

III. RESEARCH METHOD

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

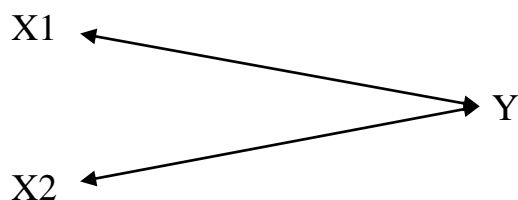
A. Research Design

In this research, the researcher was use descriptive quantitative ex post facto as the design of the research. It means that this research aims to collect the data in order to answer the questions about the current status of the subject of the study (Richard, 2011). Moreover he stated that the descriptive quantitative research meant to collect analyze the data obtained from such instruments. Ex post facto means systematic empirical inquiry in which the scientist does not have direct control of independent and dependent variable because their manifestations have already occurred or because they are inherently not manipulated. Inferences about relation among variables are made without direct interventions, from concomitant variation of independent and dependent variables (Ary et all: 1979). So, descriptive quantitative ex post facto means the research that aims to collect the data in order to answer the question about the current status of the object in which the researcher does not have direct control of the independent and dependent variable.

Throughout this research what researcher means by ex post facto is extravert and introvert students' personality, as independent variable, that is a characteristic that a subject possesses before a study begins. Based on the questionnaires given to the students, the researcher will classify them into two groups, that is extravert and introvert groups. On other hand, ex post facto of dependent variable is the result of speaking ability test of students based on the grade given by the teacher.

Regarding to the research, the researcher will take the document of the result of speaking test of eleventh class.

Ex post facto design is as follows:



Note:

X1, X2 : Students' personality type

Y : Students' speaking ability

B. Population and Sample

The sample of the research was second year students at SMA Negeri 1 Kalirejo Lampung Tengah in academic year of 2011-2012. The sample was taken by random sampling through lottery. One class had chosen from six classes that was XI IPS 1. The students consist of 32 and had been classified into two groups that were extravert and students of introvert type through personality test (Eysenck Personality Inventory).

C. Data Collecting Technique

The instrument of this research was reading test and questionnaire. There were two kinds of Instruments that were, questionnaire and speaking test.

They were as follow:

1. Questionnaire

Questionnaire was given to second year students of SMA Negeri 1 Kalirejo Lampung Tengah. The purpose was to categorize the students into two groups that were extravert and introvert personality. The questionnaire consisted of 23 items and it allocated within 20 minutes. Through this test, the students' personality would be known.

2. Speaking Test

Speaking test administered to measure the students' speaking ability in each group, namely extravert and introvert. The material of the speaking test was the material that they had learned before. In the assumption that they were had the knowledge of that material. The writer made the speaking test based on the syllabus in the SMANegeri 1 Kalirejo Lampung Tengah.

D. Variables

In this research, the writer organized two variables; they were dependent and independent variables. The dependent variable was the variable which the writer observed and measured to determine the effect of independent variable. On the other hand, the independent variable was the major variables which the writer hoped to investigate. It was the variable which was selected; manipulated and measured by the writer (Hatch & Farhady, 1982: 15).

From the explanation above, the writer determined the variables as follows:

1. Extravert students as independent variable (X1).
2. Introvert students as independent variable (X2).
3. Students' speaking ability as dependent variable (Y).

E. Instrument of the Research

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

1. Questionnaire

In order to find the data accurately in dividing the class into two groups, they were extravert students and introvert students; the writer gave questionnaire to the students. Questionnaire was an instrument which was very effective to measure aspects and variables in associated with personality, psychology aspect or sociology (Setiyadi, 2005). The questionnaire for personality test is taken from the test that was used many times to measure personality. And there is no doubt of this test because taken from the expert. The test named Eysenck Personality Inventory (EPI). The writer had classified the students into two groups that were extravert and introvert based on questionnaire whose core expressed how act and attitude of the students against the specific even to find out their personality type.

