CHAPTER III
RESEARCH METHODOLOGY

This chapter elaborates aspects related to the methods of the study. It contains the description of research purposes and research questions, research design, research site, population and sample, research instruments, variable and hypothesis, research procedures, data collection techniques and data analysis. Afterward, the explanations will be concluded in the concluding remark.

3.1 Research Design
Since this study seek to find out the effect of teaching OCSs on undergraduate students’ speaking skill, it employed quasi-experimental method. Quasi-experimental designs are similar to the experimental/ control group approach except that they make comparisons between the mean performances of groups that occur normally, or the sample naturally belong to one group or the other (Brown, 1988; Hatch & Farhady, 1982) without random sampling (Hatch & Lazaraton, 1991). In this kind of method, one group is given an experimental treatment while the other did not (Hatch & Farhady, 1982, p. 22). In this study, the treatment was the teaching of achievement or compensatory strategies of OCSs in the speaking class. The strategies classified as achievement or compensatory strategies are help-seeking, modified interaction, modified output, time-gaining, maintenance and self-solving strategies, etc. Then, quasi-experimental design was used to test the null-hypothesis (H0); there was no difference in speaking ability between the experimental and control group and both groups are from the same populations.

3.1.1 Variable and Hypothesis
Every standard research has at least one dependent and one independent variable. According to Hatch and Farhady (1982), dependent variable is the variable which the researcher observes and measures to determine the effect of the
independent variable. In this study, it was speaking ability. Then, independent variable is the variable which is selected, manipulated, and measured by the researcher. In this study, it was OCSs. This study itself aimed to reject the $H_0$ where there was no difference in speaking ability between experimental and control group after the treatment. The detail characteristics of this study are shown in the following table.

<table>
<thead>
<tr>
<th>Null Hypothesis ($H_0$)</th>
<th>There is no difference between speaking ability of experiment and control groups.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Hypothesis ($H_1$)</td>
<td>There is a significant difference between speaking ability of experimental and control groups.</td>
</tr>
<tr>
<td>Significant Level</td>
<td>0.05; two tailed</td>
</tr>
<tr>
<td>Design</td>
<td>Pre-test – posttest control group design</td>
</tr>
<tr>
<td>Dependent Variable</td>
<td>Speaking ability</td>
</tr>
<tr>
<td>Measurement</td>
<td>Score (interval)</td>
</tr>
<tr>
<td>Independent Variable</td>
<td>Oral Communication strategies</td>
</tr>
</tbody>
</table>
| Measurement | 1. Treatment to the experimental group  
2. Treatment to the control group |
| Statistical Procedure | Independent t-test |

3.2 Research Site
This study was conducted in a private university in Kuningan, West Java, Indonesia. It is one of two universities in Kuningan that has English Education Program. There are three classes in each year, except for 2013, 2014 academic year which have only two classes. The data was taken in this site because the researcher works there, so the access was easier. As what Alwasilah (2009) said that convenience factor should be taken into consideration to support the researcher to carry out the research.

3.3 Population and Sample
Population can be defined as a group to whom the results of the study are generalized (Fraenkel & Wallen, 2007). The population was English Department of a private university in Kuningan. For sampling method, it took purposive
sampling because this kind of sampling method helped the researcher to gain expected result. Fraenkel and Wallen (2007) stated that:

On occasion, based on previous knowledge of a population and the specific purpose of the research, investigators use personal judgment to select a sample. Researchers assume they can use their knowledge of the population to judge whether or not a particular sample will be representative. (Fraenkel and Wallen, 2007, p. 100)

The data was taken in the first year students’ speaking class. Actually, first year students were only distributed into two classes and it was taken as the sample of this research. Before taking this speaking class, the students had completed 6 years of English study in their junior and senior high school. However, they were still considered as low proficiency learners. Each class consisted of 25 and 28 students, so the sample was 53 students in total. It was in line with what have been recommended by Fraenkel, Wallen and Hyun (2012) that, in quasi-experimental study, a minimum number of samples is 30 individuals per group, although sometimes experimental studies with only 15 individuals in each group can be defended if they are very tightly controlled.

