

III. RESEARCH METHODS

The researcher elaborates this chapter into seven topics and sub topics. They are research design, population and sample, research instruments, administrating try out, research procedures, data analysis, and hypothesis testing. They are explained in specific way how the researcher collected the data, calculated the data, prepared the data, and how reliable and valid the data were so that the reader can comprehend easily.

1.1 Research Design

This is a quantitative study. Hatch and Farhady (1982: 26) state that quantitative is a kind of research in which the data used to tend to use statistic as measurement in deciding the conclusion.

Related to this, the writer used ex post facto design because she investigated whether there is a correlation between students' motivation and their English speaking ability. There was no treatment in this research.

Hatch and Farhady (1982: 26) state ex post facto design is often used when the researcher does not have control over the selection and manipulation of the independent variable. This is why the researcher looks at the type and /or degree

of relationship between two variables rather than at a cause-and-effect relationship.

The aim of this research is to find out the correlation between two variables (students' motivation and their English speaking ability).

This design used because it is most suitable to investigate whether there is a significant correlation between students' motivation and their English speaking ability.

The writer administered test of motivation and test of English speaking ability. The test of motivation conducted to measure students' motivation and the test of English speaking ability to measure student's ability in speaking skill.

Ex post facto design is as follows:

$T_1 \longrightarrow T_2$

(Hatch and Farhady, 1982:27)

In which T_1 = The test of motivation

T_2 = The test of English speaking ability

The score for each student on one test can then be correlated with the score of the others, allowing readers to see whether those students who score high on one test also score high on the others.

The data of this study were students' motivation and English speaking ability scores. Motivation is one of the language drives symbolized as 'X' variable that measured by using Likert scale and the result is students' motivation data. English speaking ability is one of the language skills and the result is students' English speaking ability scores symbolized as 'Y'.

1.2 Population and Sample

The population of this research was the second year students of SMPN 19 Bandar Lampung in academic year 2012-2013. There are eight classes for the second year. They were VIIIA, VIIIB, VIIC, VIID, VIIE, VIIF, VIIG and VIIIH. The writer chose one of them through random sampling technique, where every class in population has the same chance to be chosen as sample. First, the writer wrote those eight classes on a small paper, one class for one piece of small paper. Then, she took one paper randomly to choose the class to be the sample. Finally, the writer got one class VIIF with total number 36 students as the sample. Then the writer chose one class more to be a try out class for trying out the questionnaire before it is conducted in research class. That class was VIIG. The writer chose this school because there was no research yet conducted here previously and the topic for testing students' English speaking ability is appropriate for students Junior High School.

1.3 Research Instruments

In collecting the data, the researcher used questionnaire and transactional English speaking test to score their ability in speaking English as the instrument.

1.3.1 Test of Motivation

In this research, one kind of questionnaire that had been used was a set of questionnaire consisted of 25 items. It was used to measure students' motivation in learning English. For the questionnaire, the writer applied Likert Scale where each item has mainly four alternative answers those are A, B, C, and D. By this

the students were supposed to give their answers as factual and real information about themselves or the information that was close to the fact as provided in the 4 alternative answers.

Each of the alternatives is scored as the following:

A = 4; for the very high motivation answer.

B = 3; for the high motivation answer.

C = 2; for the middle motivation answer.

D = 1; for the low motivation answer.

Except items number 2, 6, 9, 10, 15, 20, 25 are the inverse answers which are scored as following:

A = 1; for the low motivation answer.

B = 2; for the middle motivation answer.

C = 3; for the high motivation answer.

D = 4; for the very high motivation answer.

In addition to the indicator of motivation, the writer took the indicators from Samsudin in Sadewo (2009:32) learning motivation consist of some aspects, they are: (1) learning duration, that is how long someone is able to use the time to do an activity (2) activity frequency, that is how often an activity is done in a period (3) persistency, that is the continuity at the purpose of the activity (4) perseverance, that is the ability in facing hindrance and difficulty (5) devotion, that is sacrifice to achieve the aim (6) aspiration level, that is the target that would be achieved with the activity that would be done (7) qualification level, that is

achievement which is achieved from the activity, and (8) attitude, that is the target of learning activity.