2. The Speaking Test

In this research, the writer tested the students by asking them to practice a given material in front of the class which was made by the writer based on the syllabus in the SMA Negeri 1 Kalirejo Lampung Tengah.

F. Research Procedures

The procedures in administering the research were as follow:

1. Determining the Population and Sample

The population of this research was the second year students of SMA Negeri 1 Kalirejo Lampung Tengah. The sample of this research was one class which was class XI IPS I. The writer had given the students some questionnaire to separate them into two groups they were extravert and introvert.

2. Administering the Speaking Test

Giving the speaking test to the students for both of groups, here was extravert and introvert students' personality. The students were asked to perform a dialogue in front of the class based on the material on the syllabus in the SMANegeri 1 Kalirejo Lampung Tengah.

3. Determining the Research Instrument

The instrument of this research was speaking test. The speaking test used for measuring the students speaking ability from the two groups. The test given is material chosen based on the syllabus of second grade students at the year 2011/2012. The students were asked to perform a dialogue in front of the class.

4. Analyzing the Data

The result of the speaking test had been compared between extravert and introvert, which groups were, had a good score from that test. It had tested in order to find out whether there was a significant difference in students' speaking ability both of the two groups. The data of the research had examined by using *ANOVA*. The data was statistically computed through the Statistical Package for Social Science (SPSS).

G. Data Treatment

According to Hatch and Farhady (1982), using *ANOVA* for the hypothesis testing had underlying assumptions, they was one dependent variable and one independent variable with two or more levels.

H. Scoring System

The focuses of speaking skill that will be assessed are:

1. Pronunciation
2. Accuracy
3. Comprehensibility

The criteria based on what Heaton (1991) purposed. The score is in scale 41 to 90 for each skill. For example if the student gets 76 for accuracy, 80 for pronunciation, and 78 for comprehensibility so the score will be:

Pronunciation	: 80
Accuracy	: 76
Comprehensibility	: 78 +
234 : 3 = 78	

Therefore, the score is 78.

In scoring the test, the researcher used inters rater method to score the students' result in speaking test. Beside the researcher, the other person who have competency in English will be asked to score the students' result. So, there were two raters gave score by using speaking criteria proposed by Heaton, the result of the two raters added and divided by two to get the average score for each student. For example, if rater 1 gives score 76, rater 2 gives score 70, all the scores will be added and divided by two and the final score is 73.

The following table will show the clearer example:

No	Students' Code	R1	R2	Average Score
1.	TYH	76	70	73
2.	MHJ	70	68	69
3.	NHJ	74	72	73

Scoring Criteria

The criteria for making speaking for raters are proposed by Heaton (1991). The speaking test that has measured is individual performance delivering one's activity. The focuses of speaking skills that assessed are the pronunciation, accuracy, and comprehensibility. The following table will shows in detail that scoring systems.

Table2. The Rubric of Grading System.

Range	Pronunciation	Fluency	Comprehension
81-90	Pronunciation only very slightly influenced by mother tongue	Speaks without having too great effort with a fairly wide range of expression. Searchers for words occasionally	Easy for listener to understand the speaker's intention and general meaning.

		but not only one or two unnatural pauses.	
71-80	Pronunciation is slightly influenced by mother tongue. Most utterances are correct.	Has to make an effort at times to search for words. Nevertheless on the whole and only a few unnatural pauses.	The speaker's intention and general meaning are fairly clear. A few interruption by the listener for the sake of clarification are necessary.
61-70	Pronunciation is still moderately influenced by 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. Fairly smooth delivery mostly.	Most of the speakers are 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.
51-60	Pronunciation is influenced by mother tongue but not only a few serious phonological errors.	Has to make an effort for much time. Often has to search for the desired meaning. Rather halting delivery and fragmentary.	The listener can understand a lot of what is said, but he must constantly seek clarification. Cannot understand many of the speaker's more complex or longer sentences.
41-50	Pronunciation is influenced by mother tongue with errors causing a breakdown in communication.	Long pauses while he searches for desired meaning. Frequently halting delivery and fragmentary. Almost gives up for making the effort at times.	Only small bits (usually short sentences and phrases) can be understood – and then wait considerable effort by someone who is used to listening to the speaker.

