ONLINE LEARNING: STUDENT PARTICIPATION AND SATISFACTION

Zarirah binti Zamakhsari[1*], Arifi bin Ridzuan[2]

[1]Faculty of Business Management, Universiti Teknologi MARA Pahang,
Lintasan Semarak, 24600 Bandar Tun Abdul Razak Jengka, Pahang, Malaysia
zarira2939@pahang.uitm.edu.my
[2] Faculty of Business Management, Universiti Teknologi MARA,
Lintasan Semarak, 24600 Bandar Tun Abdul Razak Jengka, Pahang, Malaysia
arifi_ridzuan@pahang.uitm.edu.my

ABSTRACT

This research focuses on student participation and satisfaction toward online learning at Universiti Teknologi MARA, Pahang. This has become a major concern of lecturers because of the challenge in engaging students in online learning, thus, creating a need to study the activities used in online learning. In addition, the poor participation of students in online learning activities has created a major problem in implementing online learning. Three research objectives were developed for this research; the first attempts to identify the type of online learning activities among students; the second investigates the approaches used by lecturers to encourage student participation in online learning; and the third attempts to identify the level of satisfaction among students toward online learning. The findings revealed that the online learning activities preferred by students are group discussion, followed by online tests or quizzes and searching for online notes. Furthermore, uploading of assignments by lecturers in the group forum was found to be a favored approach to encourage student participation in online learning. Finally, the findings also indicated that student participation in online learning was moderate, while, satisfaction with online learning at UiTM Pahang was rated as fair. These findings should alert the authorities at UiTM Pahang to find ways improve the effectiveness of student online learning time.

Keywords: Online learning, Student Participation, Student Satisfaction

INTRODUCTION

Online learning is one of teaching and learning methodologies being used at higher education institutions (HEIs) in Malaysia for knowledge sharing, interaction and communication between lecturers and students. In order to implement online learning in HEIs, knowledge of student participation and satisfaction would help improve student academic achievement. Previously, the traditional pedagogies required the lecturers to interact, facilitate and communicate with students face to face. Nowadays, the trend of higher education pedagogies in Malaysia has changed to incorporate more online learning. This research would thus be interesting to investigate student participation and satisfaction during online learning sessions. Student participation is important to ensure that the online learning outcomes meet the objectives of the subject matter learned throughout the semester. As such, student satisfaction also needs to be studied to ensure that students are satisfied with the learning process.

In the past several years, online learning systems have been taking center stage in HEIs (Geri & Gefen, 2007). The significant growth of online learning at HEIs around the world remains at record highs (Anastasiades, Vitalaki, & Gertzakis, 2008; Littlejohn, Falconer & McGill, 2008; Shee & Wang, 2008). Raja Maznah (2004) has mentioned that most public universities in Malaysia have some form of strategic plan for implementing solely digital universities. This plan includes the teaching and learning program conducted via online or web-based mode to replace traditional classroom learning. According to Raja Maznah, universities in Malaysia are ready for the online delivery learning that supports distance education. Nowadays, most HEIs in Malaysia is ready for online learning. With support from the government under the 9th Malaysian Plan (2006-2010), building world-class human capital through lifelong education has been highlighted. Using the concept of continuous learning, the government encourages all the public and private HEIs to establish a center of life long learning (Chai & Poh, 2009) within their organizations. In addition, the setting up of the virtual universities, Universiti Tun Abd Razak (UNITAR) in 1998 and the Open University of Malaysia (OUM) in 2000 is proof of government commitment in supporting the implementation of online learning in HEIs in Malaysia.

Online learning environments are not highly teacher-centered which require students to take a more active role in their learning. In particular, students have to realize their responsibility for guiding and directing their own learning (Hartley & Bendixen, 2001; Hsu & Shiue, 2005), for time management (Hill, 2002; Roper, 2007), for keeping up with the class, for completing the work on time (Discenza, Howard & Schenk, 2002), and for being active contributors to instruction (Garrison, Cleveland-Innes & Fung, 2004).

