CHAPTER III

RESEARCH METHODOLOGY

Chapter two has deliberated the theory related to students' motivation and their speaking ability. This chapter will explain methodology used in this research. It will also discuss research design, participants, instruments used in conducting the research, data collection, data analysis and concluding remarks.

3.1 Research Design

There were two variables in this study. The independent variable in this study was students' motivation and the dependent variable was students' speaking ability. In analyzing students' motivation, a questionnaire was used and an oral test was used to examine students' speaking ability. In answering the research question this study used correlational design.

3.2. Participants, Population and Sample

This study took private junior high school students in Bandung as the participants. The reason students in private school chosen to be the participants were because the private school used English as the medium of instruction in learning English. It would be easier to conduct a research to students that accustomed to hearing and speaking English.

The population of this study was taken from second grade of one of the private junior high schools in Bandung.

The samples in this study were collected through a total population sampling. The particular characteristic of the population is that the entire participants are in the second grade of junior high school. The study used 43 students as the sample.

3.3 Research Instruments

To collect data related to this study, three instruments were used. Two sets of questionnaire were used as the instruments to obtain data of students' motivation in speaking and factors that had the highest influence on students' motivation. In collecting data on students' speaking ability, oral test was conducted

3.3.1 Questionnaire

This study used a questionnaire because a questionnaire can be very advantageous. It can be given to a large number of participants at the same time. So it helped researcher to save time in conducting the research.

The questionnaire used in this research is the questionnaire of motivation. The questionnaire used closed items statements.

Table 3.1 Likert Scale

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

The questionnaire used Likert-type scale. The scale was ranged from 1 to 5. If the participants chose 1, it meant that they strongly disagreed with the statements. On the other hand, if the participants chose 5, it indicated that they strongly agreed with the statements.

The questionnaire was conducted to analyze the level of students' motivation in speaking. The questionnaire was adapted from the questionnaire designed by Gardner (2004). Moreover, the questionnaire was based on indicators that were developed by Usher and Kober (2012).

According to Usher and Kober (2012), there are four dimensions of motivation. The first dimension is competence. When students believe that they have the ability to perform a task, they will be able to complete the task with confident (Deci & Ryan, 2000a). The second dimension is autonomy. Students are considered to be autonomous when they gladly dedicate their time and energy to their educations. Students' interest or value is also a part of the motivation dimension. Students who are interested in the learning task and perceived its value will study harder (Usher & Kober, 2012). The last dimension is relatedness. Relatedness is connected to students' feeling (Wachob, 2006). Relatedness is the sense of belongingness or connectedness to the teacher or peer (Deci & Ryan, 2000a)

Table 3.2 Four dimensions of Motivation

Dimensions	Indicators	Items

1. Competence (Am I capable?)	-The student believes he or she has the ability to complete the task.	1,2,3,4,5
2. Control/autonomy (Can I control it?)	-The student feels in control by seeing a direct a link between his or her actions and an outcome. -The student retains autonomy by having some choice about whether or how to undertake the task.	6,7,8,9,10
3. Interest/value (Does it interest me? Is it worth the effort?)	-The student has some interest in the task or sees the value of completing it.	11,12,13,14
4. Relatedness (What do others think?)	- Completing the task brings the student social rewards, such as a sense of belonging to a classroom or other desired social group or approval from a person of social importance to the student.	15,16

(Adopted from Usher & Kober, 2012)

There were 16 statements used in the questionnaire. The first dimension and the second dimension had 5 statements, the third dimension had 4 statements, and the last dimension had 2 statements in the questionnaire.

3.3.1.1 Validity of the Questionnaire

Instruments used in a research need to be valid and reliable. Therefore, a pilot test was conducted in order to check the validity and the reliability of the questionnaire. In the pilot test, the questionnaires were given to 27 junior high school students. In the first set of questionnaire, which was in regard to students' motivation questionnaire, the participants were given 20 items of statements. The participants were also required to fill 40 items of statements in the second set of the questionnaire. The questionnaire in the pilot test also used a likert-type scale ranged from 1 to 5.

