

CHAPTER I

INTRODUCTION

1.1 INTRODUCTION

With the capability of blended learning to provide numerous resources for learners (Azizan, 2010) resolved that usage of innovation and technology in physical classrooms offer additional resources for the learners and this is anticipated to improve learners confidence and capability and also enhance the caliber of learning.

Furthermore, online learning engagement gives an intelligent and interactive setting for communication among learners and instructors in the classroom and may encourage agreeable exercises or activities even beyond the classrooms (Yuen, 2010).

Poor traditional classroom learning has been a major concern in the teaching and learning activity. This conventional “chalk and talk” method is replaced by pure online learning. E-learning, a method which evolved from distance education, has received special attention from both public and private institutions. However, for e-learning to be effective, it must be combined with the other forms of learning such as face-to-face learning. This combination leads to a new methodology called blended learning. Blended learning required top notch help at all levels, organizational infrastructure, course level and faculty development. Additionally, persistent student learning support mechanisms must put in place. All these components must play out in an institutional culture that is both reactive and substantial (Norberg et al., 2011).

The development of complete online courses is decently archived, however the idea of blended learning has been as yet thinking that its place in the instructive scene.

Colleges, universities are battling with characterizing blended learning and in addition actualizing this cross breed modality. Intuitively, courses on the extremes face-to-face and completely online appear simpler to explore, both from an institutional and instructional stance. In any case, how best to mix becomes an enigma for many faculty and their institution. Whatever the inspiration to blend, it is clear that the methodology works best when obviously aligned with the institution's main goal and objectives and to the need of students, faculty, and institution are all needed to be addressed (Allen & Seaman, 2011).

Enforcing blended learning quickened learning programs or courses necessitate a systematic methodology, not simply the addition of new technologies. Colleges, universities face challenges when the move toward blended because of already constrained resources (Lin & Tourtellott, 2011).

At the center of blended learning advances are new and rising innovations in information and communication technology. It is these technological affordances that have made the tremendous potential for blended learning to address the lacks of substantial instructors that have become the norm in undergraduate and postgraduate higher education. Despite this, it is essential for the instructor to concentrate on the teaching and learning exchange. Additionally, it is imperative that technology does not turn into an obstruction to the adoption of blended learning. Technology holds a very firm place in education across all sectors having emerged as a potential tool very early in the adoption of information communication and technology into business and industry at large. In early modern days when computers were first being used as administrative tools in university systems, the technology was also being explored as a means to enhance learning. Institutional thought in adoption of blended learning, the

institution must be given progressing innovation in technology help and be guaranteed that they won't need to learn and deal with the technology alone. Institution must have the capacity to concentrate on the educational welfare of blended learning designs that would admit increased personal interaction with students (Vaughan, 2010).

Moskal et al. (2013) by most measures, blended learning is a mechanism spans the old and the new by impacting policy and strategic initiative in advanced education at nearly every level. The educational community, in attempting to accommodate policy decisions for their institution about blended learning, understood that context plays a major and a key part of the development of a workable definition. Features of the student populace, the mission of the institution, the strategic planning processes, faculty responsiveness, staff responsiveness, student acceptance, residential district values, usable resources, institution support mechanism helped put blended learning in a style that appeared well and good for a specific institutional context.

Nearly a decade ago, it was contended that training style in higher institution were being disputed to position their institution to meet the network opportunities and desires for highest quality learning experience. Around then, blended learning approaches were being seriously regarded as the intends to adequately and effectively change higher education institutions. Nonetheless, adopting blended learning approaches has examined to be intimidating considering that advanced education institutions are ill-famed resisters to innovation. Consequently, the adoption of blended learning approaches requires a clear and acceptable organizational plan, strong leadership, and corroborated commitment. Blended learning is a lawful teaching and learning approach that has been embraced by a huge majority of advanced education institution. The truth of the matter is that blended learning has

been demonstrated to have an advantage of face-to-face learning experiences. The face-to-face and online means of communication are fused in a way that capitalizes on the strengths of each by ratio proportion (Garrison & Vaughan, 2013).

