III. RESEARCH METHODOLOGY

This chapter provides seven topics. They are research design, population and sample, research instrument, reliability and validity of the instruments, research procedure, data analysis and, hypothesis testing.

3.1 Research Design

The research is intended to find out the learning strategy which is the most frequently used by the students and the significant difference of speaking among high and low frequency users in learning strategies of the second year students of SMA Muhammadiyah 2 Bandar Lampung. Therefore, the research was conducted through quantitative analysis by using one way ANOVA design. That was a study which looked at the current situation without giving any treatment.

T1   T2

T1 = Strategies in learning speaking

T2 = Speaking skill

(Setiyadi, 2001)

The data of this study were students' language learning strategies and speaking ability score. The variables intended for the study were dependent variable and independent variables. Dependent variable was the speaking skill and independent variable were language learning strategies use with levels (O'Malley et al., 1985): cognitive, metacognitive and social strategy. To process data, the researcher could see the significant difference of speaking ability among high and low frequency users in learning strategies.

3.2 Population and Sample

3.2.1 Population

The population of this research was the second year students of SMA Muhammadiyah 2 Bandar Lampung in academic year 2013/2014. This research was conducted when the new academic year began. There were five classes with the total number 150 students of the second year of SMA Muhammadiyah 2 Bandar Lampung in academic year of 2013/2014.

3.2.2 Sample

There were five classes of the second years of SMA Muhammadiyah 2 Bandar Lampung in the academic year of 2013/2014. They were XI Science 1, XI Science 2, XI Social 1, XI Social 2, and XI Social 3. The sample was taken through probability sampling by using simple random sampling, where every individual in population had a chance to be chosen as sample. For this research, the researcher made up her mind to choose one class. Finally the researcher found one class with total number 29 students.

The procedures were:

- The researcher collected the data based on the absent, there were five classes of second year students of SMA Muhammadiyah 2 Bandar Lampung.

- The researcher wrote five names of the classes in the rolled papers and put it into a bottle.

- The bottle was shaken and poured until one rolled paper came out.

- Finally, the rolled paper writer XII Science 1 with 29 students in it.. Therefore, these students were as the sample of this research

3.3 Research Instrument

In order to collect the data of variables T1 and T2 (learning strategies and speaking ability), the researcher used questionnaire applying Likert scale to measure students' learning strategies (T1), while for measuring students' ability in speaking the researcher conducted a test where it was subjective test (T2). For the technique, the researcher made pair work technique.

3.3.1 Test of Language Learning Strategies

The measurement of learning strategies (T1) was carried out through questionnaire. The questionnaire consisted of 20 items where each of them referred to cognitive strategies, metacognitive strategies, and social strategies. Items 1-10 were cognitive strategies, 11-15 were metacognitive strategies, and 16-20 were social strategies. The Likert Scale was used by the researcher in this research where each item has five alternative answers that were 1, 2, 3, 4, and 5.

Below is the list of statements dealing with the alternative scored:

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.

No	Questions	1	2	3	4	5
1.	I use rhymes to remember new English words.					
2.	I try to remember new English words by pronouncing them.					
3.	I speak a word or a sentence several times to remember it.					
4.	I try to learn a new pattern by making sentences orally.					
5.	I try to translate Indonesian sentences into English sentences and produce them orally.					
6.	I try to remember what the English word equivalent to Indonesian word is.					
7.	I tape record the sentences I produce.					
8	I mix Indonesian words and English words if I do not know the English words.					
9.	I put words into rules that I know in speaking.					
10.	Before I respond orally to questions, I write out the answers.					
11.	I try to correct my mistakes that I produce orally.					
12.	I try to speak with myself to improve my speaking.					
13.	I try to evaluate my utterance after speaking.					
14.	I notice my English mistakes, and use that information to help me do better.					
15.	I prepare a topic or grammatical rules in speaking practice.					
16.	I ask somebody to correct me when I talk.					
17.	I practice speaking with my friends or my teachers.					
18.	I practice English with native speakers.					
19.	I ask questions in English.					
20.	If I cannot think during a conversation in English, I use gestures.					

Cited from English Learning Strategies in an EFL Setting in Indonesia (2011)

3.3.2 Speaking Test

In this test, the researcher matched the test with the syllabus of the second year of SMA students based on school curriculum or KTSP. The researcher conducted the speaking test for 90 minutes. The students were guided to make a short dialogue in pairs by the given topic. Finally, the teacher invited the pairs one by one to perform their dialogue in front of the class. This is subjective test. The scoring system of student's speaking ability was given based on the oral ability scale proposed by Heaton (1991) concerning 3 aspects namely pronunciation, fluency, and comprehensibility.

