

### III. RESEARCH METHODS

This research was intended conducted to find out whether there is any differences or not of students' descriptive writing ability after they are taught through Contextual Teaching Learning (CTL) by sing picture.

#### A. Research Design

This research was designed in the form of quantitative research. This research used one group pretest-posttest design. To know the improvement of students' ability in writing descriptive text, the students' scores of pre test and post test were compared. Because the writer took only one classes, the research design could be represented as follow:

T1    X    T2

In which:

- T1    = Pretest of descriptive writing
- T2    = Posttest of descriptive writing
- X     = Treatment

(Hatch & Farhady, 1982:21)

The research was conducted in six meetings in the class. The first meeting was used for a pre test, four meetings for treatments (each treatments took 4 x 40 minutes or two meetings) and the one last meeting for a post test. The pre test was done to find out the students' basic ability in writing descriptive paragraph. The next meeting, treatments were done to guide the students in making descriptive paragraph from picture that is given by the writer as media for example, they are trying to think and discuss about the picture, to compose the generic structure, the description from the pictures given in a group. Then, after discussed in a group, the students were asked to make a descriptive paragraph individually.

The criteria whether there is progress on the students' writing achievement is determined by the differences between the results of pre test and post test of the students. If the results of post test is higher than pre test, it means there is improvement in their descriptive paragraph writing. On the other hand, if there is no improvement of the result from pre test to post test, it means there is no improvement and the writer needs to evaluate the implementation of CTL by using picture on the students' text writing.

## **B. Population Sample**

The populations of the research were the second year students of SMP NEGERI I NATAR, Lampung Selatan in the 2010/2011 academic year that consists of 9 classes. The writer will take only one class as a sample. The writer used lottery technique to choose the treatment class. Because those all second year classes have the same

chance to be the sample. Thus, the experimental class was VIII B. The class consisted of 30 students.

### **C. Data Collecting Technique**

In collecting data, the writer was collected based on students result in pre test and post test as follows:

#### **1. Pre-test**

The pre-test was administered in order to find out the students' scores of descriptive text writing before treatments and to diagnose individual specific strengths and weaknesses. It required 80 minutes for the test. In this test, the writer provided the picture for each student. The picture in this test were for attract the idea of the students. The students were asked to write a descriptive paragraph chronologically based on the picture that consist of 75-100 words.

#### **2. Treatment**

After gave the pretest, the writer treat the class by teaching them through Contextual Teaching Learning (CTL) by using picture. The material was taken from English Book for second year based on KTSP 2006. In the classroom, the writer acted as the teacher asked another teacher to observe her teaching. Based on the information that researcher got from the observer, his applied CTL in his teaching learning. So the observer is very understood about CTL.

### 3. Post-test

The post-test was administered after treatments to measure the increase of the students' descriptive text writing ability. Post-test exactly the same as in the pre-test. The students had the same picture as the picture they had in the pre-test. It took 80 minutes for this test. The students were asked to write a descriptive paragraph based on picture provided that consist of 75-100 words. Judge the average scores of pre-test and post-test, the writer was measure students' ability in writing descriptive text.

## **D. Validity and Reliability of the Test**

### **1. Validity of the test**

A test will be said valid if the test measures the object to be measured and suitable with the criteria (Hatch and Farhady, 1982:250). According Hatch and Farhady (1982:281) there are three basic types of validity; content, construct and face validity.

#### a. Content Validity

It is extent to which the test measures a representative sample of the subject matter content and not simply on the appearance of the test (Hatch and Farhady, 1982:251). In content validity the materials will be giving suitable with the curriculum, which is the Educational Unit Level Curriculum. In this case, the writer gave the descriptive material that should suppose to be comprehended by the first year students of senior high school.

### b. Construct Validity

Construct validity is concern with whether the test is actually in line with the theory of what it means to know the language that is being measure, it would be examine whether the test questions actually reflect what it means to know a language. In this research, the writer focused on descriptive writing ability through CTL by using picture.