In order to analyze the validity of an instrument, r-table and r-value should be compared. To find the *r*-table, the degree of freedom needed to be discovered. The formula to calculate the degree of freedom was (df = n – 2). The sample (n) of the pilot test

was 27, so 27 -2 = 25. The confidence level was at 95%, it meant that the significant level was at 5%. Since the significance level of the test was 5%, the r-table of the questionnaire was 0.381.

Table 3.3 Validity Test on Students' Motivation Questionnaire

Items	r-result	r-table	Description
1	.538	.381	Valid
2	.473	.381	Valid
3	.505	.381	Valid
4	.508	.381	Valid
5	.451	.381	Valid
6	.521	.381	Valid
7	.485	.381	Valid
8	.416	.381	Valid
9	.401	.381	Valid
10	.384	.381	Valid
11	.251	.381	Invalid
12	.448	.381	Valid
13	.467	.381	Valid
14	.480	.381	Valid
15	.465	.381	Valid
16	.138	.381	Invalid
17	-.284	.381	Invalid
18	.454	.381	Valid
19	.407	.381	Valid
20	-.134	.381	Invalid

The data collected from the pilot test were analyzed using SPSS to find the r-value. The r-result was compared to r-table to find the r-value. The instruments considered as valid if the r-result was greater than r-table at 95% confidence level. The result of validity test on both set of questionnaire is described in the table above

The results of the pilot test show that there were 16 valid items from students' motivation questionnaire. There were 4 invalid items. The items were considered as invalid because the *r*-result was less than *r*-table.

The invalid items were number 11, 16, 17, and 20. Therefore, the invalid items were not used in the main research questionnaire. Only 16 items used on students' motivation questionnaire.

3.3.1.2 Reliability of the Questionnaire

The reliability test was administered using Cronbach's Alpha Method. It was further calculated using SPSS. The level of reliability can be seen from the rule designed by George and Mallery (2003). The rule was created to describe the internal consistency of the data.

Table 3.4 The Reliability of the Data Interpretation

Cronbach's alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

(George & Mallery, 2003)

The reliability test of questionnaires were calculated using SPSS. The results are as follows.

Table 3.5 Reliability Test on Students' Motivation Questionnaire

Variable	Cronbach's Alpha	N of Items	Criteria

Students' Motivation in Speaking	.819	16	Good

The cronbach's alpha of students' motivation in speaking questionnaire is 0.819. Based on George and Mallery (2003), if $0.9 > α ≥ 0.8$, it means that the instrument has a good level of reliability. So, the reliability of students' motivation questionnaire was good.

3.3.2. Oral Test

The speaking task chosen was based on basic competency of Curriculum 2013. The basic competency 4.4 asserts that students need to be capable of "*Menyusun teks deskriptif lisan dan tulis, sangat pendek dan sederhana, tentang orang/binatang/benda, dengan memperhatikan tujuan, struktur teks, dan unsur kebahasaan, secara benar dan sesuai dengan konteks.*" (Curriculum, 2013, p. 70). The curriculum stated that students were required to form a short and simple text orally and written about people, animal, or objects with the right structure, grammar, and context. The learning material on the syllabus also used to establish the topic of the task. On syllabus, the learning material of basic competency 4.12 is "*Menyusun teks deskriptif lisan dan tulis, pendek dan sederhana, tentang orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan yang benar dan sesuai konteks.*" (Junior High School Syllabus, 2013, p. 33). The curriculum and the syllabus indicate that junior high school students in the second grade are expected to produce spoken and written form of descriptive. The description was about animals, people, and objects. Therefore, this study used description task as an instrument for the oral test.

A description task is one of the tasks that are commonly used in oral test. The students were tested individually. Individual task was implemented considering the advantages.