Stefan (2008) has described different ways of online participation which are participation as accessing e-learning environments, participation as writing, participation as quality writing, participation as writing and reading, participation as actual and perceived writing and participation as taking part and joining in a dialogue. He also defined online participation as a process of learning by taking part and maintaining relations with others. It is a complex process comprising doing, communicating, thinking, feeling and belonging, which occurs both online and offline. Research also has argued that online learning is best accomplished when learners participate and collaborate (Bento & Schuster, 2003; Leidner & Jarvenpaa, 1995; Webster & Hackley, 1997). Many researchers seem to agree that participation is a key driver for learning (Stefan, 2008). Davies and Graff (2005) even examined the relationship between the level of online participation and grade, while Vonderwell and Zachariah (2005) studied factors that influence learner participation.

In conjunction with implementing effective online learning among students at HEIs, poor student participation and level of satisfaction toward online learning courses are the main concerns of this research. This is because student participation and satisfaction would ultimately impact their academic performance. Participation has been argued to be an intrinsic part of learning (Wenger, 1998). Even though there are many educational benefits associated with using computer technologies, there are also disadvantages. Critics have argued that online learning and the use of information technology may put certain student populations at a disadvantage (Pu-Shih Daniel Chen et al., 2010). In addition, some researchers have asserted that the lack of face-to-face interactions in online learning might reduce instructional effectiveness for students of a particular learning style (Bullen, 1998; Terrell & Dringus, 2000; Ward & Newlands,

1998). Though most online courses do not require students to have advanced computer skills in order to complete the courses, they nevertheless require students to become familiar with essential ICT skills such as using e-mail, participating in online chatting, posting to a Web-based discussion board, and using word processing, presentation and spreadsheet software.

Hence, this research was conducted among students at UiTM, Pahang to study the following:

1. To identify the type of online learning activities used among students at Universiti Teknologi MARA, Pahang

2. To investigate the approaches used by lecturers to encourage student participation in online learning at Universiti Teknologi MARA, Pahang

3. To identify the level of satisfaction among students toward online learning at Universiti Teknologi MARA, Pahang

LITERATURE REVIEW

Information and communication technologies (ICT) particularly those related to the Internet, have changed the way services are delivered in higher education. With the advancement of web applications, students have been exposed to new features that support and alter their learning environment. Among the important advancements in the digital age is online learning. Murray, Pérez, Geist, and Hedrick (2012) proposed that by 2014 most students in HEIs would be taking some classes online. According to Han and Johnson (2012), online learning which is more cost effective and convenient compared to the traditional educational environment has increased opportunities for more learners. Chakraborty and Nafukho (2014) have stated that the professional and educational communities involved in learning need to fully utilize the virtual learning environment. Understanding student expectation from a university online environment should increase their satisfaction and consequently, have a positive impact on student academic performance. Therefore, this study will try to provide an in depth look at student participation and satisfaction in online learning.

Most authors describe online learning as access to learning experiences via the use of some technology (Benson, 2002; Carliner, 2004; Conrad, 2002). Some researchers describe online learning as "wholly" online learning (Oblinger & Oblinger, 2005), whereas others simply reference the technology medium or context with which it is used (Lowenthal, Wilson & Parrish, 2009). Research has argued that online learning is best accomplished when learners participate and collaborate (Bento & Schuster, 2003; Leidner & Jarvenpaa, 1995; Webster & Hackley, 1997). Many researchers seem to agree on that participation is a key driver for learning (Stefan, 2008). Davies and Graff (2005) examined the relationship between the level of online participation and grade. Furthermore, Vonderwell and Zachariah (2005) studied for factors that influence learner participation. In addition, Simonds, Thomas and Brock (2014) claimed that age, experience and exposure toward different online activities have a significant influence on students' online participation and choices of activities. They claimed that adult learners usually prefer to watch lectures through videos, while the younger generation favor an interactive approach. Instructors have to be creative in applying the appropriate learning strategies to encourage the learners to participate actively.

Fredericksen, Picket, Shea, Pelz and Swan (2000) indicated that online learning courses contain learning activities that are not only Web-based activities or online learning activities. It appears that in the context of education, there is a consensus in the literature that learning activities refer to the actions and operations those individuals perform in order to achieve a desired learning outcome mediated by educational tools (Lapre, Mukherjee & VanWassenhove, 2000). In context of online learning implementation, the online activities are mediated by online learning tools (Lam, 2004).

