

## CHAPTER 5

### RESEARCH METHODOLOGY

#### 5.1 Research Design

This is partly a descriptive cross-sectional study and partly analytical study. Samples of this study are asked to answer a self-administered questionnaire and responses are then tabulated and reported in the form of frequencies and percentages. The variables that are described are the type of hospital nurses work, the number of years the nurses have been working, type of university from where the nurses graduated, the general and specific English language needs of nurses practicing their profession in government and private hospitals (the use of English by nurses in their place of work, the problems in the use of English in the nurses place of work, activities that help improve the four English language skills), opinions on the type of English course for nursing students, learning motivation and student evaluation.

#### 5.2 The Sample

The subjects of this study are 286 nurses who are practicing their profession in government and private hospitals in Bangkok and who meet the inclusion criteria.

### 5.2.1 Eligibility Criteria

#### **Inclusion Criteria:**

B.S.N. graduates who have been practicing their profession for two years or more in either government or private hospitals in Bangkok, who are present when the questionnaire is administered, and who are willing to participate in the study.

#### **Exclusion Criteria:**

B.S.N. graduates who are unwilling to participate, graduate nurses who work full-time in clinics, nursing homes, schools, offices and factories in Bangkok, nurses who are on leave at the time of the administration of the questionnaire are excluded from the study.

### 5.2.2 Sample Size Estimation

A pilot study was conducted to determine the proportion of nurses having English language needs and to pre-test the questionnaire. It was estimated that approximately 20% of nurses had English language needs at their place of work. A 95% confidence interval was desired with  $d = .05$ . The sample size was then calculated

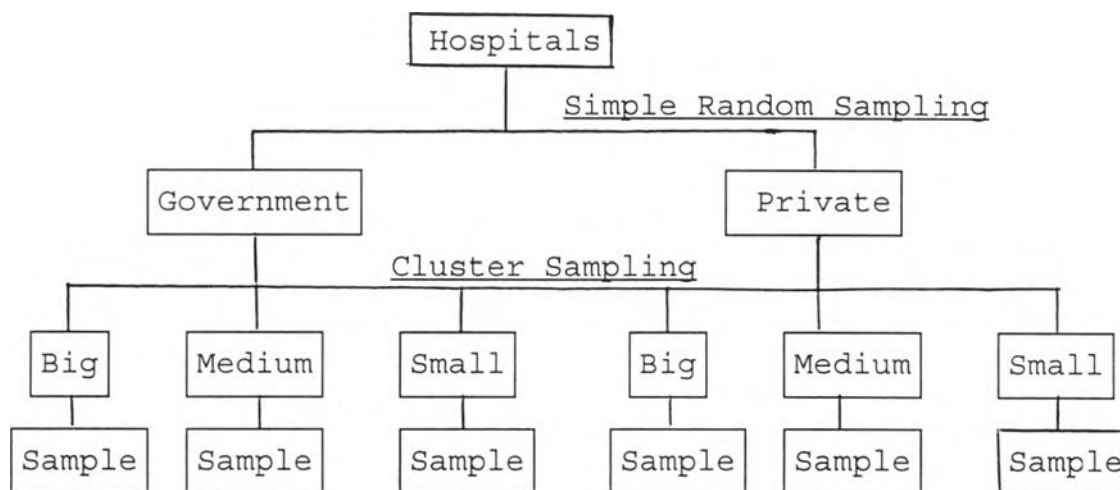
using the formula:

$$n = \frac{z^2 pq}{d^2}$$

$$= \frac{(1.96)^2 (.20) (.80)}{(.05)^2} = 246$$

However, all the 286 samples who participated in the study were included. The samples were selected using multi-stage sampling technique. The following diagram shows how the samples were selected:

**Figure 1**



(Samples who met the inclusion criteria were included in the study.)

