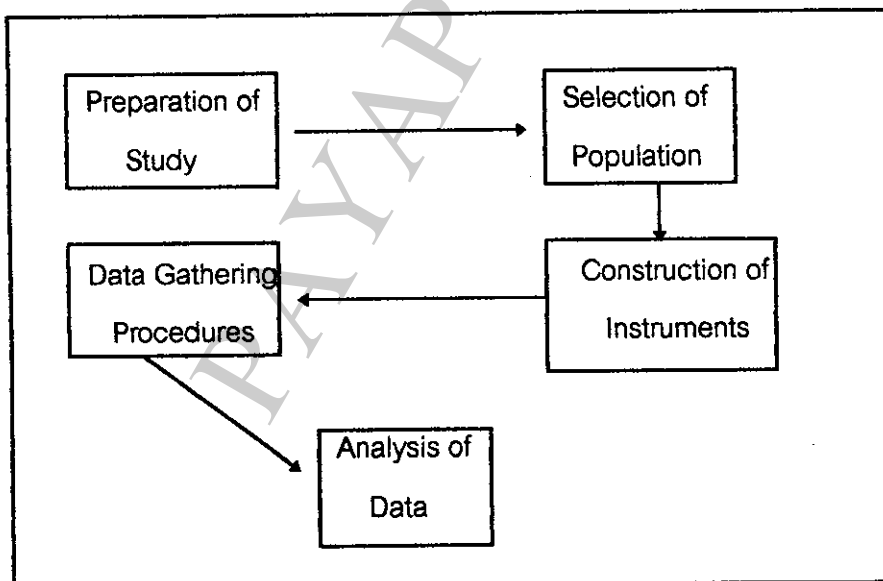


## Chapter III

### Methodology

Since this study is a survey on the needs and problems of Payap University nursing students and nurses at McCormick Hospital, the method employed is a survey using self-administered questionnaires. Interviews of nursing English teachers were conducted, and the Nursing English curriculum and materials were studied in order to obtain preliminary information relevant to the design of questionnaires.

In this chapter, the procedure for carrying out this research is explained in detail. The procedure is divided into five parts which includes (1) preparation of the study, (2) identification of the target population, (3) instruments, (4) the data gathering procedures, and (5) the analysis of the data. The various parts of the procedure can be clearly seen in the following diagram:



### 3.1 Preparation of the Study

In order to obtain the information necessary for conducting this study, the researcher followed these steps:

1. The researcher studied documents related to needs analysis and problems in teaching and studying English from several texts, journals, and theses.
2. The researcher decided to choose the target situation analysis (TSA) approach (Munby, 1978) for handling this survey.
3. Interviews regarding the students' practice of English skills, the content of nursing English courses, teaching methods, materials, and measurements were conducted with two experienced nursing English teachers who presently teach nursing English courses at the Faculty of Nursing of Payap University.
4. An interview regarding how the nurses and the third year nursing students apply the Nursing English acquired in studying nursing courses and in the context of their daily work was conducted with the Dean of the Faculty of Nursing.
5. The researcher randomly selected 10 second and third year nursing students for interviews concerning their nursing English studies, and 5 McCormick Nurses graduated from Payap University's Faculty of Nursing for interviews concerning their use of English in their daily work.
6. The course content in the entire Nursing English curriculum was studied. The general purpose of all English courses in the Nursing curriculum is to enable the nursing students to practice the four main skills of English with an emphasis on the development of reading comprehension and writing ability. The English courses are also aimed at familiarizing the nursing students with the English and terminology relevant to the field of nursing.
7. Many examples of questionnaires used in survey research were reviewed. The researcher also studied documents on how to develop questionnaires from Mackay and Mountford (1978) 's English for specific purposes, Maurice (1986)'s "Questions about questionnaires: Potential, problems, and principles for

language teachers," and Richterich and Chancerel (1980)'s Identifying the needs of adults learning a foreign language.

8. The ideas gathered from the interviews, the Nursing English course content, the documents on needs analysis and problems in teaching and studying English, and the questionnaire development were considered in the design of three different sets of questionnaires.

### 3.2 Target Population

The population used in this study consisted of three groups of people: 62 second and 57 third year undergraduate students in the Bachelor of Science in Nursing and Midwifery program at Payap University's Faculty of Nursing, in their first semester of the 1998 academic year; and 83 nurses graduated from Payap University's Faculty of Nursing in the academic years of 1995-1997, who presently work at McCormick Hospital.

The first semester second year nursing students were chosen as subjects because they are presently studying Nursing English the content of which is totally nursing related. They can productively indicate what their existing needs and problems are in relation to their nursing studies, and can serve as representatives for the target situation analysis (TSA).

The third year nursing students have completed all Nursing English courses, according to the curriculum, and are applying their Nursing English to their current nursing courses. The researcher expects the third year nursing students to recall what they learned in their nursing English courses, and to indicate their needs and problems at the end of their English studies in terms of target situation analysis (TSA).

