CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the methods and procedures used to answer the quantitative and qualitative research questions posed in this study. It is important to note that the review of the literature in the Chapter Two yields inconclusive results with respect to the students' perceptions and their actual use of strategies especially for English language learners. To better understanding the how learners learn vocabulary and the strategies they use to discover and retain word meaning, combining empirical research is needed instead of another individual study. Therefore, this chapter gives a detailed account of the research design including the setting, the participants' background and the design of the instruments. Also, the objective of this chapter is to discuss the conceptual framework of the research, as well as some general principals of research design which apply to the present investigation. Moreover, the procedures of data collection including the methods of data analysis are described.

3.1 Research Design

This study employed a mixed design, which included both quantitative and qualitative research which Johnson and Onwuegbuzie (2004: 17) defined as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study." The researcher supported Johnson and Onwuegbuzie's assertion. Hence, quantitative

data were gathered by using a Vocabulary Learning Strategies Questionnaire (QVLS) (Gu & Johnson. 1996). A survey was given to the students in order to gather qualitative data regarding their thoughts and opinions of the vocabulary learning strategies. Qualitative data, however, were from think-aloud vocabulary task and semi-structured interview. According to Best and Kahn (1998), qualitative research considers the context and setting of the study, and it allows the researcher to analyze the participants' experiences. The researcher believed the findings of quantitative research can enrich the findings of qualitative research.

3.2 Research Participants

The participants of this study were 200 grade 12 students studying at Romburipitthayakhom School in Buriram Province, Thailand. They were selected by using purposive random sampling technique. Among the study participants, there were 89 males and 111 females. At the time of the study, all students were between the ages of 16 and 18.

In a qualitative study, participants must be purposefully selected and clear criteria and rational must be provided for the selection of the participants (Creswell, 2003). For purposes of this study, 20 high proficient students were selected. The primary criteria for the selection of the participants were that (1) the participants had the top end of the proficiency scale according to the total marks of reading, writing, listening and speaking papers in the first-term examination, and (2) that they were studied at the top of their class. The rationale behind these criteria was that students with these characteristics would be able to efficiently communicate their thoughts because of an acquisition of better communication skills and because they were at a

high cognitive development stage. Another reason behind these participant selection criteria was that at this point in their learning life, students should have had all the appropriate exposure to the vocabulary strategic rule being addressed in the study.

3.3 Research Instruments

In the present study, the research employed three instruments for data collection, aiming to obtain quantitative and qualitative data respectively. These are the Vocabulary Learning Strategy Questionnaire (VLSQ), think-aloud protocols, and semi-structured interviews. The research instruments are classified under the following three headings:

3.3.1 Vocabulary Learning Strategies Questionnaire (QVLS)

The survey, as a method of collecting information from people about their ideas, feelings, beliefs, attitudes, needs, motivations, and behavior, has been widely employed in social science research (Fink. 2002; Gray & Guppy. 1999) as well as in the field of English as a second or foreign language education (Gorsuch. 2000;Stoller. 1994). Researchers choose to use surveys as a research method because it is an effective way to get the required information from a large number of individuals (Alreck & Settle. 1995).The QVLS is adopted from Vocabulary Learning in the Content-oriented Second-language Classroom (Schmitt. 1997; Harley & Hart. 2000).

Like oral interviews, written questionnaires are used to elicit learner responses to a set of questions, and they require the researcher to make choices regarding question format and research procedure (Cohen & Scott. 1996 cited in Sarom. 2010). In addition, Oxford and Crookall (1989; cited in Sarom. 2010) suggest that written questionnaire typically cover a range of language learning strategies and are usually

structured and objective (closed) in nature. In other words, informants have little or no freedom in providing their own responses to the questions as choices for responses are normally provided. Question items in written questionnaires can range from those asking for "yes" or "no" responses or indications of frequency (e.g. Likert Scales) to less structured items asking respondents to describe or discuss language learning strategies they employ in detail.

3.3.1.1 Construction and Development of QVLS

The QVLS used in this study was adapted from Gu and Johnson's (1996) and Schmitt's (1997) survey questionnaires. Originally, QVLS was designed to assess Chinese students' vocabulary learning strategies and their outcomes in learning English as a foreign language in China. Hence, this questionnaire was adapted to find out the general pattern of the strategy use among 200 grade 12 students in Thailand. The draft questionnaires then were modified and revised with the advisors' suggestions after discussion. In addition, the Thai translation of the strategy questionnaire was conducted, as this helped maximize ease of administration and ensure greater accuracy of results, especially with the low-ability students. The translation was done by the researcher and then checked for the validity and reliability with the thesis advisors and experts, respectively.