### 5.3 Instrument

The instrument that was used in this study was a questionnaire which was patterned after questionnaires used by other investigators<sup>(26)</sup>. Some questions were modified based on literature review. The questions were translated into Thai to avoid misunderstanding and the questionnaire was pre-tested. The questionnaire was revised and ambiguous questions were discarded. Questions which were difficult to understand were simplified. Before testing for its reliability, the questionnaire was sent to ten experts consisting of two medical doctors, two nursing instructors, three English teachers and three nurse supervisors to test for its validity. These experts were asked to give their comments and opinions about the questionnaire. Based on the suggestions and comments, the questionnaire was revised again. Since there were only minor changes which did not affect the content of the questionnaire very much, it was decided not to send the questionnaire back to the experts. The final draft of the questionnaire was written and pre-tested again to 33 nurses to test for its reliability, (only the last two parts of the questionnaire were included in the computation of reliability because the first three parts asked factual information) using Cronbach's Alpha. It was found to be reliable with a

reliability coefficient of .9614. The final draft of the questionnaire was divided into five parts:

Part I : Informants' Background consisting of four items

Part II : Actual English language needs of graduate nurses at their place of work consisting of six items.

The rating criteria were:

For items 1,2 and 5

- 0 = no use
- 1 = little use
- 2 = useful
- 3 = great use
- 4 = very great use

For item 3

- 0 = not at all important
- 1 = a little bit important
- 2 = important
- 3 = very important
- 4 = extremely important

For items 4 and 6

- 0 = no problem
- 1 = a little problem
- 2 = a problem
- 3 = a serious problem
- 4 = a very serious problem

Part III : Type of English Course graduate nurses preferred for nursing students consisting of nine items. Factual information were elicited in this part.

Part IV : Divided into:

A. Opinions about the usefulness of different activities to the improvement of the four English language skills ( 4 items )

B. Opinions on the design of English Course for Nursing Students

The rating criteria for A

- 0 = not useful
- 1 = a little bit useful
- 2 = undecided
- 3 = useful
- 4 = very useful

The rating criteria for B

- 0 = strongly disagree
- 1 = disagree
- 2 = undecided
- 3 = agree
- 4 = strongly agree

Part V : Nursing students' evaluation and motivation in learning English ( 8 items )

The rating criteria were :

- 0 = strongly disagree
- 1 = disagree
- 2 = undecided
- 3 = agree
- 4 = strongly agree

#### 5.4 Procedure

A list of government and private hospitals in Bangkok was obtained from the Department of Health<sup>(27)</sup>. The number of government hospitals were counted and grouped into big, medium, and small hospitals based on the number of beds a hospital had and the standard grouping of the Ministry of Public Health. The same procedure was employed with private

hospitals. The grouping was as follows:

30-150 beds	:	<b>Small</b>
200-500 beds	:	<b>Medium</b>
600 or more	:	<b>Big</b>

Hospitals with less than 30 beds and clinics were eliminated from the list. The proportion of government to private hospitals was computed to determine the number of government hospitals and private hospitals that would be included in the study. The proportion was 3:7. The samples were selected using multi-stage sampling technique. The sample size depended on the approximate number of full-time nurses in each selected hospital since the hospitals selected to participate in the study refused to give the exact number of full-time nurses working with them. The following table shows the names of hospitals and sample size from each hospital.

**Table 1**

**Sampling from each Hospital**

Total:124

Size	Hospitals	No.	%
<u>Government</u> Big	Wachira	93	75.0
Medium	Lertsin	20	16.13
Small	Mother and Child	11	8.87



Total: 162

Size	Hospitals	No.	%
<u>Private</u> Big	Phayatai 2	68	41.97
	Vipawadi	21	12.96
	Ramkhamhaeng	29	17.90
Medium	Decha	5	3.08
	Samitivej	29	17.90
Small	Klongtan	4	2.47
	Ramintra	6	3.70

The hospitals that were selected for the study were contacted and a letter of consent was sent to each hospital director to facilitate administration of the questionnaire. A total of 355 questionnaires were distributed but only 286 were collected after one to two weeks depending on the time requested by the respondents to complete answering the questionnaire.

### 5.5 Data Analysis

After all the questionnaires were collected, the responses were coded and analyzed using the SPSS for Windows. The Cronbach's Alpha was again computed to determine the reliability of the questionnaire using the responses of all the 286 respondents. It yielded an Alpha value of .9295 which was very reliable. The following statistical devices that were employed in the study were percentage and frequency distribution and Chi-square. To facilitate computation of data, responses in Parts 2 and 3 were recoded. Responses with values of 0,1 = 1; values of 2,3 and 4 = 2.