

CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the research methodology employed in this study. Research design, participants, data collection, procedure of the study, and data analysis are presented in this chapter.

3.1 Research Design

This study mainly employed quantitative design. Since the purpose of this study was to find out whether text summary assignment was effective in improving students' reading abilities, experimental design was used. Simply put, experimental design is a kind of quantitative study in which there are two groups involved that include experimental group and control group (Coolidge, 2000; Kranzler and Moursund, 1999). The experimental group is the group that gets a treatment (in this study, the treatment is text summary) while the control group does not. However, it does not mean that the control group did not get any techniques or methods. In this study, both groups were taught using Genre-Based Approach (GBA). What made it different was that text summary was only applied in the experimental group.

Since random assignment was not possible to carry out in this study, quasi experimental, particularly nonequivalent/ nonrandomized pre-test and post-test design is then used.

3.2 Participants

Sampling is globally used in research papers to generalize population's characteristics through sample (Coolidge, 2000; Kranzler and Moursund, 1999).

In this study, population was all eighth graders at Pondok Pesantren Albasyariyah Bandung, whereas the sample(s) was two classes of them. Thus the result obtained from those samples, which were two classes of grade 8 at Pondok Pesantren Albasyariyah Bandung, was used to generalize the characteristics of the population, who were all students of grade 8 at Pondok Pesantren Albasyariyah 5 Bandung.

3.3 Data Collection

There were two main instruments used to collect data in this study, namely test and questionnaire. The test, which was divided to pre-test and post-test, was utilized to obtain students' scores. The test was a reading test in form of multiple choices. According to Nelson, (1962, cited in Meade PASS Training, 2009) multiple-choice items that measure students' understanding of main ideas and details at the paragraph level can be used as the instrument of a reading test. There were 20 questions related to a recount text presented. On the other hand, the questionnaire was used to gain students' perceptions about the application of text summary.

3.4 Procedure of the Study

The procedure of this study included pilot test, pre-test, treatment session, post-test, and questionnaire. The pilot test aimed at finding out whether the test was valid and reliable or not. Another purpose of the pilot test was to see the difficulty and discrimination level of the test. The pre-test was carried out to see the initial difference between experimental and control groups. The treatment session was where the text summary is applied to the experimental group. The

treatment had been given five times in five sessions. Students were required to report various topics of the same genre. The genre taught was recount. The post-test was aimed at finding out whether there was any significant difference between both groups after the treatment. Lastly, the questionnaire was intended to find out students' perceptions towards the application of text summary, particularly dealing with the advantages and disadvantages of it.

3.5 Data Analysis

3.5.1 Pilot Test Data Analysis

The pilot test was conducted to find out whether or not the instrument was valid and reliable. In other words, it was to see if the test was appropriate to use or not.

3.5.1.1 Validity Test

As it was named, this test was used to see whether the test was valid or not. This means that the test was carried out to see whether the test measured what was supposed to be measured (Fraenkel and Wallen, 1990). To test the validity of the instrument, Pearson Product Moment in SPSS 16 for Windows was performed.

3.5.1.2 Difficulty Test (Item Facility)

In addition to the validity of the instrument, difficulty and discrimination of the instrument needed to be tested as well. Fulcher and Davidson (2007) state that difficulty (item facility) is defined simply as the proportion of test takers who answer item correctly whereas discrimination is defined as the capability of the test, in this study it is the instrument, of discriminating between higher and lower ability of test takers.

To calculate the difficulty (facility item) of the test, the formula was the number of correct answers of each question divided by the number of the test takers with the acceptable range being from around 0.3 to 0.7 (Henning, 1987:50, cited in Fulcher and Davidson, 2007).

3.5.1.3 Discrimination Test

Fulcher and Davidson (2007) also state that the most commonly used method of calculating item discrimination is the point biserial correlation. Here is the formula they offer:

$$r_{pbi} = \frac{x_p - x_q}{s_x} \sqrt{pq}$$

where

r_{pbi} = point biserial correlation

x_p = mean score on the test for those who get the item correct

x_q = mean score on the test for those who get the item incorrect

s_x = standard deviation of test scores

p = the proportion of test takers who get the item correct (facility value)

q = the proportion of test takers who get the item incorrect.

3.5.1.2 Reliability Test

In addition to the validity, difficulty (item facility), and discrimination tests, reliability test was also performed in this study. It simply aimed at seeing whether or not the test gave consistent results (Fraenkel and Wallen, 1990). To test the reliability of the instrument, Alpha Cronbach in SPSS 16 for Windows was performed.

3.5.2 Pre-test Data Analysis

Both experimental and control groups got pretest and posttest. The pretest mainly aimed to see students' initial scores and it was expected that their scores were relatively similar to each other so that it could be assumed that what improved their scores was the treatment. After getting the scores of the posttest, there were several tests conducted including normality of distribution test, variance homogeneity test, and then independent t-test.

