III RESEARCH METHODS

This chapter presents research design, population and sample, data, data collecting technique, research procedure, scoring criteria, validity and reliability, data analysis, treatment of the data and hypothesis tests of the research. All of the subtopics describe about the methods that are used in this research.

A. Research Design

This research was a quantitative study which was intended to find out the improvement of students' achievement in writing recount text after being taught using Guided Questions. This research was an experimental research using two groups. The research was conducted based on control group pretest-posttest design. The design used two classes, one as the experimental class which received the treatment of Guided Questions and the other as control class which was taught with regular teaching learning activity by the classroom teacher. The regular teaching learning activity that was used by the classroom teacher was free writing. In teaching recount text writing using free writing, the teacher gave the students topic and asked them to write recount text based on the topic given. Control group pretest-posttest design uses pre-test to see the students' initial ability before treatment and post-test to see the improvement of the students' ability after they receive the treatments. The design can be illustrated as follow:

G1 = T1 X T2

G2 = T1 O T2

Note:

- G1 is the experimental class which receive the treatment of Guided
  Questions

- T1 is pre-test which is given to see the students' initial ability.

- X is treatment which is given after pre-test. The treatment is teaching
  writing skill in recount text using Guided Questions.

- T2 is post-test which is given after the treatment to see the result after
  applying the treatment.

- G2 is the control class which is taught with regular teaching learning
  activity by the classroom teacher.

- O is the regular teaching learning activity that is given by the classroom
  teacher.

(Setiyadi, 2006: 143)

B. Population and Sample

The population of this research was the first year students of the first semester of
SMA N 1 Seputih Agung in academic year 2010/2011. There were five classes of
the first year and each class consisted of 38-40 students. There was no leveling of
the classes. Two classes were selected randomly as the sample. In determining the
experimental class and the control class the researcher used the probability
sampling using coin. Those classes were taken as the samples of the research with

the assumption that the first year classes of SMA N 1 Seputih Agung were all at the same level of English Proficiency.

C. Data

This research was aimed at gaining the data of the students' ability achievement in writing recount text before and after the treatments. The data was collected by administering pre-tests and post-test for two classes, experimental class and control class. The result of the pre-test represents the students' ability in writing recount text before the treatment and the result of the post-test represents the students' ability achievement in writing recount text after the treatment. The treatment was given three times based on the time allocation for teaching recount text writing in syllabus and with the assumption that the students had learnt recount text writing when they were at Junior High School.

D. Data Collecting Technique

In collecting the data the researcher used the following techniques:

1. Pre-test

    The researcher conducted pre-test to find out the students' basic ability in writing recount text. In the pre-test the students were asked to write a text in form of recount based on the topic given. The text consists of 100-150 words.

2. Post-test

The researcher conducted post-test to measure the improvement of the students' ability in writing recount text. The task of post-test was the same as in pre-test. In this stage, the students were also asked to write a text in form of recount based on the topic given.

E. Research Procedure

The procedures of the research are as follow:

1. Determining the population and sample

The researcher chose SMA N 1 Seputih Agung Lampung Tengah as the population and sample of the research. There were five classes of the first year. Each class consisted of 38-40 students. The researcher took two classes, one as the experimental class and the other as control class as the sample of the research. The researcher selected randomly in determining the experimental class and control class.

2. Selecting the materials

The materials that were used in this research were taken from the students' handbook and based on the teaching and learning syllabus. The materials were part of the integrated ones taught in normal classes, which were based on School Based Curriculum 2006 (KTSP). Therefore, they were still in the same topics of the other normal classes.

3. Administering pre-test

Pre-test was administered to find out the students' basic ability before treatment. The students were asked to write recount text that consists of

100-150 words in about 90 minutes. The students had to arrange a recount text based on the topic given.

4. Conducting treatment

In the treatment, which was given three times, the researcher applied the technique of Guided Questions as the guidance for the students to write recount text. The researcher also explained the objective of the instruction, social function and generic structure of recount text, and aspect of writing a good text. Each treatment lasted for 90 minutes.

5. Administering post-test

Post-test was administered to find out the improvement of the students' ability achievement in writing recount text after having the treatments. The test was the same as in the pre-test.

6. Analyzing the test result

After the researcher got the scores of pre-test and post-test, certainly the comparison between pre-test and post-test scores in writing recount text can be appropriately found out.

