



**The Practice of e-learning among the Education
Programme students in Unimas**

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ABSTRACT

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The rapid growth in the use of learning technologies , particularly the use of the e-learning offered many learning opportunities to the students to enhance their learning environment at the tertiary level. The purpose of the study is to investigate the students attitudes and learning styles in practising e-learning in a blended learning environment. The study was conducted among 276 undergraduate Education Programme students in Unimas. The instrument used in this study was a self- developed questionnaire using closed-ended and open-ended items to investigate the students attitudes and learning styles in practising e-learning. The results revealed that the most preferable attitudes in practising the e-learning is the affective attitude as practising e-learning involved the student's feelings which influence behavior towards the attitude object. Results also revealed that the most frequent learning styles that had been practiced among the students was the Pragmatist learning style. This showed the students at the tertiary level were aware and responsible with their own learning. The overall findings showed that attitudes and learning styles played an important role in stimulating students at the higher learning institution in practising e-learning in a blended learning environment.

ABSTRAK

Emily Engbee

Kepesatan penggunaan pembelajaran berteraskan teknologi terutamanya penggunaan e-learning telah memperluaskan peluang-peluang pembelajaran kepada para pelajar bagi meyesuaikan suasana pembelajaran mereka di peringkat universiti. Tujuan kajian ini adalah untuk mengenalpasti sikap dan gaya pembelajaran pelajar-pelajar ketika menggunakan e-learning yang diterapkan dalam pembelajaran berkonsepkan 'blended'. Seramai 276 pelajar jurusan pendidikan di Unimas telah terlibat dalam kajian ini. Bentuk instrumen yang digunakan adalah kajian soal-selidik yakni soalan kajian selidik ini telah diolah sendiri oleh pengkaji bagi mengenalpasti sikap dan gaya pembelajaran pelajar semasa menggunakan e-learning. Keputusan kajian menunjukkan sikap 'Affective' merupakan sikap yang mendapat persetujuan ramai kerana sikap ini melibatkan perasaan yang akan mendorong pelajar itu untuk menyukai sesuatu. Manakala dari segi gaya pembelajaran pula, menunjukkan gaya pembelajaran berbentuk 'Pragmatist' menjadi pilihan pelajar. Ini menunjukkan pelajar di peringkat universiti memiliki sikap peka dan bertanggungjawab kepada pembelajaran mereka. Secara keseluruhannya, sikap dan gaya pembelajaran memainkan peranan penting dalam meransang pelajar-pelajar mengamalkan e-learning di peringkat universiti terutama dalam konteks pembelajaran berkonsepkan 'blended'.

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ABBREVIATIONS

ESL	English Second Language
OUM	Open University
PKPG	Program Khas Pensiswazahan Guru
TESL	Teaching English as a Second Language
UNIMAS	Universti Malaysia Sarawak
UNITAR	Universiti Tun Abdul Razak

CHAPTER ONE

INTRODUCTION

1.0 Chapter Overview

This chapter discusses the transition of education in the use of information and communication technology (ICT). The use of e-learning at a tertiary level is a concern on the effect of the students' attitudes and learning styles in practising the e-learning in their learning. The importance of e-learning is also discussed in this chapter. This shows the purpose of practising e-learning in the context of the tertiary level.

1.1 Introduction

During the 21st century, there has been an exponential growth in the use of information communication and technology (ICT), which has made pervasive impacts to both the society and our daily lives. Malaysia's vision of achieving full developed nation status by 2020 and of becoming a competitive player in the global economy has made information and communication technologies (ICT) an imperative in transitioning the country from a production to a knowledge-based economy (K-economy). Therefore education plays a crucial role in the development of socio-politics and economy for the country. The uses of information and communication technology (ICT) will not only enable the students to learn but also to enhance their understanding of the importance of education to our country.

Zalina (2002) points out that the use of Internet in teaching and learning provides opportunities for teachers and students in exploring and searching for information and references. They could easily access an almost limitless variety of resources and share information with their peers any time and anywhere since electronic communication compose no boundaries of time or geographical location to the development of the socio-politics and economy for the country. Therefore, the integration of ICT into teaching and learning need competencies and commitment from the teachers consistently. Moreover, teacher who integrates technology in their teaching and learning process must add value to their activities to ensure the quality of the lesson (Williams, 2000).

1.2 Background of the study

Today, universities are taking up the challenge by updating and upgrading the content of their programs. e-learning becomes important tool as the program is utilizing the latest technologies to improve the delivery systems. The use of e-learning in teaching and learning provides opportunity for lecturers and students in exploring and searching for information and references. They could easily access an almost limitless variety of resources and share information with their peers any time, anywhere since electronic communication compose no boundaries of time or geographical location (Zalina , 2002).

