

## CHAPTER 3

### METHODOLOGY

#### 3.1 Introduction

The chapter will discuss the procedure of data gathering on the role and effectiveness of teleconferencing at Yayasan Pelajaran Mara. Thus, the chapter will focus on the research design, the sample of the survey, instrumentation, administration of questions and analysis of data.

#### 3.2 The Sample

The survey sample consists of 38 Civil, Mechanical and Electrical Engineering distant students at Yayasan Pelajaran Mara. The researcher intended to choose all the first and second year Civil, Electrical and Mechanical Engineering students at Yayasan Pelajaran Mara. However, only 38 students turned up on the particular day when the researcher conducted the survey.

Table 3.1 shows the distribution of the respondents by courses. Out of the 38 respondents 45% ( $n=17$ ) respondents are doing the Electrical Engineering programme while 24% are in Civil Engineering programme. The remaining 31% of the respondents are Mechanical Engineering students.

Table 3.1: Distribution of the Respondents by Courses

Course	Number (n=38)	Percentage (%)
Civil Engineering	9	24
Mechanical Engineering	12	31
Electrical Engineering	17	45
Total	38	100

### 3.3 Instrumentation

This research uses two types of instruments developed by the researcher, comprises an Interview Schedule (Appendix A) and a Student Questionnaire (Appendix B). The Interview Schedule was prepared to assist data gathering during interviews with the personnel at the University of Malaya and Yayasan Pelajaran Mara. The interview will be conducted with an officer in the Centre for Distance Education at the University of Malaya and with the coordinator of the distance education learning site at Yayasan Pelajaran Mara.

The instrument used for collecting data in the survey is a Student Questionnaire (Appendix B). The researcher developed this instrument through readings of sources such as Robson (1996), Holmberg (1995), Moore (1995), Willis (1994), Nik Norulaini et al. (1994), Matthewson (1991) and Bollinger, Danou and Maddox (1989).

The questionnaire is divided into 2 categories:

Part I            Personal Information of the Sample

Part II           The Effectiveness of Teleconferencing

#### a) Personal Information of the Sample

This part of the Students Questionnaire has four objective questions. The respondents were asked to tick (✓) in the relevant box. The purpose of the questionnaire is to collect personal information about the respondents. They are as below:

- a) Age group
- b) Gender
- c) Ethnic origin
- d) Educational qualifications

#### b) The Effectiveness of Teleconferencing

This part of the questionnaire has five questions which will enable the researcher to gather information about the Yayasan Pelajaran Mara students opinion on the effectiveness of teleconferencing. Out of the five questions, four are close ended Likert Scale questions, while one question is open ended.

The close ended questions were designed to seek clear and appropriate information about teleconferencing at the Yayasan Pelajaran Mara. Question 5, 6 and 7 use the Likert Scale and the respondents have to circle the appropriate response according to the particular response categories:

- |            |                           |
|------------|---------------------------|
| Question 5 | 1 = very satisfied        |
|            | 2 = satisfied             |
|            | 3 = slightly dissatisfied |
|            | 4 = dissatisfied          |

- Question 6      1 = strongly disagree  
                     2 = slightly disagree  
                     3 = dissatisfied  
                     4 = unsure
- Question 7      1 = strongly agree  
                     2 = agree  
                     3 = slightly disagree  
                     4 = disagree

### 3.4 Reliability of the Instruments

The reliability of the Student Questionnaire and the Interview questions are assured by the use of simple and direct questions. Standardized procedures were used in the administration of the questionnaire.

### 3.5 Administration of the Questionnaire

Permission to carry out the study was obtained from the Faculty of Education, University of Malaya. The researcher conducted a survey among the Civil, Mechanical and Electrical Engineering students at the Yayasan Pelajaran Mara. The researcher visited the Yayasan Pelajaran Mara to distribute the questionnaire to all the Civil, Mechanical and Electrical Engineering students who attended classes on the day that was fixed by the researcher in advance. The researcher conducted the survey personally to obtain a high response rate from the students.

### 3.6 Interview Schedule

The interview will be conducted with the person in charge at the Centre for Distance Education, University of Malaya and with the coordinator of distance education courses at the Yayasan Pelajaran Mara.

The interviews will be conducted personally by the researcher to gather reliable information from the above personnel. The interviews will be based on a list of scheduled interview questions that were prepared earlier (Appendix A).

### 3.7 Analysis of Data

The Statistical Package for the Social Sciences (SPSS) will be used for coding and analyzing the data collected in the survey. The information gathered will be summarized descriptively using frequency counts and percentages and the findings will be reported in tabular form. The analysis of the findings will be reported according to frequency counts, percentages, charts and histograms.