III. METHOD

This chapter discusses the methods of research used in this study, such as: research designs, subject of the research, population and sample, research and instruments, validity and reability of the instruments, procedures of the research, data analysis, and hypothesis testing.

3.1 Research Design

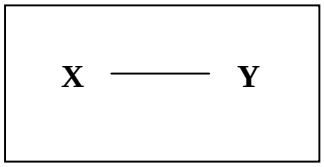
In this research, the researcher used descriptive qualitative method and ex-post facto design. Qualitative research concerned with process rather than simply outcomes or products, qualitative research tends to analyze their data inductively. This method was brought into play to examine the events or phenomena of students, particularly students' learning strategy in students speaking.

Actually there are two types of descriptive study, namely *observational studies and field survey*. Observational studies are studies which require the researcher to observe the participants directly, while field survey gather the data by completing questionnaire or interview in a natural setting. Since this research is prepared to

investigate students' learning strategies in speaking. As we know that strategy is difficult to observe, *field survey* is choosen to apply as the appropriate design.

For data collection, speaking task is used to determine the poor and the successful learning and the questionnaire administered for identifying the learning strategies employed by the students in speaking. Afterwards, interview was conducted to explore students' learning strategies deeper as sometimes students are not honest in answering the questionnaire.

Concerning the correlation between learning strategies and students' speaking competence, ex-post facto design is applied. In this research, the two variables are formulated as follows:



(Hatch and Farhady, 1982)

X = Students' learning strategies toward speaking

Y= Students' speaking skill

3.2 Population and Sample

The sample of the research was the second year students of SMA N 15 Bandar Lampung in academic year 2015/2016. There was one class as the sample of this research from five classes. The students consist of 30. Random sampling was used

to choose which was taken as the participants. The name of each class was written on a piece of paper, and then the pieces were rolled and put in a box, the box was shaken and the piece which come out indicated the name of the class that would be taken as the sample.

3.3 Data Collecting Technique

The researcher would get the data as follows:

1. Questionnaire

Questionnaire was given to the second year students of SMA N 15 Bandar Lampung. The purpose is to analyze the learning strategies in speaking used by senior high school students. The questionnaire consisted of 20 items in which it categorized of three kinds of learning strategies; Cognitive, Metacognitive, and Social Strategy. Through this test, the students' Learning Strategy would be known.

2. Speaking Test

Speaking test was administered to measure the students' speaking. The material of the speaking test is given by the researcher. The students was asked to do an *Information Gap* activities. It is kind of speaking activities in the class, where each students would be paired and shared a paper with almost similar pictures. It means that the students would miss information necessary to complete a task, and they have to communicate with their paired friends to fill in the gap (Ellis, 2003).

Therefore, they would look at some information and the partner looks at different information, and then they talk and exchange the information.

3.4 Variables

In this research, the researcher organizes two variables: they are dependent and independent variables. The dependent variable is the variable which the researcher observes and measures to determine the effect of independent variable. On the other hand, the independent variable is variables which the researcher hopes to investigate. It was the variable which is selected; manipulate and measure by the researcher (Hatch and Farhady, 1982).

From the explanation above, the researcher determines the variable as follows:

1. Learning strategy as independet variable (X)
2. Speaking as dependent variable (Y)

3.5 Instrument

To gain the data, the researcher employed two kinds of instrument. The instruments are questionnaire and the result of the test of speaking ability. Each kind of instrument would be explained as follows:

1. Questionnaire

Questionnaire would be given to the second year students of SMA N 15 Bandar Lampung. The questionnaire was arranged based on the scope of learning strategies in this research, i.e. learning strategies that directly construct and affect

the speaking (Metacognitive and Cognitive Strategy), and those that indirectly construct and affect the speaking (Social Strategy).

The items in the questionnaire develop from learning strategies stated by Chamot in Wenden and Rubin (1987) and Setiyadi (2004). The questionnaire consists of 20 items measuring learning strategies under three categories; Cognitive, Metacognitive, and Social Strategies.

Students' respones were interpreted based on the Likert scale (Setiyadi, 2004). Likert rating scale was employed to indicate the participants' responses these statements: (1) Never or almost never true of me, (2) Usually not true of me, (3) Somewhat true of me, (4) Usually true of me, (5) Always or almost true of me. In this case, if the students choose either response 3, 4, or 5, they exhibit an indication that they used the learning strategy.

2. **Speaking Test**

In this research, the researcher tested the students by asking them to practice a given material in front of the class which was made by the researcher based on speaking measurement. The students would be asked to do *Information Gap activities*. It was the activity where students were asked to be paired and shared the almost similar pictures. It means that the students would miss information necessary to complete a task, and they have to communicate with their paired friends to fill in the gap (Ellis, 2003). So, they would look at some information

and the partner looks at different information, and then they talk and exchange the information.