F. Scoring Criteria

In giving students scores from the test, the researcher used the following criteria (adopted from Harris, 1979: 68-89)

Content   : the substance of the writing, the idea expressed

Grammar   : the employment of grammatical form

Organization   : the organization of content

Vocabulary   : the selection of words that suitable of the content

Mechanic : the conventional device used to clarify the meaning

Scoring criteria (adopted from Harris, 1979: 68-89)

Aspect	Criteria	Score
Content	• Excellent. All developing sentences support main idea	20
	• Good. Three developing sentences support main idea	15
	• Fair. Two developing sentences support main idea	10
	• Poor. One developing sentence support main idea	5
	• Very poor. No developing sentence support main idea	0
Grammar	• Excellent. All sentences written in the correct grammar	20
	• Good. Three sentences written in the correct grammar	15
	• Fair. Two sentences written in the correct grammar	10
	• Poor. One sentence written in the correct grammar	5
	• Very poor. No sentence written in the correct grammar	0
Organization	• Excellent. All supporting sentences written in chronological order	20
	• Good. Three supporting sentences written in chronological order	15
	• Fair. Two supporting sentences written in chronological order	10
	• Poor. One supporting sentence written in chronological order	5
	• Very poor. No supporting sentence written in	0

	chronological order	
Vocabulary	• Excellent. All vocabulary used correctly	20
	• Good. 75% vocabulary used correctly	15
	• Fair. 50% vocabulary used correctly	10
	• Poor. 25% vocabulary used correctly	5
	• Very poor. No vocabulary used correctly	0
Mechanic	• Excellent. All punctuation, spelling, and capitalization used correctly	20
	• Good. 75% punctuation, spelling, and capitalization used correctly	15
	• Fair. 50% punctuation, spelling, and capitalization used correctly	10
	• Poor. 25% punctuation, spelling, and capitalization used correctly	5
	• Very poor. No punctuation, spelling, and capitalization used correctly	0

Scoring sheet

Student' code	Content	Grammar	Organization	Vocabulary	Mechanic	Total score
	0-5-10-15-20	0-5-10-15-20	0-5-10-15-20	0-5-10-15-20	0-5-10-15-20	0-100

1						
…						
30						

G. Validity and Reliability

1. Validity of the Test

Validity determines whether the instrument of the research truly measures what it was intended to measure or how truthful the research results are. Truthful means that the test measures what it purports to measure. To measure the validity of the test of the research, the researcher analyzed the test from Content validity, Construct validity.

Content validity refers to the good reflection of the material that will be tested. In the content validity the material given is suitable with the curriculum used. The tests given in this research were writing tests. The students had to write recount text based on the topic given. There were three topics; my unforgettable experience, visiting the doctor and going to the beach. On the other hand, Scholl Based Curriculum of the first year of SMA states that students are expected to write recount text in various topics including my unforgettable experience and visiting the doctor. Since the tests given based on the curriculum, it can be concluded that the tests given were valid in content.

During the treatment process, the students learnt how to improve their ability in writing recount text with the topic my unforgettable experience, visiting the doctor and going to the beach. In the test they were also asked to write recount text based on the same topics. The test represented all the material that the students have learnt. Therefore, we can consider the tests to be valid in construct validity.

2. Reliability of the Test

Reliability has to deal with the quality of measurement, the consistency of the measurement device, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of the measurement. A measure is considered reliable if it would give us the same result repeatedly.

In this research, the researcher used inter-rater reliability. It refers to the concern that a students' score may vary from rater to rater. There was another person who gave the score besides the researcher. The researcher asked a teacher as one of the raters.

The researcher used the standard of reliability (Arikunto, 1998:260) below:
The criteria of reliability:

- Reliability ranges from 0.00 to 0.19 = very low

- Reliability ranges from 0.20 to 0.39 = low

- Reliability ranges from 0.40 to 0.59 = medium

- Reliability ranges from 0.60 to 0.79   = high

- Reliability ranges from 0.80 to 1.00   = very high

After calculating the students' writing scores, the researcher calculated the data by using rank order formulation to test the reliability of the device (see Appendix 5).

H. Data Analysis

To measure the students' progress in recount text writing, the researcher analyzed the students' score through this activity:

- Scoring the pre-test and post-test

- Finding the mean of the pre-test and post-test using this formula:

$$\mathrm{M}d = \frac{\Sigma d}{\mathrm{N}}$$

Md   = mean

Σ = total score of the students

N   = number of students

- Drawing conclusion by comparing the means of the pre-test and post-test

I. Treatment of the Data

The researcher used the following procedure in treating the data.

1. Random Test

The statistical formula of Descriptive Statistic (SPSS 15) was used to determine whether the data of the students' writing in experimental and control class were taken from the population at random (see Appendix 7).

2. Normality Test

The normality test was used to determine whether the data in experimental and control class were normally distributed. The researcher used One-Sample Kolmogorov-Smirnov Formula (SPSS 15) to test the normality of the data (see Appendix 8).

3. Homogeneity Test

The homogeneity test was used to determine whether the data in experimental and control class were homogenous. The researcher used Independent Sample Test (SPSS 15) to know the homogeneity of the test (see Appendix 9).

J. Hypothesis Test

To measure the improvement, the researcher compared the result of pre-test and post-test. After getting the mean scores of pre-test and post-test, the researcher analyzed the data using T-test to find the significant of the treatment effect. The hypotheses are as follows:

Ha (alternative hypothesis) is accepted if alpha level ( ) is lower than 0.05 (<0.05)

Ho (null hypothesis) is accepted if alpha level ( ) is higher than 0.05 (>0.05)