The criteria of scoring:

- 81-90 : Excellent
- 71-80 : Very Good
- 61-70 : Good
- 51-60 : Fair
- 41- 50 : Moderate

I. Criteria of Good Test

1. Validity

Validity is a matter of relevance; it means that the test measures what is claimed to measure. To measure whether the test has a good validity, the researcher analyzes

it from content and constructs validity. Content validity is concern with whether or not the content of the test is sufficiently representative and comprehensive for the test to be valid measure it is suppose to measure. While construct validity focuses on the kind of test that is used to measure the ability.

Since purpose of the test is to measure as well as to investigate students' personality, the writer applied a test that deals with students' personality test develop by H.J Eyesenk (1961). There is no a doubtful feeling to this Standard Test, because it is already constructed by the expert and it's measured about personality which has been tested many times. This Standard Test is used as the tools of measurements of personality which will be used in this research. The name of measurements is Inventory: Eysenck Personality Inventory Form-A. This is used to measure or classify the respondent to the type of extroversion and introversion.

As well as for speaking test, to claim it is valid, the writer took the topic that has been discuss by the students to measures their English speaking ability. the writer also uses the oral ability scale propose by Heaton (1991) as guidance for scoring the test that implemented holistic scoring with covers accuracy, pronunciation, and comprehensibility.

2. Reliability

Reliability measures of accuracy, consistency, and dependability or fairness of scores resulting from administration of particular examination. As said before that there is no a doubtful feeling to this Standard Test, because it is already

constructed by the expert and it's measured about personality which has been tested many times. So, it must be reliable too.

For speaking test, to make the score more acceptable, to ensure the ability of scores and to avoid subjectivity of the research, the writer used the inter rater reliability. Inter rater reliability is used when scores of the test are independently estimated by two or more raters. It means that there was another person who will give score besides the writer herself.

In the writer's consideration, the two inter rater are qualify to measure the learners' speaking ability because they had experiences in teaching English and had graduated from university (minimally S1) in English major.

The elements of speaking which are going to be used in this research are as follows:

1. Fluency
2. Pronunciation
3. Comprehension

The researcher was not score those three aspects separately but integrated. The speaking test is also recorded by the researcher. The table bellow will shows the specification on scoring system. Thus to determine the level of reliability of the scoring system, Spearmen Rank Correlation is applied on the data. The formula of this is:

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

Notes:

R : Reliability

N : Number of students

D : The different of rank correlation

1-6 : Constant number

(Sudjono, 2006)

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 researcher considers that both raters will achieve the reliability if the inter rater reliability has reached range 0.60 to 0.79 (high reliability). In this research, it was found that the result of inter rater reliability was follows:

Inter rater Reliability

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

$$R = 1 - \frac{6 \cdot \sum 5^2}{32(32^2 - 1)}$$

$$R = 1 - \frac{6 \cdot 25}{32 \cdot 1023}$$

$$R = 1 - \frac{150}{23529}$$

$$R = 1 - 0.00637511$$

$$\mathbf{R = 0,99}$$

Reliability 0.99 means that both raters have very high reliability because the range was 0.80 to 0.100

J. Hypothesis Testing

In administering hypothesis test, ANOVA is used. Its function is to know the difference among the groups is significant or not. The data are analyzed by using ANOVA. This test is used when we want to compare the means of three or more different groups.

The criteria are:

Non-directional two tailed hypothesis, the hypotheses are:

a) The null hypothesis (H_0)

There is no significant difference of students' speaking ability between extravert and introvert personality.

b) The alternative hypothesis (H_1)

There is a significant difference of students' speaking ability between extravert and introvert personality.