In the tasks, students were given a picture. The topic for the description task was adapted from the syllabus and from the book designed by the government. The basic competencies in the syllabus curriculum 2013 showed that students are expected to be able to describe a person, animal, and objects. The book entitled "English Rings a Bell" that was designed by the government provides a picture of a zoo to be described by students,

but the pictures in the book are not clear enough. Therefore, the picture used in this study was designed based on the topic, which had the elements of animal, person, and object
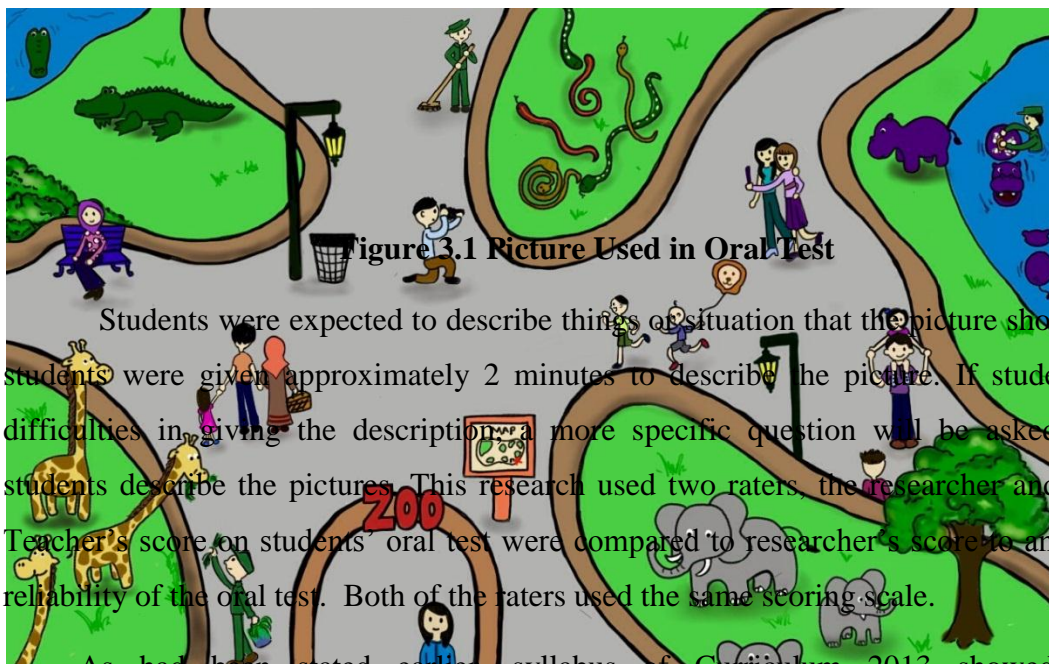

Figure 3.1 Picture Used in Oral Test

Students were expected to describe things or situation that the picture showed. The students were given approximately 2 minutes to describe the picture. If students have difficulties in giving the description, a more specific question will be asked to help students describe the pictures. This research used two raters, the researcher and teacher. Teacher's score on students' oral test were compared to researcher's score to analyze the reliability of the oral test. Both of the raters used the same scoring scale.

As had been stated earlier, syllabus of Curriculum 2013 showed several competencies that students need to be fulfilled. The syllabus showed that students are required to be able to create a text orally with certain topic while paying attention to the social functions, text structure, and a proper language feature. The language feature also has some elements on it, such as vocabulary, grammar, intonation, pronunciation.

