

CHAPTER III

THE RESEARCH METHODOLOGY

A. The Research Design

The type of this research was experimental research. Experiment is testing an idea (or practice or procedure) to determine whether it influences an outcome or dependent variable.¹ In this research, the researcher used quasi-experimental design. Experimental class was taught by using group summarizing strategy and control class was taught by conventional way. The kind of quasi-experiment that the researcher used was Non-equivalent experimental that consisted of pre-test, treatment, and post-test. According to McMillan and Schumacher, nonequivalent groups pretest-posttest control and comparison group design are very prevalent and useful in education.²

In conducting this research, the researcher took two classes. In the experimental class, the researcher gave students pre-test at the beginning of the teaching learning to identify students' writing ability.

¹ Jhon,W. Cresswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. (New Jersey: Pearson Education, 2008). p. 299

² James H. McMillan and Sally Schumacher. *Research in Education: Evidence-Based Inquiry, 6th ed.* (USA: Pearson Education, 2006). p. 273

Experiment class was treated by using group summarizing strategy. And the last, there was a posttest at the end of the teaching learning processes in order to determine the effect of using group summarizing strategy on students' writing ability. According to Campbell and Stanly, the design of this research can be illustrated as follows:³

Table III.1

| <i>Class</i> | <i>Pre-test</i> | <i>Treatment</i> | <i>Post-test</i> |
|-------------------|----------------------|------------------|----------------------|
| <i>Experiment</i> | <i>O₁</i> | <i>X</i> | <i>O₂</i> |
| <i>Control</i> | <i>O₃</i> | - | <i>O₄</i> |

Where:

O: Students' writing ability in narrative paragraph in pre-test and post-test of experimental and control class.

X: Teaching writing by using group summarizing strategy

B. The Location and the Time of the Research

The research was conducted at the eighth grade students of State Junior High School 9 Tapung located in Tapung sub district Kampar regency.

This research was conducted on May 2014.

³ Donald T. Campbell and Julian C. Stanley. *Experimental and Quasi-Experimental Design for Research*. (United States of America: Houghton Mifflin Company, 1963).p. 47

C. The Subject and the Object of the Research

The subject of the research was the eighth grade students of State Junior High School 9 Tapung Kampar regency. The object of this research was the use of group summarizing strategy and students' writing ability in narrative paragraph.

D. The Population and the Sample of the Research

1. The Population of the Research

The population of this research was the eighth grade students of State Junior High School 9 Tapung Kampar regency in 2013-2014 academic years that consisted of 76 students. It consisted of three classes. The following table describes the total population of the research.

Table III.2

**The Total Population of the eighth grade students of
State Junior High School 9 Tapung
Kampar regency 2013/2014**

| No | Class | Total |
|-----------|--------------|--------------|
| 1 | VIIIA | 25 students |
| 2 | VIIIB | 25 students |
| 3 | VIIIC | 26 students |
| Total | | 76 students |

2. Sample of the Research

The researcher used cluster random sampling technique in this research. Gay and Airasian note random sampling as the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample.⁴ Cluster sampling randomly select the groups, not individuals.⁵

Table III.3
The Total Sample of the Research

| No | Class | Male | Female | Total Number of Student |
|----|--------------|-----------|-----------|-------------------------|
| 1. | VIIIA | 12 | 13 | 25 |
| 2. | VIIIB | 11 | 14 | 25 |
| | Total | 25 | 25 | 50 |

The table showed the total sample of the research. In experimental class, there were 25 students, 11 of the students were male while 14 of students were female. Then, in control class, there were 26 students, 15 of the students were male while 11 students were female. So the total number of sample were 51 students, 25 students were male and 26 students were female.

E. The Technique of Collecting Data

In this research, the researcher used written test as the technique of collecting data. The students were tested by asking them to write a narrative

⁴ L.R Gay and Peter Airasian. *Educational Research: Competencies for Analysis and Application*. (USA: Prentice Hall, 2000). p.123

⁵ *Ibid.*129

paragraph. The test was given twice, before and after the treatment called by pretest and posttest. The pre-test was done in order to identify students' writing ability before being taught by group summarizing strategy and the post-test was done in order to know the significant difference of using group summarizing strategy on students' writing ability in narrative paragraph. To measure the students' writing ability, the researcher used ESL Composition Profile taken from Hughey, *et al.*⁶

