

## CHAPTER 3

### Methodology

#### 3.0 Introduction

This chapter describes the methodology of the research, including section 3.1 the research design, section 3.2 subjects of the present research, section 3.3 instruments of the present research, section 3.4 procedures of the present research and section 3.5 data analysis of the present research.

#### 3.1 Research Design

The present research is based on Cross' (1992) **Three P's** stages used for planning a lesson, that is, the presentation stage, the practice stage and the performance stage. (1) The **presentation** stage: Teachers present new vocabulary items and its related knowledge by means of different vocabulary teaching techniques. This stage is also called the **input** stage. (2) The **practice** stage: Teachers use various in-class vocabulary learning activities to motivate students to practice and use new vocabulary items in order to internalize them. Also, students learn and practice new vocabulary items after class by using different vocabulary learning strategies. This stage is also called the **intake** stage. (3) The **performance** stage: Teachers use different vocabulary tests to measure if students have learned new vocabulary knowledge; students' vocabulary achievements are evaluated through these tests. This stage is also called the "**output**" stage. Table 3.1 explains relationships between the three P's and their corresponding four major themes of this research.

**Table 3.1 The Research Design**

<b>Vocabulary Learning</b>	
<b>Stage</b>	<b>Theme</b>
<b>Presentation</b>	<b>A.Senior I Teachers' Vocabulary Teaching Techniques</b>
<b>Practice</b>	<b>B.Senior I Students' Vocabulary Practices (in class)</b> <b>C.Senior I Students' Vocabulary Learning Strategies (after class)</b>
<b>Performance</b>	<b>D.Senior I Students' Vocabulary Assessments</b>

### **3.2 Subjects**

There are two groups of subjects in this research: (1) Senior I students answering the questionnaire (2) teachers joining the oral interviews.

#### **3.2.1 Participants of the Questionnaire**

Five hundred and sixty Senior I students from seven different "Central Band" senior high schools in Taipei area participated in this research. These participants from the seven senior high schools are generally considered to have similar English proficiency levels and English learning experiences. Therefore, the top three boys' and girls' high schools and schools ranked bottom in Taipei area are excluded. Moreover, all of these seven schools use the same English textbook, Far East English reader, for senior high schools (2001), in their English classes.

#### **3.2.2 Teachers for the Oral Interview**

Three teachers participating in the oral interviews were chosen from the above seven "Central Band" senior high schools in Taipei area as well. The three teachers have been teaching senior high English for at least five years, and two of them have

one-year teaching experience in junior high schools

### **3.3 Instruments**

The instruments of the present research included questionnaires for students and oral interviews for teachers. Questionnaires for students were used to collect Senior I students' overall opinions on vocabulary learning; the interviews for teachers were used to collect teachers' viewpoints about Senior I students' vocabulary learning. These two quantitative and qualitative approaches were used to make the research more complete in investigating the vocabulary learning difficulties for Senior I students.

#### **3.3.1 Questionnaire for Students**

After discussing with my advisor, some senior high school teachers, and reviewing related literature as well as with my own teaching experience, a 5-point Likert scale type questionnaire was designed including the following five major themes: (1) Vocabulary learning: junior high vs. Senior I, (2) Senior I teachers' vocabulary teaching techniques, (3) Senior I students' vocabulary practices, (4) Senior I students' vocabulary assessments, and (5) Senior I students' vocabulary learning strategies. The questionnaire consisted of 45 close-ended items, five multiple-choice items, and one open-ended item (see Appendix B).

#### **3.3.2 Oral Interview for Teachers**

General speaking, oral interviews can be classified into three types: (1) The structured interview: the interviewees have to answer the predetermined and ordered questions guided by the interviewer; it is the most formal oral interview. (2) The

unstructured interview: such interview is guided by the interviewee rather than by the researcher, and the direction would be relatively unpredictable. (3) The semi-structured interview: it is the combination of the two types mentioned above (Nunan, 1994). For the present research, the semi-structured interview is deemed the most suitable one because it can elicit more personal responses and viewpoints about vocabulary learning from the interviewees. Therefore, the researcher adopted the semi-structured interview to collect the three teachers' overall opinions about Senior I students' vocabulary learning focusing on the five major themes of the questionnaire. Then, students' responses were compared with teachers' to see the teachers' views and students' opinions and experiences on vocabulary learning.

