

### **III. RESEARCH METHODS**

#### **3.1 Research Design**

The research was intended to investigate the students' motivation in speaking class and whether the visual media can be used to motivate them. The researcher distributed motivation questionnaire to the students, before and after the treatment in order to know whether there is a change of students' motivation after the treatment.

The scores of questionnaire were based on the Likert scale and range of 1 to 3. The scores that were given for each answer for each item function as the symbol in showing that one of activity was higher or lower than the others. By using scale in the questionnaire, the researcher collected the ordinal data in form of numbers, so that the data that are collected are easier to be analyzed by using the statistical formula, therefore this research was included into quantitative research.

In this research, the researcher used one of the pre experiment design that is *The One Group Pre Test-Post Test design*. This design was used because it was most suitable to measure a change of personality aspects, including motivation or attitude, so that through this design, the researcher was enable to see whether there was a negative or positive change of all personality aspects after treatment was given.

The research design is formulated as follow:

**T1 X T2**

In which	T1	= Pre Test
	X	= Treatment
	T2	= Post Test

(Setiyadi, 2006: 131-133)

In this research, the students were given the pre test before treatment and post test after the treatment. The treatments were given three times by teaching speaking using visual media in form of pictures, maps and realia. Each media was used once based on the topic and theme discussed in each meeting. The researcher found out and measured the students' motivation in speaking class by using questionnaire.

### **3.2 Subject**

The researcher focused on finding out the use of visual media in motivating the students. The researcher chose the first year students because the researcher intended to investigate their motivation in speaking class after they studied English for three years in Junior High School. There were three classes of the first grade of SMA N 1 Labuhan Ratu Lampung Timur in the academic year of 2009/2010 and the researcher chose one of the classes as the subject by purposively because the class was easy to be managed compared with other classes.

### **3.3 Research Procedure**

The procedures of this research were as follow:

1. Determining the subject

There were three classes of the first grade of SMA N 1 Labuhan Ratu Lampung Timur and the researcher chose one of the classes as the subject by lottery.

2. Determining the questionnaire

There is one kind of questionnaire used in research. A set of the questionnaire consisted of 25 items of close-ended questions that used to measure students' motivation in speaking class. It was adopted and modified from Setiyadi's.

3. Distributing the first questionnaire to the subject

The questionnaire was distributed to the subject before the treatment. The subjects were asked to answer the questionnaire based on their experience in learning speaking English.

4. Conducting the treatment

Conducting the treatment in which the researcher applies visual media in teaching speaking.

5. Distributing the second questionnaire to the subject

The questionnaire was distributed to the subjects after the treatment. The subjects are asked to answer the questionnaire based on their experience in learning speaking English.

6. Analyzing the data

In analyzing the score of students' motivation, the researcher used *Percentage Descriptive Analysis Method* to describe each of motivation variable. The percentage was formulated as follow:

$$\text{Score Percentage (\%)} = \frac{n}{N} \times 100\%$$

In which  $n$  = Score number of students' answer

$N$  = Score number of ideal answer

$\%$  = The degree of achievement achieved

(Muhammad Ali,1987:184)

The descriptive conclusion of questionnaire score for each item was as follow:

- Positive score = 3
- Medium score = 2
- Negative score = 1

Determining the table of category was as follow:

- Highest percentage (%) =  $(3/3) \times 100\% = 100\%$
- Lowest percentage (%) =  $(1/3) \times 100\% = 33\%$
- Range (%) =  $100\% - 33\% = 67\%$
- Interval of percentage (%) =  $(67\% / 3) = 22\%$

Table 1. The percentage interval and category

Percentage Interval	Category
79% - 100%	High
57% - 78%	Medium
35% - 56%	Low

In analyzing mean score and significance of the score improvement before and after the treatment, the researcher used *Repeated Measure T-Test* computed by using *SPSS 12 for Windows*.