Table III.4
ESL Composition Profile

| Aspects | Range | Criteria |
|---------|-------|---|
| Content | 30-27 | <i>Excellent to Very Good:</i> Knowledgeable, substantive, through development of thesis, relevant to assigned topic |
| | 26-22 | <i>Good to Average:</i> Some knowledgeable of subject,adequate range, limited development of thesis, mostly relevant to topic, but lacks details |
| | 21-17 | <i>Fair to Poor:</i> Limited knowledge of subject, little substance, inadequate development of topic |
| | 16-13 | <i>Very Poor:</i> Does not show the knowledge of subject, non substantive, not pertinent, not enough to evaluate |

⁶ Jane. B.Hughey, *Loc. cit.* pp. 139-140

| | | |
|--------------|-------|---|
| Organization | 20-18 | <i>Excellent to Very Good:</i> Fluent expression, ideas clearly stated or supported, well organized, logical sequencing, cohesive |
| | 17-14 | <i>Good to Average:</i> Somewhat choppy, loosely organized but main ideas stand out, limited support, logical but incomplete sequencing |
| | 13-10 | <i>Fair to Poor:</i> Non fluent, ideas confused or disconnect, lacks logical sequencing and Development |
| | 9-7 | <i>Very Poor:</i> Does not communicate, no organization, not enough to evaluate |
| Vocabulary | 20-18 | <i>Excellent to Very Good:</i> Sophisticated range, effective word or idiom choice and usage, word form mastery, appropriate register |
| | 17-14 | <i>Good to Average:</i> Adequate range, occasional errors of word or idiom form, usage but meaning nit obscured. |
| | 13-10 | <i>Fair to Poor:</i> Limited range, frequent errors of word or idiom form, choice, usage, meaning confused or obscure. |
| | 9-7 | <i>Very Poor:</i> Essentially translation , little knowledge of English vocabulary, idioms, word form, or not enough to evaluate |
| Language use | 25-22 | <i>Excellent to Very Good:</i> Effective complex construction, few errors of agreement, tense, number, word order or functions, articles, pronouns, prepositions |

| | | |
|--------------|-------|---|
| | 21-18 | <i>Good to Average:</i> Effective but simple constructions, minor problem in complex constructions, several errors of agreement, tense, number, word order of functions, articles, pronouns, preposition but meaning never obscured |
| | 17-11 | <i>Fair to Poor:</i> Major problems in simple or complex constructions, frequent errors of negation, agreement, tense, number, word order or functions, articles, pronouns, prepositions and or fragments, deletions, meaning confused or obscured |
| | 10-5 | <i>Very Poor:</i> Virtually no master of sentence construction rules, dominated, by errors, does not communicate, not enough to evaluate |
| Mechanics | 5 | <i>Excellent to Very Good:</i> Demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing |
| | 4 | <i>Very Good to Average:</i> Occasional errors of spelling, punctuation, capitalization, paragraphing, but meaning not obscured |
| | 3 | <i>Fair to Poor:</i> Frequent errors of spelling, punctuation, capitalization, paragraphing, poor handwriting, meaning confused or obscured. |
| | 2 | <i>Very Poor:</i> No mastery of conventions, dominated by errors of spelling, punctuation, capitalization, paragraphing, handwriting illegible, or not enough to evaluate. |
| Total score: | | Comment: |

The researcher concluded the category standard as follows:

Table III.5
Score of the Writing Test

| No | Writing Skill | The Highest Score |
|-------|---------------|-------------------|
| 1 | Content | 30 |
| 2 | Organization | 20 |
| 3 | Vocabulary | 20 |
| 4 | Language use | 25 |
| 5 | Mechanics | 5 |
| Total | | 100 |

Then the score was interpreted into the following category:⁷

Tabel III.6
Scoring Guide

| No | Score | Frequency | Percentage | Categories |
|--------------|--------|-----------|------------|------------|
| 1 | 80-100 | | % | Very Good |
| 2 | 66-79 | | % | Good |
| 3 | 56-65 | | % | Enough |
| 4 | 40-55 | | % | Less |
| 5 | 30-39 | | % | Fail |
| Total | | | 100 | |

Before giving the test to the research participant, the researcher gave the try out to the other classes that had the same level in the achievement of learning process as research participant to find out the validity and reliability of the test.

