CHAPTER III

METHODOLOGY

This chapter presents the methodology of the study. It covers the elaboration of research design, the research site and participants, as well as the data collection techniques. The next part of this chapter provides the data collection procedures and the data analyses.

3.1. Research Design

The present study was designed to find out the learning strategies used by the learners in an exemplary class in one of senior high schools in Cimahi as well as differences in the strategies used by the high achievers and low achievers of the class. The present study is a descriptive study. This particular type of study is expected to describe situations as completely and carefully as possible (Fraenkel and Walen, 2006).

Mixed method, quantitative and qualitative design has also been applied in the present study. Quantitative data (quantifiable data) and qualitative data (words) were collected and analyzed to find answers to the current research problems. Creswell (2010) suggests that mixed method designs are procedures for collecting, analyzing, and mixing both quantitative and qualitative data in a single study.

Quantitative method was applied because the data gathering instrument was a questionnaire that involved numerical data. Meanwhile qualitative method was also applied because the next data gathering instrument used was interviews. The data obtained in the interview session were not in numerical data, but in the forms of words. Creswell (2010) affirms that in qualitative method, the data are in words and they are obtained from a small number of individuals. Therefore to present the answers to the current study, the quantitative results followed by deeper exploration of qualitative data were presented in mixed method design.

The design sequence of the present mixed method design used is explanatory design. This design was employed because the qualitative data in the present study were used to explore information deeper after the quantitative data had been obtained. In relation to this, Lodico *et al.* (2006) claims that in explanatory design, the data are collected in two phases, with the quantitative data are collected first and qualitative data are collected at a later time. Often the quantitative data are emphasized and the qualitative data are used to follow up or refine the quantitative findings.

3.2. Research Site and Participants

The present study was conducted in one of senior high schools in Cimahi. The participants were 32 learners in an exemplary class of twelfth grade. To differentiate the high and low achievers in speaking, as it is stated previously, five learners for both categories of learners were chosen based on their speaking score. Five top speaking scorers were taken as the high achievers. On the contrary, five learners who got the lowest score in speaking were taken as the low achievers.

The participants consisted of 11 male learners (34,4%) and 21 female learners (65,6%). The participants in the class were selected because of two main considerations. Firstly, the class was an exemplary class in one of senior high school in Cimahi. The learners have been in the exemplary class since they were in eleventh grade. In the twelfth grade, apart from having two English classes in a week, they also had an additional class focusing on speaking skills once in a week.

The second consideration was the difference between the high and low achievers in speaking skills was considerably high. It was seen from the standard deviation between the high and low achievers from the speaking test result conducted by the English teacher (SD = 25,7). As Fraenkel and Wallen (2006) stated that the standard deviation (SD) is the most powerful index of variability that represents the spread of a distribution. The high difference was also confirmed by the teacher in the interview. Even two of five high achievers had won some high school English competitions in storytelling and news casting contest.

3.3. Data Collection Techniques

The data were collected through three different data collection techniques. The first data collection technique was distributing a questionnaire to the learners. The questionnaire used was a modified questionnaire developed by Oxford (1990). It was mainly employed to gather information on learners' language learning strategies. The questionnaire modified was Strategy Inventory for Language Learning (SILL) for speakers of other languages learning English version 7.0. Questionnaire is used since it is considered to be very suitable to find out language learning strategies. Most of these strategies are not observable. Hence asking the learners is the only way to find out (Chamot, 2004).

SILL had been chosen since it was specifically designed to measure language learning strategies. It was also more comprehensive, systematic and detailed (Oxford, 1990). In addition SILL has been used around the world to find out the use of language learning strategies for learners of English as second or foreign language (Oxford & Nyikos, 1989; Oxford & Burry-Stock, 1995 cited in Huang, 2009).

SILL was modified by the researcher to gather specific information on language learning strategies used by learners in learning speaking. Thirty three from the overall fifty items of statements in SILL were modified and used for the purpose of the study. These thirty three items were particularly selected because they could measure strategies in learning speaking. These items were modified for obtaining the participants' better understanding towards the items by adding examples of the strategy in particular items. Next, seven items were added for completing each category of strategies proposed by Oxford (1990) in learning speaking. Therefore each item in the modified questionnaire represented each strategy category in learning speaking proposed by Oxford (1990).

