

CHAPTER 3

RESEARCH METHODOLOGY

This chapter will discuss the research designs and methods in the following order:

1. Target group
2. Literature and related study research
3. Research instruments
4. Reliability and validity of the instruments
5. Research procedure and data collection
6. Data analysis

3.1 Target Group

This study uses quantitative research. The target group will be a class of twenty college students from Chiang Mai University enrolling in the course of reading for academic purpose at The Ace! The Academy for EducationUSA. The instructional instruments are (1) the lesson plans based on Involvement Load Hypothesis and (2) the instruction materials based on Involvement Load Hypothesis which focuses on *need*, *search*, and *evaluation*. The instruction will take 20 hours, according to the administrative requirement of the school that limits each learning session at 20 hours for a course. The data collecting instruments are the pre-test and post-test. To analyze the results of the study, the mean and the standard deviation of the pretest and posttest will be used. To measure the increase of the academic reading ability, the mean of the posttest is set at the satisfactory value at 66.66 %, according to the TOEFL requirement.



3.2 Literature and Related Study Research

In order to plan the lessons and select appropriate teaching materials and classroom activities to match the objective of the study, the following procedures were carried out:

1. TOEFL[®] reading passages and practices from various publications were gathered and studied
2. Comprehension tests and attitude questionnaires were studied.
3. The TOEFL[®] reading test was studied so that course objectives, lesson plans, classroom activities and assessment forms could be planned in correspondence with the standardized English proficiency test, and students' need.

3.3 Research Instruments

Research instruments consisted of two categories: experimental instruments and data collecting instruments.

3.3.1 Instructional instrument

The experimental instrument was made up of lesson plans based on the principles of the Involvement Load Hypothesis and incidental vocabulary learning.

1) The selected texts were based on TOEFL[®] reading texts focusing on: recognizing topic and extracting topic, understanding the main idea, and supporting details of academic English on a paragraph level.

In addition to the in-class teaching materials, four vocabulary supplementary handouts were given to students as homework to comply with the Involvement Load Hypothesis and Incidental Vocabulary Learning.

2) The lesson plans were designed according to reading skills in academic English that would be tested on the TOEFL[®]. They were primarily focused on recognizing and extracting the main idea and supporting details of a passage. The periods of instruction totaled ten sessions each lasting two hours. The class met two times a week.

The lesson plans were divided into three stages: introduction, exploration, and expansion. The introduction stage included the first three hour lesson plans. In this stage, the teacher prepared the students with the study skills in reading academic

English; primarily learning to recognize the structure of a paragraph with topic, main idea and supporting details. The exploration stage included two lesson plans. In this stage, students were asked to extract main idea and supporting details from longer passages by completing an outline in addition to answering multiple-choice questions. In addition to questions concerning the topic and the main idea, students had to answer multiple-choice questions asking about factual information by extracting supporting details from the passage. To develop these core skills, the students practiced repeatedly in identifying key information to draw out main ideas and supporting details in order to organize notes. Tasks and pair activities were assigned to promote incidental learning, Involvement Load hypothesis, as well as cooperative learning. The exploration stage, which is the last stage, included five lesson plans. In this stage, the students were able to write notes from the passage. They were able to develop and transfer the academic reading skills attained throughout the instructional practice to meet their need in succeeding in the TOEFL[®] test.

The instructional procedure for each lesson plan included three steps: presentation, practice, and production. The presentation guided the students into the main focus of the lesson in which general concepts of the content and vocabulary were introduced and needed in each passage. The instruction was delivered according to the set objectives. In this step, while the students practiced and developed the language and skills, the vocabulary was acquired incidentally. In the production step, the students completed the output or tasks.

The instruction was implemented following the lesson plans.

3.3.2 Data collection instruments

1) Pretest and Posttest

The TOEFL[®] reading, which consisted of three 500-to-600-word long reading passages, was used in the pretest and posttest. The total score was 42 which, according to the TOEFL[®] score conversion chart, was equivalent to a total score of 30 on the TOEFL[®] scale. According to the data collected by EducationUSA, most universities set the minimum requirement for TOEFL[®] score is 80 out of 120 or approximately 66.66%. Therefore, the passing score is 28 out of 42. The test

involved applying knowledge of the textual schemata or the structural characteristics of written content and recognizing key information of the content so as to extract main ideas, supporting details, organizing notes, completing gist, and making references. After it was compiled, the test was given to samples with higher English proficiency, in this case it was tested its reliability on 71 first year students from the faculty of medicine and the faculty of dentistry, Chiang Mai University who enrolled in the course 001102 Reading and Writing in English, and the result based on the Alpha Reliability index was .8019

2) Attitude questionnaires

The questionnaires served to explore the attitude of the students regarding the Involvement Load Hypothesis and the Incidental Vocabulary Learning. The questionnaires were filled out after completing the study. The questionnaires were designed based on the analysis of Involvement Load Hypothesis and the Incidental Vocabulary Learning. The questionnaires consisted of fifteen items with five rating scales of response. The rating numbers could be interested as shown below.

Rates	Means	Interpretation
1	1.00-1.49	very negative
2	1.50-2.49	negative
3	2.50-3.49	moderate
4	3.50-4.49	positive
5	4.50-5.00	very positive

After the questionnaires were written, they were given to the expert for their approval of validity.

3.4 Reliability and Validity of Instruments

The reliability and validity were assured as follows:

After all of the instruments were constructed, they were given to the expert for the approval of their validity. They were then tried out by 71 students in the pilot study to check the reliability. The alpha formula was used to check the reliability of the survey test and the alpha value was .8019.

3.5 Research Procedure

The experiment used a pretest and posttest with one group sample. It was conducted at Ace! The Academy for EducationUSA, Chiang Mai. The class time was two sessions a week, two hours each. However, some assigned tasks were completed outside the class time. The instructional implement took four weeks.

The research procedure was conducted as follows:

- 1) On August 1, 2011, the target group took the pretest.
- 2) From August 3, 2011 to September 5, 2011, the instructional implementation was carried out following the lesson plans.
- 3) On September 7, 2011, the target group took the posttest of the. Then, the data obtained were statistically analyzed and the results were interpreted.

3.6 The data analysis

5.1. Posttest analysis

The scores from the posttest were converted into percentage. Finally, the mean (μ) with standard deviation (σ) was calculated by using the SPSS program. The posttest was analyzed based on the satisfactory level for the achievement set at 66.66% according to the TOEFL[®] standard.

5.2. Analysis of the questionnaires

The post questionnaires were also analyzed to explore the attitudes of the learners. The mean (μ) with standard deviation (σ) were used in the analysis. In addition, the questionnaires were categorized from the top rank to the lowest rank and analyzed in description.