

Chapter Three

Methodology

This chapter focuses on discussion about methodology of this study to answer the research questions presented in chapter one. The first section discusses the research design. The next section researcher describes research setting. The next part presents the population, sample, and sampling technique. After that, the next part discusses data collection methods. And the next two last sections explain about data collection procedures and data analysis.

Research Design

This study used quantitative approach. The researcher chose quantitative approach as the research method because quantitative approach collects the data from a large number of people using instruments with preset questions and responses. Cresswell (2012) stated the larger number of individual respondents, the stronger the results that can get. The researcher wanted to collect data from large number of respondents and analyze trends or tendency from the aims of this research. Another reason the researcher used quantitative as the approach in this study because the data of this study can be in form of members and used statistical analysis.

In this study, the researcher used survey design as the research design because this study aimed to look for the trends and tendency of students' difficulties in learning English speaking skills and strategies employed by students at a private senior high school in Yogyakarta in learning English speaking skills. Based on Cresswell explanation (2012), survey research design were the

procedures in quantitative approach. In administering the survey of this study, the researcher needed sample of the entire population of people to determine trends or tendency of attitudes, opinions, behaviors, or characteristics of the population.

Research Setting

The researcher conducted this research in a private senior high school of Yogyakarta. Researcher chose the private senior high school of Yogyakarta as the research setting to collect the data based on two reasons. Firstly, the researcher had teaching experience when doing teaching practice, so the researcher is familiar with the students' condition when they learn English in speaking skills. Secondly, the researcher was interested in conducting a research in learning speaking skills. Besides, this private senior high school also developed the speaking skills as language skills in teaching and learning process.

Population, and Sample

Research population. Private senior high school students were the population in this research. The researcher chose students of grade 11th at a private senior high school in Yogyakarta as the target population in this research. The researcher chose the private senior high school students' as the population because the researcher had experience when doing teaching practice in internship program, so researcher obtained the condition of population in that school. In addition, the researcher chose 11th graders students because they were easier to be the respondents than 12th and 10th grader students. One of the English teacher in that school said that 12th grader students were busy in preparing national exam and 10th grader students does not have more experience than 11th grader students

in learning English speaking skills. Indeed, 11th grader students have more experience in learning English speaking skills because one of English teacher in that school focuses their students' in English speaking skills. There were 7 classes of 11th grades at a private senior high school in Yogyakarta. It consists of 4 classes from science program and 3 classes from social program. Therefore, the total number of population in this research was 214 students.

Research sample. In quantitative research approach, the researcher should have the sample in collecting the data. Sample was number of respondents in a research that selected from the target population (Creswell, 2012). According to Cohen, et al (2011), if the total population was 214 students, the minimum sample size was 139 students. The minimum sample size of this study was based on the table of confidence level 95% for educational level with confidence interval 5% (Cohen , Manion, & Morrison, 2011). The researcher used probability sampling techniques in this research. Simple random sampling was used as the type of sampling technique. The researcher chose random sampling as the sampling technique because according to Cresswell, (2012). In a study, every respondent of the population has the same chance of being selected. The actual number of respondents used in this study was 174 students.

Data Collection Method

Questionnaire. This research used questionnaire as the instrument of data collection method. According to Cohen (2011), questionnaire was a useful instrument for collecting survey information because the researcher can get the data without his or her presence. In this study, the researcher used structured

questionnaire (close-ended) as the types of the questionnaire because the researcher want the respondents can only choose one answer in every questionnaire items. The researcher adopted the questionnaire from related studies about students' difficulties and learning strategies in learning English speaking skills.

The researcher adopted the questionnaire related about students' difficulties from source: Nida Ulfadila, 2015 "*Students' Strategies and Challenges in Improving Speaking Ability: a Case Study at Vocational High School 1 Rengat*". The researcher adopted the questionnaire from Nida's study based on some reasons. Firstly, researcher obtained the students' difficulties in learning English speaking skills. Then, education level of the respondents was senior high school students. The original questionnaire consisted of 25 questionnaire items was presented in Appendix A. In the first part, there were 10 items number 1 to 10 were intended to answer the first research question about students' difficulties in learning English speaking skills. In addition, the researcher categorized 15 the questionnaire items into several types of learning strategies, as we can see below;

Table 1.	
<i>Questionnaire Items Categories</i>	
Questionnaire items	Categories
Students' difficulties	
1.	Confidence
2.	Grammar
3.	Interaction
4.	Making Mistake

