

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter presents research questions, research design, research variables, population and sample, research procedures, research instruments, data collection, and data analysis.

#### **3.1 Research Questions**

As previously mentioned in chapter one, this study tried to find out whether or not the use of authentic material is effective in teaching recount text. The writer measured the students' writing ability through writing test to determine the effectiveness of the treatment. To lead the study into structured discussion, this study focused on the following research questions:

1. To what extent is the use of authentic materials in teaching recount text effective to improve students' writing ability?
2. In what ways do the students respond to the use of authentic materials in learning recount text?

#### **3.2 Research Design**

Nunan (1992: 41) states that in an experimental study, there are quasi-experimental design, pre-experimental design, and true-experimental design. He also shows the major differences of quasi-experimental design compared to the pre-experimental and true-experimental design in the following table:

Table 3.1

Contrasting Pre-experiments, Quasi-experiments, and True experiments

Type	Characteristic
Pre-experiment	May have pre- and post- treatment test, but lacks a control group
Quasi-experiment	Has both pre- and posttest and experimental and control groups, but no random assignment of subjects
True-experiment	Has both pre- and posttest, experimental and control groups, and random assignment of subjects

(Nunan, 1992: 41)

As the title indicates, this research used Quasi Experimental Design. This design was chosen because there was not feasible to use random selection and random assignment since the population did not consist of individuals but group of individual or cluster. Schematically the research design is as follow:

Table 3.2  
The Research Design

Group	Pre-Test	Treatment	Post-Test
Experimental (G <sub>1</sub> )	T <sub>1</sub>	X	T <sub>2</sub>
Control (G <sub>2</sub> )	T <sub>1</sub>	-	T <sub>2</sub>

In this research, there were control group and experimental group. To identify the initial differences between the groups, a pre-test (T<sub>1</sub>) was conducted before the treatments. In this method, the experimental group (G<sub>1</sub>) received the special treatments (X) while the control group (G<sub>2</sub>) did not. After the treatments, both groups did a post-test (T<sub>2</sub>) to find out the effectiveness of the treatments. Next, both results were compared in order to find out the cause and the effect of the treatments.

### **3.3. Research Variables**

Hatch and Farhady (1982: 22) define variable as “an attribute of a person or an object which varies from person to person or from object to object”. There are two kinds of variables in this research, independent variable and dependent variable. Independent variable is a variable that evoke or influence the dependent variable. Meanwhile, dependent variable is a variable which is influenced by independent variable (Sugiono, 1999: 9). In this research, the independent variable was authentic materials, while the dependent variable was students’ writing ability.

### **3.4 Population and Sample**

#### **3.4.1 Population**

According to Arikunto (1998: 115) population is “a whole research subject. When a researcher analyzes all the elements that exist in the research area, then the research is a population research”. In this study the population was the first grade students of SMA PGII 1 Bandung enrolled in academic year 2007/2008 which consisted of eight classes from X-1 to X-8.

SMA PGII 1 Bandung was chosen as the place of conducting the research because it was the place where the writer worked and taught English and according to English Curriculum, recount text was part of the curriculum for the first grade students.

Since the first grade students had been used to learn text genres so they were taken as population. Besides, based on the observation, the first grade students of SMA PGII 1 Bandung made a lot of mistakes in writing.

### **3.4.2 Sample**

To determine the sample of this research cluster sampling was used. According to Sugiono (1999: 93) cluster sampling is used to determine sample if the object of study is very wide. All the members of the selected groups have similar characteristics. This study used two classes as the sample. The first class was X-3 as the control group which consisted of 35 students and the second class was X-5 as the experimental group which consisted of 38 students. However, there was a possibility that not all of the students of each class became the sample of this research. It was because some students were absent when the writer conducted the pre-test. Therefore, the researcher decided to take only 30 students from each class as the sample. This sample was purposefully chosen due to both classes were the class which had similar schedule in English lesson compared to the other class.

### **3.5 Research Procedures**

There were some procedures administered during the research in order to find out a valid result in answering the research questions.

First, prepared the authentic materials for teaching and learning process before the treatments. Second, organized teaching procedures by using four stages of learning for genre based approach, they are: (1) Building Knowledge of the Field. In this stage, the teacher and the students built cultural context, shared experience related to the topic or materials that were presented. It was aimed to get students' prior knowledge; (2) Modeling of Text. In this stage, the teacher explained the definition and source of authentic materials, the purpose, generic

structure and format of recount text. Then, the teacher asked the students to sit in groups of seven. Next, gave the students an authentic material from the magazine or from the internet. Then, asked the students to read and explore the text. Finally, the teacher discussed the generic structure and the format such as orientation, series of events, and re-orientation that existed in the text; (3) Joint Construction of Text. In this stage, the teacher asked the students to accomplish several exercises based on the text, then discussed the right answer for the exercise that has been answered by the students. After that, asked them to make another unforgettable experience, where steps and format were similar with the steps and format that have been learnt in the MOT stage; and (4) Independent Construction of Text. In this stage, the teacher asked the students individually to make a recount text by making another topic beginning from orientation, events, and re-orientation (Hammond et al., 1992: 17).

