

### **III. RESEARCH METHODS**

This chapter discusses the methods of the research used in this study: setting of the research, research design, population and sample, research procedure, data collecting techniques, validity and reliability of the instruments, data treatment, and hypothesis testing.

#### **3.1 Setting of the Research**

The place of this research was SMPN 3 Natar. This school was regarded as the favorite and successful school. This research had done in second semester. There were 31 respondents in this research. The researcher distributed the test in two weeks. In the first week, the researcher evaluated students' speaking ability and then distributed the questionnaire to 16 students. The students were given the questionnaire after they finished their conversations. On the next week, the researcher evaluated students' speaking ability to 15 students. Then, the researcher distributed the motivation questionnaire in the same room. The researcher evaluated students' speaking ability with two other raters. In the speaking test, the researcher recorded students' conversation. So the utterances of the conversations will be heard clearly.

### 3.2 Research Design

In conducting this research, The researcher used quantitative method and more specifically the researcher used *Pearson-product moment correlation coefficient*. This design was used because it was the most suitable to measure the correlation between two variables. The design can be illustrated as follows:

**X – Y**

(Hatch and Farhady, 1982:27)

Which:

**X** :Motivation test (independent variable)

**Y** : Speaking test (dependent variable)

The researcher investigated the students' motivation in speaking class. The researcher distributed motivation questionnaire to the students after giving the speaking test.

The score of the questionnaire was based on Likert Scale and ranges 1 to 3. The score was given to each answer for each item function as the symbol in showing whether one of the activities is higher or lower than the others. By using scale in the questionnaire, the researcher collected the ordinal data in form of numbers. So, the data had been collected easier and were analyzed by using statistical formula.

In this research, the students were given a speaking test before giving the questionnaire of motivation. The speaking test was used to find out the students'

speaking ability through a topic. The topic was the expression of certainty and uncertainty.

### **3.3 Population and Sample**

The population of this research was the students at the third year of SMPN 3 Natar. There were 3 classes of the third year students and each class consisted of 37-38 students. The students of the third year were 114 students and divided into 3 classes. The sample used purposive sampling. Purposive sampling also known as judgemental, selective or subjective sampling. This is a type of non-probability sampling, which focuses on sampling technique where the units which investigated were based on the judgement of the researcher. The aim of this purposive sampling was the data which had been gotten by the students will represented the cases that could solve the research questions.

### **3.4 Research Procedure**

In constructing the research, the research procedure used these following steps:

1. Determining the problems of the research

The researcher observed the students in the class by giving interview and questionnaire. The interview section was like a discussion in the class. The researcher distributed some questions that could express their motivation in language learning. The questions of the questionnaire were about students behaviour in learning, and their comprehension about their own

self in learning English as a foreign language. When the researcher asked the students “do you like English or your English teacher?”. Almost all of students answered “NO”. The other question was “do you feel happy when you are in English class?”. The students answered ‘NO’. The answers mean that they were not interested in English. The students answered the questions directly without any joking expression. The researcher also found that the students did not pay attention to the teacher when the teacher taught them in the class. Those factors showed how was the role of motivation in language learning at SMPN 3 Natar.

## 2. Determining the population and sample

The population of this research was the students at the third year of SMPN 3 Natar. The researcher used purposive sampling technique to have data of questionnaire motivation. Those result of students’ speaking test represented the speaking achievement of students at the third year at SMPN 3 Natar.

## 3. Determining the research instruments

The instruments in this research were questionnaire and speaking test. The researcher conducted speaking test to get the score of the students’ speaking ability. They performed their dialogue in form of transactional dialogue that concern in three aspects of speaking test, they were pronunciation, fluency, and comprehension.

In achieving the reliability of the speaking test, inter rater reliability was used in this study. This research had three raters for the speaking test. The first rater was the researcher, the second rater was the English teacher of

that class and the third researcher was the English teacher from another class.

A set of questionnaire consisted of 32 items of close-ended questions that was used in this research to measure students' motivation in speaking ability. It is adapted and modified from Setiyadi's (2006).