Traditional or conventional mode of teaching is those that maintain an educational environment in which students learn through conventional, accepted methods include textbooks, worksheets, lectures, and group work. Traditional methods are usually teacher-centered in their focus and include relatively large class sizes. Traditional schools are encouraged to “provide classroom activities and classroom environments that stress high academic achievement while also building students’ self-esteem and self-confidence. The classroom environment should “facilitate time on-tasks, student interaction, student success, and positive reinforcement for desired classroom behaviors. Establishing a safe and positive learning environment allows students to feel accepted and cared for and fosters stronger relationships with peers and teachers (Raymond T.T et al., 2012).

Learning on demand is exceedingly high and is turning into a kind of lifestyle in advanced society. Learners continually seek for information or data to address an issue at work, school or to simply satisfy a curiosity. To do as such, they take advantage of digital and networked technologies to search for data, as well as to impart and portion out information. Also, learning in the context of social networking has become highly self-motivated, self-reliant and effortless, and as well as an integral part of the institution or college experience (Mc. Gloughlin & Lee, 2010).

Blended learning incorporates online learning modules with conventional classroom lectures. Over the past decades, computing technology has progressed exponentially and radically changed the way things accomplish in pretty much all aspects of life.

Despite the fact that the 21st century, accompanies the accessibility of a very powerful computer and quick information network, numerous classrooms in education, even in advanced education, are still led by means of a format that was established in the nineteenth century. While trying to propel education from the nineteenth to the twentieth century, education specialists, coaches and instructors have designed and implemented a variety of instructing strategies that utilize on-line innovation to enhance conventional teaching. One particularly successful procedure is blended learning, in which learners acquire knowledge via online exercises whenever it seems in addition to traditional face-to-face session. Blended learning has become the method of choice for many students in education and training for a number of reasons. The systematic integration of an online component to traditional teaching introduces new opportunities for students and lecturers to communicate and interact meaningfully with the aid of technology. Blended learning has gained more popularity and application over the years and is believed by many education researchers to be the predominant model for future education, surpassing either fully online or face-to-face instruction (Brown & Green, 2010).

Over the past two decades, research has been conducted on a shift in higher education (HE) course content delivery, instruction, and instructor-learner interaction that occurs neither wholly face-to-face (F2F), nor entirely online, but rather within “the carefully designed synthesis of online and face-to-face learning incorporating a range of media based upon a sound constructivist pedagogical framework” (Buckley et al., 2010). The synthesis, known as blended learning, can take on different blended forms—from mostly face-to-face, to mostly online. All definitions of blended learning, or teaching,

implicitly recognize, however, that learner self-direction, active involvement, and motivation are critical (Johnson, 2014).

The shift towards student-centred learning and the increased adoption of online components as part of once traditional higher education instruction formats has led researchers to the conviction that “in order to address some of the limitations associated with the exclusive use of e-learning (or face-to-face learning for that matter), there is a need to adopt a more ‘blended’ approach to learning” (Ituma, 2011).

Recently, information and communication technology (ICT) has been shaping the world noticeably and this worldwide and quick change around the globe brings up issues and questions about how learners who will shape future ought to be prepared for the utilization of Information Communication and Technology. Blended learning is an interactive scheme providing interaction and collaboration of learners with tutorial online and different components, such as (drills, simulation, educational games, test, quiz and so forth). It also admits multimedia in which various tools such as text, graphic, voice, video, animation are used. It is an open system where students can learn by visiting web pages in any place at any time other than their classroom learning environment provided there is availability of the network and the system (computer) to use. In addition, in blended learning system, there is an opportunity to learn subjects independent from device (using computer platform), distance (from any place or region in the world), and time (at any time of day) (Acar & Toy, 2013).