### c. Face Validity

According to Heaton (1991:159), face validity concerns with what teachers and students thinks of the test. If a test looks right to other testers, teachers, and students, it can be describe as having at least face validity. In this research, the face validity of the writing test has been previously examining by both advisors and colleagues, until the test which will in form of instruction look right and understandable to other.

## 2. Reliability of the test

Inter-rater reliability was used when scores on the test were independently estimates by two or more judges or rater. The formula is as follows:

$$r = 1 - \frac{6 \sum D^2}{N(N^2 - 1)}$$

where

$\rho$  : Rank-Diference

$\sum D$  : The sum of diference between each pair of ranks.

(Harris, 1974:142)

In this case the writer also used the standard of reliability (Arikunto; 2002:93) below:

- a. A very low reliability ranges from 0.00 to 0.19
- b. A low reliability ranges from 0.20 to 0.39
- c. An average reliability ranges from 0.40 to 0.59
- d. A high reliability ranges from 0.60 to 0.79
- e. A very high reliability ranges from 0.80 to 1.00

After calculating the students' text writing, the writer calculated the data by used rank order formula. The result can be seen in the following tables:

**Table 1. The Reliability of Test.**

Reliability		Criteria
	0.66	High Reliability

From the criteria of the reliability above, it can be concluded that the reliability of the raters are high. The scoring criteria help the raters in scoring the students' writing accurately. In addition, the result shows that the raters scored the students' writing consistently and fairly.

#### **E. Research Procedure**

The procedure of the research as follows:

1. Determining the population and sample

In this stage, the writer has chosen eight grades of SMPN 1 NATAR, LAMPUNG SELATAN as the population and sample of the research. There were 9 classes in grade eight. Each class consists of 30 students. One class was chosen by using lottery.

## 2. Selecting and determining the materials

In selecting materials the writer used the materials based on the syllabus at the second years of Junior High School based on the KTSP (an English operational curriculum which is arrange and applying by each education unit) which us the newest curriculum use by the school.

## 3. Administering the pre-test

The writer administered the pre-test in order to find out the students' basic ability before treatments. In this test, the writer asked the students to write descriptive paragraph that consist of 75- 100 words in about 60 minutes.

## 4. Conducting Treatment

The treatments were repeated 3 (three) after the pre-test. Each treatment was conducted in two meetings. It required 90 minutes for each meeting. In each treatment, different topics were discussed. In the treatments, the students gave the explanation about the goals and objectives of instruction and also aspects writing within a good paragraph. They were given pictures that have been prepared by the teacher to keep the content in line with the topics. They discussed the pictures and write the sentence into a good descriptive paragraph. In the first treatment the

students were asked to describe a place and in the second treatment they were asked to describe a person.

#### 5. Administering the test

The posttest was conducted after the treatment. In this test the students were asked to write a descriptive paragraph that consist of 75-100 words in about 60 minutes. They had to develop the same topics as they have had in the pretest but with different described case.

#### 6. Analyzing the test results

After scoring students' work is finished, the writer compared the result of the pretest and posttest to see whether the score of the posttest was higher than the score in the pretest, in each aspect of writing.

### **F. Scoring Criteria**

The four aspects of evaluated by the writer according to Harris (1969:68-69) are content, organization, vocabulary, grammar and mechanic. This research, using computation as follows:

- Content is scored as much as 20% from the total sentences support the main idea (unity).
- Organization is evaluated as much as 20% from the total sentences are written in chronological order (coherence).
- Vocabulary is scores as much as 20% from vocabularies used correctly.
- Grammar is scores as much as 20% from sentences use a correct grammar.



- Mechanic is evaluated as much as 20% from use punctuations, spelling and capitalization in correctly.

