

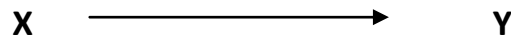
### **III. RESEARCH METHOD**

This chapter discusses the following topics: research design, population and sample of the research, data collecting technique, validity and realibility, research procedure, data analysis, and hypothesis testing.

#### **3.1 Research Design**

This research was conducted to find out if there is a significant effect of motivation in learning English on students' speaking ability. This research used a quantitative methodology to get empirical data. It is very useful for providing picture or factors connected with second language development. In this research, the writer used ex post facto research design because the writer do not give treatment but collecting the data by seeing the cause and effect will happen. Moreover, Hatch and Farhady (1982:26) states that ex post facto design was used when the researcher does not have control over the selection and manipulation of the independent variable (the researcher do not give treatment in the research).

The research design of Ex post facto is formulated as follow:



**X** : Students' motivation in learning English (Very high, High, Medium, and Low)

**Y** : Students' speaking ability

In this research, there are two variables; dependent variables and independent variables. Dependent variable is a product from all interaction that involve in the research. In other hand, independent variables is a variables in the research that determining the effect of the dependent variable. There are the variables follow:

- a. Students' motivation in learning English (divides into four levels : very high, high, medium, and low) as independent variable, so that it can be assumed that students' motivation influences the students' speaking ability.
- b. Students' speaking ability as dependent variable, so that it can be assumed that ability is a result of students' motivation.

### **3.2 Population and Sample**

The population of this research would be all of students of the second grade of SMA Negeri 1 Kotabumi, which consist of six classes. They are XI IPA 1, XI IPA 2, XI IPA 3, XI IPA 4, XI IPS 1, XI IPS 2. There is no such favorite class which consist of clever students only. So, the writer chose one of them through random

sampling. The chosen class would be the experiment class and also as sample of this study. It is believed that this method can fulfill the external validity aspect and get normal distribution data. The procedure was done as follow :

- The writer collects the data based on teachers' absent, there are six classes of the second grade of SMAN 1 Kotabumi.
- Then, the six classes name is written in the rolled papers and put into a glass.
- The glass is shaken and poured. The rolled paper which come out will be the sample.

### **3.3. Data Collecting Technique**

Based on the formulation of the problem in the first chapter, the research will try to compile the data through data collecting technique, which is test of speaking and Questionnaire.

#### **3.3.1 Questionnaire of Motivation In Learning English**

Questionnaire was given to students in an attempt to get data about their learning motivation. In this case, the writer employed questionnaire consisted of 25 items where each of them referred to integrative motivation and instrumental motivation. The writer applied Likert Scale for the questionnaire where each item has mainly four alternative answers that is A, B, C, and D. The students are

expected to give their answers as factual and real information about themselves by this questionnaire as provided in the four alternative answers.

Each of 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 6, 16, 20 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 in learning, the researcher takes from Makmun's book, Psikologi Pendidikan (1983, p: 33-34) in Uniroh (1990: 32) as reference as follows :

1. The duration of students in learning English; how long is the ability of students to use time doing activity of learning
2. The frequency of students' activity in learning English e.g., how often does the activity take place?
3. The persistence of students in learning English; How punctual in doing activity; how strong his/her tenacity is.

4. The toughness or endurance of students in solving the difficulties of learning English and facing its problem or obstacles.
5. The aspiration of the students, for instance: purpose target, etc.
6. The qualification level of students' achievement in learning English
7. The devotion of students to get objective of learning English , for instance: though, time, money, effort.
8. The students' attitude to the purposes of learning English

**Table 1. Specification of Motivation**

<b>No</b>	<b>Category</b>	<b>Item Numbers</b>	<b>Total Item</b>
<b>1</b>	The duration of students in learning English; how long is the ability of students to use time doing activity of learning	<b>1,2,25</b>	<b>3</b>
<b>2</b>	The frequency of students' activity in learning English e.g., how often does the activity take place?	<b>3,6,23</b>	<b>3</b>
<b>3</b>	The persistence of students in learning English; How punctual in doing activity; how strong his/her tenacity is.	<b>4,8,24</b>	<b>3</b>
<b>4</b>	The toughness or endurance of students in	<b>11,17,22</b>	<b>3</b>

	solving the difficulties of learning English and facing its problem or obstacles.		
<b>5</b>	The aspiration of the students, for instance: purpose target, etc.	<b>7,9,14,18</b>	<b>4</b>
<b>6</b>	The qualification level of students' achievement in learning English	<b>5,19,20</b>	<b>3</b>
<b>7</b>	The devotion of students to get objective of learning English , for instance: though, time, money, effort.	<b>11,12,21</b>	<b>3</b>
<b>8</b>	The students' attitude to the purposes of learning English	<b>7,13,15,16</b>	<b>4</b>