Technology integration has been a subject of discourse among educators for more than thirty years. Actually, diverse articles have been published advocating successful and effective methodologies to promote meaningful implementation of information and communication technology. That is, using technology to support a student-centred and

student-direct curriculum, proposing strategies for eliminating or circumventing the barriers that institution and lecturers encounter during the process. Ertmer et al. (2012) established by identifying between two types of barriers that impacted teachers or lecturer uses of technology in the classroom. The first order-barriers were defined as those that were external to the teachers and included resource (both hardware and software), training and support. The second order-barrier comprised those that were internal to the teacher or lecturers and included teacher confidence, beliefs about how students learned, as well as perceived value of technology to the teaching or learning process.

The improvement of e-learning has in this way prompted another method for learning and, in the meantime, has given equivalent chances to everybody to end up learners. With such strategies for adapting now accessible, it is said that information can be arrived at fingertip level, and therefore empower learners to exceed expectations in their studies. On the other hand, regardless of the web as a spot to get all essential data and information, it has likewise turned into the street for another set of unlawful exercises. Data or information on the web is ceaselessly presented to security dangers. As a result of e-learning needing to rely on upon the web or particularly, basically web application, the e-learning environment has likewise ended up influenced by security threats (Alwi & Fan, 2010).

Meanwhile, Information Security (IS) has become essential to many, if not all information technology system – particularly important for systems that use the internet as a means of delivery (Walid, 2012). The main motives why Information Security very important within the blended learning system is that the main feature that distinguishes between the BLS including e-learning and face-to-face interaction

environments is the degree of use of technology and the gradual shift of control and responsibility in the learning process for learners, giving them the opportunity to learn anytime, anywhere use the BLS, however, can lead to many of the potential risks to the security of information that could harm the information (Tselios et al., 2011).

Amid the late years, critical volumes of research on the effective utilize and consolidation of information and communication technology in education practices is watched. The fundamental peculiarity that separates the e-learning system from the conventional learning environment is the level of tech-utilization and the slow move of control and obligation of the learning process to the learners, present to them the chance to learn anytime and anywhere. This shift control seems to positively influence the learning potency of the learners. Blended learning provides greater flexibility and responsiveness in the teaching and learning process. Online instruction can overcome the limitation of time and space via instant anywhere, anytime. Also, online modules support novel ways to learn beyond what textbooks can offer to students (Tselios et al., 2010).

1.2 BACKGROUND OF THE RESEARCH

Blended learning in Malaysia is mostly carried out and exploited in both public and private universities crosswise over Malaysia. There are currently 20 public universities and university colleges (14 universities and university colleges), 30 private university and university colleges (11 universities, 5 International universities and 14 university colleges in the country of Malaysia. As it was that most public universities in Malaysia posses some form of strategic plan for implementing pure electronic university. This plan includes the teaching and learning program will be

conducted via online or web based mode to replace the conventional classroom learning. It shows that universities in Malaysia are ready for online delivery learning which supports distance learning and education (Farahiza, 2010).

It can be noted that, Malaysia has trapped the attention of the world in educational excellence and quality and virtually becoming a center of learning in the Asian continent. Therefore, strategic teaching and learning approaches and practices such as blended learning is now applied and adopted as a method of learning in some of the public and private universities. These approaches to teaching and learning must be constantly applied and upgraded/revised in order to keep in line with the dynamism of teaching and learning in today's modern world.

1.3 PROBLEM STATEMENT

Higher education is a crucial ingredient in the success of a country's development and reputation in terms of educational globalization. In recent years, Malaysia universities have been the topic of discussion pertaining to their quality standards and performance. Malaysia chairs a high priority on the growth of Information and Communication Technology (ICT) and upon exploitation of e-learning (Sana'a & Ilhaamie, 2011).

Views of scholars, instructors and students on blended learning are different. In fact, students in different fields of study have different views on this subject matter and as a result, continuous examination of individual views to stabilize this system became paramount. This research was developed to look at blended learning and its security features whether it provides a better opportunity for students academic performance as compared to a more traditional face-to-face model.

