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19 JUNE 2015

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UNIVERSITY STUDENTS’ PERCEPTION TOWARDS THE USE OF LMS AND SNS AS A LEARNING TOOL

CHUNG PEI JUN

This project is submitted in partial fulfilment of the requirements for a Bachelor of Science with Honours (Cognitive Science)

Faculty of Cognitive Sciences and Human Development
UNIVERSITI MALAYSIA SARAWAK (2015)
The project entitled ‘University students’ perception towards the use of LMS and SNS as a learning tool’ was prepared by Chung Pei Jun and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Science with Honours (Cognitive Science)

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ABSTRACT

E-learning is an important resource for teaching and learning. Through this learning system, students can access a very vast range of learning resources and can use them at any time and any place without any restriction. The purpose of this study was to examine final year students’ perception towards the use of Learning Management System (Morpheus) and Social Networking Sites (Facebook) as e-Learning systems in university. A total of 541 students participated in this study. A questionnaire was used as the research instrument and convenience sampling was used as the sampling technique. The methods used for the data analysis are Independent Samples T-Test, One Way Analysis of Variance (ANOVA) and Pearson Correlation Coefficient.

Keywords: e-learning tool, LMS, SNS
ABSTRAK

E-pembelajaran merupakan satu sumber yang sangat penting dalam pengajaran dan pembelajaran. Melalui sistem pembelajaran ini, pelajar boleh akses sumber pembelajaran yang luas dan mereka boleh menggunakan sistem ini pada bila-bila masa dan di mana-mana tempat tanpa sebarang batasan dan halangan. Tujuan kajian ini adalah untuk mengkaji persepsi pelajar tahun akhir terhadap penggunaan Learning Management System (Morpheus) dan Social Networking Sites (Facebook) sebagai sistem e-pembelajaran di Universiti. Seramai 541 pelajar tahun akhir dari semua fakulti di Universiti Malaysia Sarawak melibatkan diri dalam kajian ini. Soal selidik telah digunakan sebagai instrumen dan convenience sampling telah digunakan dalam kajian ini. Cara yang digunakan untuk menganalisis data yang dikumpul ialah Independent Sample T-Test, One Way Analysis of Variance (ANOVA) dan Pearson Correlation Coefficient.

Kata Kunci: e-pembelajaran, LMS, SNS
CHAPTER ONE

INTRODUCTION

This study examined student’s perception towards the use of Learning Management Systems (Morpheus) and Social Networking Sites (Facebook) as learning tools in university. This chapter describes the background of the study, problem statement, research objectives, research questions and research hypotheses. This chapter also introduces to the research framework, defines the terms and explains the scope as well as the significance of the study.

Background of the study

As discussed by Tasir, Al-Dheleai, Harun and Shukor (2011), e-learning is an important resource and tool for teaching and learning. It can provide peer-to-peer services to allow contact between students and teachers outside the classroom or after school hours. Additionally, such learning systems are suitable study tools for students because they allow students to learning according to their own styles. Students have a variety of ways to learn via these systems such as by watching videos, interacting, communicating, reading and sharing their knowledge or information (Tasir, Al-Dheleai, Harun & Shukor, 2011). Through these learning systems, students can access a very vast range of learning resources that can be used at any time and any place without any restriction.

According to the Lee (2010), e-learning systems face new restrictions mostly due to its impersonal nature. O’Hear (2006) claimed that e-learning systems followed the requirements of institutions rather than the need of students such as in their course planning, examinations and scheduling. Moreover, Rupesh (2009) stated that most of the schools or universities using e-learning systems were only one sided whereby teachers or lecturers upload the contents and the students learn from it. This lead to many limitations such as less teamwork, less communication, no significant changes and fewer students who shared knowledge.
Most of the Malaysian Higher Education Institutions employ the “Learning Management System (LMS)” software as their e-learning system. Moodle is a very popular open source LMS and has been used widely in many schools and universities. Moodle is the online LMS which provides a social platform to students by allowing them to share their knowledge and ideas with classmates (Chourishi, Buttan, Chaurasia & Soni, 2011). Since 2004, universities in Malaysia have started to accept and adopt Moodle as a main e-learning tool. The content that is used in Moodle, however, is totally controlled and managed by the lecturers.