### **3.4 Procedures**

This section describes the procedures, including the pilot survey, the formal survey and the oral interviews for three teachers. Students' questionnaire was developed through two stages: the pilot survey and the formal survey.

#### **3.4.1. The Pilot Survey**

A pilot survey was conducted before the formal survey. One class composed of 43 students was chosen from one of the seven "Central Band" senior high schools as the participants to conduct the pilot survey. A questionnaire was developed and pretested in the pilot survey. With the help of the class mentor, 43 questionnaires were administered and returned on November 6, 2002. Four of them were considered invalid because the participants left more than five items unanswered. Therefore, the number of valid questionnaires is 39.

To test the reliability of the questionnaire, the reliability analysis scale was used

(see Appendix C) and calculated by the SPSS 8.0 software to see if there was internal reliability among the items of the questionnaire of the pilot study. According to Devellis (1991), the significant level of 0.7 (Alpha value = 0.7) was set. The statistical result showed that the internal reliability existed among the items with Alpha value 0.8467 (see Appendix C). This indicated that the questionnaire of the pilot survey was reliable. And the formal questionnaire, therefore, was based on the pilot survey.

### **3.4.2 The Formal Survey**

As indicated in section 3.2.1, the participants of the questionnaire were Senior I students from the seven "Central Band" senior high schools in Taipei area. Two classes from each of the seven schools above were randomly chosen as the research participants. There were Five hundred and sixty participants in total since each class had about 40 students. The questionnaire was almost the same as that of the pilot survey except a minor revision; that is, items to elicit students' background information was moved from the first section to the last one in the hope that students could answer all of the items in the questionnaire first. The questionnaires were sent by prompt delivery to each class mentor on January 5, 2003. After about two weeks, with the assistance from class mentors, the questionnaires were returned and, finally, Five hundred and fifty-two questionnaires were collected around January 20, 2003. Sixty-nine questionnaires of the returned questionnaires are regarded as invalid questionnaires due to the following reasons. First, only one or two sections of the questionnaire were answered. Second, some participants carelessly answered the items of the questionnaire. For instance, they carelessly and repeatedly chose "1", "2", "3", "4", and "5" as their answers to the items in each section. Third, students' background information was not answered or could not be recognized. Fourth, five

or more items were unanswered. Thus, the number of valid questionnaires was four hundred and eighty-three.

### **3.4.3 The Oral Interview:**

Three teachers who were randomly chosen from three of the seven "Central Band" senior high schools participated in the semi-structured interviews. They (coded as T1, T2, T3) were interviewed on March 5, 2003, April 12, 2003, and April 19, 2003 respectively. Each interviewee sat side by side with the interviewer to avoid face-to-face anxiety and they were interviewed according to the five major themes of vocabulary learning indicated in section 3.3.1. The interviewees were also encouraged to express their personal opinions and viewpoints about these five themes. Interviews were tape-recorded and transcribed for analysis. (see Appendix A).

## **3.5 Data Analysis**

This section describes the data analysis conducted after the answered questionnaires were returned to the researcher. The SPSS 8.0 software, Microsoft Word XP and Excel software were used to process and compute the data collected from the returned questionnaires. Descriptive statistical procedures were used to analyze the questionnaire data to obtain means, standard deviations, and frequency percentage from the participants' answers. With respect to the open-ended item, since only three participants answered this question with very short and irrelevant answers, the data in the open-ended item was not used for data analysis. As for the teachers' interviews, three interviews were tape-recorded and transcribed. The data of the questionnaires were compared with that of the interviews to see if there are any similarities or differences between students' responses and teachers' views on vocabulary learning and teaching. The results will be presented in the next chapter.