TEACHING MATHEMATICS USING BLENDED LEARNING MODEL:

A CASE STUDY IN UiTM SARAWAK CAMPUS

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The Head,
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Dear Professor,

FINAL RESEACH REPORT " TEACHING MATHEMATICS USING BLENDED LEARNING MODEL: A CASE STUDY IN UiTM SARAWAK CAMPUS "

With reference to above , enclosed are three copies of the final Research Report entitled, "Teaching Mathematics Using Blended Learning Model: A Case Study in UiTM Sarawak Campus"

Thank you.

Yours truly,

Ling Siew Eng
Leader
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ABSTRACT

This paper aims to determine the satisfaction level of the Pre-diploma (Science) students in using the blended learning model - a combination of face-to-face and online learning in MAT081 for the academic session of July – November 1995. In addition, it also examines the role of students and instructors in this learning mode. The preferred mix of face-to-face and online learning components was identified as well.

MAT 081 is a Basic Mathematics course with duration of 14 weeks with 5 study hours per week. Two groups of MAT 081 were offered in the semester of July – November 1995 and the students attended 4 hours of face-to-face learning and 1 hour of online learning per week in this blended learning mode.

This study employed a mixed method design in which quantitative data was first collected through survey and followed by the qualitative data which would help to refine and explain the general picture obtained through quantitative data. A census survey was employed in the quantitative survey, while the students were stratified into 3 categories namely Good, Average and Poor, before two were selected from each category to participate in the interview.

The seven components identified to determine the satisfaction level of the students on using blended learning model were adapted from a previous research done by Hisham, Campton and FitsGerald (2004). They were the Content, Learner Interface, Feedback and Assessemnt, Personalisation, Learning Community, Access and Overall Satisfaction.

The results showed that the students were satisfied with all components except for the component of Access. Basically, the students were less satisfied with this component

CHAPTER 1

INTRODUCTION

1.1   Background of the study

Traditional face-to-face teaching (Instructor-led era) has been introduced for more than 3000 years ago (Singh & Robinson, 2001). In the traditional face-to-face classrooms, the teacher, professor or subject-matter can change the pace and direction of a class and answer students' questions spontaneously (Bersin, 2004). This type of teaching and learning process is conducted in a synchronous environment where teachers and students must be present in the same place at the same time.

Adapting a technology-based approach in teaching and learning has started since 1960s. In the 1960s and 1970s, the first technology-based training approach came with minicomputer and mainframe. These systems had the benefits of reaching hundreds to thousands of people (Bersin, 2004). In the early 1980s, the arrival of the first personal computer (PC) rushed educators and trainers into PC multimedia technologies (Bersin, 2004). Between 1984-1993, we entered a new era, the multimedia era. The main development technology in this era was Windows 3.1, Macintosh and CD ROM (Bersin, 2004) .

With the advancement of Internet and World Wide Web (WWW) technology during the late 1990's, e-learning has become a popular mode of teaching and learning process. In the multimedia era, some educators had presented courses in a CD ROMs format. In the late 1990's, the advancement of web page had propelled the multimedia era to a higher technological era: web infancy era (Bersin, 2004). In 1994, the Internet technology generated the first wave of e-learning (Ron, 2001). In the mid-2001, website design, rich streaming media high bandwidth generated the second wave of e-learning which helped us to realize