3.3.1.2 Structure of the QVLS

The questionnaire was included 26 vocabulary learning strategies grouped into two domains: Discovery Strategies and Consolidation Strategies. The grouping was based on the findings of previous work on vocabulary learning strategies (Gu & Johnson. 1996; Schmitt. 1997; Fan. 2003). The following is the repertoire of the

strategies for the questionnaire which comply with reference to Gu and Johnson's

(1996) and Schmitt's (1997).

I. Discovery Strategies
1. Guess its meaning from the context
2. Look at the parts of speech (e.g. noun, verb or adjective)
3. Look for the clues to meaning in the word itself (e.g. prefixes, suffixes and roots)
4. Try to think of an English word this is similar
5. Look up the word in a Thai / English dictionary
6. Look up the word in an English dictionary
7. Use an electronic or online dictionary
8. Ask my teacher for the meaning
9. Ask my classmates or peers for the meaning
10. Interact with native speakers
11. Learn words through msn or chat room communication
12. Learn words from word lists or glossary
13. Learn words from the mass media such as newspaper, magazines, radio, songs, TV or films
14. Ignore it

II. Consolidation Strategies
1. Read it in a text
2. Hear it in English
3. Study the spelling of the target word
4. Divide the target word into syllables (e.g. po / lar)
5. Use English words similar in sound
6. Use Thai words similar in sound
7. Connect it to other English words on the same topic
8. Imagine a visual image
9. Put it in a sentence
10. Keep a vocabulary notebook
11. Study the word list
12. Study the word overtime

In addition, for the QVLS confident that the instruments used in this research

presented high validity, the three experts were asked to check for the research

instrument.

3.3.2 Think-aloud Vocabulary Task

The think-aloud protocol is an introspective method borrowed from

psychology to trace cognitive processes in real time (Ericsson & Simon. 1993).

The think-aloud task questions applied in this study were adapted from Olson, Duffy and Mack (1984). Given that the questionnaire in the first stage was based on self-report of students' belief and behaviors of vocabulary learning, think-aloud data complements the questionnaire data and provides an indication of what is on the participants' mind during the task and might reveal the kinds of strategies used, the kinds of knowledge employed and the kinds of representations constructed.

The design of the task was developed in light of Nation's (2001) definition of knowing a word. Nation (2001: 26) suggested that knowing a word involves the receptive and productive knowledge of the form, meaning and use at the most general level. Therefore, the present study aims at demonstrating the participants' receptive and productive knowledge of ten target words in the think-aloud tasks. Ten target words will be selected according to the three criteria: 1) The words will be shortlisted from the article is Building Self-confidence by Jim Sullivan, adapted from the website; 2) Two English teachers will be invited to identify ten words from the list which might be unfamiliar to their Grade 12 students; and 3) The definitions of the ten words will be taken from the Concise Oxford Dictionary and the sentences in the task will be modified from the definitions in the resource pack.

Interestingly, during the think-aloud tasks, 20 high proficient students performed individually by verbalizing the meaning, part of speech and pronunciation of the ten target words. The think-aloud sessions were conducted in Thai or English at their own discretion and audio-taped for data analysis.

3.3.3 Semi-structured Interview

The purpose of using semi-structured interviews after the questionnaire was to obtain additional information that would support the information gained from the

questionnaires. These are the information that the subjects may have missed or did not have time/space to express in detail in the questionnaire, and/or some additional details that the subjects found difficult to express in English in the questionnaire form.

In order to allow students to reveal aspects of their beliefs and opinions about vocabulary learning and their use of strategies which were not addressed in the questionnaire and think-aloud tasks, semi-structured interviews were conducted with the same group of students immediately after the think-aloud vocabulary task. For triangulation, the students' perceptions and the actual use of strategies were compared.

The key interview questions related closely with the questionnaires. Thus, the qualitative data would provide this study with more warrant in addition to the quantitative data. All of the key survey questionnaires and interview questions were created based on the research questions. The interview questions and survey questionnaires were adapted from Gu and Johnson's (1996) and Schmitt's (1997) survey questionnaires. The interview questions and survey questionnaires pertaining to research questions were created by the researcher. It is very important to note that interview questions were created and developed in English but translated into Thai.