3.3.2.1 Speaking Topics

The teaching material was taken from the syllabus. The researcher and the English teacher at that school asked the students to work I pairs in order to make them learn some things when they were working with partners.

In the test, the students were asked to make a dialogue about past activity. The first asked the questions using W5H questions and another was answering the questions. Moreover, the researcher recorded their conversation by using recording with cellphone while they were speaking. The result of this test was considered as the data of students' speaking ability.

3.3.2.2 Speaking Scoring System

The researcher used oral ability scale proposed by Heaton (1991) as guidance for scoring the students' speaking test. There were 15 pairs that the researcher

and the English teacher should score. Each pair had 3 minutes to speak. During the speaking test was going on, the researcher was helped by her friend to record their conversation using cellphone.

The following table is the oral ability scale proposed by Heaton (1991) that will be used as the scoring standard for the students' speaking ability.

Table1. Rubric of Grading System

Range	Pronunciation	Fluency	Comprehensibility
Excellent (81-90)	Pronunciation is only very slightly influenced by mother-tongue.	Speaks without too great effort with a fairly wide range of expression. Searchers for words occasionally but only one or two unnatural pauses.	Easy for listener to understand the speakers' attention and general meaning.
Very good (71-80)	Pronunciation is slightly influenced by mother-tongue. Most utterance is correct.	Has to make an effort at times to search for words. Nevertheless smooth very delivery on the whole and only a few unnatural pauses.	The speakers' intention and general meaning are fairly clear. A few interruptions by listener for the sake of clarification are necessary.
Good (61-70)	Pronunciation is still moderately influenced by mother-tongue but	Although he/she has made an effort and search for words, there	Most of speakers' utterances are easy to follow. His intention is

	no serious phonological errors.	are not too many unnatural pauses. Fairly smooth delivery mostly.	always clear but several interruptions are necessary to help him to convey the message or to see the clarification.
Fair (51-60)	Pronunciation is influenced by mother-tongue but only serious phonological errors.	Has to make an effort for much of time. Often has to search for the desired meaning. Rather halting delivery and fragmentary.	The listener can understand a lot of what it is said, but he must constantly seek the clarification. Cannot understand many of the speakers' more complex and longer sentences.
Moderate (41-50)	Pronunciation is influenced by the mother-tongue with errors causing the breakdown in communication.	Long pauses when he searches for the desired meaning. Frequently halting delivery and fragmentary. Almost give up for making effort at times.	Only small bits (usually short sentences and phrases) can be understood- and then with considerable effort by someone who used to listening to the speakers.

3.4 Reliability and Validity of the Instruments

Every research is in terms of validity and reliability of the instrument. Therefore, in this research the researcher tried to measure the validity and reliability of the instrument as well as the kind of tests that can be said as valid and reliable.

3.4.1 Validity of the instrument

A test can be said valid, if the test measures the object that should be measured and it must be suitable with the criteria. In Hatch and Farhady (1982:251), it is stated that there are two basic types of validity content and construct validity. To measure whether the test has good validity or not, the researcher analyzed from content and construct validity. Content validity is concerned with whether or not the content of the test is sufficiently representative and comprehensive for the test to be valid measure it is supposed to measure. While construct validity focuses on the kind of test that is used to measure the ability.

3.4.1.1 Validity of Questionnaire

The validity test is used to know whether there are questions of the questionnaire that should be replaced or removed because it is not relevant. The aim of the kind of Language Learning Strategy Questionnaire (LLSQ) is to know the kind of language learning strategy, which is divided into cognitive strategies, metacognitive strategies, and social strategies. To get the content valid, the test was adapted from Likert Scale which was developed by Setiyadi (2011, p.35). In this questionnaire, the researcher gave 20 questions which each item had the purposed to measure students' learning strategies in speaking English. It was believed that this questionnaire had content validity since this test had been already applied many times by other researchers who had the same intention.

3.4.1.2 Validity of Speaking test

To guarantee the validity of speaking test, the researcher took the topic that has been discussed in the class. It was about interpersonal dialogue where the students gave information to their other friend about their past activities. The material was taken from English text book and also relevance on English curriculum. Validity of speaking test dealt with the aspect the researcher wanted to measure. The researchers applied oral ability scale proposed by Heaton (1991) which scored the test by the pronunciation, fluency, and comprehensibility. The teacher asked the students to work in pairs then they were asked to make a dialogue about past activities by using the questions that the teacher already wrote on the whiteboard.