Nowadays, a whole new generation of students has grown up surrounded by technology. They spend their time on Social Networking Sites (SNS) everyday to keep with their social lives. SNS has already been used at the university level for collaboration, communication and interactivity because it can be successfully applied in educational technologies. Facebook is the top and most popular SNS because it allows communication among the teachers and students about tasks, future events, useful links, and assessments or assignments (Mazman and Usluel, 2010). Moreover, Facebook also enables users to create their own group discussions in order to share ideas and information with a large group of friends or classmates. So, most Malaysian university students perceive Facebook as their main learning tool (Tasir, Al-Dheleai, Harun & Shukor, 2011).

**Problem Statement**

According to the Mazman and Usluel (2010), Facebook is a popular SNS. University students believe that Facebook is very advantageous in their education. Hence, the growth in the usage of Facebook increases faster among the students pursuing higher education. Although Facebook is relatively new as an e-learning platform in universities, some universities still do not accept it as a formal learning tool (Arouri, 2015). Kirschner and Karpinski (2010) found that Facebook negatively affects students’ academic achievement.
The time students spend on Facebook is too long, thus, causing their academic performance to drop. Therefore, this study aims to examine students’ perception on Facebook as a main e-learning tool.

On the other hand, most previous studies only focus on students from either one course, one program or one faculty in a certain university as a the sample population. For instance, the sample in the study conducted at the University of Jordan in the Faculty of Educational Sciences (Arouri, 2015); the Science program at Louisiana State University in the US (Pollara & Zhu, 2011); the Business course in the School of Communication (Liu, 2010); one Faculty in Universiti Teknologi Malaysia (Tasir, Al-Dheleai, Harun, & Shukor, 2011); and the Faculty of Health in Griffith University (Irwin, Ball, Desbrow & Leveritt, 2012). There are few studies that focused on examining the difference between the perceptions of students from science program, art program and a combination of both regarding the use of LMS and SNS as learning tools. So, this study aims to investigate the perception of students from different programs or fields of study regarding the use of LMS and SNS as a learning platform.

**Research Objective**

According to Hamilton and Mantle-Bromley (2014), the research objective is a declarative statement that concentrates on recognition and provides the framework that is more detailed than the goal of the research. The research objective can be classified into two categories: general objective and specific objective.

**General Objective**

The main objective of this research is to examine final year students’ perception towards the use of Learning Management System (Morpheus) and Social Networking tool (Facebook) as e-Learning systems in Universiti Malaysia Sarawak.
Specific Objectives

The specific objectives of this study include

1. To investigate whether there is any significant difference in perception towards the use of LMS as a learning tool based on gender.
2. To investigate whether there is any significant difference in perception towards the use of SNS as a learning tool based on gender.
3. To investigate whether there is any significant difference in perception towards the use of LMS as a learning tool based on program of study.
4. To investigate whether there is any significant difference in perception towards the use of SNS as a learning tool based on program of study.
5. To investigate whether there is a significant relationship between student’s academic achievement and their perception towards the use of LMS as a learning tool.
6. To investigate whether there is a significant relationship between student’s academic achievement and their perception towards the use of SNS as a learning tool.

Research Questions

The research questions of the study are:

1. Is there a significant difference in perception towards the use of LMS as a learning tool based on gender?
2. Is there a significant difference in perception towards the use of SNS as a learning tool based on gender?
3. Is there a significant difference in perception towards the use of LMS as a learning tool based on program of study?
4. Is there a significant difference in perception towards the use of SNS as a learning tool based on program of study?
5. Is there a significant relationship between student’s academic achievement and their perception towards the use of LMS as a learning tool?

6. Is there a significant relationship between student’s academic achievement and their perception towards the use of SNS as a learning tool?

**Hypothesis**

H₀₁ – There is no significant difference in perception towards the use of LMS as a learning tool based on gender.

H₀₂ – There is no significant difference in perception towards the use of SNS as a learning tool based on gender.

H₀₃ – There is no significant difference in perception towards the use of LMS as a learning tool based on program of study.

H₀₄ – There is no significant difference in perception towards the use of SNS as a learning tool based on program of study.

H₀₅ – There is no significant relationship between student’s academic achievement and their perception towards the use of LMS as a learning tool.

H₀₆ – There is no significant relationship between student’s academic achievement and their perception towards the use of SNS as a learning tool.

