In fact, the tests generally consist of a set of questions or tasks that must be answer by the students or the test is a group of questions or tasks to which a student is to respond. The purpose of testing is to produce a quantitative representation of the pupil trait that is design to measure.⁸

E. Validity

Validity is define as the extents to which the instrument measure what it purports

⁵ H. Douglas Brown, *Teaching by Principles an Interactive Approach to Language Pedagogy*, Second Edition, p.384.

⁶ H. Douglas Brown, *Teaching by....*, p. 401- 402.

⁷ Donald Ari, Lucy Chesar Jacobs, Chris sorensen, Asghar Razavieh, *introduction to research in education*, Eight Edition, 2010, p. 201.

⁸ Sukardi, *Evaluasi Pendidikan Prinsip dan Operasionalnya*. Yogyakarta: BumiAksara, 2003, p. 20

to measure.⁹ Validity is the most important characteristic to consider when constructing or selecting a test or measure technique. A valid test or measure is one which measure what it is intend to measure.¹⁰ Validity is define as the extent to which scores on a test enable one to make meaningful and appropriate interpretations.¹¹

Validity is the most important consideration in developing and evaluating measure instruments. Historically, validity is define as the extent to which an instrument measure what it claime to measure. The focus of recent views of validity is not on the instrument itself but on the interpretation and meaning of the scores derive from the instrument.¹²

Three types of validation are important in the role as a classroom teacher: content validity, face validity, and construct validity.¹³

1. Content Validity

Content validity demands the appropriateness between the ability to be measure and the test being used to measure it.¹⁴ This study will use essay test for students. The students in this study will write descriptive text from paragraph test instruction, so the test really measured the writing ability of the students.

⁹ Michael J.Miller, Ph.D., *Reliability and Validity*, Western International RES 600: Graduation Research Methods, p.3.

¹⁰Postlethwaite,T.Neville, *Educational research: some basic concepts and terminology*, Hamburg University, Series Editor, 2005, p. 39.

¹¹Donald Ari, Lucy Chesar Jacobs, Chris sorensen, Asghar Razavieh, *introduction to research in education*, Eight Edition, 2010, p. 224.

¹² Ibid, p. 225.

¹³ H. Douglas Brown, *Teaching by Principles an Interactive Approach to Language Pedagogy (second edition)*,p.388.

¹⁴M.Soenardi Djiwandono, *Tes Bahasa dalam Pengajaran*, Bandung: ITB Bandung, 1996 p.92

2. Face validity

Face validity of test is when the test is indeed testing what it claims to test; the test samples the actual content of what the learner has achieved or expects to achieve.¹⁵ Therefore, the appearance of the test in the study as follows; the test items used English, consisted of descriptive text discourse, and the test was suitable with the syllabus of English writing for the eight grade students of MTS AN-NUR Palangka Raya.

For face validity of the test items as follow:

- a) The test was be written test in paragraph test instruction.
- b) The evaluation was be based on scoring system.
- c) Kind of the paragraph was be writing descriptive text.
- d) The Language used was be English
- e) The test was be suitable with syllabus of English writing for eight grade students at MTS AN-NUR Palangka Raya.

3. Construct Validity

This type of validity assumes the existence of certain learning theories or constructs underlying the acquisition of abilities and skills.¹⁶ Writing skill, in the study, the test items of writing is the form of written test.

¹⁵H, douglas brown, teaching by principles: an interactive approach to language pedagogy. San francisco:longman, p 388.

¹⁶J.B Heaton, language testing, p 154

F. Instrument reliability

Reliability is necessary characteristic of any good test for it to be valid at all. A test must be reliable as a measuring instrument. It is the degree of consistency with which it measure wherever it is measuring.¹⁷ In reliability, there are inter-rater reliability and intra-rater reliability. Inter-rater reliability is the consistency of the judgment of several raters on how they see a phenomenon or interpreted the responses of the subject.¹⁸ It indicates accuracy in scoring composition of two different raters. Meanwhile, intra-rater reliability referred to the consistency of the rater in scoring the same paper at two different points of time. It points out an individual accuracy in scoring a particular composition.¹⁹

In this study, the writer will apply inter-rater reliability; two raters will be employed to score the students' writing. The two raters will be the writer self and one of English teacher of MTS AN-NUR Palangka Raya.

The coefficient correlation and the interpretation of inter rater reliability according to Djiwandono as shown in table 3.5²⁰:

¹⁷Donal Ary, Lucy Cheser Jacobs, Chir Sorensen, Asghar Razavieh, *Introduction to Research in Education, (Eighth Edition)*, United States: Wardsworth Cengage Learning, Learning , 2010, p. 236.

¹⁸Sabarun, *The Effectiveness of Using an outline in Writing Expository Essay*, p. 37

¹⁹Ibid

²⁰M. Soenardi Djiwandono, *Tes Bahasa Dalam Pengajaran*, Bandung: ITB Bandung, 1996, p. 94

Table 3.5**Inter-rater coefficients Correlation and Interpretation.**

Correlation Coefficient	Interpretation
.90 to 1.00 or -.90 to -1.00	Very high positive or negative correlation
.70 to .89 or -.70 to -.89	High positive or negative correlation
.50 to .69 or -.50 to -.69	Moderate positive or negative correlation
.30 to .49 or -.30 to -.49	Low positive or negative correlation
.00 to .29 or -.00 to -.29	Little if any correlation

G. Data Collection Procedure

In the study, the writer use several procedures in collecting the data, as follows :

1. The writer observe the school by headmasters' permission.
2. The writer ask the class with the English teacher who taught English in the class that become the class of research:
 - a. The number of the class.
 - b. The number of the students.
3. The writer determine the class into experiment group and control group.
4. The writer was give pre test to the experiment group and control group.
5. The writer scored students worksheet.

