

CHAPTER III

RESEARCH METHODOLOGY

The purposes of this study were to investigate the Internet using behavior of Mathayom Suksa 5 students in Muang District, Nakhon Sawan Province and to explore the relationship between the Internet using behavior and English proficiency of Mathayom Suksa 5 students in Muang District, Nakhon Sawan Province.

This chapter explains the research methodology of the study. It contains the information about the population and the sample of the study, the research instruments, the data collection and the data analysis.

Population

The total population in this study was 1,835 Mathayom Suksa 5 students from 7 upper secondary schools in the academic year 2006 in Muang District, Nakhon Sawan Province.

Sample

The sample used in this study were 316 students selected from the total population, using Yamané Table (Pichit Richaroon, 2004. p. 120 as cited in Yamané, 1973, p. 1088).

Sampling Method

1. A sample group of 316 students from Mathayom Suksa 5 in Muang District, Nakhon Sawan Province, was selected according to Yamané table using satisfy sampling method. Numbers of the students in each school were as follows:

Table 1 Number of the Students in Each School

Schools	The Number of the Total Population	The Number of the Subjects
1 Nakhon Sawan School	673 students	116 students
2 Satri Nakhon Sawan School	562 students	97 students
3 Jiraprawat Wittayakom School	121 students	21 students
4 Bankaengchatchawalit Wittaya School	41 students	7 students
5 Prabang Wittaya School	70 students	12 students
6 Nawamintrachutit Matchim School	339 students	58 students
7 Bungboraphet School	29 students	5 students
Total	1,835 students	316 students

2. The students were given the English test in order to assess their English proficiency. They checked their Internet using behavior in the questionnaire. The questionnaire and the English test took 1 hour and 15 minutes in total to complete (1 hour for the English test and 15 minutes for the questionnaire).

3. The researcher collected all copies of the questionnaire and the English test and prepared them for data analysis.

Research Instruments

Questionnaire

To construct and develop the questionnaire employed in this study, the following procedures were conducted:

1. The construction of the questionnaire

1.1 The researcher reviewed the literature about English learning and the use of the Internet. Most of the questionnaire items were modified from Tussaporn Vathaniyanont (1999) and Thidakul Boonraksa (2005). To minimize problems of ambiguity and misinterpretation, the questionnaire was written in Thai. The questionnaire was divided into 5 parts:

Part I: background of the respondents,

Part II: the respondents' behavior in using the Internet,

Part III: benefits from the Internet use,

Part IV: types of the Internet services used by the respondents, and

Part V: the respondents' experience in using the Internet.

1.2 The draft of the questionnaire was revised and modified according to the suggestions of the thesis advisor.

2. The validity and the reliability of the questionnaire

2.1 The validity of the questionnaire

The revised questionnaire was submitted to Dr. Sudsuang Yutdhana, an instructor from the Department of Western Languages, Faculty of Humanities at Naresuan University, Assistant Professor Jantima Simpson, an instructor from the Department of Western Language, Faculty of Humanities at Naresuan University and Ms.Pimpa Piyamaythang, a teacher from the English Department at Bankluay Municipal School, Chainat Province in order to check the validity of the content of the questionnaire by means of index of congruence (IOC). The questionnaire was again revised; the items which had the IOC score between 0.5-1 were selected.

2.2 The reliability of the questionnaire

The questionnaire was tried out with 40 Mathayom Suksa 5 students of Saint Joseph Nakhon Sawan in Muang District, Nakhon Sawan Province. To ascertain the reliability of the questionnaire, the Cronbach's α coefficient was used to measure the reliability of the questionnaire. The result was 0.92 which meant that the questionnaire was reliable.

The English Proficiency Test

To construct and develop the English proficiency test employed in this study, the following procedures were conducted:

1. The construction of the English proficiency test:

1.1 The researcher designed a multiple-choice English proficiency test on the basis of Mathayom Suksa 5 core curriculum.

1.2 The draft of the test was modified and revised, based on the suggestions of the thesis advisor.

2. The validity and the reliability of the English proficiency test:

2.1 The validity of the English proficiency test

The test was submitted to Mr. Pajonsak Mingsakoon, a teacher from the English Department at Hunkhapittayakom School in Chainat, Ms. Rewadee Dankittikrilas, a teacher from the English Department at Sukhothaiwittayakom School in Sukhothai and Ms. Orawan Thabyoi, a teacher from English Department at Chainat Pittayakom School in Chainat, in order to check the validity of the content and the distribution of the test questions. The test was again revised; the items which had the IOC score between 0.5-1 were selected.

2.2 The reliability of the English proficiency test

The test was tried out with 40 Mathayom Suksa 5 students of Saint Joseph Nakhon Sawan in Muang District, Nakhon Sawan Province. To ascertain the reliability of the test, Cronbach's α coefficient was used to measure the reliability of the test. The result was 0.84 which meant that the tests were reliable.

2.3 The difficulty level and the discrimination power were calculated from the test. According to Anun Srisopa (1982), the difficulty level of a good test should be 0.2-0.8 and the discrimination power should be more than 0.2

Data Collection

After the instruments had been designed, tested and measured for their validity and reliability, they were employed with the target subjects. The collection of the data followed these steps:

1. The researcher contacted the school administrators of the 7 upper secondary schools in Muang District, Nakhon Sawan Province, in order to ask for permission to conduct this study.

2. An official letter introducing the researcher and the purposes of the study from the Dean of the Graduate School of Naresuan University, Phitsanulok Province, was taken to the school administrators of the 7 upper secondary schools in Muang District, Nakhon Sawan Province.

Data Analyses

The data from the questionnaire and the test were transcribed and computed. The data analysis was done in 3 steps as follows:

1. The analysis of the questionnaire:

All questionnaires were analyzed in order to find the frequency, percentage, mean and standard deviation.

2. The analysis of the English Test:

The researcher analyzed the respondents' individual scores that were calculated at 1 point and 0, which means, if one student got a correct answer, he/she got 1 point. However, if the student got an incorrect answer, he/she got 0 point. According to the group-based criteria, the students' test scores were modified into range of scores in order to range 316 students' English proficiency as high, intermediate and low groups. The table was as follows:

Table 2 English Proficiency of the Students

N = 316

Students' Levels	Range of scores	Mean of scores	Number of the students	Percentage
High	31-37	33.13	69	21.84
Intermediate	19-30	24.21	190	60.13
Low	11-18	16.07	57	18.03
Total			316	100

3. The analysis of the relationship between the Internet using behavior and English proficiency.

The researcher analyzed the relationship between the Internet using behavior and English proficiency of the respondents by means of Pearson's correlation coefficient.

Statistical Devices

1. The IOC was used to measure the content validity of the questionnaire and the English proficiency test.
2. The Cronbach's α coefficient was used to measure the reliability of the questionnaire and English proficiency test.
3. Frequency, percentage, mean and standard deviation were used to analyze the number of the Internet using behavior of the students. The percentage was also used to analyze the difficulty level and the discrimination power of the test.
4. The Pearson's correlation was used to analyze the relationship between the Internet using behavior and English proficiency test.
5. The Chi-square coefficient was used to analyze the relationship between the length of time of the Internet use and the English proficiency test.