**Research Framework**

Figure 1 below shows the variables used in this research, specifically, the independent variables and the dependent variable. The following figure shows how the variables are related to the hypotheses and the research objectives. The dependent variable in the following study is the students’ perception towards the use of LMS (Morpheus) and SNS (Facebook). The demographic factors involved, specifically, the gender, program of study and academic achievement (CGPA), LMS and SNS are the independent variables.
**Definitions of Term**

**Conceptual Definition**

**Perception.** According to Wang (2007), “perception is the set of internal, subconscious cognitive processes that detects, relates, interprets and searches through cognitive information in the mind” (p.1). In addition, perception plays an important role in cognitive function as it aids in human beings intuition and also plays a role in determining people’s personality.

On the other hand, Megan (2013) mentioned that perception is the process of making patterns of sensory input to make it significant and meaningful. Perception is used to form meaning of words and aids in understanding sequences in visual patterns. Hence, perception describes profoundly psychological process such as emotion, motivation and memory.
LMS. According to Ninoriya, Chawan and Meshram (2011), LMS is a widespread learning system used in educational. LMS incorporates a set of software or programs which help automate the administration process so that they can report on and follow programmes and online courses. LMS provides services for students and teachers as a learning platform.

SNS. According to Boyd and Ellison (2010), SNS are web-based services that allow individuals to first construct a public or semi-public profile within a bounded system, second, to form a list of other users with whom they share a connection, and lastly to view and traverse their list of direct connections and indirect connections, which are those made by others within the system. (p. 2)

Furthermore, SNS are an example of Web 2.0 whereby they provide services in order to help people keep in touch with other people around the world (Xu, 2011). Besides this feature, SNS can also be used as a learning platform in the educational environment. Facebook, Youtube and Twitter are the top three most popular SNS in the entire world today (Top Social Networking Sites in Malaysia, 2014).

Operation Definition

Perception. In this study, Universiti Malaysia Sarawak students’ perception is measured from the questionnaires that were prepared for the final year students. After data collection, the data was analyzed by using SPSS.

LMS. In this study, LMS is refers to the Morpheus e-learning system which is the current e-learning system used in Universiti Malaysia Sarawak. Students access the Morpheus system to download notes, submit assignments, and get information on their weekly class outlines.

SNS. In this study, SNS is refers to Facebook. Facebook is the most popular social networking site in Malaysia. Most students access it in their daily lives and use this SNS as an e-learning tool in University. For example, students can add and share their file or
documents and video to enrich in the environment of learning and create groups and make discussion via Facebook.

**Significance of the Study**

This research study provides insight into students’ perception towards the use of LMS and SNS. Understanding their perception enables appropriate strategies to be formed to strengthened their participial and engagement in using the learning system.

Besides that, this study also provides the latest information on the relationship between academic achievement in Universiti Malaysia Sarawak final year students and their use of Morpheus and Facebook as learning tools.

**Summary**

This study intends to examine students’ perception towards the use of the Learning Management System, Morpheus, which is the current e-learning system that is used in Universiti Malaysia Sarawak. Meanwhile, this study also seeks to investigate the perception of students in adopting the Social Networking tool, Facebook, as a main learning platform in university. In addition, the comparison of the students’ perception based on the demographic factors of gender and program of study could provide additional insights on these issues.

Besides that, this study also examines whether there is any relationship between the students’ academic achievement and their perception towards the use of LMS and SNS as learning tools.
CHAPTER TWO

LITERATURE REVIEW

This chapter discuss on e-learning system and social networking as leaning tools in university and students’ perception towards these systems which become the main learning platform.

E-learning systems

Definition of e-learning

The term “e-learning” is also known as “online learning”, “distance learning” and “computers in education” serve as the function to allow enhancement of communication between each other in order to improve the quality of education. E-learning can be found in most of the university sector to communicate between group of people to enhance learning opportunity and construct knowledge (Moore, Dickson-Deane & Galyen, 2011).

Previous studies described the definition of e-learning in different ways. According to Mason and Rennie (2006), e-learning serves as an effective learning process which can be made with the combination of the digital content delivered based on support and facility. Mason and Rennie also mentioned that e-learning is an element of learning flexibility that can be used by many electronic media in the world which is adopting achievement in advanced science and technology in order to move ahead the training technique and method of connoisseur education. Piskurich (2004) noted that e-learning have taken the advantage of network to provide transmitted, communication and also facilitation. There are various types of computer networks can be used in school or home such as LAN, MAN, WAN, intranet and internet. On other hands, e-learning is widely applied in education and training by using computer technologies especially the internet. In short, e-learning is a learning process that uses the computing devices such as computer (software or hardware) and mobile phone in
order to gain a great deal or knowledge on anywhere, anytime and to anyone (Mason & Rennie, 2006).