6. The writer was give score to the data from experiment group and control group.
7. The writer start to analysis the obtain data from the pre test using t-test.
8. The writer interpret the analysis result.
9. The writer conclude the activity.

H. Data Analysis Procedures

In order to analyze the data with has bee collect, the research would do some procedures below:

1. Collecting the students' score of pretest and posttest
2. Arrange the obtaine score into the distribution of frequency of score table.
3. Calculate mean, median, modus, standard deviation and standard error of variable X_1 from the experiment group.
4. The writer calculate the mean, standard deviation, and standard error of variable X_2 from the control group.
5. The writer calculate the standard error from the difference mean between variable X_1 and X_2
6. The research wold use statistical t-test and SPSS 20.00 to answer the problem of the study with formula:

$$t_0 = t_0 = \frac{M\chi_1 - M\chi_2}{SE_{mx_1 - mx_2}}$$

where:

$M\chi_1 - M\chi_2$: Differentiation of Two Means.

$SE_{mx_1 - mx_2}$: The Standard Error of the Difference between Two Means. With the criteria:

If $t_{\text{test}} > t_{\text{table}}$: H_a is accepted and H_0 is rejected.

If $t_{\text{test}} < t_{\text{table}}$: H_a is rejected and H_0 is accepted.

7. Calculating the degree of freedom by using the following formula:

$$\text{df} = N_1 + N_2 - 2$$

Where:

df : Degree of Freedom

N_1 dan N_2 : Number of cases

8. Determining the level of significant of t_{observed} by comparing the t_{observed} with the t_{table} .

9. Interpreting the result of the data analyzing.

10. Giving conclusion.

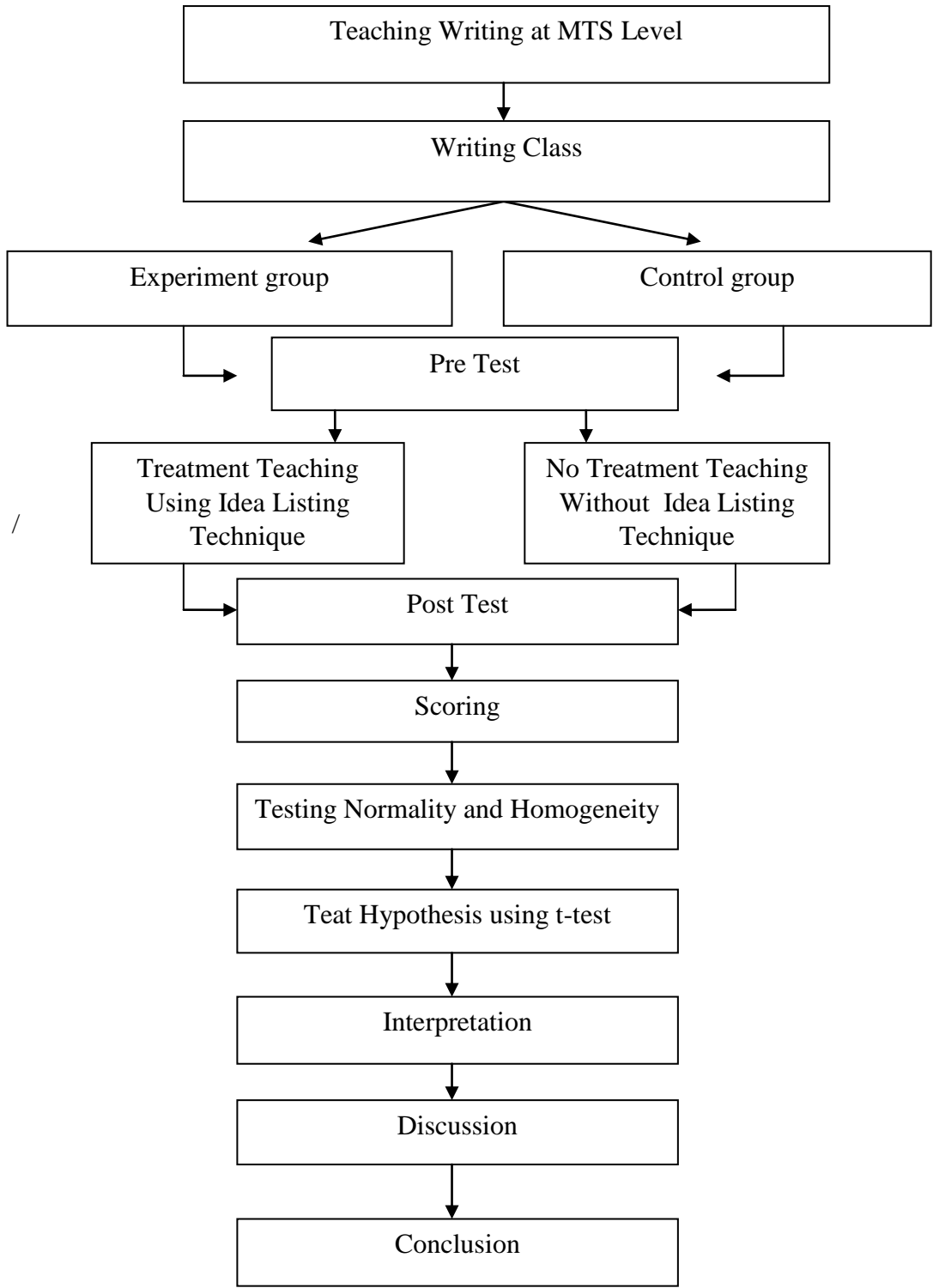


Figure The Procedures of Collecting Data and Analysis Data

