

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

This chapter reports the findings of the survey which was conducted among the distance learning Engineering students at the Yayasan Pelajaran Mara. The findings are reported according to: (a) demographical data of the distant students at the Yayasan Pelajaran Mara and (b) the data collected regarding the effectiveness of teleconferencing at Yayasan Pelajaran Mara.

4.2 Demographical Data of the Distant Students at the Yayasan Pelajaran Mara

The survey consists of 38 respondents. These distant students are in their first and second year degree courses in Engineering at the Yayasan Pelajaran Mara. The background information of the respondents was gathered from Part 1 of the Student Questionnaire.

4.2.1 Gender

The majority of the respondents are males, as the sample was not obtained from a population stratified by gender. The male students are 97.4% of

the population or 37 students. Only 1 female student (2.6%) responded to this survey as shown in Table 4.1.

Table 4.1: Distribution of Respondents by Gender

Gender	Number (n=38)	Percentage (%)
Male	37	97.4
Female	1	2.6
Total	38	100

4.2.2 Age

On the whole, 65.8% of the distant students are in the age group of 20-24 years (n=25). A further 23.7% or 9 distant students are 25-29 years old while 4 distant students (10.5%) are above 30 years of age. However, there are no respondents below 20 years in this survey. Table 4.2 shows the distribution of respondents by age.

Table 4.2: Distribution of Respondents by Age

Age (years)	Number (n=38)	Percentage (%)
20-24	25	65.8
25-29	9	23.7
above 30	4	10.5
Total	38	100.0

4.2.3 Educational Qualifications

Figure 4.1 shows the distribution of the respondents by educational qualifications. Out of the 38 respondents 55.2% (n=21) are with STPM certificates. On the other hand, over a quarter or 26.3% (n=10) of the respondents have their Diploma. However, 2 respondents have their degree.

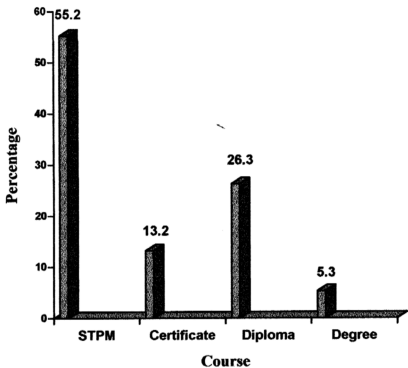


Figure 4.1: Histogram of the Distribution of Respondents by Educational Qualifications

4.2.4 Ethnic Origin

Figure 4.2 shows the distribution of respondents by ethnic origin. A total of 76.3% (n=29) respondents are of Chinese origin while 21.1% respondents are Indians (n=8). The remaining 2.6% (n=1) is a Malay respondent.

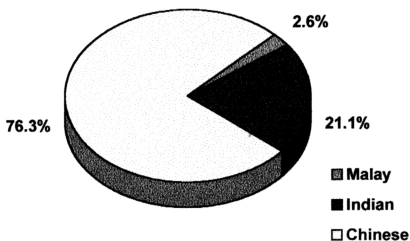


Figure 4.2: Distribution of Respondents by Ethnic Origin

4.3 The Effectiveness of Teleconferencing

Data regarding the effectiveness of teleconferencing were gathered from Part II in the Student Questionnaire. The findings of this section are reported in Tables 4.3, 4.4, 4.5 and 4.6.

4.3.1 Satisfaction with Selected Aspects of Teleconferencing

Table 4.3 indicates the degree of satisfaction with selected aspects of teleconferencing among the respondents in this study.

Over half or 55.3% ($n=21$) of the respondents in this study seem to be satisfied with the contents of lectures in teleconferencing. However, 44.7% ($n=17$) of the respondents are dissatisfied with the contents that are taught via teleconferencing.

The majority of the respondents or 71.1% (n=27) are dissatisfied with the preparation by the lecturers. A small proportion of the respondents or 28.9% (n=11) seem to be satisfied with the preparation by the lecturers.

Table 4.3 also shows that most of the students or 76.3% are dissatisfied with their level of interaction with the lecturer. The remaining 23.7% (n=9) of the respondents are satisfied with the level of interaction with their lecturer.

On the whole, 84.2% (n=32) of the respondents are dissatisfied with the level of interaction with peers at other learning sites. The remaining 15.8% of the respondents indicate that they are satisfied with the level of interaction with peers at other learning sites.

4.3.2 Dissatisfaction with Selected Aspects of Teleconferencing.

The level of dissatisfaction with teleconferencing was asked in Question 6 in the Student Questionnaire and shown in Table 4.4.

Generally, 84.2% of the distant students at Yayasan Pelajaran Mara reported their dissatisfaction with the technical problems during transmission of lectures. Among these students 34.2% (n=13) are dissatisfied and 28.9% (n=11) are slightly dissatisfied with the technical problems that occur during transmission of lectures.