The education system in this digital age has benefits in exploring and experimenting new ways of teaching and learning. It is successfully achieved as universities learning system provide greater mobility and flexibility to their students in terms of commission and placement (Malaysia International Conference & Exhibition on Electronic Learning, 2000).

In Malaysia, due to the increase and demand for the higher education, many private and public universities planned the e-learning. The first two universities in the country that fully implement the e-learning to their degrees programs are the

Universiti Tun Abd Razak (UNITAR) in 1998 and the Open University of Malaysia (OUM) in 2000. These strategies can enhance the use of ICT in the e-learning. The availability of e-learning in the higher institutions of learning is to provide the various forms of technology to support or supplement the delivery of traditional learning in the university. (Country report on-learning in Malaysia , 2003)

Although higher institutions in Malaysia have implement e-learning for their university programmes, the traditional way of learning that is face to face learning is still available to support the learning activities at the higher institutions. The combination of face-to-face classroom instruction and e-learning program is called blended learning. According to Whitelock and Jelfs (2003), blended learning is the integrated combination of traditional learning with web-based online approaches blended learning. However, that will depend on the acceptability and feasibility of the teaching environment, the curriculum design and the availability of alternatives (Macdonald, 2006). Therefore, blended learning program should be viewed as a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced the active learning of the online environment (Dziuban, Hartman and Moskal, 2004).

In blended learning program, it comprises of multiple delivery media that are designed to complement each other and promote learning and application-learned behavior. This includes the mixes of various event-based activities, including face-to-face classrooms, live e-learning and self-paced learning (Singh, 2003). In higher institution learning, the implementation of blended learning requires the students to incur more responsibility with their own learning. Furthermore, blended learning creates the synergy that fosters a climate for positive alignment of higher education (Dziuban, Hartman and Moskal, 2004).

In Unimas, e-Learning is introduced to enhance and improve the teaching-learning experience for both the lecturers and the students. However, the face to face

method is still available to create an optimum learning environment. The use of blended learning is to balance between the face to face lecture and online learning activities. In the Unimas e-learning site, students can access to resources which include the lecture notes and tutorial questions or to activities provided which are the discussion board or forum, assignment submission, e-mail, wiki and chat.

1.3 Statement of problem

e-learning has become an innovative tool for higher institution learning. This is due to the Informational Communication Technology (ICT) has a central role in maintaining the quality of higher education in Malaysia. Therefore, a growing number of public and private universities employing the e-learning methodologies to their academic program (OUM,2004). In e-learning system, it allows students to access the online materials at their own pace, anywhere and at any time. Apart from that, e-learning able to enhance the teaching and learning process as well as student can learn at their own convenience and choice. These are the reason why many higher learning institutions in Malaysia implementing the e-learning technologies to their academic programmes.

e-learning delivers valuable learning experiences to student as student can experience the use of e-learning as a flexible, fast and convenient delivery learning system. The use of the e-learning in learning will depend on the student's attitude and learning styles. In attitudes, there are three types of attitudes that need to be considered when accessing the student's practicing the e-learning in their learning which are behavioral, cognitive and affective attitudes. Whereby, learning styles will base on Kolb Learning Style Inventory (LSI) (Kolb, 1984) which are activist, pragmatist, reflector and theorist. These are two important aspects that will determine how well the student practices the e-learning in his or her learning.

The differences among each individual is need to measure in term of their attitude and learning styles. This shows whether their learning based on e-learning will provided them with benefits as what the role of e-learning should do. Besides, the differences among individual helps to show the types of attitudes and learning styles available within the education program students when practicing the e-learning. Thus, this study is intended to investigate the students' attitude and learning styles in practicing the e-learning.

1.4 Research Objectives

The research objectives of this study are as follows:

1. To investigate the student's attitudes in practising e-learning .
2. To investigate the student's learning styles in practising e-learning.

1.5 Research questions

1. What attitudes encourage students in practising e-learning?
2. What attitudes help stimulate students in practising e-learning?
3. What learning styles encourage students in practising e-learning?
4. What learning styles help stimulate students in practising e-learning?

1.6 Significance of the study

This study provides information on the students' attitude and learning styles in affecting them in practicing the e-learning in their learning. This will also show an insight to the different attitudes and learning styles of the students in practicing the e-learning. Practicing e-learning can as well engages students in the learning process, encourage independent learning skills, develop students' skills and knowledge and motivate further learning among the students (Mayes and De Freitas, 2004).

Therefore, by finding out and investigating the students' attitudes and learning styles will contribute feedback given by the respondent in measuring the practice of e-learning at the tertiary level particularly in Unimas. This feedback is crucial as it provides information on the students' attitudes and learning styles when using e-learning application for their course subjects in a blended learning environment.