3.5.2.1 Normality of Distribution Test

To see if the data were normally distributed, there was also a test. In SPSS 16, Kolgomorov-Smirnov was used to analyze it. First of all, the hypothesis and the alpha level of 0.05 were stated. Second of all, the data distribution was analyzed using Kolgomoro-Smirnov Test. Lastly, the result/ *Asymp. Sig* was compared with the level of significance. This was to test the hypothesis. When the *Asymp sig* was more than the level of significance, the hypothesis was accepted, meaning that the data were normally distributed.

3.5.2.2 Variance Homogeneity Test

If the data were normally distributed, variance homogeneity test took place after that. First step of this test was stating the hypothesis and the alpha level of 0.05. Second step was analyzing the variance homogeneity test. Third step was comparing the *Asymp sig* with the level of significance. If the *Asymp sig* was larger than the alpha level, the hypothesis was retained. It means that the data variances were homogenous.

3.5.2.3 Independent t-Test

Due to the normality of data distribution and variance homogeneity of this study's data, the data were parametric. Then independent *t*-test were performed to compare the means of both experimental and control groups.

In the independent *t*-test, first step was stating the null hypothesis (H_0) and the alternative hypothesis (H_a). The hypotheses are as follows:

H_0 : There was no significant difference between the group that made text summary and the group that did not make it.

H_a : There was significant difference between the group that made text summary and the group that did not make it.

Next step was determining the value of the suitable *t* and *df* (degree of freedom). When the values were obtained already, the sig. value which aligned with them was then compared with the alpha level of 0.05. If the sig. value was smaller ($p < 0.05$), the null hypothesis was rejected which means that there was significant difference between both groups and vice versa.

3.5.3 Post-test Data Analysis

The post-test data analysis was quite the same as that of the pre-test data analysis. The primary distinction lied on the purpose. The purpose of the pre-test was merely to see both groups' difference prior to the treatment while the purpose of the post-test was to see whether the treatment made any significant difference in students' achievement. Another distinction was that there was no effect size calculation in pre-test but it was employed in post test to see how effective the treatment was.

3.5.4 Questionnaire Data Analysis

Students' opinions about their preferences to text summary, advantages and disadvantages of text summary, and their impressions to the application of text summary were interpreted as well in chapter IV. They were classified in percentage, and then discussed in relation to the related literature.

3.6 The Teaching Phases in both Experimental and Control Groups

There were several teaching phases carried out in this study. Those phases included preliminary phase which was conducted in pre-test, treatment implementation which had been held in five sessions, and also post-test which was administered after the treatment.

The pre-test was conducted to see the initial ability of the students in both groups. It was expected that students in both groups have relatively similar scores it could be said that it was the treatment that made their scores significantly different.

In the treatment session, each group got the same teaching method, which was MOT (modeling of the text). Generally, in this session, all students were exposed to a number of recount texts and they were asked to discuss them in group. However, only the experimental group that had to make text summary. Below is the explanation of how each session run.

In the first session, students were introduced to the social function, generic structure, and linguistic features of recount texts. There were divided into groups consisting of 4 or 5 people. First of all, the teacher explained those characteristics of recount texts. After that, students were asked to discuss it in groups. The next

activity was the identifying the generic structure and linguistic features of the texts the teacher gave them. After each group finished identifying their texts, they compared their work with their friends' work. In this phase, teacher was the facilitator.

In the next four sessions, the activities were quite similar to each other. Students had to work in groups or pairs (the member distribution was determined by the teacher considering students' achievement; there had to be high achievers and low achievers in each group, as suggested by Emilia, (2008)). In groups, they needed to identify the texts the teacher gave in terms of their generic structure and linguistic features and furthermore discussed the results of their work with their friend's work from the other groups. However, in the experimental group, every session, students had to submit their text summary before they started the class. The title of the texts they had to discuss were *My Holiday in Bali*, *My Holiday was Fantastic*, *A Visit to a Sheep Property*, and *Bus was Flowing Right Behind Me*. All the details of the teaching instruments were attached in appendix A.

3.7 Clarification of Terms

To avoid misunderstanding, several terms are clarified as follows:

- Effectiveness

This term mainly talks about the results whether or not text summary is effective in improving students' reading abilities.

- Text summary

Text summary in this study refers to students' regular homework in which they have to individually make their summary based on their own

understanding and interpretation of each text that is going to be discussed. Interestingly, the texts written in English while they should handwrite their summary in bahasa Indonesia. In addition, students have to strictly follow the format provided by the teacher/ instructor. Also, there will be some points for each text summary and students who do not make the text summary appropriately will get penalty.

- Students

This study actually adapts the system of population and sample. The population is all of eighth graders at Pondok Pesantren Abasyariyah whereas the sample is two classes of them consisting of 30 students who are randomly chosen. So students here belong to those two classes.

- Reading abilities

Simply put, reading abilities in this study refer to students' pretest and posttest results or scores. The questions of the pretest and posttest are validated so that it can be assumed that the questions are in accordance with students' capability and characteristics.

In this chapter, it has been stated that the design used in this study is a quasi-experimental design. Simply put, there are two groups involved in this study namely experimental and control groups. The experimental group gets text summary as the treatment while the control group does not get any treatment.