**Chapter Three**

**Methodology**

This chapter explains the research methods. It consists of research design, population and sample, data collection method, research instrument, and analysis of the data.

**Research Design**

This research was conducted by using quantitative design. Although this research topic seemed qualitative as design, some scholars did it in quantitative. There were "Jordan (1941) who developed a Thurstone type of scale to measure attitude" (p.42) and also "Duckworth and Entwistle (1974) developed a repertory grid technique for studying attitude toward many school subjects" (p.42) in Gardner (1985). The researcher chose quantitative design because he wanted to know the common representation of students' attitudes toward English learning without exploring further the factors that might affect the attitudes. Here researcher needed a large samples and populations, but still included in same area (school). Then, researcher selected senior high school students as samples and the location was at *SMA* Muhammadiyah 5 Yogyakarta. *SMA* Muhammadiyah 5 Yogyakarta also represented one of private school in Yogyakarta.

This research focused on quantitative descriptive which characters of descriptive research were "restricted to factual registration and that there is no quest for an explanation why reality is showing itself this way" (Jong and Voordt, 2002 p.6). In addition, Cohen, Manion, and Morrison (2011) said that the descriptive statistic only reports the results, and it did not have prediction or a

hypothesis. As said by Jong and Voordt (2002) that descriptive research was not targeting at making some hypotheses. Thus, this research only reported the data in general without any hypotheses.

**Population and Sample**

The research population were 402 students of *SMA* Muhammadiyah 5 Yogyakarta year 9 until 12. The researcher used around 240 students as sample by using simple random sampling. According to Cohen, et al. (2011) if the population was about 400 people with 95% of confidence level and confidence interval 4%, the number of sample was accounted about 240 people. The population and sample were the students who have the same period as teenagers. With the confidence level 95%, according to Cohen, et al. (2011) the data was still acceptable and useable when there were several error margins.

**Data Collection Method**

This research used questionnaires to collect the data. The questionnaire was made from the literature review in this research. Researcher used questionnaires as the instrument to gather data of positive or negative attitudes of the high school students toward learning English. The questionnaire consisted of some statements that were in line to the literature review. The statements of the questionnaires were only dealing with positive attitudes. It means, researcher only chosen positive statement from literature review. The researcher did not mention negative attitudes because researcher presumed that, when the students disagreed with the statements, it means that they showed negative attitudes.

Likert scale was used in this research. The researcher decided to use 1-4 scale from strongly agree, agree, disagree, and strongly disagree. Researcher did not use neutral scale to avoid neutral answer from the respondents. The original questionnaire was written in English, but the researcher translated it into the Indonesian language so that it was clearer and more understandable by participants whose mother tongue was the Indonesian language.

Here, researcher described the mean number with mean score descriptor. It was used to explain the mean number in every questionnaire items. It also explained mean score of all data (mean total). Every range mean number had explicit explanation or it could be said the explanation of those numbers (mean) in words. The next table was the attitude interval score (mean score) descriptor.

**Table 1. The Attitude Interval Score (Mean Score) Descriptor**

| Category | Range | Explanation |
|---|---|---|
| Negative Attitude | 1.00 – 1.75 | Students had low interest in learning English, they did not pay attention in learning English and they wanted to avoid English class. |
| Moderately Negative Attitude | 1.76 – 2.50 | Students had low interest in learning English, they did not pay attention in learning English but they were still in the classroom. |
| Category | Range | Explanation |
| Moderately | 2.51 – 3.25 | Students had interest in learning English, but sometimes they did not pay attention to the |

| Positive Attitude | | lesson. |
|---|---|---|
| Positive attitude | 3.26 – 4.00 | Students had high interest in learning English and they paid attention to the lesson. |

The range number of table was gained from the formula:

Interval score $= \dfrac{Max - Min}{n}$

$$= \dfrac{4-1}{4}$$

$= 3/4$ (0.75)

Max: Highest number of scale (4)

Min: Lowest number of scale (1)

n: Total scale (1, 2, 3 and 4)

**Validity and Reliability of Instrument**

"Validity in quantitative research must be faithful to its premises of positivism and positivist principles" (Cohen, et al., 2011, p.180). An instrument was valid if it could reveal the data of variables as the researcher wants. Here, researcher used content validity, so, researcher needed experts' judgment to check the instrument. The researcher consulted with two experts' judgment to appraise the translation and understandable language. Those experts were chosen because they had research interest in English teaching and learning. It was also related with this research topic.

The original questionnaire consisted of 19 statements. Then, expert 1 gave the advice to change the words of statement 1, 2, 5, 9, 11, 12, 17, and 19. The expert was confused with statement 16 so that she asked the researcher to check again the reference to ensure whether it was related to the research discussion or out of topic. Expert 1 also omitted statement 4, 14, and 15. Then, researcher revised the questionnaires and it became 16 statements. Furthermore, the researcher met the second expert. Expert 2 gave the advice to change the word of statement number 1, 4, 5, 8, 13, 14, 15 and 16. For the complete original questionnaire, see the Appendix 1.

Reliability was value of the trusted instrument. The research reliability was checked by using Cronbach's Alpha formula on SPSS 22. The value of Cronbach's Alpha formula of the instrument was reliable and could be used if it was more than 0.6. Table 2 below showed the value of Cronbach's Alpha formula 0.825.

**Table 2. Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .825 | 16 |

This number was gained from the data analysis using SPSS program which researcher spread the questionnaire at *SMA* Muhammadiyah 5 Yogyakarta. Researcher took the data on 13-19 February 2017. Researcher spread the questionnaire to 246 students as respondents from total students around 402.

**Analysis of the Data**

The data was analyzed through descriptive statistic. According to Creswell (2012), mean, mode, and median were needed to specify common trends in the data. The data analyzed and described by using words, table or chart to ease the explanation. The researcher explained the number (statistical results) with the appropriate and understandable language. Then, every statement of questionnaire was described as clear as possible. Therefore, the researcher used Statistical Package for the Social Sciences (SPSS) version 22 to count and to describe the data, and also to help the researcher to analyze the data easily and correctly. Researcher also used Microsoft excel to count the mean average of all data.