Regarding the syllabus and several speaking abilities from experts, this study considered using independent speaking rubrics developed by TOEFL (2014) as the most suitable scoring scale in this research. TOEFL was designed to test ESL and EFL students (TOEFL, 2014). So, it was suitable to be used by Indonesian students. All of the criteria in

the TOEFL speaking rubrics were relevant to the theory and the syllabus. It embodies students' ability in performing the task

There are four criteria in the TOEFL speaking rubrics; general description, delivery, language use, and topic development. The general description criterion was related to students' comprehension ability. The delivery criterion represents pronunciation, fluency and intonation. The language use criterion represents students' use of grammar and vocabulary, and the last is topic development. This criterion

There are two speaking rubrics on TOEFL speaking test: independent and integrated speaking rubrics. In integrated speaking rubrics, the speaking tasks were integrated with reading and / or listening (Fink, 2014). So, this research used the independent speaking rubrics, where the speaking test only focus on only how well the students can speak (Fink, 2014)

Moreover, the speaking score was ranged from 0-4. The highest score was 4 and the lowest score was 0. The score was summed up and the scale was converted to 0-16. The ranges of level were as follows:

- Good (13-16)   - Limited (5-8)

- Fair (9-12)   - Weak (0-4)

3.3.2.1 Validity and Reliability of the Speaking Test

In testing the validity of the speaking test, the developers must define what kind of speaking their test is intended to assess (Louma, 2009). This study is intended to test students' speaking ability through a description task. The syllabus and curriculum designed by the government showed that students need to be able to describe people, animals, and objects. So, the task was able to shows students' competencies in using their ability to complete the given task.

The next step in validating the speaking task is evaluating the rating criteria. Louma (2009) explains that the rating scale must be coherent with the purpose of the test.

The rating scales used in this study had covered up all of the aspect needed to test students' ability. Based on the theory and syllabus, there were six aspects of speaking skill that were taken as consideration; Grammar, fluency, pronunciation, vocabulary, comprehension. If the scales and the task used in the study had measured what the speaking test was intended to measure, the test was considered to be valid.

Reliability in speaking test is important, because unreliable scores can damage the test result (Louma, 2009). This study analyzed the speaking test reliability using inter rater reliability. The result of the reliability test of this study was further discussed in Chapter 4.

3.4 Data collection

In collecting the data, several steps were completed. The steps in collecting the data include:

1. Exploring some of the theories related to the study. The theories used to decide and adapt instrument used in measuring the level of students' motivation in speaking, students speaking ability, and factors affecting students' speaking.

2. Formulating the questionnaire using Bahasa Indonesia and validating the questionnaire to the expert. The valid questionnaire was revised.

3. Administering the pilot test to check the validity and reliability of the instrument.

4. Analyzing the result of the pilot test and revising the instrument.

5. Conducting the real test using reliable and valid instrument of oral test and questionnaire of motivation in speaking

6. Guiding the students orally in answering the questionnaire so there was no misinterpretation.

7. Administering an oral test to collect data on students' speaking skill. Speaking test was carried out individually.

8. Analyzing, interpreting, and discussing the final result of the data.

9. Finally, concluding the overall result and giving suggestion for further research.

3.5 Data Analysis

The data that had been collected were analyzed through several steps.

3.5.1 Analyzing the relationship between Students' motivation in speaking and students' speaking ability.

In answering the research question, several steps were conducted. Firstly, the questionnaire was used as an instrument to collect data on students' motivation. The highest overall score of the questionnaire was 80 and the lowest score was 16. The data from the questionnaire were further investigated using SPSS. After the data were analyzed, the questionnaire was processed through the interval classification to determine the range of the students' motivation from very high to very low.

Furthermore, an oral test was conducted to collect data on students' speaking ability. The data that had been collected using a speaking scoring scale are evaluated using SPSS.

Finally, the data from the questionnaire were compared to the results of students' speaking test and then examined by SPSS. The data were then analyzed using a Spearman's rank-order correlation coefficient. Spearman's correlation was used to find the correlation between the two variables. The relationship could be positive or negative.

3.6. Concluding Remarks

Chapter 3 was designed to define method used in this study. This chapter consists of research design, population and sample, instrument, data collection and data analysis. Instruments used in this study were questionnaire and oral test. Furthermore, data collection and data analysis were constructed to clarify the steps in collecting and analyzing data. Chapter 4 will elaborate and analyze the findings of this study.