Lecturers would usually discuss and explain the learning outcome in class and then apply this information to activities, problems, and tasks in subsequent learning sessions. At present, in the Malaysian scenario, educational institutions have begun supporting conventional teaching methods with e-learning environments (Khalid, Yusof, Heng & Yunus, 2006). The Ministry of Education (MOE, 2012a) has encouraged educational institutions to utilize Information Communication Technology (ICT) in teaching and learning in order to create capable and innovative graduates. There is no doubt that technology plays an important role in changing the

way learning content is presented (Kamaruddin, 2010); however, there is still much scepticism amongst Malaysians over the efficiency of using online learning as a medium of teaching and learning (Chung, 2008; Luo, Boland & Chan, 2013).

The study by Hrastinski (2008) reveals numerous practices used to encourage student participation in online classes. Abrami, Bernard, Bures, Borokhovski, and Tamim, (2011), stated that it is important to have frequent interaction in online learning, observed by instructor. Four types of interactions can help increase student participation online; 1) student-faculty interaction which includes communication in the form of chats, emails, and video conferences; 2) student-content interaction that facilitates learners' accessibility to the course materials and information provided in online class environment; 3) technology-student interaction which enables learners to navigate the learning management system and various technological tools that aid in delivering content; and (4) student-student interaction which involves the communication and exchange of information in chat sessions, discussions, group work and team activities among the learners (Abrami, Bernard, Bures, Borokhovski & Tamim, 2011; Angelino, Williams & Natvig, 2007; Chen, 2007 in Chakraborty & Nafukho, 2014). In order to increase student participation Simonds and Brock (2014) also posted a list of activities used in online learning activities such as, 1) Live chats led by the instructor; 2) Live lectures/audio sessions; 3) Watching archived lectures asynchronously; 4) Instructor comments in online discussion boards; 5) Student comments in online discussion boards; 6) Emails from the instruction; 7) Emails from the students/peer; 8) Exploring web links/ online materials; 9) Viewing pre-recorded video lectures; 10) Listening to pre-recorded audio files; 11) Reading lecture notes; 12) Telephone conversations with the instructor; 13) Telephone conversations with the students; 14)Participating in online small group projects; 15) Reading power points; and 16) Reading course texts and articles.

It takes time to adopt and adapt to changes in technologies. Online learning not only allows institutions to serve more students at a lower expense, but it also improves teaching methodologies, increases the learning involvement, and enhances communication among students and instructors, sometimes even beyond the interaction that is possible in a traditional classroom (Chakraborty & Nafukho, 2014). Student satisfaction is also

another important element in online learning implementation. In order to fulfill student satisfaction in online learning, it is important that the instructor give clear instructions regarding how to access course content and learning activities (Chakraborty & Nafukho, 2014). In the same study, the authors agreed that the satisfaction level among students increased when they could easily navigate the videos containing the guides to using online learning. One of the major successful indicators is the use of video conferencing that can enhance interaction among users. Besides that, online learning is also more humanistic as it can be personalized with real time connection where the student can be fully engaged in the learning process (Chakraborty & Nafukho, 2014). The advancements in ICT are such that no one can perfectly predict the future of higher education. Many of the respondents' report of satisfaction and frustration were tied to the environmental nature of online classes with satisfying experiences described in terms of flexibility and frustration being described as a personal disconnect or some variant of that theme. Other descriptions were related the superiority or inferiority of instructional design and online learning environment(s). Those concepts were commonly reported in the answers to the questions where respondents were asked to describe their overall levels of satisfaction and frustration with online education. Those overall themes are reported in the following paragraphs followed by some specific instances of satisfaction and frustration. In a study by Tohm (2012), most of the online users were satisfied with online learning because of the flexibility of the medium, high connectivity to others in the online classroom community while another with the same overall satisfaction level reported feeling that their interaction with the instructor was more individualized and personal.

Theoretical Framework

Figure 1: Theoretical Framework of the Research

Figure 1 above shows the theoretical framework for "Online Learning: Student Participation and Satisfaction. The variables used are adopted from the literature review.