3.4 Research Instruments

To collect the data, the first thing to do was developing the instruments. Fraenkel and Wallen (2007) define instrumentation as the whole process of preparing to collect data in research. Therefore, the instruments that were used to collect the data for this research were speaking tests, learners’ strategy diary and questionnaires.

Pilot test was conducted to test the validity and reliability of the speaking tests. The questionnaires were also have been validated by consulting to the expert to have logical validity. They can be stated to be valid if they are understandable by many other people (Newman, 2003). For the detail explanations of the instruments, it will be elaborated in the following sections.

3.4.1 Speaking Tests
The speaking tests were pre-test and posttest in the experimental and control group. They were in the form of spoken test and were video-recorded. The scores of pre-test and posttest from both groups were used to find out the effect of teaching OCSs in the EFL speaking class. They were calculated using t-test in SPSS 18. Then, the recordings from the experimental group were transcribed. The transcriptions were analyzed using OCSs proposed by Nakatani (2005) as the framework to answer the first research question.

3.4.2 Learners’ Strategy Diary

Learners’ strategy diary was a note that the students should make to record their plans, monitor, and evaluate their performance. The diary was used for self-reflective training by the students. So, in every rehearsal, they wrote down their plan in using specific OCSs. When the students performed the task, they monitored their own performance according to the guideline that was given by the teacher (see Appendix D). This process was intended to encourage the students to intentionally use OCSs in their speaking practices. In the evaluation stage, the students checked and reflected their learning experiences to develop their awareness of using OCSs in the communication. This procedure was done in every session of the treatment, and it was only done by the experimental class students.

3.4.3 Questionnaires

Questionnaire was essential to obtain data about students’ attitudes toward the implementation of the technique and to answer the third research question. The questionnaire covered three aspects: students’ experience of using OCSs in their speaking practices/tests, students’ perspective on the usefulness of OCSs and the effect of teaching OCSs to the improvement of their speaking skill. The questionnaire itself was adapted from a study on the same field by Khan (2010). The experimental group students were given the questionnaires twice, after the pre-test and posttest. The questionnaire was in Bahasa Indonesia to avoid
misunderstanding when filling it. After the pre-test, the questionnaire was about strategies that the students used when doing the pre-test (See Appendix A). The questionnaire consisted of 37 items with the following specification.

Table 3.2 The distribution of pilot questionnaire

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicators</th>
<th>Item number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Preparation before speaking.</td>
<td>1 – 6</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>What the students do while speaking.</td>
<td>7 – 23</td>
<td>17</td>
</tr>
<tr>
<td>3.</td>
<td>How the student overcome problems with language while speaking.</td>
<td>24 – 32</td>
<td>9</td>
</tr>
<tr>
<td>4.</td>
<td>Reviewing speaking activity.</td>
<td>33 – 37</td>
<td>5</td>
</tr>
</tbody>
</table>

Then, after the posttest, the students were given two kinds of questionnaires. The first questionnaire was about students’ experience of using OCSs, students’ perspective on the usefulness of OCSs and the effect of teaching OCSs to the improvement of their speaking skill (see Appendix F). The questionnaires consisted of 11 close-ended questions which use likert scale with the options of strongly agree, agree, uncertain, disagree, and strongly disagree. Likert scale, as part of attitude scale, allows the researcher to measure a subject’s attitude toward a particular concept (Fraenkel, Wallen & Hyun, 2012).

The second questionnaire evaluated the strategies that the students used in the posttest. It was consisted of 44 items with the following specification (see Appendix E for detail).

Table 3.3 The distribution of the OCSs use questionnaire

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicators</th>
<th>Item number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Preparation before speaking.</td>
<td>1 – 4</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>What the students do while speaking.</td>
<td>5 – 13</td>
<td>9</td>
</tr>
<tr>
<td>3.</td>
<td>What the students do when their partner don’t understand them.</td>
<td>14 – 18</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>What they do when they don’t understand their partner.</td>
<td>19 – 25</td>
<td>7</td>
</tr>
<tr>
<td>5.</td>
<td>How the students overcome problems with language while speaking.</td>
<td>26 – 40</td>
<td>15</td>
</tr>
</tbody>
</table>
3.5 Research Procedure

In the effort of making the research run smoothly, a simple procedure was made. Firstly, the speaking test instrument was tried out to test the validity and reliability of the test items. Secondly, pre-test was conducted for experimental and control group and the results were collected and analyzed as the preliminary data about the students’ initial speaking skill. After pre-test, the experimental group students were asked to fill the pre-test questionnaires.

