

## CHAPTER 6

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 Introduction

Distance education via teleconferencing is used to provide knowledge to distant students through spontaneous interaction. The previous chapter has provided much information on the role of teleconferencing at the Yayasan Pelajaran Mara. The purpose of Chapter 6 therefore, is to summarize and conclude the role of teleconferencing at the Yayasan Pelajaran Mara. Apart from that, some relevant recommendations are made at the end of this chapter.

#### 6.2 Summary

Distance education is an alternative in the educational setting and it is capable of providing knowledge to a larger number of students. It also overcomes the lack of trained instructors in educational institutions. As one of the various instructional delivery media in distance education, teleconferencing has contributed towards a lively interaction between teacher and students. The University of Malaya is one of the higher institutions in Malaysia that is offering distance education to its distant students at the Yayasan Pelajaran Mara via teleconferencing.

The concern of this study was to gather information on the role of teleconferencing through review of available literature on teleconferencing. The role of teleconferencing at the Yayasan Pelajaran Mara was determined by conducting interviews with the personnel involved with teleconferencing at the University of Malaya and with the coordinator of the distance education programmes at the Yayasan Pelajaran Mara. In addition, this study employed a survey research methodology to investigate the effectiveness of teleconferencing at the Yayasan Pelajaran Mara.

In order to gather information on the role of teleconferencing at the Yayasan Pelajaran Mara, the study:

- i. Reviewed the available literature on teleconferencing in selected distance education institutions.
- ii. Reviewed the role of teleconferencing at the Yayasan Pelajaran Mara in the light of the review of related literature.
- iii. Conducted a survey to investigate the effectiveness of teleconferencing at Yayasan Pelajaran Mara.

The instruments used in the study include a Scheduled Interview and a Student Questionnaire prepared by the researcher. A total of 38 first and second year engineering degree course students were the respondents of this survey. These respondents are from the Civil, Electrical and Mechanical Engineering courses at the Yayasan Pelajaran Mara.

The data were analyzed using the Statistical Package for the Social Sciences (SPSS). The findings of the Student Questionnaire were analyzed and reported using frequency counts, percentages, a histogram and a pie-chart.

Telekom Malaysia Berhad and the University of Malaya play a vital role in conducting teleconferencing programmes at the Yayasan Pelajaran Mara. The findings show that the University of Malaya is offering distance courses such as Diploma in Computer Science, Bachelor of Computer Science, Bachelor of Engineering and Bachelor of Malay Studies to the distant students at the Yayasan Pelajaran Mara.

However, the distant students of the Engineering courses still have to attend tutorials and laboratory sessions at the University of Malaya. Therefore, these students face problems in travelling to the University of Malaya for their tutorials or laboratory sessions.

According to Willis (1994) and Holmberg (1995), teleconferencing enables interaction between the lecturer and the distant students at different learning sites. However, the students at the Yayasan Pelajaran Mara are not satisfied with the extent of interaction with their lecturers and also with their peers at other learning sites. Furthermore, the Yayasan Pelajaran Mara does not have enough facilities for the distant students. For instance, there is a shortage of reference books for the Computer Science and Engineering students. On top of this, no counselling service is available for the distant students at the Yayasan Pelajaran Mara.

The distant students also want their lecture notes in advance before the lesson. These printed materials are useful for the distant students as a guidance and helps them to develop their learning styles (Parrot, 1995, p. 1).

### 6.3 Conclusions

Teaching and learning in a teleconferencing setting has to be well planned and organized. The Yayasan Pelajaran Mara as one of the receiving sites of the University of Malaya's teleconferencing programme, provides learning opportunities to a larger number of distant students (Holmberg, 1985, p. 5). Furthermore, by enrolling for the distance courses these students will be able to pursue their tertiary education in one of the well known universities in Malaysia.

The University of Malaya as the parent university is also able to overcome the shortage of lecturers in certain fields by offering distance courses. A single lecturer can teach many students at different learning sites through teleconferencing. Apart from this, the problem of limited space and number of students can be solved by providing teleconferencing distance courses (Anshari, 1992; Williams, 1997; Garrison, 1990). Consequently, teleconferencing encourages students at different learning sites to 'explore massive knowledge stores' (Hawkrige, 1995, p. 3) in an interactive environment.