4. Administering the questionnaire

The questionnaire test was given to the students on the third year at SMPN 3 Natar. The numbers of the questions were 32. Each item had mainly three alternatives answer, there were a, b, and c. The alternative answer described very positive, positive and negative.

5. Administering the speaking test

The researcher distributed the students' speaking ability by giving a topic and guiding to make a short dialogue in pair. The material was the topic according to the syllabus of the third year of junior high school based on the curriculum or KTSP. The topic told about "Expression of Certainty and Uncertainty". The students were asked by the researcher to present the dialogue in a special room. The researcher recorded the conversation by using cellphone.

6. Analyzing the result of the test

Both of the instruments, motivation questionnaire and speaking test of the class were analyzed by using Pearson Product Moment. It was used to find out whether any correlation between students' motivation and their speaking ability and to find how motivation contributes the students' speaking ability.

The students' utterances were recorded when they perform their dialogue. The data was analyzed by referring to the rating scale namely speaking ability by Heaton (1991). First, the researcher classified the result of the questionnaire. Second, the researcher scored students' speaking test. The data was analyzed by using SPSS. The hypothesis was analyzed at the significance level of students' speaking ability.

### **3.5 Data Collecting Techniques**

In collecting the data of the research, the researcher used these following steps:

#### **1. Questionnaire**

This test was given to the students after the researcher knew the base problem of students at the third year of SMPN 3 Natar in English subject, especially in speaking class. This questionnaire was given to know whether the students have motivation in learning English or not.

According to Setiyadi,(2006), close-ended questionnaire means the options are provided and there are no other alternatives. Close-ended questionnaire was used to help the researcher in selecting the data, so that the researcher did not have to waste the time for the data which are not relevant to the research problem. The respondents were directed to give the data that related to the research problem.

The students' motivation score was taken after they answered the questionnaire about motivation in learning. The motivation questionnaire covered the encouragement which emergences the willingness to do the activity as a students. The questions determined the action they wanted to do, and purpose achieved in

the process of learning systematically, which from inside or outside their self, those were: the students' behaviour in learning, persistency, vision in learning, achievement, and practice.

A set of the motivation questionnaire was taken from Setiyadi (2006) in which the scores were based on the Likert Scale and the range of 1 to 3 for the positive statements and the range of 3 to 1 for the negative statements. The last scores were taken from the total answers which given by the researcher, so that the high and the low score showed the motivation range. The questionnaire was translated into Indonesian language in order to ease the students' difficulty when they answer the questionnaire. There the options numbers of the questionnaire:

1 = Negative

2 = Positive

3 = Very Positive

**Table 3.1 Table of Specification of Questionnaire**

No	Indicator	Sub Indicator	Total Number	Number
1	Students' learning behaviour	The tendency of behaviour: happy, doubt, unhappy	12	6,18,19,20,21,22,23,27,28,29,30,31
2	Persistency	The students' ability to solve the problem	2	3,7
3	Vision in learning	Students' learning target which is creative,	6	1,5,14,15,17,24

		innovative, and effective compulsion		
4	Achievement	The students' aspiration or the achievement	7	2,10,12,1 3,16,25,3 2
5	Practice	The frequency of students' practice their speaking ability	5	4,8,9,11, 26

The reason of giving score was to facilitate and to ease counting and giving score for each answer given by the students about their motivation toward speaking English ability.

## 2. Speaking Test

The speaking test was distributed to the students those have been selected before. The students were asked to present their conversation in front of the class and the researcher recorded the conversation by using cellphone.

In gathering students' speaking data, the researcher matched the test with the syllabus of the third year of SMPN student based on school based curriculum or KTSP which was appropriate with their grade. The researcher conducted speaking test, which last for 90 minutes. In conducting the test the students had a topic and guided to make a short dialogue in pair. The test was orally, and directly the teacher called the group in pairs on by one to a special room. In the room, The students presented their dialogues. During the conversation, the researcher recorded the conversation to help in scoring students' conversation.