Nurses who graduated in the 1995-1997 academic years are able to indicate whether they can apply the Nursing English knowledge and theories studied as undergraduates in the context of their daily work at McCormick Hospital. According to the record of the Faculty of Nursing at Payap University, 92 nurses graduated and went to work at McCormick Hospital during the 1995-1997 academic years. Instead of administering questionnaires to all graduate nurses of the 1995-1997 academic years, the researcher chose to focus on the nurses at McCormick Hospital who would be the most accessible.

### 3.3 Instruments

The instruments employed in this study are three sets of questionnaires given to the second and third year nursing students and the nurse group. Prior to the development of these sets of questionnaires, the Nursing English curriculum was studied intensively. First, Nursing English course syllabuses were examined in terms of course descriptions, course objectives, teaching methods, course content, and grade computations. Second, all texts and supplementary materials used in the Nursing English courses were reviewed. Finally, the questionnaires were developed in relation to the thesis objectives, using both closed-ended and open-ended questionnaire formats. The questionnaire content was comprised of items on subjective needs established by the researcher himself and items adapted from the information previously obtained. Each questionnaire was comprised of multiple choice questions and rating scales using the five point-Likert scales. The five-point Likert scales used for questions regarding needs were as follows:

- 1= Rarely
- 2= A little
- 3= Occasionally
- 4= Often
- 5= Very often

The five-point Likert scales used for questions regarding problems were as follows:

- 1= Very few/no problems
- 2= Occasional problems
- 3= Often have problems
- 4= Many problems
- 5= Very many problems

The second year student questionnaire was first established in order to survey their needs and problems in their present nursing English studies. The questionnaire was divided into four parts:

- Part 1: Personal Information: This part covered questions concerning student background in English.
- Part 2: Objective Needs: The first section of this part was comprised of multiple choice questions and rating scales regarding student need to use English in daily life, and the frequency of use of the four main English skills both in and out of class. The second section dealt with student needs in using sub-skills of listening, speaking, reading, and writing in studying Nursing English. All questions in this section required the subjects to rate their English needs on the five-point Likert scales.
- Part 3: Problems: This part was comprised of four questions on student problems in using sub-skills of listening, speaking, reading, and writing in studying English. All questions required responses in the form of five-point Likert scales.
- Part 4: Subjective Needs: This part consisted of multiple choice and open-ended questions along with rating scales. All questions in this part dealt with subjects' preferred teaching methods, materials, evaluation formats, skills to be most and least emphasized, time spent in studying and teaching Nursing

English, and course content. The last question asked the subjects to offer suggestions on the program.

The third year student questionnaire was then developed in order to survey their needs and problems at the end of their Nursing English studies, as well as how they applied the nursing English course content to their present studies. The questionnaire was divided into four parts:

- Part 1: Personal Information: This part contained questions concerning student background in English.
- Part 2: Objective Needs: The first section of this part was comprised of multiple choice questions and rating scales regarding student need to use English in daily life, and the frequency of use of the four main English skills in studying nursing courses. The second section dealt with student needs in applying sub-skills of listening, speaking, reading, and writing in studying nursing courses. All questions in this area required the subjects to rate their English needs on the five-point Likert scales.
- Part 3: Problems: This part was comprised of four questions on student problems in applying sub-skills of listening, speaking, reading, and writing in their nursing studies. All questions required responses in the five-point Likert scales.
- Part 4: Subjective Needs: This part consisted of multiple choice and open-ended questions along with rating scales. All questions in this part dealt with subjects' preferred teaching methods, materials, evaluation formats, skills to be most and least emphasized, time spent in studying and teaching Nursing English, and course content. The last question asked the subjects to offer suggestions on the program.

Finally, the nurse questionnaire was established in order to survey their needs and problems in using English learned as undergraduates in their daily work. The questionnaire was divided into four parts:

- Part 1: Personal Information: This part contained questions concerning the subjects' working position, department, and background in English.
- Part 2: Objective Needs: The first section of this part was comprised of multiple choice questions and rating scales regarding nurses' need to use English, and the frequency of use of the four main English skills in the context of their daily work. The second section dealt with nurse needs in using sub-skills of listening, speaking, reading, and writing in their daily work. All questions in this area required the subjects to rate their English needs on the five-point Likert scales.
- Part 3: Problems: This part was comprised of four questions on nurse problems in using sub-skills of listening, speaking, reading, and writing in their daily work. All questions required responses in the five-point Likert scales.
- Part 4: Subjective Needs: This part consisted of multiple choice and open-ended questions along with rating scales. All questions in this part dealt with subjects' preferred teaching methods, materials, evaluation formats, skills to be most and least emphasized, time spent in studying and teaching Nursing English, and course content. The last question asked the subjects to offer suggestions on the program.