The evolution of communications technology has enabled two-way communication (Holmberg, 1995; Moore, 1996) and it has also catered for lively and spontaneous interaction in distance education. The Telekom Malaysia Berhad has provided teleconferencing equipment and expertise to the distant students at the Yayasan Pelajaran Mara. However, Reid (1995, p. 265) states:

Technology is wonderful when it enhances learning; when it doesn't it can turn a learner off for life. Careful choice must be made about what technology is implemented, how it will be

introduced to learners, and what part it will play in instruction or support.

The distant students still have to attend tutorials and laboratory sessions at the parent university. This has become a major problem for distant students at the Yayasan Pelajaran Mara, since transportation is not provided for them.

Moreover, the distant students are also not able to interact with their lecturer during the transmission and thus they feel left out during the lectures (Dekker, Kelly & Sharma, 1988, p. 82). These students want their lecturers to pay more attention to them. As a result, they have requested for separate lectures to be given to them without involving the on-campus students.

The study also found that there is less interaction among students at different learning sites. The lecturers and the institutions involved in teleconferencing must emphasize more on the pedagogical aspects of teaching distant students through more lively lectures.

Apart from that, the request to see their lecturers during teleconferencing must be fulfilled by focusing a camera on the lecturer. Lecturers can create good rapport with the distant students if they visit the Yayasan Pelajaran Mara occasionally to exchange opinions and discuss problems with the students.

The lecturers' preparation is the most important aspect in quality teleconferencing (Husmann & Miller, 1992, p. 79). A smooth transmission is made possible when the lecturers are well prepared with the lecture content, use of proper learning aids and apply various pedagogical teaching techniques

during lectures. According to Gottchalk (1995, p. 4):

Teaching and learning at a distance is demanding. However, learning will be more meaningful and 'deeper' for distant students, if the students and their instructor share responsibility for developing learning goals and objectives; actively interacting with class members; promoting reflection on experience; relating new information to examples that make sense to learners;...

In addition, distant students will be more interested and can be prepared in advance if they are informed earlier on the topics which will be taught in the next lecture. This will reduce truancy among distant students.

Students support such as counselling services is important in distance education. Therefore, the Yayasan Pelajaran Mara must set up a counselling centre to help its distant students. In addition, the University of Malaya must make sure that all their distant students get equal opportunities to use their facilities. The University of Malaya must provide extra learning materials and reference books to the library at the Yayasan Pelajaran Mara.

#### 6.4 Recommendations

The findings of the study show that the University of Malaya has succeeded in providing teleconferencing to its distant students at the Yayasan Pelajaran Mara. The courses offered at Yayasan Pelajaran Mara are courses that require face to face interaction and by using teleconferencing, these courses are conducted without obstacles. According to Robson (1996, p. 330):

The teaching and learning environment is found to be flexible and can be tailored to suit individual needs although the curriculum itself is fixed.

In relation to the above statement, there are some aspects in teleconferencing at the Yayasan Pelajaran Mara that need to be improved. Below are some

suggestions:

- The University of Malaya must arrange for tutorial and laboratory sessions at the Yayasan Pelajaran Mara. This may reduce the students' transportation problems and travelling time.
- The Distance Education Centre at the University of Malaya must organize and make sure that the lecturers are provided with the knowledge on how to use teleconferencing equipment and to conduct distance courses.
- The University of Malaya should provide more reference materials to the library at the Yayasan Pelajaran Mara so that the distant students do not have to travel to the University to get their study materials.
- The University of Malaya must arrange for counsellors to be present at the Yayasan Pelajaran Mara on certain days.

This study covers only distant students at the Yayasan Pelajaran Mara therefore, the results in the study may not be generalisable to all the University Malaya distant students. Further research in future, would provide more information on distant students at different learning sites.

Finally, further studies should be conducted among distant students at other learning sites to study the extent of interaction among distant students at different learning sites and between lecturer and students.