5.	Vocabulary
6.	Un-interesting Topic
7.	Nervousness
8.	Pronunciation
9.	Negative Response from others
10.	Motivation
Learning Strategies	
11-13	Memory strategies
14-16	Cognitive strategies
17-19	Metacognitive strategies
20-22	Affective strategies
23-25	Social strategies

The researcher used rating scales as the types of response in the questionnaire items. According to Cohen, et al (2011), in a research, the researcher used rating scales because rating scales were the best options to conclude frequencies, correlations and other form of quantitative analysis from the respondents. In this study, the researcher used these following scales for answering the first research question about students' difficulties in learning English speaking skills;

Table 2.

Scale and Value Categories

Scale	Value
1	Strongly Disagree
2	Disagree
3	Agree
4	Strongly Agree

In answering the second research question, the researcher used the following scales to answer about learning strategies in English speaking skills as follows;

Table 3.

Scale and Value Categories

Scale	Value
1	Never
2	Sometimes
3	Often
4	Always

Validity. Cohen, et al (2011) stated that validity of instrument test was a crucial element to effective research. According to Winter (2000), validity can demonstrate a particular instrument in fact to measure accurately and represented what the data intends to measure, and it was intended to describe or explain the theories. The researcher used Expert judgment and Aiken test to test the validity the instruments in this research.

Items were reputed valid if:

Table 4. <i>Validity Categories</i>	
Validity Score	Category
V<0.4	Low validity / invalid
0.4<V<0.8	Medium validity
V>0.8	High validity

If validity score was more than 0.4, the category is “Medium validity”. “High validity” is given if the validity score was more than 0.6; and “invalid validity” if the validity score was less than 0.4. Therefore, if there was an invalid item, the researcher had to change or delete the item. After conducting the Aiken test from the expert in Microsoft Excel, the validity result can be seen as below:

Table 5.									
<i>Aiken Test Result</i>									
Items	Expert_1	Expert_2	Expert_3	S1	S2	S3	SUM	V	Information
001	4	4	4	3	3	3	9	1.00	High validity
002	4	4	3	3	3	2	8	0.89	High validity
003	4	4	3	3	3	2	8	0.89	High validity
004	4	3	3	3	2	2	7	0.78	Medium validity
005	4	4	4	3	3	3	9	1.00	High validity
006	4	4	3	3	3	2	8	0.89	High validity
007	4	4	3	3	3	2	8	0.89	High validity
008	4	4	3	3	3	2	8	0.89	High validity
009	4	4	3	3	3	2	8	0.89	High validity
010	4	4	3	3	3	2	8	0.89	High validity
011	4	4	3	3	3	2	8	0.89	High validity
012	4	4	3	3	3	2	8	0.89	High validity
013	4	4	4	3	3	3	9	1.00	High validity

014	4	4	3	3	3	2	8	0.89	High validity
015	3	4	3	2	3	2	7	0.78	Medium validity
016	4	2	3	3	1	2	6	0.67	Medium validity
017	3	4	4	2	3	3	8	0.89	High validity
018	4	4	4	3	3	3	9	1.00	High validity
019	4	4	3	3	3	2	8	0.89	High validity
020	4	4	4	3	3	3	9	1.00	High validity
021	4	3	3	3	2	2	7	0.78	Medium validity
022	4	3	3	3	2	2	7	0.78	Medium validity
023	4	4	4	3	3	3	9	1.00	High validity
024	4	4	3	3	3	2	8	0.89	High validity
025	4	4	4	3	3	3	9	1.00	High validity

The table 5 showed that the 25 items are valid and the researchers find out that 20 items were high validity because the validity score was more than 0.8. There are 5 items were medium validity because the validity score was less than 0.8 and more than 0.4. And, 0 items was invalid because there was no items that have validity score less than 0.4.

Reliability. Reliability instrument in analyzing data are used to measure of internal consistency. In this study, the researcher used Cronbach's alpha to test the reliability of instruments. These following alpha coefficient guidelines can be used in reliability test:

Table 6. <i>Reliability Categories</i>	
Cronbach's Alpha	Category
>0.90	Very highly reliable
0.80-0.90	Highly reliable
0.70-0.79	Reliable
0.60-0.69	Marginal / minimally reliable
<0.60	The data are not reliable

According to Creswell (2012), the data were reputed reliable if the Cronbach's alpha score is more than 0.6 as long as suitable with the category table above. If the Cronbach's alpha was less than 0.6 the items were be reputed not reliable.