Out of the 38 respondents 47.3% (n=18) are slightly dissatisfied with the unclear visual images during teleconferencing. On the contrary, 13.2% (n=5) respondents are very dissatisfied with the problem of unclear visual images during teleconferencing.

Table 4.4: Level of Dissatisfaction with Aspects of Teleconferencing.

Aspects of Teleconferencing	Very dissatisfied	Slightly dissatisfied	Dissatisfied	Unsure
Technical problems during transmission of lecture	8 (21.1)	11 (28.9)	13 (34.2)	6 (15.8)
Unclear visual images	5 (13.2)	18 (47.3)	10 (26.3)	5 (13.2)
Inability to see the lecturer during the presentation	9 (23.7)	11 (28.9)	15 (39.5)	3 (7.9)
Difficulty concentrating and taking notes during lectures	8 (21.1)	17 (44.7)	12 (31.6)	1 (2.6)

Note: Figures in parentheses represent percentages.

Table 4.4 also shows 39.5% of the respondents are dissatisfied with the aspect of the inability to see the lecturer during the presentation. A further 28.9% of the respondents said that they are slightly dissatisfied with their inability to see the lecturer during lectures via teleconferencing. A small proportion or 7.9% of the respondents (n=3) are unsure of their answer.

Overall, 44.7% of the respondents are slightly dissatisfied on the difficulty of concentrating and taking notes during the lectures. A further 21.1% are very dissatisfied and they claim that it is difficult to concentrate and take notes during lectures.

4.3.3 Effects of Teleconferencing on Student Learning

Table 4.5 shows the effects of teleconferencing on distant students learning at the Yayasan Pelajaran Mara. The findings in this section are reported according to the effects on student learning based on the student questionnaire.

More than half or 71% (n=27) of the respondents disagree that teleconferencing increases their need to concentrate during lectures. On the contrary, 29% (n=11) of the respondents agree to the fact that teleconferencing makes them concentrate more during lectures.

Table 4.5 indicates 52.6% (n=20) of the respondents in this study agree that they take more notes during teleconferencing. On the other hand, 47.4% (n=18) disagree with the claim that teleconferencing makes them take more notes during lectures via teleconferencing.

Table 4.5: The Effects of Teleconferencing on Student Learning

Effect of teleconferencing on student learning	Strongly agree	Agree	Slightly disagree	Disagree
It increases my need to concentrate during the lecture	2 (5.3)	9 (23.7)	14 (36.8)	13 (34.2)
It requires more note taking during the lecture	5 (13.2)	15 (39.4)	13 (34.2)	5 (13.2)
It is difficult for me to communicate with the lecturers during the lecture	12 (31.6)	15 (39.5)	7 (18.4)	4 (10.5)
It increases interaction with peers at other learning sites	5 (13.2)	3 (7.9)	14 (36.8)	16 (42.1)

Note: Figures in parentheses represent percentages.

However, the majority of the respondents or 71.1% (n=27) indicate they have difficulty in communicating with their lecturers during the transmission of lectures. On the other hand, 28.9% (n=11) of the respondents did not agree that communication with the lecturers is difficult during lectures via teleconferencing.

Most of the respondents or 78.9% (n=30) disagree with the fact that teleconferencing increases their interaction with peers at other learning sites. However, 21.1% (n= 8) indicate teleconferencing increases the level of interaction with peers at other learning sites.

4.3.4 Suggestions to Improve Teaching via Teleconferencing

A variety of suggestions was given by the respondents to Question 8 in the Student Questionnaire. Table 4.6 shows the suggestions to improve teaching via teleconferencing.

Most of the respondents (n=18) reported that the lecturers should provide lecture notes in advance before the teleconferencing session. Among the 38 respondents, eight respondents stated that one of the cameras should be focused on the lecturer during teleconferencing. This shows that the distant students would like to see their lecturers during lectures rather than just view the lecture notes.

Table 4.6: Suggestions to Improve Teaching via Teleconferencing

Suggestions to Improve Teaching via Teleconferencing	Number (n=38)
Provide notes earlier	18
Focus one camera on the lecturer	8
Inform changes in timetable earlier	3
Give equal attention to the Yayasan Pelajaran Mara students	3
Improve audio system	2
Increase interaction with distant students	2
Submit assignments at the Yayasan Pelajaran Mara	2
Give separate lectures to distant students	2
Increase facilities for distant students	2
Provide tutorials at Yayasan Pelajaran Mara	2
Lecturers must be trained to use equipment	1
Lecturers should meet students at Yayasan Pelajaran Mara once a week	1
Lecturers should avoid presenting handwritten notes during lectures	1
Improve visual transmissions	1

The Table 4.6 also indicates the respondents wish to be informed about the changes in timetables earlier (n=3) and they want the lecturers to give equal attention to them just like their counterparts at the University of Malaya (n=3).