Third, organized the research instrument and then tried out the research instrument. Fourth, analyzed the try out data to find out the validity and reliability. Fifth, administered pre-test for both groups to find out the initial differences of writing outcomes between the two groups. Sixth, gave the experimental group authentic materials in learning recount text as the treatments. Seventh, administered post-test for both groups to find out the achievement on writing skill after the experimental group was given the authentic materials in learning recount text. Eighth, administered questionnaire for experimental group to find out information about the strengths and the weaknesses of authentic materials in learning recount text based on the students' point of view. Ninth, drew the interpretation based on the result of data analysis collected from pre-

test, post-test and questionnaire. Finally, drew the conclusion and proposed some suggestions for further study.

### **3.6 Research Instruments**

In collecting the data, two kinds of instruments were used: writing test and questionnaire.

Writing test was used to investigate students' writing skill which consisted of two kinds of test. They were answering the questions and writing a recount text. The students had to search the answers from the text given which were usually called treasure hunt. The students had to hunt the answers from the text. After they had finished finding the answers, they had to arrange the answers into a recount text.

In addition, questionnaire was used to support the data in explaining information about the students' response to the use of authentic materials in learning recount text. The questionnaire was only given to the experimental group at the end of the program. In detail, the research instruments could be explained below:

#### **3.6.1 Pre-Test**

Pre-test was carried out to find out the initial differences between experimental and control groups as they had similar level in writing ability. Before receiving the treatment, the test was in the form of written test. After answering all questions and changed them into writing recount, the students



submitted their work to the teacher. Then, their work was assessed by the teacher based on the criteria given.

### 3.6.2 Post-Test

Post-test was distributed to both groups to find out whether or not the students made progress in their writing ability. In this study, the criteria of writing scoring system proposed by Carroll (2002) are used to assess the result of students' score. The criteria of writing scoring system (range from 1 to 6) are as follows:

Table 3.3  
Scoring Form of Students' Writing

No	Component	Scoring Scale					
		6	5	4	3	2	1
1	Focus						
2	Organization						
3	Sentence Fluency and Word Choice						
4	Convention						

Based on the analytical scale from Carroll (2002) the descriptions of the writing scoring system are as follows:

a. Focus

(6) = there is one clear, well-focused topic, main idea stands out and is supported by detailed information.

(5) = main idea is clear but the supporting information is general.

(4) = main idea is somewhat clear but there is a need for more supporting information.

(3) = main idea is somewhat clear; there is a seemingly random collection of information.

(2) = main idea is not clear, supporting details and information are relevant but several key issues or portions of the storyline are unsupported.

(1) = main idea is not clear, supporting details and information are typically unclear or not related to the topic.

b. Organization

(6) = is focused and well organized, with effective use of transitions.

(5) = is well organized, but may lack some transitions.

(4) = is generally organized, but has few or no transitions among sections.

(3) = is organized in parts of the essay; other parts are disjointed and/or lack transitions.

(2) = is disorganized or unfocused in much of the essay or is clear, but too brief.

(1) = exhibits little or no apparent organization.

c. Sentence Fluency and Word Choice

(6) = consistently exhibits variety in sentence structure and word choice.

(5) = exhibits some variety in sentence structure and uses good word choice; occasionally, words may be used inaccurately.

(4) = most sentences are well constructed but have similar structure; word choice lacks variety or flair.

(3) = sentence structure may be simple and unvaried; word choice is mostly accurate.

(2) = sentences lack formal structure; word choice may often be inaccurate.

(1) = sentences run-on and appear incomplete or rambling; word choice may be inaccurate in much or the entire essay.



d. Conventions

(6) = errors in grammar, spelling, and punctuation are few and do not interfere with understanding.

(5) = errors in grammar, spelling, and punctuation do not interfere with understanding.

(4) = most frequent errors in grammar, spelling, and punctuation, but they do not interfere with understanding.

(3) = errors in grammar, spelling, and punctuation sometimes interfere with understanding.

(2) = errors in grammar, spelling, and punctuation interfere with understanding in much of the essay.

(1) = errors in grammar, spelling, and punctuation prevent reader from fully understanding essay.

### 3.6.3 Questionnaire

There was a closed questionnaire used in this study. There were fifteen questions in the questionnaire. It was aimed to support the data in gathering information about the students' response to the use of authentic materials based on students' point of view which was administered to the experimental group at the end of the program.

### **3.7 Data Collection**

#### **3.7.1 Try Out of the Instruments**

The try out test was administered in order to investigate the validity and reliability of the instrument before it was used in the research. It consisted of two kinds of test, treasure hunt and writing a recount text. The materials of the test were adapted from English for a Better Life used by the first grade students of senior high school. The try out test was conducted to class X4 of SMA PGII 1 Bandung on April 14, 2008.