The study also intend to derive an evaluation on the types of students attitudes and learning styles when practicing the e-learning in a blended learning environment. It is hoped that the findings of the study provided enable to reveal the students opinion and interest on the use of e-learning in their learning at the tertiary level.

1.7 Operational Definition of terms

1. e-learning

Rossenber (2001) defined e-learning as the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance. e-learning also defined as a training delivered on a computer which include CD-Rom, Internet or Intranet to support an individual learning or organizational performance goals (Clark, 2003). This supported by Stockley (2005) that e-learning can be considered a delivery of learning, training or education programme by electronic means to provide training, educational or learning materials. e-learning could be also defined as any technology allowing for the delivery of learning resources or communication between lecturer and students (Catherall, 2005).

In this study, e-learning is the learning access to course materials and learning which are available online in changing and establishing the roles of the activities among the students and lecturers in the teaching and learning process.

2. Attitude

According to Eagly and Chaiken (1993), attitudes is a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. Whereby Fishbein and Ajzen (1975) stated that attitude is a predisposition to respond in a certain way to a person, object, event, idea or situation. Attitude maybe described as ambivalent. Ambivalence can be assessing through the positive and negative aspects of an attitude objects separately (Bohner and Wanke, 2002).

In this study, the attitudes refer to students' manner in learning which affect their acceptance towards their course subjects. The attitudes are reflect through three aspects which are the cognitive, affective and behavioral.

3. Learning style

Learning styles is a unique collection of individual skills and preferences that affect how a student perceives, gathers, and process learning materials (Johnson and Orwig, 1998). Kolb, Rubin and McIntyre (1974) added that learning styles refers to an individual's inherited foundation, particular past life experience and the demands of the present environment that emphasizes some learning abilities over others.

Jensen (2003) defined learning styles as a preferred way of thinking , processing, and understanding information. He added that learning styles should contain a person's characteristics style of acquiring and using information in learning and solving problem. Students may as well benefit through the understanding of their own learning style by taking measures to adjust the way they acquire knowledge.

In this study, the learning styles refer to Kolb's learning styles theory which involve reflectors, activist, theorist and pragmatist learning style.

4. Blended learning

According to Whitelock & Jelfs (2003), blended learning is the integrated combination of traditional learning with web-based online approaches Blended learning. This supported by Driscoll's (2002) stated that blended learning is the combination of any form of instructional technology with face-to-face instructor-led training. Thorne (2003) describe blended learning as a way of meeting the challenge of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning. Whereby Singh and Red (2001) defined blended learning as a learning programme where more than one delivery mode is being used with the objective of optimizing the learning outcome and cost of program delivery.

In this study, blended learning refers to learning of both face to face lecture and online learning activities at the tertiary level. Blended learning also promote new dimension of teaching and learning method for both lecturers and students in this digital era.

1.8 Scope of the Study

This research study involved 276 Education Program students from Faculty of Cognitive Science and Human Development in Unimas. This study intended to investigate the students' attitudes and learning styles in practicing e-learning in their course subjects. Furthermore, this study will also cover the blended learning in the learning of e-learning in the higher institution level.

1.9 Chapter Review

This chapter emphasis on the important of e-learning to be fully implemented in the education system in the higher learning institution. Unimas has utilizes the e-learning as their support system to enhance and improve the quality of education. Therefore, in the chapter 2, the study will continue on looking the aspect of the e-learning that benefit and affect on students practicing e-learning in Unimas.

CHAPTER TWO

LITERATURE REVIEW

2.0 Chapter overview

This chapter begins by discussing the aspects of e-learning that lead to effective learning in the technology-based learning. Then, the discussion of e-learning focuses on the benefits and drawbacks in using e-learning in learning. The further discussion on e-learning will also discuss the attitude and learning styles that influence the students in practising the e-learning at the tertiary level. A discussion on previous studies related to attitudes and learning styles also provided.

2.1 e-learning

e-learning describes the use of technology for learning beyond the boundaries of physical classroom. There are different functions of e-learning namely e-learning as a means of communication, e-learning as a schedule, e-learning as a class structure and e-learning as a technology. Rossenberg (2001) defined e-learning as the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance. e-learning is also defined as instruction delivered on a computer by way of Internet or Intranet with the features that include content relevant to the learning objectives; uses instructional methods; uses media elements and builds knowledge and skills linked to individual learning goals (Clark,2003).