⁷Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan : Edisi Revisi*. (Jakarta: Bumi Aksara, 2009). p. 245

F. The Realibility and Validity of the Test

The tests used in testing students' writing ability should be valid and reliable. The test can be valid if it measures accurately what it is intended to measure⁸. In this research, the researcher used content validity to know the validity of writing ability test. Content validity is partly a matter of determining if the content that the instruments contains is an adequate sample of the domain of content it is supposed to represent.⁹ Thus, the test was given based on the material studied by the students. Content validity was used by the researcher in the test, because students were asked to write about the topics related to the material.

Besides, reliability is the degree to which a test consistently measure whatever it is measuring.¹⁰ According to Cohen, reliability in quantitative research is essentially a synonym for dependability, consistency, and replicability over time, over instruments and over groups of respondents.¹¹ It is clear that reliability is used to measure the quality of the test scores and the consistency of the test.

In obtaining the reliability of the test, the researcher used inters rater reliability. It was because in this research the researcher used two raters to

⁸ Arthur Hughes. *Testing For Language Teacher*. (United Kingdom: Cambridge University Press, 2003). p.26

⁹ Fraenkel Jack R. & Norman E. Wallen. *How to design and evaluate a research in education*. (New York: McGraw-Hill Companies Inc, 2006). p. 153

¹⁰ L.R. Gay and Peter Airisian. *Op., Cit.* p.169

¹¹ Louis Cohen, et al. *Research Method in Education*. (New York: Routledge, 2007). p.146

measure students' score in writing report paragraph. Brown says that inter rater reliability occurs when two or more scores yield inconsistent scores of the same test, possibly for lack of attention to score criteria, inexperience, inattention or even preconceived biases.¹²

In this research, the researcher used inter-rater reliability. It was because there were two raters involved in order to assess the students' writing ability. Then, the researcher applied SPSS 16 application to find the reliability of the test based on Alpha Cronbach technique. The steps are as follows:

- a. Open SPSS 16,
- b. Open new file,
- c. Enter the data based on the group of variable. In the first column, fill the all of scores from first rater and in the second column, fill the all of scores from second rater,
- d. Press menu analyze, then press scale, then press Reliability Analysis
- e. Move Scores columns to items, then press Ok

Then the results are shown in the output table. The output can be seen as follows:

¹² Douglas H Brown. *Language Assessment: Principles and Classroom Practices*. (New York: Pearson Education Inc, 2003). p.21

TABLE III.7
Result of the Reliability Test

| Reliability Statistics | |
|-------------------------------|------------|
| Cronbach's Alpha | N of Items |
| .871 | 2 |

Based on the table above, it was clear that the reliability value was 0.871. Based on Siregar writing, the tests will be able to be called as the reliability tests if the score of r_{11} is higher than 0.6^{13} . The comparison between r_{11} and 0.6 can be written as follows:

$$0.871 > 0.6$$

It shows that the score of r_{11} was higher than 0.6, it means that the test was reliable.

G. The Technique of Data Analysis

In analyzing the data, the researcher used the scores of pre- test and post test of experimental and control classes. To find out whether there was a significant effect of using group summarizing strategy on students' writing ability in narrative paragraphh of the eight grade at State Junior High School 9

¹³ Syofian Siregar *Statistika Parametrik untuk Penelitian Kuantitatif: Dilengkapi dengan Perhitungan Manual dan Aplikasi SPSS Versi 17*. (Jakarta: Bumi Aksara 2013). p.90.

Tapung, the data were analyzed statistically. In order to answer these research questions, researcher analyzed the data by using t-test formula through SPSS 16 version.

After computing the t-test, it is necessary to obtain the degree of freedom that is used to determine whether the t-value was significant or not. The t- value is consulted with the value of t-table in line with the degree of freedom. The formula of degree of freedom was computed as follows:¹⁴

$$df = (N_x + N_y) - 2$$

Where:

df : the degree of freedom

N_x : the number of students in experimental class

N_y : the number of students in control class

Statistically, the hypotheses are:

H₀: $t_o < t\text{-table}$

H_a: $t_o > t\text{-table}$

¹⁴ Hartono, *Statistik Untuk Penelitian*, (Yogyakarta: Pustaka Belajar, 2011) p. 212

H_0 is accepted if $t_o < t\text{-table}$ or there is no a significant effect of using group summarizing strategy on the students' ability in writing narrative paragraph.

H_a is accepted if $t_o > t\text{-table}$ or there is a significant effect of using group summarizing strategy on the students' ability in writing narrative paragraph.