3.3.1.1 Table Specification of Motivation.

No	Category	Item Numbers	Total Item
1.	The duration of students in learning English; how long is the ability of students to use time in doing activity of learning	3, 7, 20	3
2.	The frequency of students' activity in learning English; how often does the activity take place	2, 4, 13	3
3.	The persistence of students in learning English; how functional in doing activity; how strong his/her tenacity is.	1, 5, 19	3
4.	The perseverance of students' in learning English; how to solve the difficulties and face the problems in learning English	6, 9, 12	3
5.	The devotion of students to get the objective of learning English. For instance: thought, time, money, effort.	10, 11, 14, 16	4
6.	The aspiration of the students, for instance; purpose target etc	17, 18, 21	3
7.	The qualification level of students' achievement in learning English	8, 15, 24	3
8.	The students' attitude to the purposes of learning English.	22, 23, 25	3

Note:

Items number 2, 6, 9, 10, 15, 20, 25 are inverse answers which answer D is scored 4 while A is scored 1.

1.3.2 Test of Speaking

The researcher used role play as a technique to investigate students' English speaking ability. Role is defined as the person whom an actor represents in a film

or play, while role play is a method of acting out particular ways of behaving or pretending to be other people who deal with new situation. In this case, Ladousse (1998) illustrates that when students assume, "Role" they play a part either their own or somebody else in specific situation. "Play" means that is taken on in a safe environment in which students are as an inventive and playful as possible. It involves two or more students like in real situation while the first person initiates conversation and the second person responds to the first person.

Stocker in Ripratiwi (2012: 15) states that role play is interesting, memorable, engaging, and makes students retain the material they have learned. In their assumed role, students drop their shyness and other personality and cultural inhibitions, making them one of the best tools available for teaching a second language. For students who are shy, they usually need friend beside her or him in order to reduce their shyness because they will feel safe if there is a friend beside her or him. Communication can be natural in playing the role.

Role play technique certainly has both advantages and disadvantages. Its advantages are, it can builds-up the creativity of the students in their learning process, the students do not only sit as passive learners, they can involve in it. And the students get communicative competence since the students do not only have to master knowledge of form and meaning but also the students must be able to apply their knowledge in negotiation through the interaction between the speaker and listener so that meaning becomes clear. The disadvantage of this technique is the teacher or the researcher cannot monitor every student since the classroom is noisy.

Referring to the guideline of competence-based curriculum which states that the aim of learning English is to enable the students to express their thoughts, ideas, both in written and spoken. For oral skill the teacher can use role play technique by giving dialogues to be played so that the students get more an interest in learning English.

Example:

The topic of test students' English speaking ability was about the expressions of an invitation. They developed their own conversation based on the situation given. The result of this test was considered as the data of students' English speaking ability.

Invitation is a written or spoken request asking someone to spend time with you socially or to come to a social event. The kinds of invitation are: wedding invitation, farewell invitation, dinner invitation, birthday party invitation, meeting invitation, holiday invitation, training invitation, competition invitation, and so on.

In gaining students' speaking data, first the writer asked the students to choose their partner then she gave the example of invitation's expression and the example of its dialogue. Then the writer asked the students to make the dialogue based on the topic that had been prepared by the writer. The students chose one of the topics that they considered most interesting. After they finished, they are asked to role the dialogue that they have made. For example:

Jan : Mr. Brown, my husband and I were just wondering if you would like to come over for dinner this evening.
 Brown : Oh, thank you! I'd be delighted to.
 Jan : Great! Could you come over at around 6?
 Brown : Sure. Do I need to bring anything?

Jan : No, but thanks for asking.
Brown : Ok. See you this evening then.

The students were asked to speak clearly since their voice was recorded during the test.

As speaking is highly subjective measurement, the great weakness of oral rating is their tendency to have rather low reliability, and to make sure consistency of rating of that subjective measurement, the inter rater reliability is used as it related to this study. In scoring the test, the writer will get the scores to be gained by the researcher and two raters. The inter rater is another person who gives score besides the researcher herself.

The following table is the oral ability scale that was adapted from Heaton (1991).

It has been modified by the writer which is used as the scoring standard for the students' speaking ability.