Once developed, the three sets of questionnaires were submitted to the thesis advisors for advice in terms of relevance, comprehensibility of questions, and questionnaire organization. Following this, the questionnaires were tested to examine whether all statements, questions and instructions on the questionnaires were clearly comprehensible for the subjects in the main study. During the testing process, the subjects were asked to fill out the questionnaires, indicate ambiguous

statements and questions, and give suggestions concerning the nursing English study. This was beneficial for the design of the final questionnaires.

The subjects used in the testing of the second and third year student questionnaires were 40 fourth year nursing students. Five McCormick nurses, graduated from Payap University's Faculty of Nursing in 1994, served as subjects in the testing of the nurse questionnaires. Based on the responses, the three sets of questionnaires were again revised with the thesis advisors' assistance.

To ascertain the reliability of the questionnaires, all the returned questionnaires were analyzed for reliability calculation. The researcher made use of the alpha-coefficient method using the SPSS program. The details of the calculation are shown in Appendix G. The results indicated that the responses of the second year student questionnaires were reliable at 0.87, and at 0.86 for the third year student questionnaires. The reliability of the nurse questionnaires was at 0.82. It can be concluded that regardless of how many times the three groups of subjects filled out the questionnaires, 87% of the second year student responses, 86% of the third year student responses, and 82% of the nurse responses would be consistent. This implies that the instruments employed are reliable.

### **3.4 Data Gathering Procedures**

In order to conduct the survey, the researcher wrote two formal requests regarding using the second and third year nursing students and the McCormick nurses as the target population in this study. The first request was presented to Mrs. Rujira Intaratul, the Dean of the Faculty of Nursing at Payap University. The researcher submitted the second request to Mr. Theerapong Chimawong, the director of McCormick Hospital. The researcher also asked Miss Poonpilard Rodjanasupod, the Assistant Academic Dean of the Faculty of Nursing, for the exact numbers of the second and third year nursing students in the academic year of



1998. The McCormick Hospital Personnel office was asked to provide a list of nurses who graduated from Payap University's Faculty of Nursing in the 1995-1997 academic years and now work at McCormick Hospital. Last, two second and third year nursing teachers were asked to use class time to allow students to fill out the questionnaires.

In terms of questionnaire administration, Miss Waraporn Jinorod, a second year nursing lecturer, handed out 62 second year nursing student questionnaires to the students in a lecture period. Miss Taungthip Jareanying, a third year nursing lecturer, gave 57 third year nursing student questionnaires to the students in her class. The questionnaires were collected by the researcher during the class periods. The researcher received 61 (96.82%) second year nursing student questionnaires, of which 56 (91.80%) were completely filled out. Fifty-seven (100%) third year nursing student questionnaires were returned, all of which (100%) were completely filled out.

For the nurse group, 83 questionnaires were given to the McCormick Hospital Personnel office who helped distribute the questionnaires to the nurses throughout the hospital. After 4 weeks of administration, 78 (93.97%) questionnaires were returned, all of which (100%) were completely filled out. The number of subjects used in this study is summarized in the following table.

Subjects	Number of Subjects Anticipated	Responses Received	
		Number	Percent
1. Second Year Nursing Students	62	61	96.82
2. Third Year Nursing Students	57	57	100
3. McCormick Nurses	83	78	93.97
<b>Total</b>	202	196	96.93

Table 1: Subjects of the Study

### 3.5 Analysis of Data

Based on the completed questionnaires, the responses were processed for interpretation. All data analysis was completed using the Statistical Package for Social Sciences (SPSS) program. A five-point Likert scale was used to score the levels of needs and problems in the questionnaires. The mean levels of the scores of statements regarding needs are specified as follows:

Scale	Levels of Needs	Mean Range
5	Very often	4.50-5.00
4	Often	3.50-4.49
3	Occasionally	2.50-3.49
2	A Little	1.50-2.49
1	Rarely	1.00-1.49

(Kannasoot, 1982, p.41)

The mean levels of the scores of statements concerning problems are presented as follows:

Scale	Levels of Problems	Mean Range
5	Very many problems	4.50-5.00
4	Many problems	3.50-4.49
3	Often have problems	2.50-3.49
2	Occasional problems	1.50-2.49
1	Very few/no problems	1.00-1.49

(Kannasoot, 1982, p. 41)

The statistical devices employed in this study were as follows:

1. Arithmetic mean ( $\bar{X}$ ) was used to indicate the average level of the subjects' needs and problems in studying and using nursing English.

2. Frequency distribution and percentages were calculated in the areas of: personal data; subjects' practice of English skills; the preferred number of English courses required, hours of teaching, and studying time; types of content preferred; as well as suggestions on the teaching and studying of nursing English.
3. Standard Deviation (SD) provided information on the extent to which the sets of scores varied in relation to the mean. (Nunan, 1994)
4. One-Way Analysis of Variance (F-test) was utilized to test whether the three groups of subjects' responses on subjective needs differed significantly from one another. The analysis of variance via the LSD procedure was used to indicate which pairs among the three groups were significantly different.

Throughout the data analysis in this study, a 0.05 level of significance was accepted as the degree of confidence.