This questionnaire is also extracted from Bong (2001) about Students' Motivation in the EFL subject domain, which consist of several points :

Self-efficacy, Task value, Mastery goal, Performance-approach goal, Performance-avoidance goal.

### **3.3.2 Speaking Test through Prepared Talk**

The test was given to the student in speaking test. This popular kind of speaking activity is where students make a presentation on a topic of their own choice. Such talks are not designed for informal spontaneous conversation, because they

are prepared. However, if possible, students should speak from notes rather than from their script. The researcher as the teacher set the class to prepare their talks (free topic based on the three purposes : Promoting a product, Entertaining people, How To Make/Doing Somethings) .This can be done by getting them to present in front of class. The test is done orally and directly in front of class one by one in a pair. The students are asked to speak clearly because their voice will be recorded during the speaking test. The assessment was done by both the teacher and the writer using Heaton (1991) as a guidance in measuring students' speaking ability. It will be concerned on 3 aspects namely fluency, pronunciation, and comprehensibility.

### **3.3.2.1 Speaking Scoring System**

Since the writer applies the oral ability scale proposed by Heaton (1991), the writer gives the score based on those aspect there collectively. During the speaking test the writer recorded the students' speech to see the process of speaking. The recorded data scored to measure students' English speaking ability individually. After that, the writer accumulated the result of the test with the English teacher to fulfill the realibility of test.

**Table 2. The Rubric of Grading System.**

Range	Pronunciation	Fluency	Comprehensibility
81-90	Pronunciation only very slightly influenced by mother tongue	Speaks without too greats effort with a fairly wide range of expresion. Searches for word a occasionally but only one or two unnatural pauses.	Easy for listener to understand the speakers intention and general meaning.
71-80	Pronunciation is slightly influenced by the mother tongue. The most utterance are 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 intruction by listener for the shake of clarrification or necessary.
61-70	Pronunciation still moderatelly infleunced by the mother tongue but no serius phonological error.	Although she/he has made an effort and search for words, there are not too meaning unnatural pauses. Fairly smooth delivery mostly.	Most of the speaker say is easy to follow. His attention is always asre clear but several intruptions are necessary to have him to convey the message or to see the clariffication
51-60	Pronunciation is influenced by the mother tongue but only few serious phonological errors.	Has to make an effort for much of the 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 clariffication. Cannot understand of the speakers more longer or complex sentence.
41-50	Pronunciation is influenced by the mother tongue with errors causing a breakdown in communication.	Long pauses while he/she searches for desired meaning. Frequently halting delivery and fragmentary. Almost gives up for making the effort a times.	Only small bits (usually short and sentence and prhases) can be understood and then with considerable effort by someone used to listening the speaker.



The interpretation of grading system is as follows

81-89 : excellent

71-80 : very good

61-70 : good

51-60 : fair

41-50 : moderate

### **3.4. Validity and Reliability**

#### **3.4.1. Validity**

A test can be said valid if the test measures the object to be measured and suitable with the criteria (Hatch and Farhady, 1982:250). According to Hatch and Farhady (1982: 251), there are two basic types of validity, content validity and construct validity.

##### **3.4.1.1. Validity of the Instruments**

Validity refers to the extent to which the test measures what was intended to be measure. This means that is relates directly to the purpose of the test (Shohamy, 1985: 74). There are four types of validity: face validity, content validity, construct validity and empirical or criterion-related validity. To measure whether the test has good validity, the researcher used content and construct validity since the other two were considered be less needed. Face validity only concerns with the appearance of the test. Criterion-related validity is concerned with measuring

the success in the future, as in replacement test (Hatch and Farhady, 1982: 251).