Thirdly, the experimental and control group were given treatment, different treatment. In general, teaching procedures for experimental and control group were carried out in the same order started from pre-activities, whilst-activities, and post-activities. The lesson was opened by a teacher’s presentation of the material and was ended with an individual speaking task for each student. The difference between experimental and control group lied on the way the teacher conveyed OCSs materials. In the experimental group, the teacher explicitly introduced and explained the use of OCSs along with some speaking tasks related to the OCSs taught in that session. The process was like: review, presentation, rehearsal, performance, and evaluation. Whereas, in the control group, the teacher implicitly conveyed communication strategies, in other word, used conventional technique. However, the speaking tasks were the same as in the experimental group.

Then, after the treatment, posttest was conducted for both experimental and control group to get the final output of the treatment. The final stage was gathering data from questionnaires from the experimental group to assess how they used the OCSs in their posttest and to get the students’ attitudes toward the teaching of OCSs. In this session also, the students were asked to collect their strategy diary. In the following page is the description of research procedure.
### Table 3.4 The description of research procedure

<table>
<thead>
<tr>
<th>No.</th>
<th>Meeting</th>
<th>Material or Classroom Activity</th>
<th>Time Allocation (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Session 1, October 13th, 2014</td>
<td>Pre-test and questionnaire</td>
<td>Pre-test</td>
</tr>
<tr>
<td>2.</td>
<td>Session 2, October 22nd, 2014</td>
<td>OCSs, Conversation practice (pair work)</td>
<td>Conversation practice</td>
</tr>
<tr>
<td>3.</td>
<td>Session 3, October 27th, 2014</td>
<td>Describing concrete and abstract nouns (group work)</td>
<td>Describing concrete and abstract nouns</td>
</tr>
<tr>
<td>4.</td>
<td>Session 4, October 31st, 2014</td>
<td>Describing pictures (pair work)</td>
<td>Describing pictures</td>
</tr>
<tr>
<td>5.</td>
<td>Session 5, November 3rd, 2014</td>
<td>Interviewing (pair work)</td>
<td>Interviewing</td>
</tr>
<tr>
<td>6.</td>
<td>Session 6, November 5th, 2014</td>
<td>Conversation practice (pair work)</td>
<td>Conversation practice</td>
</tr>
<tr>
<td>7.</td>
<td>Session 7, November 10th, 2014</td>
<td>Conversation practice (pair work)</td>
<td>Conversation practice</td>
</tr>
<tr>
<td>8.</td>
<td>Session 8, November 17th, 2014</td>
<td>Posttest, Questionnaires and collecting Strategy Diary</td>
<td>Posttest</td>
</tr>
</tbody>
</table>

### 3.6 Data Analysis

Data analysis is aimed at discovering pattern, ideas, explanations and understanding of data found and collected during research (McMillan, 2001, p. 221). The analysis will be carried out as the research progresses to be continually refined and rearranged in light of the emerging results (Dawson, 2009, p. 115). In the current research, the analysis was performed in the sequences as explained below.

#### 3.6.1 Recording

First, the recordings of the students’ speaking performance (in pre-test and posttest) were scored based on the scoring rubrics proposed by Adam and Frith.
(1979, as cited in Hughes, 2003). Then, the pre-test and posttest recording of experimental class were transcribed, categorized, calculated and analyzed based on the list of OCSs proposed by Nakatani (2005) to answer the first research question (see Appendix G and H).

3.6.2 Score Data Analysis of the Test

This study aimed to find out the effect of teaching oral communication strategies in EFL speaking class. Therefore, the quantitative analysis was used to see whether the teaching of OCSs was effective to improve students’ speaking ability. There were two tests (pre-test and posttest) that were applied during the research. Since this research applied quasi-experimental design, the first step was finding out the normality of data distribution in both of classes. The result of pre-test and posttest were used to seek the normality of participants’ speaking scores. The calculation were made using SPSS 18. With the hypothesis are as follows.

\[ H_0 \]: The distribution of pre-test/posttest score in the experimental and control group are normally distributed.

\[ H_1 \]: The distribution of pre-test/posttest score in the experimental and control group are not normally distributed.