**Historical development of e-learning System**

Traditional learning style is face-to-face taught by teachers to the students in classroom. Distance learning is not possible at that time. The first distance learning course was introduced by Sir Isaac Pitman in 1840s (E-learning Concepts, Trends, Applications, 2014). He was a teacher that teaches shorthand at the one of the private school in Wotton. He uploads the assessment or homework to the students via the email and allows them summit to him when completed it.

In 1924, a professor of educational psychology named Sidney Pressey introduced the Pressey testing machine at Ohio State University (E-learning Concepts, Trends, Applications, 2014). This machine provided the students to answer quizzes or tests via internet. Students pressed the key to choose own answers and the answers been choose were recorded on the counter. Then the next question would appear. After completed all the questions, the results will be shown on the counter.

A study by Anttonen, Onnela, and Terho (2006) found that the prevalence of e-learning in higher education can give good and effective disciplines for learning since 1990s. Xu (2011) found that e-learning have been used for the first time in October 1999 at the seminar of Computer Based Training (CBT) in order to share the knowledge and information with their colleagues. In the end of 90s, Learning Management System (LMS) was started to use in the education field and most of the Universities started to develop and design their own e-learning system. LMS become popular in the educational world because the teachers believe the learning system and accept it and used in the classrooms (E-learning Concepts, Trends, Applications, 2014).
E-learning system is a collection of online equipment that gives support in learning and teaching process. According to Heinrich, Milne, Crooks, Granshaw, and Moore (2010), Learning Management Systems (LMS) like Moodle and Blackboard have been used in the 21st century in order to endow with the essential support in managing the university assignment. LMS allow instructors upload the course outline, notes, guidelines for assignment, create the links for students to summit their work and so on. These systems help instructors alleviate their responsibilities and stress on the protection in access and storage space is safety.

Based on Chadha and Kumail’s study (as cited in Xu, 2011, p.20), the historical development of e-Learning system had brought advantages for the people in the future. With the available network that widely used all over the world, the performance of learning time had improved. For instances, the learners nowadays are able to access related courses information anytime and anywhere.

**Learning tools (websites) for e-Learning System**

Nowadays, e-learning systems have provided students with useful and helpful resource for study improvement. Several tools for e-learning system can be accessed by using course websites for example whiteboard, chat, announcement, messenger, portfolio and others sites (Freire, Linhalis, Bianchini, Fortes & Pimentel, 2010). As the technology developed, many e-learning tools have been created in the education field for online instruction. In the recent report (Bonk & Wisher, as cited in Xu, 2011, p.23), e-learning tools give examples of instructional activities that are designed by Internet-based program, which include threaded electronic messaging or interactive multimedia displays. Bonk and Wisher also mentioned that the web-based collaborative environment becomes a particular type of e-learning in order to help the students to achieve their learning goal together with their peers.
According to Xu (2011), the LMS or Course Management System (CMS) and common websites have become the top 100 learning tools in the world including Moodle, Wikipedia, Twitter, and Youtube. Therefore, students can utilize those systems or websites as personal learning tools or create a group for discussions. Thus, E-mail, Blackboard, Moodle, Online forum, Websites and Messenger can be categorized as e-learning tools.

E-learning in Malaysian Higher Education Institutions (HEIs)

Hussain (2004) stated that the public HEIs in Malaysia plan to implement electronic education system. For instance, teachers or lecturers can contact and communicate with the students outside the classroom through web site. Therefore, learning and teaching process can occur in anytime and anywhere. Hussain (2004) also mentioned that e-learning systems in Malaysian HEIs are already ready to use. According to Hamat, Embi and Sulaiman (2011), most of the HEIs have their own e-learning system. Table 1 below shows the different Learning Management System used by Malaysia HEIs.