For validity and trustworthiness, Maxwell (2005: 106) defines validity as "the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account". To minimize plausible validity threats to the study's findings, interpretations, and conclusions, the study employed: 1) a member checking process by allowing the participants to reconfirm their relevant interview transcripts to reassure "the validity of the constructions the interviewer had made"(Lincoln & Guba. 1985: 271), and 2) a peer debriefing process to ensure that the definitions of the

coding categories was warranted (Ryan & Bernard. 2003). Throughout this code building stage, the researcher involved her thesis experts and a thesis major advisor in a data cross-checking process to assure the validity and trustworthiness of the data analysis device.

3.4 Data Collection Procedures

In order to answer the research questions for the present investigation, questionnaire on vocabulary strategy, think-aloud protocols, and semi-structured interviews were described as follows:

3.4.1Vocabulary Learning Strategies Questionnaire (QVLS)

For this stage, a vocabulary learning strategies questionnaire about students' perception of their use and the usefulness of the strategies was administered to English classes during English lessons. As mention earlier, the questionnaire drew on both Discovery Strategies and Consolidation Strategies proposed by Schmitt (1997). It included 14 statements describing how the learners discover a new word meaning and 12 statements describing how they remember a new word.

Of the 200 grade 12 students, twenty participants from the top end of the first-term examination results of English reading, speaking, listening and writing were selected to take part in the think-aloud vocabulary tasks and the semi-structured interviews in the second and third stages. The participants instructed to self-report whether they had used the strategies and how useful the strategies were for them. Finally, they also ranked the effectiveness of the strategies in the table with "1" for the most useful and "10" for the least useful. The pilot version was conducted before

the final version was used. The questionnaire was first designed in English, and then translated into Thai. However, only Thai version was piloted and used.

3.4.2 Think-aloud Vocabulary Task

The primary method to collect strategy data was verbal reporting – think-aloud protocols (Ericsson & Simon. 1980; Afflerbach. 2000). This method is maturing (Pressley & Afflerbach. 1995) so possible concerns about verbal reports as data and the tactics the current study used to complement the concerns were considered in designing and implementing the method (Afflerbach. 2000).

It is important to note that the researcher offered students a short pre-training session of think-aloud. The researcher encouraged students to connect their previous experiences about think-aloud (e.g., teacher modeling in a language class) to the current research situation. The researcher then modeled think-aloud procedures, using a sample task. The researcher conducted this pre-training on "how" to provide verbal reports in a non-directive way to avoid explicit demonstration of "what" students should report (Afflerbach. 2000). The goal of pre-task training was to increase students' familiarity with think-aloud procedures. A large amount of verbal reports was collected, 20 high proficient students performed individually by verbalizing the meaning, part of speech and pronunciation of the ten target words. The think-aloud sessions were conducted in Thai or English at their own discretion and audio-taped for data analysis.

3.4.3 Semi-structured Interview

It is recognized that the quality of the research depends in part on the quality of the interview process. In sum, skillful interviewing involves much more than just asking questions. However, since these were semi-structured interviews, the

questions were asked in a way that attempted to match the individuals and circumstances. There was no strict sequence of questions, and the researcher allowed new questions to emerge from the immediate interview contexts.

For instance, semi-structured interviews were intended to gather the information on student characteristics and contextual information of vocabulary that may or may not affect choices of strategies and patterns of strategy use. These interviews were intended to gather the information on what participants would bring to the task. The students received a list of open-ended questions before the interviews. During the interviews, participants gave responses to the questions in Thai or English at their discretion. Moreover, the interviews were conducted individually and pseudonyms were used to ensure privacy. The interviews were audio-taped for research purposes and notes were taken by the researcher to supplement the data. Thai, which is the first language of both the teacher and student informants, was employed as the medium of communication in the interview so that free flow of ideas without language barrier was facilitated. In doing so, the researcher could gather the information on students evolving and construct meaning and understanding through the task, including what they learned and what they experienced and how the goals of reading may be modified (or maintained). Again, the interviews, which were conducted in Thai, were recorded, translated, and transcribed into English again in order to be coded.