#### **3.7.2 Pre-test**

Hatch and Farhady (1982: 22) state that a pre-test is administered to identify the initial differences between the groups. It was clear that a pre-test was used to find the initial differences between the groups that had similar level.

Before conducting the research, a pre-test was administered for both control and experimental groups on April 28, 2008.

#### **3.7.3 Treatments**

The implementation of the treatments in this research was done by giving authentic materials in teaching recount text. The treatments were conducted from 30 April to 28 May 2008. It covered one meeting in a week. Each meeting consisted of two hours of instruction (one hour instruction was forty minutes).

#### **3.7.4. Post-test**

The post-test had the same procedures with those of the pre-test. It was administered in the last program of this research after giving some treatments and exercises to the experimental group in a period of time. The post-test was conducted on June 2, 2008.

#### **3.7.5 Questionnaire**

The questionnaire was given to the experimental group on June 4, 2008.

### **3.8 Data Analysis**

#### **3.8.1 Data Analysis on Try-Out**

The data obtained in try out test were analyzed to investigate the validity and reliability of the test items. The valid and reliable items then used as the research instrument.

##### **3.8.1.1 Validity**

Validity refers to the extent to which the results of the procedure serve the uses for which they were intended. Validity refers to the results of the test, not to the test itself. Also validity is a matter of degree. It is not an all-or-nothing trait. We talk about high validity, moderate validity, and low validity rather than absolute validity (Hatch and Farhady, 1982: 251).

In this research, the writer used ANATES program to compute the validity of the instruments. The criteria for the validity test are presented in the following table:

Table 3.4  
Validity Index Criteria

Score	Validity Criteria
0.00 – 0.200	Very low
0.200 – 0.400	Low
0.400 – 0.600	Moderate
0.600 – 0.800	High
0.800 – 1.00	Very high

(Arikunto, 2002: 147)

### 3.8.1.2 Reliability

Reliability is defined as the extent to which a test procedures consistent result when administered under similar condition. Consistency of results is the basic concept of reliability of a test (Hatch and Farhady, 1982: 244).

In this research, the writer used ANATES program to compute the reliability of the instruments. The criteria for the reliability test are presented in the following table:

Table 3.5  
Reliability Index Criteria

Score	Reliability Criteria
0.00 – 0.20	Very low
0.21 – 0.40	Low
0.41 – 0.60	Moderate
0.61 – 0.80	High
0.81 – 1.00	Very high

(Arikunto, 2002: 147)

### 3.8.2 Data Analysis on Pre-Test

#### 3.8.2.1 Normality Distribution Test

In this study, Kolmogorov-Smirnov Sample Test in SPSS version 13.0 was used to analyze the normal distribution. It was aimed to find out whether or not the distributions of pre-test and post-test score in the two groups were

normally distributed. In this case, the result of the normality distribution was also used to find out whether or not the hypothesis that had been determined was accepted.

The first step in calculating the normality distribution test stated that the hypothesis:

$H_0$  : the score of the experimental and the control group are normally distributed.

The second step in calculating the normality distribution test tried to compare the Asymp. Sig. (probability) with the level of significance for testing the hypothesis. If the Asymp. Sig. is more than the level of significance (0.05) the null hypothesis is accepted; the scores are normally distributed.

### **3.8.2.2 Variance Homogeneity Test**

In this study, one way ANOVA in SPSS version 13.0 was used to find out the homogeneity of variance. It was used to determine whether the variances of pre-test and post-test score in the two groups were equal.

The first step in calculating the homogeneity of variance stated that the hypothesis:

$H_0$  : the variance of the experimental and the control group are equal.

The second step in calculating the homogeneity of variance tried to compare the probability with the level of significance for testing the hypothesis. If the probability is more than the level of significance (0.05) the null hypothesis is accepted; the variance of the experimental and the control group are equal.

### 3.8.2.3. t-test Computation

Independent t-test in SPSS version 13.0 was used to find out the significant differences between the pre-test mean for experimental and control groups before the treatments.

The first step in calculating t-test stated that the hypothesis.

$H_0$  : there is no significant difference between the means for the experimental and the control groups.

The second step in calculating t-test tried to compare the probability with the level of significance for testing the hypothesis. If the probability is more than the level of significance (0.05) the null hypothesis is accepted; there is no difference between the means of the experimental and the control groups.

### 3.8.3 Data Analysis on Post-Test

The procedures of post-test analysis were similar with the procedures of pre-test analysis. In this case, Independent t-test in SPSS version 13.0 was also used to find out the significant difference between the score of both groups after the treatments.



### 3.8.4 Questionnaire Analysis

The formula of percentage was used to analyze the questionnaire. The data would be interpreted based on the frequency of the student's answer. The formula of percentage for calculating the questionnaire is:

$$P = \frac{F_o}{n} \times 100\%$$

Note: P = Percentage  
F = Frequency observed  
n = Number of sample  
100 = Constant