Table 1

<table>
<thead>
<tr>
<th>HEIs</th>
<th>Type/Name of LMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universiti Kebangsaan Malaysia</td>
<td>SPIN</td>
</tr>
<tr>
<td>Universiti Putra Malaysia</td>
<td>PutraLMS</td>
</tr>
<tr>
<td>Universiti Malaya</td>
<td>Moodle</td>
</tr>
<tr>
<td>Universiti Sains Malaysia</td>
<td>Moodle</td>
</tr>
<tr>
<td>Universiti Teknologi Malaysia</td>
<td>Moodle</td>
</tr>
<tr>
<td>Universiti Teknology MARA</td>
<td>iLearn System</td>
</tr>
<tr>
<td>Universiti Islam Antarabangsa Malaysia</td>
<td>LearningCare</td>
</tr>
<tr>
<td>Universiti Pendidikan Sultan Idris</td>
<td>MyGuru2</td>
</tr>
<tr>
<td>Universiti Utara Malaysia</td>
<td>Moodle</td>
</tr>
<tr>
<td>University Name</td>
<td>LMS</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Universiti Malaysia Sabah</td>
<td>Moodle</td>
</tr>
<tr>
<td>Universiti Malaysia Sarawak</td>
<td>Moodle</td>
</tr>
<tr>
<td>Universiti Malaysia Perlis</td>
<td>Claroline</td>
</tr>
<tr>
<td>Universiti Malaysia Pahang</td>
<td>-</td>
</tr>
<tr>
<td>Universiti Malaysia Kelantan</td>
<td>Moodle</td>
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<tr>
<td>Universiti Malaysia Terangganu</td>
<td>Moodle</td>
</tr>
<tr>
<td>Universiti Pertanian Nasional Malaysia</td>
<td>LearningCube</td>
</tr>
<tr>
<td>Universiti Sultan Zainal Abidin</td>
<td>Moodle</td>
</tr>
<tr>
<td>Universiti Teknikal Melaka</td>
<td>Claroline</td>
</tr>
<tr>
<td>Universiti Tun Hussein Onn Malaysia</td>
<td>Blackboard</td>
</tr>
<tr>
<td>Universiti Sains Islam Malaysia</td>
<td>myLMS</td>
</tr>
<tr>
<td>Open Universiti Malaysia</td>
<td>myVLE</td>
</tr>
<tr>
<td>Asia e-University</td>
<td>LMS</td>
</tr>
<tr>
<td>Sunway University College</td>
<td>Blackboard</td>
</tr>
<tr>
<td>Politeknik Ungku Omar</td>
<td>Moodle</td>
</tr>
<tr>
<td>Politeknik Shah Alam</td>
<td>Moodle</td>
</tr>
<tr>
<td>Politeknik Johor Bahru</td>
<td>Moodle</td>
</tr>
</tbody>
</table>

(Adapted from Hamat, Embi & Halim, 2011)

**Facebook as e-learning system**

**Facebook**

Facebook was founded by Mark Zurkerberg and his friends in February 2004. According to the Mazman and Usluel (2010), Facebook is one of the social networking tools that provide various functions like knowledge and information sharing and can efficiently interact with family, friends and distant relatives. Therefore, Facebook have become a popular and powerful site in the world (Golder, Wilkinson & Huberman, 2007). Facebook
was originally served as a medium for college student interaction that enables peer feedback with goodness of fit with social context and interaction tool (Mason, 2006). Bumgarner (2007) found that young adults from 19 until 25 years old are the majority population that accessed the Facebook page and most of them are university students.

Facebook provides a personal page to its member which contains a lot of function that allows the user to create a list of friends, share the information, create own album, like new page, make group discussion, and also provide many types of online game. In addition, people can share and tag the photo that are upload from friends, sending personal message, chatting with friends, join group and share idea or opinion in Facebook group (Golder, Wilkinson & Huberman, 2007).

**Historical Development of Facebook for e-learning system**

University research (Company Profile Facebook INC, 2015) has indicated that SNS has become an important part of life for the adolescence and young adulthood. The population of these stages had become deepest and heaviest users in computer and internet. In these populations, 46% used computer and internet for the school assessment, 36% for e-mail or messaging, and 38% for online gaming. SNS as a most recent online tool that allows users communicate and interact with people in private or public ways. One of the examples of SNS is Facebook, which was founded on February 2004 is Harvard University but had published in 2006. When the site was opened to the public, 12 million peoples accessed Facebook and the number of active users were continuously increase until 350 million on December 2009.

On 28 October 2003, the first social website named “Facemash” was developed by Mark Zuckerberg and his classmates, Chris Hughes, Andrew McCollum and Dustin Moskovitz. This website was available to Harvard University students to help them to identify and acquaint each other in the university and at the same time to promote the Facemash. Zuckerberg’s intention is to let the people understand their own personality and