The questionnaire model used was Likert's scale model. In this model, items are presented in a multiple choice format. For every item, participants are to select one of several alternatives indicating the extent to which they agree with the position stated in the item (Crano and Brewwer, 2002). This model of questionnaire has a number of strengths. It proves not only efficient in terms of time and resource expenditure, but also effective in developing scales of high reliability (Crano and Brewwer, 2002). In the current questionnaire, the participants had to read the items and select 5 for always, 4 for often, 3 for sometimes, 2 for seldom, and 1 for never. To avoid misunderstanding of each item, the questionnaire was translated to Bahasa Indonesia.

The second data collection technique was recording learners' English speaking scores. It is suggested that "[r]ecords are special kind of documents on which notations are made in an effort to keep track of certain facets of school life" (Hatch, 2002, p.118). These data were used to identify the high achievers and low achievers of the class in terms of their English speaking skills. The data were obtained by the researcher from the English teacher.

To make sure that the data were accurate, particularly in the categorization of the high and low achievers, interview to the teacher had been conducted. The interview was particularly purposed to assure that the learners taken as the high achievers in the present study were truly the best students in speaking English as well as the lowest scorers were the students with the lowest speaking ability. The interview was recorded by a voice recorder and transcribed.

After selecting the high and low achievers for the present study, differences in the strategies used by both categories of learners were found through the results of the questionnaire that had been filled in. Apart from distributing the questionnaire for collecting the information, conducting interview to the high and low achievers was also done. Conducting interview was the third data collection technique in the present study.

The interview to the learners was employed purposely to gain deeper information on the strategies used by the high achievers and low achievers. As Scott and Morrisan (2006) argue that interview is "[…] to seek in-depth understandings about the experiences of individuals and groups, commonly drawing from a small sample of people". This instrument was intentionally employed in the present study along with the questionnaire to clarify and expand specific answers particularly the ones that were important on revealing (see Fraenkel, 2006).

The interview used to the learners in the current study was a semi-structured interview. This kind of interview was chosen since it was very suitable for the purpose of the current study. As Oxford (1990) believes that to gather learners' language learning strategies, a semi-structured interview is very helpful. It was a kind of interview that "...although researchers come to the interview with guiding questions, they are open to follow the leads of informants and probing into areas that arise during interview interactions" (Hatch, 2002, p.94). Thus deep and detailed information of the learners' language learning strategies usage could be acquired. This interview was then recorded by a voice recorder and transcribed to make the analysis easier and more accurate.

To make sure that the questionnaire and the interview were understandable by the participants, a pilot study was conducted. The pilot study is the antecedent work before the real study is done (Huang, 2009). The questionnaire was distributed to five learners out of the participants in the real study, while the interview was done to two of them. During the pilot study, any confusing items of both instruments were noted and improved.

3.4. Data Collection Procedure

In the present study, the data collection procedure was done in three phases. The first phase was to find out language learning strategies used by learners. The questionnaire was distributed to all learners in which these learners respond to the items of the questionnaire by marking the answers. In filling the questionnaire, learners were able to ask about any vague item in the questionnaire.

The second phase was to collect information about the categorization of the high achievers and low achievers in speaking English. It was done by analyzing teacher's record on learners' speaking score. To make sure the data obtained were accurate, teacher's interview was carried out. This interview was conducted by the permission of the teacher referring to the speaking score record that had been previously acquired. The recorded interview data were then transcribed to be analyzed.

Then five learners for both categories were taken to do the learners' interview. It was the third phase of the data collection procedure. As it was written previously, this interview was to find out in depth information about the language learning strategies used by both categories of learners. The interview was recorded by a voice recorder. To avoid confusion and misinterpretation during the interview, both interviewer and interviewee used Bahasa Indonesia. During the interview, learners were allowed to ask for clarification when they find any interview questions that confuse them. The time and place of the interview were arranged to be comfortable for the learners to do the interview.