The overall design of the research is presented in Figure 3.1 below.

Stage 1: Vocabulary Learning Strategies Questionnaire
Number of Participants:200
Format: The strategies were categorized into two groups: Part 1 (Discovery
Strategies) and Part 2 (Consolidation Strategies). Participants self-reported
their actual use of strategies in learning vocabulary and their perception of
the usefulness of the strategies.
Data Collection: quantitative data of students' perceptions of strategy use.

Stage 2: Think-aloud Vocabulary Task
Number of Participants:20 High Proficient Students
Format: The task consisted of 10 sentences and a target word is underlined in each
sentence. The participants reported the meaning, part of speech,
pronunciation of the target words. The task was carried out individually.
Data Collection: qualitative data of actual strategy use by high proficient students.

Stage 3: Semi-structured Interview
Number of Participants:20 High Proficient Students
Format: The participants interviewed individually and a list of questions was
given to the participants 15 minutes prior to the interview. The interviews
were audio-taped.
Data Collection: qualitative data of the opinions on vocabulary learning and use of
strategies in regular practice.

Figure 3.1

The Flow Chart of the Research Design

3.5 Data Analysis and Statistical Procedures

The survey data were coded for and analyzed by statistical data analysis software: SPSS. With this software, the researcher was able to interpret the quantitative data efficiently, producing frequency and descriptive analysis. The quantitative data were not random sampling data; thus, the researcher could not conduct inferential statistics. Instead, the researcher conducted descriptive statistics, including depicting, tabulating, and describing sets of data. The findings of descriptive statistic analysis were confirmed or discontinued by think-aloud and semi-structured interview qualitative data.

The qualitative data, which included semi-structured interviews and think-aloud with students, were coded, categorized, and theme-searched. In other words, the researcher read the transcribed interview data set again and again, coding and categorizing the themes according to the research questions and emerging themes. Then, the researcher depicted the findings as the description and interpretation according to themes.

The meanings emerging from the coded, categorized, and arranged interview data were tested for plausibility, sturdiness, and confirmability. Overall, the researcher followed Miles & Huberman's (1994) view of qualitative analysis, which consists of three concurrent flows of activity: data reduction, data display, and conclusion drawing/verification. That is, the researcher condensed the meanings expressed by the students, coded the interview data into categories, and organized the text to bring out its meanings.

Again, the Think-aloud Vocabulary Task provided hands-on experience for 20 high proficient students to exhibit their actual use of strategies in sentence-context and

demonstrate their breadth and depth of vocabulary knowledge such as meaning, part of speech and pronunciation of a word. The analysis was carried out at two levels. At the general level, responses from the tasks transcribed and compared among the high achievers to check whether there was patterns of the actual use of strategies by them. At the detailed level, the researcher looked at how individual participants make use of the strategies to discover word meanings in sentence-context.

3.6 Ethical Considerations

Creswell (2003) suggested that ethical issues should be considered through the process of writing a thesis. The researcher described the purpose of the study to all potential students in the EFL class. An informed consent form was provided to ensure that students were willing to engage in the study. The form included the student's rights, the purpose, procedures, and the benefit of this study, protection of the student's privacy, and signatures of both student and the researcher. The students kept one copy of the consent form and the researcher kept another one.

The researcher gained permission from the target school director, who had authority to give permission to conduct this study in the EFL classroom. The researcher respected the EFL teacher and students without disturbing their teaching and learning. The researcher was aware of any possible power abuse during interviewing students. During the interpretation of data, the researcher was aware of any possible researcher's bias on account of data from students. In the thesis writing, the researcher avoided any word choices against gender, sexual orientation, race, and ethnicity.

3.7 Summary of the Chapter

This methodology provides systematic procedures for answering the research questions. In this chapter, the research design and instruments used in the study are described. The study will carry out in three stages: a questionnaire administered to 200 grade 12 students in English classes; think-aloud vocabulary tasks and semi-structured interviews with 20 high proficient students from the top end of the proficiency scale. After data collection, both quantitative and qualitative data analysis are performed. Statistical data derived from the questionnaire projected the general pattern of strategy use among all high school learners and the qualitative data from the think-aloud tasks and semi-structured interviews highlighted the high achievers' perceptions and actual use of strategies. The next chapter, Chapter Four, presents a detailed account of the results in response to the interpretation from the literature and the actual situation.