e-learning can turn out to be the delivery of a learning, training or education program through an electronic means in which involves the use of a computer or electronic devices (e.g. a mobile phone) to provide training, educational or learning material (Stockley, 2005). The definition of e-learning should be context-oriented rather than universal as e-learning can be used at different fields such as working fields and it is not mainly for the purpose of e-learning for education system. Nevertheless, in this context, e-learning could be defined as any technology allowing for the delivery of learning resources or communication between lecturer and students (Catherall, 2005). Based on this, e-learning becomes a unique potential instructional method due to its potential as practice with automated feedback, integration of collaboration with self-study and use of simulation to accelerate expertise (Clark, 2003).

e-learning system in e-learning programme provides tools to facilitate teaching and learning. There are few activities or approaches among the e-learning system that can be considered when working with e-learning such as the collaboration learning, synchronous communication, asynchronous communication, course-work submission and ubiquitous learning (Catherall, 2005). Hence, it is important to realise that e-learning has many definitions as its scope is not limited to or defined by one type of organization, institution or a set of people. But e-learning definitions could be classified as e-learning is any learning that is web-enabled; e-learning is a complete learning solution and e-learning which is delivering learning through amalgamation of technology (Gaurav and Nafay, 2002).

2.2 e-learning in Malaysia

e-learning in Malaysia is mostly employed via online and distance learning programs which are primarily offered at tertiary level. However e-learning in Malaysia is still at its developmental stage compared to in the west particularly the USA where many schools have adopted this advanced method as substitute to

traditional method of teaching. However, the rapid advances in ICT and easy access to the Internet and the Web had reshaped Malaysia education by providing new learning environments and new ways of learning (Ministry of Education Malaysia's Official Portal).

The introducing of e-learning in Malaysia Educational System remarks the new method in teaching and learning in higher learning institutions. The efforts in assimilating e-learning shows that Educational System in Malaysia has changed to learning that emphasis on the need of technology in enhancing teaching and learning.

In Malaysia higher institutions, there is a growing numbers of public and private universities throughout the nation who are employing e-learning either to offer academic programs via distance or support their full-time on-campus learning (OUM, 2004). The need for e-learning to be implemented in education institutions is to develop strategies for integrating e-learning to deliver and support the educational processes (Bates, 1997).

In addition, higher education institutions also need to deal with greater market forces, together with other challenges such as rising expenses, increasingly diverse student bodies and their changing needs and expectations and heightened demand for new and different programs and services (Eckel et al., 2005 and Douglas, 2005). In this quest, most higher education institutions are seeking to apply new technologies in the delivery of education to reach new students' markets and by doing so, it can expand the enrolment (Douglas, 2005). Hence, universities in Malaysia have responded actively to this challenge guided by the Ministry of Higher Learning to enhance the use of e-learning (Hassan, 2002).

2.3 e-learning in Unimas

e-learning is growing rapidly all over the world, including Asia. In Malaysia, e-learning was introduced by Universiti Tun Abdul Razak (UNITAR) in September 1998. Currently, the Universiti Tun Abdul Razak (UNITAR) and the Open University Malaysia (OUM) incorporates the e-learning in their degree programs (OUM, 2004).

The shifting of traditional classroom to virtual learning shows new dimension in teaching and learning at the tertiary level.

Universiti Tun Abdul Razak or (UNITAR) is the first university in Malaysia implementing e-learning for their program. The purpose of using e-learning is to provide their students the flexibility through its e-learning program. According to Syed Othman (2002), UNITAR offers a hybrid model which combines three main components that are the interactive, multimedia content on CD's and on the web, the face-to-face meetings and the internet-based support system. The reason for using the hybrid model is to provide continuous interaction between the students and faculty. Syed Othman (2002) added that UNITAR students need to prepare themselves to be better knowledge workers compare from graduates of other universities who do not practise computer or IT related subjects in their learning. This is due to the reason that UNITAR students will have to use the computer and internet in order to be able to facilitate their learning, irrespective of whatever courses they pursue.

Open University Malaysia or (OUM) is the Malaysia's first open university to mark another target in the progress of open distance learning programs. This is because Open Malaysia University offered graduate programs using the e-learning alternatives to reach their students necessity in pursuing their learning course in OUM. OUM also offers learning alternative to reach a wider audience as well as to support the on-site experiences. The learning alternative provided by OUM is a systematic and a holistic approach which the infrastructure for support and also library services taking into consideration in ensure that learners can readily interact online learning for various purposes (Latifah and Ramli, 2003).

In Unimas, the e-learning Unit at the Centre for Applied Learning and Multimedia, (CALM) was formed in February 2002. The need to implement e-learning is to enhance the new method of teaching and learning at the higher institution (Centre for Applied Learning and Multimedia, (Unimas), (2006). This new method in teaching and learning in Unimas shows that Unimas has placed itself in heading to e-learning drive in Malaysia. In the Unimas e-learning site, the aims of