



CHAPTER V

INSTRUMENT & DATA COLLECTION

One way of obtaining data is simply to ask questions. The interview and the questionnaire both utilize this approach (Donald A., Lucy C. J. and Asghar R., 1979). In this study, both methods were used.

DATA COLLECTION INSTRUMENT

The main method used in this study was the establishment of agreement between the data collected by self-administered structured questionnaire and subsequent interviews on the same subjects for cross check of the information. The same questionnaires were used during self-reporting and interview. A separate set of questionnaire was constructed for students and instructors. The contents of these two questionnaires covered the same data items.

The construction of the questionnaires were based on the principle of learning and the plan of learning experiences in Community Health Nursing Curricula relating to community health nursing tasks. The questionnaires have been divided into 2 categories. Category I is for assessing the teaching-learning

conditions in theory and practice part. The content of category I includes the principles of learning. They are motivation, implementation of learning experience, and feedback. Likert rating scale was adopted to assess the teaching-learning conditions. Category II is for assessing the actual learning experience in field practicum in accordance with the community health nursing tasks. Category II includes the activities like actual performance by students, helping the teacher or observation of the activities. The data were collected to assess whether these activities in Community Health Nursing reflected the activities in the curriculum planning.

VALIDITY & RELIABILITY

There are two important characteristic that every measuring instrument should possess: validity and reliability. Validity refers to the extent to which the instrument measure what it is intended to measure. On the other hand, reliability is the extent to which a measuring device is consistent in measuring whatever it measures (Donald A., Lucy C. J., and Asghan R., 1979).

Content validity refers to the extent to which the instrument represents the content of interest. In order to obtain an external evaluation of content validity, the investigator should ask a number of experts

to examine content of the questionnaire systemically and evaluate its relevancy to the specified universe. If all agree that the questionnaires represent the content domain adequately, the questionnaire can then be said to have content validity. Therefore, this study tried to establish the content validity by requesting 7 experts (in nursing profession) to examine the questionnaires and to suggest ways to improve it. The investigator also requested the experts to give the standard levels of performance for each activity relating to community health nurses' tasks.

In this study, the pretest of the questionnaires was done at Mission Nursing College which had similar curriculum to the nursing school under study with respect to the number of years required to complete the Bachelor Degree of Nursing. After pretest, the questionnaire was modified. Then reliability of the questionnaire was estimated by using Cronbach's Alpha Coefficient (α).

The formula (Hull C.H., 1981) is as following:

$$\alpha = \frac{K}{K-1} \left[1 - \frac{\sum S_i^2}{St^2} \right]$$

α = coefficient of reliability of questionnaire.

K = the number of the question in questionnaire.

S_i = variance of each item in questionnaire.

St = variance of all item in questionnaire.

The results of the reliability were 0.8791 and 0.8177 for the students' questionnaire and instructors' questionnaire respectively.

DATA COLLECTION

Regarding the data collection from the document for document analysis (Community Health Nursing Curricula), the following steps were carried out:

1. Request letters were obtained from the academic unit, Faculty of Medicine, Chulalongkorn University.
2. Objectives of this research were explained to the Dean or the Director of the nursing schools.
3. The objectives were also explained to the instructors. The request was made to obtain curriculum of Community Health Nursing from the Head of Public Health Department.

Regarding the implementation of the questionnaires and interview forms, the following steps were carried out:

1. Letters requesting cooperation to conduct the study were obtained from the academic unit, Faculty of Medicine, Chulalongkorn University.
2. The objectives of the study were clearly explained to the Dean or the Director of the nursing schools to ensure cooperation to carry out the study.

3. The objectives of study were explained to the forth year students before the questionnaires were distributed to them.

4. Students were requested to return the questionnaire the following day.

5. The students and the instructors were interviewed one to two days after the questionnaires were collected.

Out of 330 questionnaire, 329 were returned. That is 99.67 % of the questionnaires were available for data analysis.

A COMPARATIVE RESULT BETWEEN QUESTIONNAIRE AND INTERVIEW

The results obtained through questionnaire and interview were compared using Paired T-Test both for the students and the instructors. The significance level was set at 0.05. The results of the analysis were illustrated in tables 3, 4, 5, 6:

Table 3: The result of the students' opinion toward teaching-learning condition from questionnaire and interview (N=78).

METHOD CATEGORY	QUESTIONNAIRE		INTERVIEW		T-TEST	P-VALUE
	\bar{X}	SD	\bar{X}	SD		
THEORY	2.75	.383	2.74	.350	.75	0.456
PRACTICE	3.15	.485	3.13	.470	.95	0.344

Table 4: The result of the instructors' opinion toward teaching-learning condition from questionnaire and interview (N=11).

METHOD CATEGORY	QUESTIONNAIRE		INTERVIEW		T-TEST	P-VALUE
	\bar{X}	SD	\bar{X}	SD		
THEORY	2.88	.183	2.85	.177	1.49	0.167
PRACTICE	3.61	.340	3.59	.346	.67	0.518

Table 5: P-values resulting from statistical test about the actual learning experience in field practice received by students.

ACTIVITIES	P-VALUE BETWEEN QUESTIONNAIRE & INTERVIEW
1. Maternal and Child Health	0.324
2. Immunization	0.090
3. Family Planning	0.594
4. School Health	0.400
5. Nutrition	0.784
6. PHC	0.341
7. Health Education	0.483

Table 6: P-values resulting from statistical test about the actual learning experience in field practice provided by instructors.

ACTIVITIES	P-VALUE BETWEEN QUESTIONNAIRE & INTERVIEW
1. Maternal and Child Health	0.341
2. Immunization	1.000
3. Family Planning	1.000
4. School Health	0.207
5. Nutrition	0.082
6. PHC	1.000
7. Health Education	0.798

The comparison between questionnaire and interview revealed no significant differences in any of the interview items between the two methods. This indicates that information from the questionnaire is reliable. However, generally, more information could be obtained from the interview. The information was useful for suggesting further agenda for action.

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