3.6 Validity and Reliability of the Instruments

3.6.1 Validity of Speaking Test

- **Content validity**

Content validity is concerned with whether the test is sufficiently representative and comprehensive for the test. In the content validity, the materials given are suitable with the curriculum. Content validity is the extent to which a test measures a representative sample of the subject meter content, the focus of content validity is adequacy of the sample and simply on the appearance of the test (Hatch and Farhady, 1982).

- **Construct validity**

Construct validity is concerned with whether the test is actually in line with the theory of learning strategies toward speaking what it means to know the language that is being measured (Shohamy, 1985). Thus, to ensure that the test had construct validity, the researcher conducted speaking test to measure how far their speaking ability is.

3.6.2 Validity of Questionnaire

The validity of questionnaire would be achieved by looking at the table of classification.

Table 3.6.2 Item classification of learning strategy questionnaire

Number of Questionnaire	Strategy Measured
1-7	Cognitive Strategy
8-15	Metacognitive Strategy
16-20	Social Strategy

3.6.3 Reliability of Speaking Test

For speaking test, to make the score more acceptable, to ensure the ability of score and to avoid subjectivity of the research, the research used the inter rater reliability. Inter rater reliability was used when score of the test are independently estimated by two or more raters. It means that there would be another person who would give score besides the researcher herself. He was Mr. Edi Sapto, the English teacher in SMAN 15 Bandar Lampung. In the researcher's consideration, he was qualified to measure learners' speaking ability because they had experiences in teaching English and had been graduated from university (minimally S1) in English major. Both of the raters measured the speaking ability by paying attention to the following elements of speaking:

1. Pronunciation
2. Fluency
3. Comprehension

4. Grammar
5. Vocabulary

The researcher was not scoring those five aspect separately but it was integrated. The speaking test is also recorded by the researcher. The table below would show the spesification on scoring system, Spearmen Rank Correlation was applied on the data. The formula of this is:

$$R = 1 - \frac{6. \sum d^2}{N(N^2 - 1)}$$

Notes

R : Reliability

N : Number of the students

D : The different of rank correlation

6 : Constant number

The researcher considers it is reliable for the test if the test has reached range 0.60 to 0.79. The standard of reliability:

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 0.100

The reseacher considers that both raters would achieve the reliability if the inter rater reliability has reached range 0.60 to 0.79 (high reliability).

3.6.4 Reliability of Questionnaire

In order to find out whether the questionnaire is reliable or not, the researcher would try out the questionnaire first, then the researcher uses *Cronbach Alpha*. Each item in the questionnaire is analyzed to make sure that the items have good quality (Setiyadi, 2006). The alpha ranges between 0 and 1. The higher tha alpha, the more reliable the questionnaire is. For knowing the classification of reliability, the following scale is used:

a) Between 0.800 to 1.00 = very high reliability

b) Between 0.600 to 0.800 = high reliability

c) Between 0.400 to 0.600 = moderate reliability

d) Between 0.200 to 0.400 = low reliability

e) Between 0.000 to 0.200 = very low reliability

From the calculation of reliability analysis (using *SPSS 16*), it was found that alpha is 0.828. it means that the questionnaire has very high reliability. Therefore, according to the result of validity and reliability of the questionnaire, the researcher reports that the questionnaire is valid and reliable.

3.7 Research Procedure

The procedure in administering the research are as follows:

1. Determining the Population and Sample

The population of this research is the second year students of SMA N 15 Bandar Lampung. The sample of this research was one class consist of 30 students. The researcher would give the students some questionnaire and interview guidance to recognize the learning strategies used by them.

2. Administering the Speaking Test

The researcher would give the speaking test to the students in the form of *Information Gap* activities. The Students were asked to be paired and shared about the pictures given by the researcher. The pictures were almost similar, so the the students have to communicate and ask each other to find out the differences and fill the gap.

3. **Determining the Research Intrument**

The instrument of this research was speaking test. The speaking test was used for measuring the students speaking ability. The test given was material chosen by the researcher. The students would be asked to be paired, and discuss about *Information Gap* activities. Each paired students should speak about the material so the researcher can record their speaking activities.

4. Analyzing the Data

The result of the speaking test was tested in order to find out whether there was a significant correlation between students' learning strategies and their speaking.

The data of the research would be examined by using Pearson Product Moment Correlation (PPMC). It showed the linear relationship between two sets of data. The data was statistically computed through the Statistical Package for Social Science (SPSS).