### 3.4 Schedule of the Research

The research conducted in four meetings for two weeks. The schedule was organized as follow:

Table 2. The schedule of research description

MEETINGS	ACTIVITIES
First Meeting	<ol style="list-style-type: none"> <li>1. The researcher entered the class chosen, explained to the students what will be done for four meeting.</li> <li>2. The researcher distributed the motivation questionnaire as the pre-test.</li> </ol>
Second Meeting	<ol style="list-style-type: none"> <li>1. The researcher conducted the first treatment</li> <li>2. The researcher noted the students' impression or their activities.</li> </ol>
Third Meeting	<ol style="list-style-type: none"> <li>1. The researcher conducted the second treatment</li> <li>2. The researcher noted the students' impression or their activities.</li> </ol>
Last Meeting	<ol style="list-style-type: none"> <li>1. The researcher conducted the third treatment</li> <li>2. The researcher noted the students' impression or their activities.</li> <li>3. The researcher distributed the motivation questionnaire as post-test.</li> </ol>

### 3.5 Data Collecting Technique

In collecting the data, the researcher used motivation questionnaire as the instrument. The questionnaire was used in this research because this instrument was an effective instrument in measuring personality aspects or psychology aspects like motivation. It could be implied in many kinds of data gained from different variable and it did not need much fund and energy to collect the data from more subjects. Besides that, it is effective to measure aspects or variables related to personality or psychology and sociology aspects (Setiyadi, 2006: 54). By using questionnaire, the students were able to report their motivation toward

the language they learnt. The researcher distributed the questionnaire to get the data from the subjects. There was no speaking instrument test because the research was designed to see the students' attitude change in speaking class including their motivation to speak.

### **3.6. Data Collecting Instrument**

#### **3.6.1. Reliability of the Instrument**

To know the reliability of the questionnaire, the researcher used the Cronbach's alpha reliability, which counted based on the correlation between each items of motivation scale and the range of 0 to 1. It was used to analyze the instrument from the ordinal data. According to Setiyadi (2006:190-191), the higher alpha is, the more reliable the questionnaire will be. The researcher considered the reliability of the questionnaire with the  $\alpha \geq 0,70$ .

#### **3.6.2. Validity of the Instrument**

An instrument can be said valid if the instrument measures the object that should be measured, and suitable with the criteria. To measure whether the instrument has good validity or not, the researcher used construct validity. Construct validity was the extent to which an instrument becomes representative sample of subject matter contents. It was used to measure the instrument that has some indicators to measure one aspect or construct. The indicators (appendix 13) that have been latticework of the questionnaire were frequency of students' activities, students' reason, students' strategy and students' involvement (Sepliana, 2006). Construct validity is often correlated with instrument of measurement that is related with psycholinguistic such as perception, linguistic attitude, and motivation in learning foreign language (Setiyadi, 2006:25-26). The researcher used *Pearson product-*

*moment Correlation* to measure all items used in the questionnaire. It used to measure correlation between two variable of continuous (Setiyadi, 2006:166). It involved 30 students as object of research.

### 3.7. Data Treatment

In order to know the students' motivation in learning speaking, the researcher calculated the students' score that would be devised from Harris (1974:84) cited in Sepliana (2006) as follow:

1. Calculating the students' answers:

NO	ITEMS	STUDENTS SCORES		
		A	B	C
1	1, 3, 8, 9, 10, 12, 13, 18, 20, 22	1	2	3
2	2, 4, 5, 6, 7, 11, 14, 15, 16, 17, 19, 21, 23, 24, 25	3	2	1

2. Tabulating the result of the scores of questionnaire and finding the mean score of the students' motivation before and after the treatment.

The mean was calculated by applying:

$$M = \frac{\sum X}{N}$$

Where : M : Mean

$\sum X$  : Total scores of the students

N : Numbers of the students

(Setiyadi, 2006: 111)

3. Drawing conclusion from the tabulated results of questionnaire was given, whether *posttest is higher than pretest or posttest is lower than pretest* by comparing the means score of students' motivation before and after treatment.

To prove whether the data of result improved significantly or not, the researcher used analysis of Repeated Measures T-Test. It used to compare the data of *t-test* which is called *t-ratio* and *t-table* at the criteria level of significance. The level of significance used was 0, 01 while t-table used was 2.750 based on total of students involved in the treatment. If the data of result was more than 2.750, it can be said that students' motivation increased and improved significantly.

### **3.8. Limitation of the Research**

This research has been held but there are some weaknesses of this research:

1. This research only focused on students' score of motivation. The researcher only measured students' score of motivation, not students' achievement in speaking.
2. There are more various levels of school quality in speaking class, so that the result of research can't be generally implemented in all of school. It may enable to be implemented in the schools which do not seem their quality in speaking performance such as private school in general.