3.4.2 Reliability

3.4.2.1 Reliability of Questionnaire

Reliability is an instrument to measure a questionnaire which is the indicator of variable or construct. Shohamy (1985:70) states that reliability refers to the extent to which the test is consistent in its score, and it gives an indication of how accurate the test score. A questionnaire is said reliable if someone's answer of the question is consistence or stable from time to time.

To make sure whether the instrument were reliable or not, the researcher used the Crobanch's Alpha using SPSS. It was counted based on the learning strategies and the range of 0. to 1. The higher Alpha is the more reliable the questionnaire will be (Setiyadi, 2006: 190-191)

George and Mallery (2009) in 'SPSS for Windows Step by Step: A Simple Study Guide and Reference, 17.0' have a suggestion in evaluating the Alpha Cronbach coefficient:

> 0.9 = very high reliability

> 0.8 = high reliability

> 0.7 = medium reliability

> 0.6 = low reliability

> 0.5 = very low reliability

From the calculation of reliability analysis, the alpha was 0.906. It means that the questionnaire had very high reliability. It can be interpreted that the questionnaire is proper to be used for a research.

3.4.2.2   Reliability of Speaking test

For speaking test, to ensure the reliability scored and to make the score more acceptable and avoid the subjectivity of the research, the researcher used inters rater reliability in scoring students' performances. Inter rater reliability means that there was another person who gave score beside the researcher herself.

In the researcher's consideration, the first rater was the English teacher named Zuniyawati, S.Pd, who had experiences in teaching English more than five years and graduated from university in English major, and the second rater was the researcher.

3.5 Research Procedures

In conducting the research, the writer used the steps as follows :

1. Stating research problem

    The research problem of this research was to find out the correlation between students' learning strategy and their English speaking ability of second year students at SMA Muhammadiyah 2 Bandar Lampung.

2. Determining the objectives

    The objectives of this research were to investigate whether there was significant correlation between language learning strategy and English speaking ability and to investigate which one of language learning strategies was most frequently used by students to their speaking ability at SMA Muhammadiyah 2 Bandar Lampung.

3. Determining the subject of the research

    The writer took the second year students at SMA Muhammadiyah 2 Bandar Lampung. There were 5 classes with the total number of 150 students. The writer chose one of the classes as the sample by using lottery.

4. Constructing research instrument

    a. Test of Language Learning Strategy

    The test consisted of 20 items Likert scale with five optional answers from never true of me to almost always true of me. Items 1-10 were cognitive strategy, item 11-15 is metacognitive strategy, and 16-20 is social strategy.

b. Test of speaking ability

The test used dialogue as the type of speaking. The students had to tell their past activities in pairs in the form of dialogue/conversation.

5. Administrating language learning strategy test

The writer gave a questionnaire of language learning strategy to the students.

6. Administrating English speaking test

The writer conducted English speaking test by recording the result. The record result was rated by the inter rater.

7. Collecting the data

After administrating the tests, the data from both tests were collected.

8. Analyzing the data

The data was analyzed by using SPSS 16 to investigate whether there was any correlation or not.

3.6 Data Analysis

This research had two variables, dependent and independent variable. The researcher used tests for those two variables to collect the data. They were speaking ability test and learning strategies test. Learning strategies was the independent variable because she assumed that language learning strategies had an influence to speaking achievement. And the researcher also divided the strategies into three elements; they were cognitive strategies, metacognitive strategies, and social strategies. The data from speaking test was classified as

the dependent variable because the ability was influenced by learning strategies.

After collecting the data of speaking ability, the score of students' speaking test and questionnaire test were categorized into three, 1 was high frequency users, 2 was medium frequency users, and 3 was low frequency users. The researcher calculated it by using SPSS. To know the significant difference between high, medium and low students in using strategies, the researcher used ANOVA.

3.7 Hypothesis Testing

To conclude a possible difference of students' speaking ability, the researcher used the criterion of the hypothesis acceptable to determine whether the first hypothesis was accepted or rejected. The criterion was ANOVA. There are two types of ANOVA, namely one way ANOVA and two way ANOVA. This research was analyzed by using one way ANOVA.

The dependent variable is speaking ability and the independent variable was the learning strategies which have three levels namely cognitive strategy, metacognitive strategy, and social strategy.

The students' questionnaire results were categorized into high frequency strategy users, medium frequency strategy users, and low frequency strategy users. The categories of language learning strategies will be correlated to the students' speaking score.

If the output of ANOVA showed the F_{value} was higher than F_{table} at .000 level of significant, it could be concluded that there was a significant difference between high, medium and low frequency users in speaking.

$$\mathbf{F_{value} > F_{table}}$$

H_1: There was a significant difference of speaking ability among high, medium, and low frequency users of learning strategies.