METHOD

In this research, the respondents were the students doing their Bachelor in Office Systems Management from the Faculty of Business Management at UiTM, Pahang. 100 sets of questionnaire were distributed and all were usable for this study. The questionnaire, containing 42 items, comprised five close-ended sections. The breakdown of the sections in the questionnaires is as follows:

Table 1: Instrument Sections

Section	Item	Number of question	Type of question
A	Demographic	5	Closed-ended question
B	Online learning activities	14	5-point Likert Scale
C	Student participation in online learning	10	5-point Likert Scale
D	Lecturers' approach in online learning	8	5-point Likert Scale
E	Student satisfaction toward online learning	5	5-point Likert Scale

The students completed the questionnaire during the class period on the date the survey was circulated. The data from the questionnaire were analyzed using the Statistical Package for Social Sciences (SPSS), version 22.0. Descriptive measures such as the mean and standard deviation were used to identify the activities in online learning, lecturers' approach in online learning and student participation in online learning. This study also investigated the correlation between student participation and satisfaction toward online learning among the Bachelor of Office Systems Management students at UiTM, Pahang.

RESULTS AND DISCUSSION

Reliability Analysis

The result of the Cronbach's Alpha,shown in Table 2, shows that the followings sections are acceptable and reliable. Sekaran (2003) suggested that reliability which is less than 0.60 can be considered poor, those in the 0.70 range can considered acceptable and those over 0.80 can be considered good.

Table 2: Internal Consistency of the Constructs of the Survey Instrument (Reliability Analysis Result)

Construct/Scale	N of items	Cronbach's Alpha	Result
Online learning activities	14	.860	Good
Student participation in online learning	10	.763	Acceptable
Lecturers' approach in online learning	8	.907	Good
Student satisfaction toward online learning	5	.810	Good

Demographic Analysis

Table 3 below shows the demographic profiles of the respondents (N=100) in Section A. The first five questions of the survey were on respondents' gender, age, semester (part), credit hours to be completed in the current semester, time spent on online learning and types of online activities.

Table 3: Respondents' Demographic Profile: Gender (N=100)

Gender	Result (percent)
Male	12%
Female	88%

Table 4: Respondents' Demographic Profile: Age (N=100)

Age	Result (percent)
21-23 years old	92%
24-26 years old	8%

Table 5: Respondents' Demographic Profile: Semester (part) (N=100)

Semester (part)	Result (percent)
3	34%
4	24%
5	29%
6	13%

Table 6: Respondents' Demographic Profile: Credit Hours to be Completed in Current Semester (N=100)

Credit hours to be completed in current semester	Result (percent)
Less than 10 credit hour	1%
11 - 20 credit hour	16%
21 - 30 credit hour	83%

Table 7: Respondents' Demographic Profile: Time Spend on Online Learning (N=100)

Time spent on online learning	Result (percent)
Less than one hour per day	11%
2 – 3 hours per day	70%
4 – 5 hours per day	19%

It can be concluded from Tables 3, 4, 5, 6 and 7 that the majority of the respondents are female (88%) aged between 21-23 years old (92%) from semester 5 (29%). Most of the respondents reported spending between 2-3 hours per day for online learning activities.

Research Objective 1: To Identify the Online Learning Activities among Students

Table 8 shows the type of online learning activities which the students of the Bachelor of Office Systems Management engaged in which included accessing lectures, online notes, tutorial/exercises, and assignments; participating in group discussions, online presentations and online tests/ quizzes; searching online databases; blogging; social media; instant messaging; and email.

Table 8: Online Learning Activities Frequencies (N=100)

Type of online learning activities	N	Percent	Percent of cases
Lectures	43	6.6%	43%
Online presentation	38	5.8%	38%
Notes	81	12.4%	81%
Group discussion	85	13.0%	85%
Online test/quiz	84	12.8%	84%
Online database	52	8.0%	52%
Tutorial/exercise	77	11.8%	77%
Assignments	80	12.2%	80%
Blogging	6	0.9%	6%
Social media	34	5.2%	34%
Instant messaging	40	6.1%	40%
Email	34	5.2%	34%
Total	654	100.0%	654%

Dichotomy group tabulated at value 1.

Table 8 above shows that the most popular type of online learning activities among students is group discussion (13%), followed closely by doing online tests or quizzes (12.8%) and accessing online notes (12.4%). This shows that group discussion is the main online activity among students at UiTM Pahang. The group discussion may include sharing sessions and discussion on the subject or chapters between the students and lecturers. However, the results also show that the lecturers tend to conduct online tests or quizzes in order to encourage students to participate in online learning. Likewise, the students search for and/or download notes given by their lecturers as part of online learning activities.