1.4 RESEARCH QUESTIONS

1. What is the view among students about computer mediated instruction?
2. What is the view among students about adopting blended learning in the university?
3. What is the level of computer security awareness knowledge among students in the university?

1.5 RESEARCH OBJECTIVES

1. To examine the perception on computer mediated instruction among students in the university.
2. To evaluate the possibility that leads to the implementation of blended learning among students in the university.
3. To determine the computer security awareness knowledge among students in the university.

1.6 DEFINITION OF TERMS

1.6.1 Blended Learning

Blended learning means different things to different people. The word "blended" implies a mixture or combination. When a picture is posted above a paragraph of text, a presentation is created that may be more informative to the viewer or reader, but the picture and text remain intact and can be individually discerned. Blended learning, the teaching practice that combines teaching methods from both face-to-face and online learning, is an established, rapidly growing instructional model that is proving highly effective in helping schools, colleges, and university. Whether it is extending classroom instruction beyond the school day, enhancing teacher/lecturer, professional development or delivering enriched learning opportunities for accelerated students,

blended learning models are increasingly common practice across the curriculum for students and teachers/lecturers alike. Blended learning is implemented in a variety of ways, ranging from models in which curriculum is fully online with face-to-face interaction with models in which face-to-face classroom instruction is integrated with online components that extend learning beyond the classroom or school day. The rapid growth of blended learning has been a catalyst for additional instructional transformation (Sahare & Thampi, 2010).

1.6.2 Computer Mediated Instruction

Today, in this “Digital Age,” time seems to go by faster and distances appear to have become shorter. Communication is almost instantaneously from virtually anywhere, anytime. Computer mediated instruction is any form of communication between two or more individual people who interact and/or influence each other via separate computers. Notice that this does not include the methods by which two computers communicate, but rather how people communicate using computers. It has also created a major shift in how educators and students think about teaching and learning. By allowing students to learn in more convenient locations and often at more convenient times, distance education opens educational opportunities to previously unreached populations. It also enables more people to extend the period of their education into a lifelong learning process (Chingos, 2013).

1.6.3 Computer Security

Security is "freedom from risk or danger." In the context of computer science, security is the prevention of, or protection against, access to information by unauthorized recipients, and intentional or deliberately but unauthorized destruction or alteration of

that information. Computer security is the ability of a system to protect information and system resources with respect to confidentiality and integrity." The system resources, which include central processing units (CPUs), disks, and programs, in addition to information. Computer security is frequently associated with three core areas, which can be conveniently summarized by the acronym "CIA":

Confidentiality: - Ensuring that information is not accessed by unauthorized persons,

Integrity:- Ensuring that information is not altered by unauthorized persons in a way that is not detectable by authorized users,

Authentication: - Ensuring that users are the persons they claim to be (Sommerville, 2011).

1.7 METHODOLOGY

The model of inquiry for this research is positivist; a quantitative method of research was adopted, which is about asking people (students) for their opinions in a structured way so as to produce hard facts and statistics to guide during the course of the research. A Questionnaire is the main instrument for this research which served as the source of primary data. A 5-point scale was used in order to determine the level of relevance of a particular item, the lowest point of the scale represents "Strongly Disagree" while the highest point of the scale represents "Strongly Agree". The questionnaires were distributed randomly among the students of the Faculty of Science and Technology (FST), Universiti Sains Islam Malaysia.

The statistical measures were calculated by using Statistical Package for Social Sciences (SPSS). Data were analyzed using Chi-square, T-test and Anova. The chi-square test for independence, also called Pearson's chi-square test or the chi-square

test of association, is used to discover if there is a relationship between two categorical variables based on another variable. The most basic statistical test that measures group differences is the t test, which analyzes significant differences between two group means. ANOVA tests the significance of group differences between two or more means as it analyzes variation between and within each group.

1.8 SCOPE OF THE RESEARCH

As far as this research work is concerned, it will only limit or center on Universiti Sains Islam Malaysia (USIM). This is as a consequence of a shortage of resources, time factor and capital for transportation to the other places to conduct the research there.

