



CHAPTER III

THE STUDY SAMPLE

In most research studies, it is not possible to collect data from every subject relevant to the study. Data is received from a some fractional part of all subjects. Sampling is an indispensable step in the research process. A sample is a subset of the population. The process of selecting the fractional part is called sampling, Fox, J.D (1974) and Pilot, D (1983). The target population is the entire specified aggregate of cases about which the researcher has to make generalizations. The study sample represents the entire population from which it is drawn.

3.1 TARGET POPULATION.

The target population is the total group of persons that meets the designated set of criteria established by the investigator. The investigator wants to be able to apply the results of the study to this group. In this study, the target population were the second and third year certificate level nursing students in all the seven nursing campuses in Nepal in 1991.

3.2 THE SAMPLE

The study sample was drawn from the target population. The study sample included certificate level nursing students. The study sample are students in third and second year nursing education programmes in the academic year 1991.

All the certificate level nursing campuses are in table 3.1.

Table 3.1

Nursing Campus.	Place	Region
Maharajgunj campus	Kathmandu	Central region
Lalitpur campus	Lalitpur	Central region.
Bir Hospital campus	Kathmandu	Central region.
Birgung campus	Birgung	Central region.
Pokhara campus	Pokhara	Western region.
Biratnagar	Biratnagar	Eastern region.
Nepalgung campus	Nepalgung	Mid western region.

3.3 ELIGIBILITY CRITERIA

The following eligibility criteria are applied to each subject in this study.

3.3.1 INCLUSION CRITERIA

Nursing students second and third year who are willing to participate in this study after learning the objective of the study.

3.3.2 EXCLUSION CRITERIA

First year nursing students. Because this study intends to know the student's academic achievement, and first year students have not had examinations yet, they are excluded from the sample.

3.4 SAMPLING TECHNIQUE

Simple random sampling technique was used in this study. Simple random sampling is the basic probability design that gives each subject in the population an equal chance of being chosen. A scientifically chosen sample should give data from which it is possible to generalize, Seaman,C (1987). The second and third year students were chosen from all nursing campuses. Then a number was assigned to each subject in the population. The study sample was divided into two parts, odd numbers and even numbers. All students who got even numbers, were chosen for the study.

3.5 MINIMIZATION OF SAMPLING BIAS

Bias may be defined as a systematic difference between a population, or true value or corresponding value taken from the population. In the random sampling technique, all numbers of the population have an equal and independent chance to be involved, so there may not be sampling bias.

3.6 SAMPLE SIZE.

Adequate sample size is important to make a study reliable. Research results with too small a sample size can not give valid answers to our questions. However, larger samples are better than smaller ones regardless of the size and target population. The large sample statistics involve small sampling error, greater reliability, and increase the power of a statistical test. From a sample size calculation total of 222, 10% was added, resulting in 244 required subjects. To reduce sampling error; this number was increased to 250. It mean that 50% were represented out of 500 total population. It is known that larger sample is very useful but limited resources and time make it impossible to study a whole population. The sample consisted of 250 certificate level second and third

year students from all the nursing campuses in 1991. The number of the subjects receiving questionnaires are shown in the following table 3.2.

Table 3.2

Nursing Campus.	2nd year student	3rd year student
Maharajgunj	40	40
Lalitpur	20	20
Bir Hospital	15	-
Birgung	15	15
Biratnagar	15	15
Nepalgung	-	15
Fokhara	20	20
Total	125	125

There were no third year students in Bir Hospital Campus. Bir Hospital Campus was started in 1989. In Nepalgung Campus there were no second year students as they didn't take any admissions in 1989.

3.7 SAMPLE SIZE CALCULATION

The sample calculation is necessary to make the study more reliable. Accurate sample size calculation gives proper results of data. The level of significance was set at .05 in this study. This is acceptable error of the study.

In this study, sample size was calculated by applying the formula suggested by Taroyamane (1970).

$$\begin{aligned}
 n &= \frac{N}{1 + N e^2} \quad (Z = 0.05) \\
 &= \frac{500}{1 + \{500 (0.05)\}} \\
 &= \frac{500}{1 + 1.25} \\
 &= \frac{500}{2.25} = \text{Total } 222.
 \end{aligned}$$

Total sample (222 + 10% add). Required sample 244.

Remarks.

n = Sample size.

N = Number of population.

e = Acceptable error (alpha error z 5%) is acceptable error of this study.

3.8. ETHICAL CONSIDERATION

The consideration for ethics is important in every research project. Every human being maintains his/her own values and rights in the study. A research study involves both values and ethics. Ethically, a study must emphasize more good than harm. In this

study, consideration of ethics are divided into two parts. The evaluation of risks and benefits and the protection of subjects.

3.8.1. RISKS AND BENEFITS

This study is a descriptive correlation. According to the nature of this study it is not harmful for the subjects or campuses. The main purpose of this study is to determine the average level of interpersonal relationship between teachers and students and the components of that relationship which maybe related to, or associated with the students' academic achievement.

The result of this study is expected to be beneficial for the subjects as well as campuses in terms of improving interpersonal relationships between teachers and students. It may benefit by improving the learning environment. If there is a good relationship between teacher and student, the student will be happy. This may help in the all a round development of students. It will help the student's development of intelligence, curiosity, interpersonal skills, and enhance a clear idea of personal and career goals. The students' opinions and suggestions maybe useful for building up a relationship. It will

be helpful to teachers in changing their behaviour when dealing with students. The components of the relationship will be useful after knowing the significance of their association with student's academic achievement. It may help improve relationships in different campuses. The findings of the study may be useful for further study in interpersonal relationships.

There are some possible risks of this study. The main risk of the study was that some campuses, as well as subjects, might not like to expose their scores. This is especially so for subjects who had obtained low scores. Therefore, permission was taken before collecting record of scores. The investigator has to maintain the confidentiality of the information obtained. This study did not encounter this problem.

3.8.2. PROTECTION OF SUBJECTS

Each individual had his/her own right to participate in the study. The subjects were chosen randomly. If they did not want to participate, they could refuse to participate in the study. Mutual understanding between investigator and subject should be essential. The main procedure of this study was a self administered questionnaire. The investigator

explained the objectives of the study and benefits of the study to each subject before handling them questionnaire. Clear written and verbal instruction was given before distributing the questionnaire. The questionnaires were distributed anonymously. Subjects did not need to write their names on the questionnaire. They wrote their answers freely and honestly. To maintain confidentiality, the data was coded with numbers instead of names. Records with names correlated with their code numbers were kept a different location. On the 3rd part of the questionnaire, data was gathered from the student's personal records for cross check. To guarantee maintenance of confidentiality, it was made clear who would be responsible for copying the records. Clearance was obtained from the campus chief. They conformed that data would not disclose the names of subjects even though they were needed for recording. The study report, including results was provided to concerned people. In summary, this study had no ethical problems.