The criteria of scoring are devised from Harris (1969:68) are evaluated 20% of each aspect as follows:

a. Content

- 20 Excellent, all the developing sentences the main idea
- 15 Good, three fourth of developing sentences support the main idea
- 10 Fair, a half of developing sentences support the main idea
- 5 Poor, a quarter of the developing sentences support the main idea
- 0 Very poor, there is no developing sentences support the main idea.

b. Grammar

- 20 Excellent, all the sentences are written in the right form of present tenses
- 15 Good, three fourth the sentence are written in the right form of present tenses
- 10 Fair, a half of the sentences are written in the right form of present tenses
- 5 Poor, a quarter of the sentences is written in the right form of present tense
- 0 Very poor, there is no sentences that is written in the right form of present tenses

c. Organization

- 20 Excellent, there are at least two right use of transitional words and all the supporting sentences are written in spatial order

15 Good, three fourth right use of transitional word and all the supporting sentences are written in spatial order

10 Fair, a half of supporting sentences are written in spatial order

5 Poor, a quarter of supporting sentences is written in spatial order

0 Very poor, there is no supporting sentence is written in spatial order

d. Vocabulary

20 Excellent, all the vocabularies are used correctly

15 Good, three fourth vocabularies are used correctly

10 Fair, a half of vocabularies are used correctly

5 Poor, a quarter of vocabularies are used correctly

0 Very poor, there is no vocabularies are used correctly

e. Mechanics

20 Excellent, all the sentences are using correct punctuation

15 Good, three fourth the sentence are using correct punctuation

10 Fair, a half of the sentences are using correct punctuation

5 Poor, a quarter of the sentences are using correct punctuation

0 Very poor, there is no vocabulary used correctly

**Scoring sheet of each test**

Aspect of Writing	Students' Code				
	1	2	3	....	25
<b>5-10-15-20</b>					
<b>Content</b>					
<b>Grammar</b>					
<b>Organization</b>					
<b>Vocabulary</b>					

Based on the table above, the writer would evaluate the aspects of descriptive paragraph writing based on the content, grammar, form, vocabulary and mechanics.

The lower score is 0 and the higher is 100.

### G. Hypothesis Testing

To know the gain, the writer was compared pre test and post test. The data were also analyzed by using t-test in order to know the significance of treatment effect.

According to Hatch and Farhady (1982:114), the assumption of T-test are:

1. The subject is assigned to one (and only one) group in experiment.
2. The scores in independent variable are continuous and that there are only two levels to the variable.
3. The variances of the scores in the populations are equal, and the scores are normally distributed.

The formula of T-test analysis is:

$$T = \frac{\bar{X}_1 - \bar{X}_2}{s_{\bar{d}}} \quad \text{in which} \quad S_{\bar{d}} = \frac{Sd}{\sqrt{n}}$$

Where:

$\bar{X}_1$  : mean of pretest

$\bar{X}_2$  : mean of posttest

$S_{\bar{d}}$  : standard error of differences between two means.

$Sd$  : standard deviation

$n$  : number of students

(Hatch and Farhady, 1982:116)

Hypothesis for Research Question 1:

H1 : There is significant improvement of students' ability in writing descriptive paragraph after they are taught through CTL by using picture.

Ho : There is no significant improvement of students' ability in writing descriptive paragraph after they are taught through CTL by using picture.

Hypothesis for Research Question 2:

H1 : There is improvement of students' ability in writing descriptive paragraph in term of content, grammar, organization, vocabulary, and mechanic.

Ho : There is no improvement of students' ability in writing descriptive paragraph in term of content, grammar, organization, vocabulary, and mechanic.

The criteria are:

With  $t\text{-table}(0.01) = 2.462$ ,  $t\text{-value}$  is 11.080

H1 is accepted if the  $t\text{-ratio}$  is higher than  $t\text{-table}$ , or ( $t\text{-ratio} > t\text{-table}$ )

Ho is rejected if the  $t\text{-ratio}$  is lower than  $t\text{-table}$ , or ( $t\text{-ratio} < t\text{-table}$ )