3.8 Scoring System

The focus of speaking skill that would be assessed are:

1. Pronunciation
2. Fluency
3. Comprehensibility
4. Vocabulary
5. Grammar

In scoring the test, the researcher used inter rater method to score the students' result in speaking tets. Beside the researcher, the other person who had competency in English would be asked to score the students' result. So, there would be two raters give score by using speaking criteria proposed by Harris. The result of two raters added and divided by two to get the average score for each students.

3.8.1 Scoring Criteria

An oral speaking test was used by the researcher in this research. This oral test was in term of dialogue speaking. In this research, the researcher used subjective scoring, so there were two raters in this research. The two raters were the

researcher and the English teacher. The raters were judges and they worked together to find out the reliability of the test. The raters used the oral English Rating sheet proposed by Harris (1974). According to the oral rating sheets, there were five aspects to be tested by the two raters, namely pronunciation, grammar, vocabulary, fluency, and the comprehension. Here are the rating sheets.

Table 1

Aspects	Score	Qualifications
Pronunciation	5	If speech is fluent and effortless as that of native speaker.
	4	Denote that if it is always intelligible though one is conscious of a definite accent.
	3	Refers to pronunciation problem necessitate concentrated listening and occasionally lead to misunderstanding.
	2	Indicate that it is very hard to understand because of pronunciation problem most frequently asked to report.
	1	Shows that pronunciation problem so serve as to make conversation unintelligible.

Table 2

Aspects	Score	Qualifications
Grammar	5	Make few (if any) noticeable errors of grammar or word order.
	4	Occasionally makes grammatical and/ or word order errors which do not, however, obscure meaning.
	3	Refers to that speed and fluency are rather strongly affected by language problem.
	2	Means that a student usually doubt and often forces into

		silence by language problem.
	1	Means that speech is so halting and fragmentary as to make conversation virtually impossible.

Table 3

Aspects	Score	Qualifications
Vocabulary	5	The use of vocabulary and idiom virtually that is of native speaker.
	4	Indicates that sometimes a student uses inappropriate terms and or rephrase ides because inadequate vocabulary.
	3	Refers to using frequently the wrong word, conversation somewhat limited because of inadequate vocabulary.
	2	Denotes that misutilizing of word and very limited vocabulary make conversation quite difficult.
	1	Means that vocabulary limitation so extreme as to make conversation virtually impossible.

Table 4

Aspects	Score	Qualifications
Fluency	5	If the speech is fluent and effortless as that native speaker.
	4	Refers to speed of speech seems rather strongly affected by language problem.
	3	Make frequents errors of grammar and word order, which obscure meaning.
	2	Grammar and word order make comprehension difficult must often rephrase sentence and/or restrict him to basic pattern.
	1	Errors in grammar and word order to severe as to make speech virtually unintelligible.

Table 5

Aspects	Score	Qualifications
Comprehension	5	Appear to understand everything without difficulty.
	4	Understand nearly everything at normal speed although occasionally repetition maybe necessary.
	3	Understand most of what is said at lowers that normal speed with repetition.
	2	Has great difficult following what is said.
	1	Cannot be said to understand even simple conversation in English.

The score of speaking skill based on the five elements can be compared in percentage as follows:

a. Pronunciation…….20%
b. Grammar…….20%
c. Vocabulary……..20%
d. Fluency……20%
e. Comprehension……20%

_____ +

Total percentage……100%

The score of each aspect is multiplied by four, so the total score is 100. Here is the identification of the scores of the students' speaking skill:

If a student gets 5, so 5x4 = 20

If a student gets 4, so 4x4 = 16

If a student gets 3, so 3x4 = 12

If a student gets 2, so 2x4 = 8

If a student gets 1, so 1x4 = 4

For example: There is a student who gets 4 in pronunciation, 3 in grammar, 4 in vocabulary, 4 in fluency, and 3 in comprehension. So, the student's total scores would be:

Pronunciation	4x4 = 16
Grammar	3x4 = 12
Vocabulary	4x4 = 16
Fluency	4x3 = 12
Comprehension	3x4 = 12
Total	68

The student's total score would be 68. It means that the student gets 68 for his /her speaking score.

3.9 Hypothesis

In administrating hypothesis test, descriptive qualitative method and ex-post facto design is used. Its function is to examine the events or phenomena of students, particularly students' learning strategy in students speaking. After collecting the data, the researcher would analize them in order to find the correlation of

students' learning strategies in speaking. To determine whether the first hypothesis is accepted or rejected, the following criteria for acceptance:

$H_0 = r_{value} < r_{table}$

$H_1 = r_{value} > r_{table}$

The hypothesis would be as follow:

H_0 : "There is no significant correlation between students' learning strategies and their speaking skill."

H_1 : "There is significant correlation between students' learning strategies and their speaking skill."