There were some criteria to determine whether the result was accepting or rejecting \( H_0 \). According to Hatch and Farhady (1982), the level significance criteria to determine normality distribution test are as follows.

- If the probability \( > 0.05 \), \( H_0 \) is accepted.
- If the probability \( < 0.05 \), \( H_0 \) is rejected.

The second step was seeking the homogeneity of data distribution in both of classes. It was done by calculating the result of pretest and posttest from both groups using \( F_{\text{test}} \). The test was conducted to reject \( H_0 \) where \( F_{\text{count}} > F_{\text{table}} \) meant both elements were not homogenous, or to accept the \( H_1 \) where \( F_{\text{count}} < F_{\text{table}} \).
meant both elements were homogenous. According to Hatch & Farhady (1982), the variance formula is as follows:

\[ F_{\text{test}} = \frac{\sum(x-\bar{x})^2}{N-1} \]
\[ F_{\text{count}} = \frac{\text{big variance}}{\text{small variance}} \]

Explanation:
- \( x \): Students’ score
- \( \bar{x} \): Students’ score mean
- \( N \): Total of students

Afterward, the results of posttest were compared to find out the significant differences between two groups after the treatment (Hatch & Farhady, 1982; Brown, 1988; Hatch & Lazaraton, 1994; Dörnyei, 2007). Then, the pre-test and posttest score from both experimental and control group were analyzed using t-test to seek the significance of the program by testing the \( H_0 \) that has been determined before, since the t-test is aimed to compare two means of different group (Hatch & Farhady, 1982; Hatch & Lazaraton, 1994; Dörnyei, 2007). The pre-test and posttest score were calculated using SPSS 18.0 computer program. The statistical analysis was used to compare the speaking performance of both experimental and control groups and to find out whether the means of the two groups were really different. It was intended to find out whether there was an effect of teaching OCSs to the students’ speaking skill.

Then, the hypothesis was tested to see whether \( H_0 \) was accepted or rejected. Hatch and Farhady (1992) claimed that the \( H_1 \) will be accepted if:

a. The mean of posttest score is higher than that of pre-test score of the two classes.

b. The mean of pre-test score of the experimental class is not different from that of the control class.

c. The mean of posttest score of the experimental class is higher than that of the control class.

There were also some considerations should be fulfilled to test the \( H_0 \). The \( H_0 \) will be received if:

a. There is no significant difference between mean of the posttest score and pre-test score either of the experimental and control group.
b. There is no significant difference between mean of pre-test score of the
   two classes.

c. There is no significant difference between mean of posttest score of the
   two classes.

3.6.3 Questionnaire and Strategy Diary

After the questionnaires data were collected, the close-ended questions
results were calculated and analyzed by converting it into percentage using the
frequency base with the formula as follows.

\[
\frac{\text{Number of students choosing certain option}}{\text{Total number of the students}} \times 100\%
\]

The open-ended questions data were analyzed qualitatively. It was
summarized and categorized based on the classification.

After that, the students’ notes and responses in their strategy diaries were
categorized then analyzed using coding and categorizing. The analysis was
looking throughout the data, clustering or grouping similar idea and labeling
them. Afterwards, the data were compared with the result of questionnaires and
presented in the discussion to explore students’ attitudes toward the teaching of
OCSs in speaking class.

3.7 Concluding Remarks

The steps and procedures of data collection and analysis have been
elaborated specifically in this chapter. This present study involved 53 first year
students from the Department of English Education in a private university in
Kuningan. They were grouped into experimental and control group. Then, OCSs
proposed by Nakatani (2005) were given to the experimental group in the
treatment. The OCSs were also used as the framework to analyze the transcription
of pre-test and posttest recording. Questionnaires were distributed to the students
and strategy diary was also used to find out their strategy used and perspective
toward the teaching of OCSs in EFL speaking class. Furthermore, the findings and
discussions will be elaborated in the next chapter.