Range	Pronunciation	Fluency	Comprehensibility
90-100	The students' pronunciation is very slightly influenced by mother-tongue.	The student speaks fluently without a great effort.	The student in conveying the meaning is easy for another student to understand.
80-89	Most of students' utterances are correct.	The student has to make an effort at times to search for words.	The speaker's intention and general meaning and fairly clear.
70-79	Pronunciation is still moderately influenced by the mother tongue but no serious phonological errors.	Although she/he has made an effort and search for words, there are not too many unnatural pauses.	Most of the speakers say is easy to follow. His intention is always are clear but several interruptions are necessary to help him to convey the message or to see the clarification.
60-69	Pronunciation is influenced by the mother tongue but	The student has to make an effort for much of the time.	The listener can understand a lot of what is said, but he

	only a few serious phonological errors.	Often has to search for desired meaning.	must constantly seek clarification.
50-59	Pronunciation is influenced by the mother tongue with errors causing misunderstanding in communication.	Long pauses while he searches for the desired meaning. Almost gives up for making the effort at times.	Only small bits (usually short sentences and phrases) can be understood-and then with considerable effort by someone who is used to listening to the speaker.
30-49	Serious pronunciation errors. No evidence of having mastered any of the languages skills and areas practiced in course.	Full of long and unnatural pauses.	Hardly anything of what is said can be understood even when the listener makes a great effort or interrupts, the speaker is unable to clarify anything seems to have said.

1.4 Administrating Try Out

The writer conducted a try out test for the test of motivation in try out class, VIIIIG, to determine the reliability and the validity of the test. The reliability analysis from tryout class, Alpha was 0.753. It was categorized as high reliability. Since the sample of this research was Indonesian students, the writer translated the questionnaire into Indonesian version. The writer tried to define the definition of reliability and validity as well as what kinds of tests that can be said valid and reliable.

1.4.1 Reliability

Eventhough reliability is only supporting data, but reliability aspect is really important. The instrument which has low reliability will mean invalid instrument.

Shohamy (1985:70) states that reliability shows whether the test is consistent in its score and it gives us an indication of how accurate the test score are. Reliability means the stability of test scores when the test is used. A test is called reliable if the score gained by the examiners is constant whenever and by whomever the test is conducted. To make sure whether the instruments were reliable or not the writer used the Cronbach's Alpha. It was counted based on the motivation scale and the range of 1 to 4. The higher Alpha is the more reliable the questioner will be (Setiyadi:2006).

According to Arikunto (1998:260), the standard of reliability of the instrument can be described as follows:

1. 0.80 – 1.0 : very high reliability
2. 0.60 – 0.79 : high reliability
3. 0.40 – 0.59 : medium reliability
4. 0.20 – 0.39 : low reliability
5. 0.0 – 0.19 : very low reliability

As stated before, to measure whether the test was reliable or not the writer used Cronbach's Alpha. Every item in motivation questionnaire was analyzed to make sure that the items consist of good unity. Motivation questionnaire was made up of 25 items on four point Likert Scale from one to four, ranging from very high motivation, high motivation, medium motivation and low motivation.

From the calculation of reliability analysis, alpha is 0.921. it means that the questionnaire has very high reliability. It can be interpreted that the questionnaire is proper to be used for a research. The analysis of each item showed that if an item deleted, it would make alpha lower. For example, item 1 on if item deleted

coloum (see appendix 5), the alpha is 0.917. By considering this, it can be said that if item number 1 was deleted, Alpha would be lower than 0.921 whereas the higher alpha is the better the questionnaire is.

For speaking test, to make the score more acceptable, to ensure the ability of scores and to avoid the subjectivity of the research, the writer used inter-rater reliability. Inter-rater reliability is used when scores of the test are independently estimated by two or more judges or raters. It means that there is another person who gives score besides the researcher herself. She was Mrs. Siti Asiah Oktarina, S.Pd., as the English teacher at SMPN 19 Bandar Lampung.

The writer considered that one inter rater was qualified to measure the learners' speaking ability since she had a alot of experiences in teaching English and had much experience in teaching speaking class more than three years and had graduated from university (minimally S1) in English major.

1.4.2 Validity

In this research, to measure whether the test has good validity or not, the writer analyzed from content and construct validity. Validity is a standard or criterion that shows whether the instrument is valid or not. A test is valid to the extent that it measures what it claims to measure (Ary, 1985: 143). Setiyadi (2002) says that a test is valid if it measures what it purposes to measure. He states there are four types of validity, namely face validity, content validity, construct validity, and empirical validity or criterion-related validity.