Table 9: Online Learning Activities (One-Sample Statistics, N=100)

Online learning activities	N	Mean	Std. Deviation	Std. Error Mean
Sharing assignments with other classmates (via forum/ discussion)	100	3.75	1.009	.101
Sharing assignments with other classmates (via email)	100	3.00	1.101	.110
Participating in chat sessions (with lecturers)	100	3.91	.818	.082
Participating in chat sessions (with classmates)	100	3.97	.810	.081
Reviewing chapter slides online	100	4.24	.653	.065
Submitting course assignments online	100	4.20	.682	.068
Registering for courses	100	4.34	.699	.070
Reading other classmates' discussion in the group forum	100	3.98	.841	.084
Reading lecturers' discussion in the group forum	100	4.15	.783	.078
Reading emails from other classmates	100	3.13	1.116	.112
Checking grades online	100	3.81	1.051	.105
Reading emails from the lecturers	100	3.36	1.040	.104
Watching videos online	100	4.15	.770	.077
Developing personal blogs or websites	100	2.27	1.171	.117

Table 9 above identifies the activities that contribute the most to student online activities. The results were obtained by analyzing the data using One-Sample Statistics. Although registering for courses online is mandatory and cannot be strictly considered as part of online learning, this item was included because the researchers wanted to find out if any other learning activity would supercede this mandatory activity. The findings reveal otherwise. Following registering for courses was reviewing chapters and online slides notes (M=4.24). Thirdly, they used online facilities to submit course assignments (M=4.20) to their lecturers.

Research Objective 2: To Investigate the Lecturers' Approach to Encourage Student Participation in Online Learning

Table 10: Lecturers' Approach (One-Sample Statistics, N=100)

Lecturers' approach to encourage student participation in online learning	N	Mean	Std. Deviation	Std. Error Mean
Uploading assignments in the group forum	100	4.28	.637	.064
Explaining the assignment in detail given in the online discussion	100	4.03	.784	.078
Encouraging question and answer sessions in group discussions	100	4.04	.764	.076
Giving feedback during group discussions	100	4.13	.734	.073
Using simple language to deliver their message in group discussions	100	4.11	.695	.069
Understanding students' difficulties in online learning	100	3.72	.933	.093
Supervising chapters in group discussions	100	4.00	.682	.068
Providing answers/results/marks for assessments	100	3.95	.821	.082

Table 10 above shows the respondents' perception to the approaches used by lecturers to encourage student participation in online learning. The highest mean was uploading assignments in the group forum (M=4.28), followed by giving feedback in group discussions (M=4.13) and using simple language to deliver their message to the students in group discussions (M=4.11). These findings reveal that the students will participate in online learning when their lecturer uploads assignments in a group forum. In addition, giving feedback in the group forum and the use of simple language to deliver messages in the group discussion or group forum can enhance student participation in online learning activities.

Research Objective 3: To Identify the Level of Satisfaction among Students toward Online Learning.

Table 11: Descriptive Statistics (N=100)

	N	Range	Sum	Mean	Std. Deviation	Variance
Mean_satisfaction	100	2.80	381.60	3.8160	.63544	.404
Mean_ participation	100	2.90	364.70	3.6470	.48335	.234
Valid N (listwise)	100					

Table 11 above shows the level of student satisfaction and participation toward online learning. The overall mean for student participation in using online learning is (M=3.64) which is at the moderate level. By comparison, student satisfaction using online learning can be considered as fair at (M=3.81) showing that the majority of students are fairly satisfied with online learning. Therefore, these findings have revealed the current level of satisfaction and participation toward online learning among students at UiTM Pahang.

CONCLUSION

This research has shown that group discussions, online tests or quizzes and searching for online notes are the main online activities that Bachelor of Office Systems Management students at UiTM Pahang engage in. It also was found that lecturers can encourage student participation in online learning by uploading assignments in a group forum. Moreover, the research has identified the level of student satisfaction towards online learning to be fair while participation towards online learning at UiTM Pahang is moderate. Thus, based on these findings, future research can uncover the factors that influence the student participation and satisfaction in online learning and the subsequent impact on academic performance among students at UiTM Pahang. The authorities at UiTM Pahang should take note of these findings to improve the effectiveness of online learning implementation among students and lecturers. This is important to ensure that the students are satisfied and interested in participating in online learning as a way of comprehending the subject matter throughout the student learning time at UiTM Pahang.

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