The students were asked to speak clearly since their voices would be recorded during the test. The material of the test was taken from students' book which was appropriate for the students in the third grade. The score of the students' speaking ability was given based on the oral rating sheet provided. The raters of the test were the researcher, the English teacher of that grade and another English teacher in the school. Heaton (1991) as a guidance in measuring students' speaking ability, the teacher and the researcher assessed the students concerned on three aspects namely pronunciation, fluency, and comprehension. During the speaking test, the researcher recorded the students' voices in the cellphone.

The score of each point is multiplied by there:

Students 2 got 84.

Here is identification of scores

For example, a student got 80 in pronunciation, 84 in fluency and 88 in comprehension. Therefore, the students' score will be:

P      80

C      84

F      88

Total       $80+84+88 = 252,$

$252:3 = 84$

It means that the student got 88 for speaking.

### **3.6 Validity and Reliability of the Instruments**

#### **3.6.1 Validity of the Questionnaire**

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, it has been analyzed from content and construct validity. Content validity concerned with whether the content of the test was sufficiently representative and comprehensive for the test or not. The questionnaire was expected to be valid. In the questionnaire, the researcher identified some factors, as follow: students behaviour in learning, persistency, vision in learning, achievement, and practice.

Construct validity focused on the kind of the test that was used to measure the ability. Since the purpose of the test was to measure as well as know students' motivation, the researcher applied a questionnaire that dealt with motivation developed by Setiyadi (2006).

#### **3.6.2 Validity of the Speaking Test**

Validity refers to extent to which the test measures what it was intended to measure. This means that it related directly to the purpose of the test. In content validity, the test is good reflection of what has been taught and the knowledge which the teacher wants his or her students to know. Construct validity concerns on whether the test is actually in line with the theory of what it means to the language (Shohamy, 1985).It examined whether the test was actually reflected that means to know these three aspects of criterion of students' speaking skill. It means that the test will measure certain aspects based on the indicator. The researcher used three aspects in speaking ability because the aspects were based

on the indicators in curriculum. In the beginner level, speaking consists of pronunciation, fluency and comprehensibility. The beginner level more imitate the sounds and pattern than focus on grammar and vocabulary. In this level the children speak in English but they do not think about grammar deeply. They just speak what they want. This research hopes that this method can motivate students in speaking aspects. It is caused the researcher used three aspects in speaking skill in junior high school.

The researcher compared the test with the table of specification to know whether the test was good reflection of what has been taught and the knowledge by teacher wanted the students to know. A table of specification was the instrument that helped the test constructor planned the test. The following table is oral ability scale proposed by Heaton (1991) that has been used as the scoring standard for the students' speaking ability.

**Table 3.2 Table of Specification of Speaking Ability**

<b>Range</b>	<b>Pronunciation</b>	<b>Fluency</b>	<b>Comprehensibility</b>
90-100	Pronunciation only slightly influenced by the mother tongue	Speak without too great an effort with the fairly wide range of expression. Search for words occasionally but only one or two unnatural pauses.	Easy for listener to understand the speaker's intention and general meaning.
80-89	Pronunciation is still moderately influenced by the mother tongue with errors causing a breakdown in communication.	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 speaker's intention and general meaning are fairly clear. A few interruptions by listener for the sake of clarification are necessary.

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. Fairly smooth delivery mostly.	Most of the speakers say is easy to follow. His/her intention is always clear but several interruptions are necessary to help him to convey the message r to see the clarification.
60-69	Pronunciation is still moderately influenced by the mother tongue but only a few serious phonological errors.	Has to make an effort for much of the time. Often has to look for the desired meaning. Rather halting delivery and fragmentary.	The listener can understand a lot of things being said. But he/she must constantly seek clarification. Cannot understand many of the speakers' more complex or longer sentences.
40-59	Pronunciation is still moderately influenced by the mother tongue with errors causing a breakdown in communication/global errors.	Long pauses while he/she searches for the desired meaning. Frequently halting delivery and fragmentary almost gives up for making the effort at times.	Only a little bit (usually short sentences and phrases) can be understood and then with the 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 language skill and areas practiced in course.	Full of long and unnatural pauses. Very halting and fragmentary delivery. At times gives up making the effort.	Hardly anything of what being said can be understood. Even when the listener makes a great effort or interrupts the speaker is unable to clarify anything being said.