Content validity is concerned with whether or not the content of the test is sufficiently representative and comprehensive for the test to be a valid measure of what it is supposed to measure. While construct validity focuses on the kind of the test that is used to measure the ability. To get the content validity, the test was adapted from Likert Scale which was developed by Uniroh (1990). In this test, the writer gave 25 questions which each item had the purpose to measure students' motivation in learning English. It has been modified by the writer, that's why it was tried out before conducted in research class. And the result of its reliability analysis, it showed it has a high reliability. Construct validity is the extent to which an instrument becomes a representative sample of the subject matter contents. It is used to measure the instrument that has some indicators to measure one aspect or construct.

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). Construct validity concerns with whether the instrument is actually in line with the theory of what it means to the language (Shohamy, 1985:74) that is being measured. It means that the instrument would measure certain aspect based on the indicator.

As well as for speaking test, to claim it was valid, the writer took the topic that has been discussed by the students to measure their English speaking ability. The writer also used the oral ability scale from Heaton (1991) that has been modified by the writer as guidance for scoring the test that implement holistic scoring which covers accuracy, fluency, and comprehensibility.

1.5 Research Procedures

In conducting the research, the writer used the following steps:

1. Setting the research problem
2. Determining the objectives

The objective of the research was to investigate whether there is a correlation between students' motivation and their English speaking ability at the second year students of SMPN 19 Bandar Lampung in academic year 2012 – 2013.

3. Determining the sample population

The writer took the second year students of SMPN 19 Bandar Lampung as the sample of this research. There were eight classes and the total of population was 289 students. The writer took two class. The writer took one class as a research class through random sampling technique. The chosen class was VIIF, and then the writer chose one class to be a try out class, that was VIIG. The total students of VIIF was 36 students, but there were 2 students who didnot take part in the study.

4. Constructing research instrument

- a. Test of motivation

The writer gained the data of motivation by using questionnaire consisted of 25 items ranging from one to four. It was developed by Uniroh.

- b. Test of English speaking ability

The students were asked to play a role as two friends. The topic of this test was about an invitation. They developed their own conversation based on the situation given.

5. Administrating Try Out

Try out conducted only to determine the reliability and the validity of questionnaire that used to measure the students' motivation. To find out it was reliable or not, the researcher used Cronbach's Alpha. The reliability analysis from try out class, Alpha was 0.753. It was categorized as high reliability.

6. Administrating motivation test

The writer gave a questionnaire of motivation to the students

7. Administrating English speaking test

The writer conducted English speaking test by recording the result. The recorded result was rated by the writer and one inter-rater. The both of writer's score and teacher's score was accumulated then it was divided 2. The result of dividing was the students' final speaking score.

8. Analyzing the data

The data was analyzed by using Pearson Product Moment Correlation which is computed by using SPSS to investigate whether there is a correlation or not.

1.6 Data Analysis

This research had two variables, dependent and independent. This research was a correlational study. To collect the data, the writer used tests to measure those two variables. They were English speaking test and motivation test. Motivation was an independent variable because the writer assumed that motivation had an influence on the language achievement.

After collecting the data of English speaking ability and their motivation, the writer correlated them to investigate whether there is significant correlation or not by using Pearson Product Moment Correlation as follow:

$$r_{xy} = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[N\sum x^2 - (\sum x)^2][N\sum y^2 - (\sum y)^2]}}$$

(Hatch and Farhady, 1982:198)

Notes:

r : The coefficient correlation

x : Motivation score

y : Speaking ability score

$\sum x$: The sum of scores in X-distribution

$\sum y$: The sum of scores in Y-distribution

$\sum xy$: The sum of products of paired X and Y distribution

$\sum x^2$: The sum of the squared scores in x distribution

$\sum y^2$: The sum of the squared scores in Y distribution

N : The number of paired X and Y score

1.7 Hypothesis Testing

After the writer found the coefficient correlation between students' motivation and their English speaking ability, the writer also found out the criterion for the hypothesis acceptance. To determine whether the hypothesis was accepted or rejected, the following criterion acceptance used:

$$H_0 : r_{obs} < r_{tab}$$

$$H_1 : r_{obs} > r_{tab}$$

Notes:

H_0 : There is no significant correlation between students' motivation and their English speaking ability. The H_0 can be accepted if r_{obs} is lower than r_{tab} .

H_1 : There is a significant correlation between students' motivation and their English speaking ability. The H_1 can be accepted if r_{obs} is higher than r_{tab} .