3.5. Data Analyses

Mixed method design requires different analyses for each collected data. As it has been stated previously, there were two types of collected data in the present study, quantitative data and qualitative data. Parallel mixed analysis was used to analyze both types of data. Teddlie & Tashakkori (Onwuegbuzie and Combs, 2010) state this particular analysis involves two separate processes, in which a quantitative analysis was used for the quantitative data and a qualitative analysis was used for the qualitative data.

The quantitative analysis involves statistical analysis. In line with this, Muijs (2004) and Elliot (2005) affirm that quantitative data are analyzed in mathematically based method using particular statistics. In the meantime the qualitative analysis involves analyzing and synthesizing the obtained information (Fraenkel and Wallen, 2006). The analyzing process itself was carried out in several steps. The analyses of both types of data are provided thoroughly in the following sequence.

3.5.1. Analyzing Quantitative Data

The questionnaire result was analyzed by counting the average score (M) referring to Oxford's (1990) profile of results on the strategy inventory for language learning (SILL) version 7.0

$$\text{Average Score} = \frac{\text{SUM of scores}}{\text{The Number of Scores}}$$

As it can be seen above, the principle of counting the average score proposed by Oxford (1990) is basically the same as the principle of counting Mean score (M). Mean is one of the ways to measure the central tendency (see Kranzler and Moursund, 1999; Dornyei, 2004; Cresswel, 2008). Measures of central tendency in statistical analysis are summary numbers representing a single value in a set of scores (Vogt, 1999 as cited in Cresswel, 2008). Thus the average score (M) essentially is represented the result of all scores.

Obtaining the average score (M) that was used particularly to know information on the language learning strategies used by the learners, the table 3.2 is presented. The average scores (M) of language learning strategies were then presented to be interpreted.

Level of Strategy Use	**Description of Frequency**	**Average Score of Strategy Use**
High	always or almost always used	4.5 to 5.0
	usually used	3.5 to 4.4
Medium	sometimes used	2.5 to 3.4
Low	generally not used	1.5 to 2.4
	never or almost never used	1.0 to 1.4

Table 3.1 SILL Profile of Results by Oxford (1990)

The other quantitative data were obtained through the speaking score recording. The data in the score record were analyzed to differentiate the high achievers and low achievers. Firstly the speaking score was collected. Then, the learners' scores were sequenced from higher to lower to identify the high achievers and low achievers. Five learners obtained the highest score were categorized as the high achievers. On contrary, Five learners obtained the lowest score were taken as the low achievers.

3.5.2. Analyzing Qualitative Data

The second type of data, which was qualitative data, was obtained by using the interviews. As stated previously, these interviews were conducted to the English teacher and the learners. After the data were obtained from the interviews by recording them, they were transcribed. These qualitative data were then analyzed.

The analysis began with reading through the overall transcribed data. It was done to get the general sense of the data, drawing ideas, thinking about the organization of the data, and considering whether or not more data were required (Cresswell, 2008). In this initial process, the researcher tries to get the sense of the whole data. It is not done by reading the data in detail instead the researcher reads the data through and then jot down words and phrases that capture important aspects (Lodico *et al*., 2004).

Then the researcher starts to code the data. Coding is the process of segmenting and labeling text to make descriptions and broad themes in the data (Creswell, 2010). He develops the process of coding through several steps as follow:

1. Divide the text into segments of information,
2. Label the segments of information with codes,
3. Reduce overlap and redundancy of codes, and
4. Collapse codes into themes.

Identifying themes is done after the codes are obtained since themes carry bigger ideas resulting from several codes combined. Lodico *et al.* (2004) support this by stating that themes are typically big ideas that unite several codes in a way that allows the researcher to examine the research problems. In other words, themes provide the organizing ideas that will be used to explain what has been attained from the study.

The present study presents the results in the form of description since it is a descriptive study. Sandelowski (2000) states that all description entails interpretation. The next steps, then, are to interpret the data. The findings were interpreted by the researcher. Cresswel (2010) suggests that interpretation means the researcher moves back and draw some larger meaning about the personal views, comparison with other studies, or both. Finally the findings were reported in a narrative discussion. A narrative discussion as Cresswel (2010) suggests is a written passage in which the author summarizes in detail the results of his or her findings.