The two types was used in this research were:

*a. Content Validity*

Content validity is the extent to which the test measures a representative sample of the subject matter content. The focus of the content validity is adequacy of the sample and not simply on the appearance of the test (Hatch and Farhady, 1982: 251). To get the content validity, the test adapted from Likert Scale which is developed by Uniroh (1990, p. 91-97). In this research, the test measured students' motivation in learning English. This questionnaire is believed to have content validity because it has been already applied many times by other researchers for the same purposes.

*b. Construct Validity*

Construct Validity is concerned with whether the test is actually in line with the theory of what it means to know the language (Shohamy, 1985: 74). Regarding the construct validity, it measures whether the construction had already in line with the objective of the learning (Hatch and Farhady, 1982: 251). Basically, the construct and content validity are overlap.

### 3.4.2. Reliability

#### 3.4.2.1. Reliability of the Instruments

Reliability is a consistency of certain measurement in getting the result. The reliability of the questionnaire is described by using *Cronbach's alpha* called *correlation coefficient* which has range between 0 and 1. The higher Alpha, the more reliable the questionnaire will be (Setiyadi, 2006: 189-192).

Reliability of the test is found by using this formula:

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}}$$

Where:

r = coefficient of reliability between first and second half group

X = total numbers of first half group

Y = total numbers of first second group

X<sup>2</sup> = Square of X

Y<sup>2</sup> = Square of Y

After that, it would be continued by the calculation using formula of Spearman Brown (Hatch and Farhady, 1982: 268)

$$rk = \frac{2rl}{1+rl}$$

Where:

rk = the reliability of the test

$rl$  = the reliability of the half test

The criteria of reliability:

0,90 – 1,00 = high

0,50 – 0,89 = moderate

0,00 – 0,49 = low

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

From the calculation of reliability analysis, alpha is 0.997. It means that the questionnaire has high reliability. It also fulfilled the criteria standard of reliability proposed by Arikunto (1998 : 260). Because the alpha score is 0.997, it means that the reliability of instrument can be categorized as very high reliability.

To ensure the reliability of score and to avoid the subjectively of the researcher, inter rater reliability is applied in this research. Inter rater reliability is used when score of the test is independently of estimated by two or judge. To achieve the reliability, in judging the students' speaking performance, the researcher:

1. Use a speaking criteria based on Heaton (1991). The focus of speaking skills that have been assessed are:

- a. Fluency
- b. Pronunciation
- c. Comprehensibility

2. Involves second experience rater in using the profile to give judgment for each students' speaking performance. The second rater is English teacher in SMAN 1 Kotabumi, Mrs. Sondang Silitonga, S.Pd., who has experience in rating students' speaking. This is means to provide consistent and fair judgment.

### **3.5. Research Procedure**

The procedure of this research as follows:

- 1. Selecting instruments material of questionnaire about motivation in learning English to the students

- 2. Administering English Speaking Test

The writer gives the students time in a pair to prepare their talks (free topic based on the three purposes : *Promoting a product, Entertaining people, How To Make/Doing Somethings*) .This can be done by getting them to present in front of class. After that, the teacher also can bring the class into the discussion based on the presentation. The researcher can check

their speaking ability from their speech performance in the class and students' activeness in learning activities. The writer record all speaking activity in the class. The result is rated by the writer and the teacher.

### 3. Collecting Data

The writer process the data after giving the score for students

### 4. Analyzing the Data

After the researcher gets the data, those data about students' motivation and speaking test score were thoroughly analyzed to see the significance effect of motivation on students' speaking ability for both high and low motivated students using SPSS software, then interpret the data and conclude the result.

## **3.6. The Data Analysis**

Having finished the field research by using questionnaire about motivation and speaking test, the writer uses statistic calculation of One Way Anova to analyze the data from the result of students' motivation and speaking test by SPSS software.

### 3.7. Hypothesis Testing

After collecting the data, the researcher records and analyzes them in order to find out whether there is a significant effect of motivation with students' motivation in their speaking ability. The hypothesis of this research is "there is a significant effect of motivation on students' speaking ability".

The hypothesis was statistically analyzed using Comparative Study (One Way Anova) that draws the conclusion in significant level if  $P > 0.05$ ,  $H_0$  accepted, and  $P < 0.05$ ,  $H_1$  accepted.

$H_0$  there is no significant effect of motivation in learning English on speaking ability.

$H_1$  there is a significant effect of motivation in learning English on speaking ability.