After conducting reliability test using SPSS, the result showed that the 25 items were considered as reliable category based on the Cronbach's Alpha as the table showed below.

Table 7. <i>Result of Reliability Test</i>	
Cronbach's Alpha	N of Items
.703	25

Based on the Cronbach's alpha score that can be seen in table 6, the reliability of the instruments was reliable category because 0.703 were considered as the reliable category. From Validity and Reliability test, the data can be inferred that 25 questionnaire items can be processed to the next steps.

Data Collection Procedure

In this study, there were some procedures in administering the questionnaire. First, the researcher contacted one of English teachers at a private senior high school in Yogyakarta to inform or ask permission in collecting data from their students. Second, the survey was conducted after English teacher finished the material in the class room at private senior high school of Yogyakarta. Third, in this study, the researcher used *Bahasa Indonesia* in getting the data from respondents because to make sure and easier the respondents understand about the survey and questionnaire items. In this study, the researcher administered the questionnaire with her presence because it can be helpful if the students as the respondents felt difficult or uncertain to answer or choose the questionnaire items. According to Cohen (2007) , the presence of researcher can ensure that the respondents have answered all questionnaire items completely and the researcher also can check if the respondents fill in the questionnaire correctly.

Data Analysis

Descriptive statistic. In this study, the researcher used descriptive statistic to analyze the data from the respondents. According to Cohen, et al (2011), descriptive statistic presented exactly what the data describe, so that the researcher can analyze and interpret what these descriptions means in a study. In this study, the researcher analyzed the data by using SPSS (Statistic Package for Social Science) version 24. The researcher used descriptive statistic to answer the first research question related to students' difficulties in learning English speaking skills. Furthermore, the researcher also used descriptive statistic to analyze the data in answering the second research question related about learning strategies employed by students in learning English speaking skills. Descriptive statistic was a description of the data that consist of frequencies, measures of dispersal, measures of tendency, standard deviation, cross tabulation and standardized scores (Cohen , 2011). The researcher analyzed the data in descriptive statistic by presenting the frequencies, presentences, mode, mean, minimum, and maximum scores of the data.

For the first research question, the researcher created range or category belongs to each research questions. To make the results clear to read, rating scales were used in this research as it was able to establish the sensitivity degree and diverse responses while maintaining to generate numbers (Cohen et al., 2011). There were three categories. They were (1) easy, (2) moderately difficult, and (3) highly difficult. The class interval for the each category can be known from the following calculation.

The maximum scale should be minus by the minimum scale then divided by the n category. The maximum scale was 4 and the minimum scale was 1, while the n category is 3. The formula will be $(4 - 1) : 3 = 1.00$. As the result, the class interval for each category was 0.67. The category can be seen as table below.

Table 8. <i>Categories of students' difficulties in learning English speaking skills</i>	
Scale	Category
1.00-2.00	Easy
2.01-3.00	Moderately Difficult
3.01-4.00	Highly Difficult

After the researcher found the interval of each category, the researcher inserted the range score or interval score to each category level students' difficulties in learning English speaking skills based on the mean score. The students' difficulties categories were reputed "easy" if the mean score around 1.00 until 2.00. For "Moderately difficult" category if the mean score around 2.01 until 3.00, and for the "Highly difficult" category, if the mean score was 3.01 until 4.00. After that, the researcher inserted the mean score of the category level to each student's difficulties in learning English speaking skills. Based on the

category level, the researcher will report the common difficulties faced by private senior high school of Yogyakarta students in learning English speaking skills.

At the second part, there were 15 items number 11 to 25 are used to answer the second research question about learning strategies in learning English speaking skills. For the second research question, researcher used category such as the following category;

Table 9. <i>Students' Learning Strategies Categories</i>	
Scale	Category
1.00 – 2.00	Never
2.01 – 3.00	Rarely
3.01 – 4.00	Often

The category was reputed “Never” if the mean score around 1.00 until 2.00. For “Rarely” category if the mean score around 2.01 until 3.00, and for the “often” category if the mean score was 3.01 until 4.00. After that, the researcher inserted the mean score of the category level to each learning strategies. Then, the researcher reported the common strategies were used by private senior high school of Yogyakarta in learning English speaking students.