### 3.6.3 Reliability of the Questionnaire

Shohamy (1985 p.70) stated that the reliability refers to extent to which the test is consistent in its score, and it give an indication of how accurate the test score. It

means that the test score is dependable, stable and consistent when given to different situation or different people, in order words, the score of odd and even numbers have no high differences. Reliability is a consistency of certain measurement in getting the result. The reliability of the questionnaire was described by using Cronbach's alpha called correlation coefficient which had range between 1 and 3. The higher Alpha, the more reliable the questionnaire adapted on (Setiyadi, 2006).

According to Arikunto (1998), the standard of reliability of the instrument were 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 of the questionnaire, the alpha was 0.778. It means that the questionnaire had high reliability. It can be interpreted that the questionnaire was proper to be used for a research. The analysis of each items showed that if the item deleted, it made the alpha became lower.

#### **3.6.4 Reliability of the Speaking Test**

The form of the test was subjective test because there was no certain answer. In this test, the researcher used inter rater to assess students' performance. The raters were the researcher, English teacher of that grade and another English teacher in

that school. The raters gave the score by listening the conversation directly and orally during the performance. The researcher also recorded the students' utterances because it helped the raters to evaluate more objectively.

In the researcher's consideration, the two raters were qualified to measure the students' speaking ability. Because, they had experiences in teaching English more than five years, and graduated from university (S1 degree) in English major. Before the two raters assessed the students' speaking ability, the two raters discussed about the speaking proficiency description checklist to be used, to make sure that they had the same understanding in using the checklist.

### 3.7 Data Treatment

In order to know the students' motivation in learning speaking, the researcher calculated the students' score that devised from Haris (1974) as follow:

**Table 3.3 Calculating of the Students' Answers in Motivation Questionnaire.**

Classification	Items	Students' Score		
		A	B	C
Negative-positive-very positive items	1, 3, 8, 9, 10, 13, 18, 20, 22, 28, 30, 31, 32	1	2	3
Very positive-positive-negative items	2, 4, 5, 6, 7, 11, 14, 15, 16, 17, 19, 21, 23, 24, 32, 26, 27, 29	3	2	1

**Table 3.4 Classification of Positive and Negative Questions**

Classification	Items
Positive words items	1-32, and 32
Negative words items	26, 27, 28, 29, 30, and 31

Based on the table 3.4, the researcher stated that the motivation questionnaire used negative wording to avoid students feel bored when they answer the test. The score items test number were 1, 3, 8, 9, 10, 13, 18, 20, 22, 28, 30, 31, and 32 and the range was 1 to 3. It means that the score has been chosen A was 1, B was 2, and C was 3. The score items of test number 2, 4, 5, 6, 7, 11, 14, 15, 16, 17, 19, 21, 23, 24, 32, 26, 27, and 29 in the range of 3 to 1. It means that the score that has been chosen as A as 3, B as 2 and C as 1.

### 3.8 Hypothesis Testing

In this section, the researcher conducted the hypothesis to determine whether there is any correlation between students' motivation and their speaking ability. The researcher applied a critical value table for Pearson Correlation Coefficient in the following criterion acceptance used:

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

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

With the explanation as follow:

$H_0$  : there is no significant correlation between students' motivation and students' speaking ability in English. The hypothesis can be accepted if the  $r_{\text{value}}$  is lower than  $r_{\text{table}}$ .

$H_1$  : there is a significant correlation between motivation and students' English speaking ability. The hypothesis can be accepted if  $r_{\text{value}}$  is higher than  $r_{\text{table}}$ .

$H_0$  : there is no contribution of motivation toward their speaking ability.

$H_1$  :there is contribution of motivation toward their speaking ability.