Adopting Blended Learning: An Analysis and Review of Students' Acceptance in UiTM Pahang

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ABSTRACT

This paper discusses the findings of an empirical study in adopting Blended Learning (BL) approach for teaching diploma students in Universiti Teknologi MARA (UiTM) Pahang. Self-administered questionnaires were distributed to 86 final year students of Diploma in Computer Science registered for the programming course and 67students of Diploma in Banking registered for the Malaysian economy course to assess their acceptance towards the new approach. The students' perception on i-Learn Portal usage for BL approach as well as the benefits of implementing Blended Learning approach in their learning process were also identified. The findings reveal that the students could adapt with the BL approach since most of the students are computer and Internet literate and gradually adapting to the mixed approaches of assessments. The findings also show that most of the students agreed that the implementation of Blended Learning should be continued corresponding with the development of technology, but there are some suggestions on improvement of the Learning Management System (LMS) portal to achieve the benefits that Blended Learning offers either in physical or virtual classrooms.

Keywords: *Blended Learning, virtual classroom, students' acceptance, LMS portal*

Introduction

Face-to-face learning environment is being practiced from the early education generation until now. With the growth of technology, it has changed the way of teaching and learning processes are being carried out. One of the teaching approaches introduced is the implementation of online learning with the presence of various web-based Learning Management Systems (LMS) that enable the teaching process being conducted anytime and anywhere. In Universiti Teknologi MARA (UiTM), blended learning approach was initiated in 2009 where it is a combination of the face-to-face lecture session with the online session and the university's aim is to achieve 30% of all courses from various programs to be conducted online by June 2013.

Starting from March 2013, i-Learn Center (i-LeC), UiTM Malaysia has opened the registration for the lecturers to choose blended learning mode for their teaching process. The lecturers can choose to register their course as a blended learning course starting from the first week until the fourth week of every academic session. Some of the online activities that can be done to practice blended learning are distributing learning materials, online quizzes, online submission and grading of assessments, and conducting discussion on selected topics in the syllabus using Learning Management System (LMS). UiTM's LMS is known as i-Learn Portal enables the lecturers to do all the online activities and the participations of the students can be tracked using the "Monitoring Tools".

However, some of the lecturers are unsure whether the students would accept or not accept the Blended Learning approach in their learning and teaching processes. Some of them also are afraid if the students refuse to participate in the online learning using i-Learn Portal. Thus, this study was conducted in UiTM Pahang in order to assess the students' acceptance of blended learning approach in UiTM. The researchers also intended to investigate the students' view on i-Learn Portal as the platform for blended learning as well as the benefits that they found when learning sessions are being conducted using blended learning approach.

Literature Review

In general, Osguthorpe and Graham (2003) defined blended learning as the combination of mixed approaches to learning and using several different delivery methods like web-based courses or computer communication practices or collaboration software and traditional face-to-face instructions.

Blended learning is defined by Thorne (2003) as "a way of meeting the challenges 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" (as cited in Akkoyunlu & Soylu 2008).

Valiathan (2002) also described blended learning as a solution which combines variety of different delivery methods, for instance collaboration software, web-based courses and knowledge management practices. He also mentioned that blended learning can be used to demonstrate learning that mixes lots of event-based activities, together with face-to-face classrooms, live e-learning and self-paced instruction (as cited in Ugur et al. 2009). Nonetheless, blended learning gives different meaning to different people according to their teaching needs and institutions. Thus there is no standard definition of blended learning is given (Gutierrez, 2006).

The implementation of blended learning has been widely practiced in higher education institutions nowadays. According to a study conducted by Akkoyunlu and Soylu (2006), the results showed that the students would achieve more in their academics and would develop more positive views towards blended learning when they participated in the online discussion forums. In addition, they found that both the face-to-face lectures and the online assignments contributed to the learning process. This was also supported by Sauers and Walker (2004) that students who participated in a blended course perceived their course system is more beneficial than the traditional face-to-face lectures (as cited in Adas & Shmais, 2011).

Another study conducted on some university students in Australia by Adam and Nel (2009) revealed that the students preferred a blended learning approach that involved with face-to-face teaching, knowledge media and used a live *Navigator*. Interesting findings by Delialioglu and Yildirim (2007) indicated that majority of the students who enrolled in "Computer Networks and Communication" course at a public university in Turkey found the cognitive tools available in the course website were useful. One of the students claimed that he could take notes and underline things he needs to remember conveniently from the website of the course. The student also felt that it was helpful for him or her to customize the web pages according to his way of learning. Nevertheless, the researchers suggested that academicians should use multimedia in the web component to enhance the implementation of blended learning. Printed materials and online self-assessment tools should also be provided for the students. Not to forget, the institutions must also encourage and provide facilities for student-student and student-instructor communication in order to make the implementation of blended learning successful. It is recommended that ill-structured subjects to have different design in a blended learning environment because not all subjects could use the same delivery methods in blended learning. Delialioglu and Yildirim (2007) also added that effective dimensions of interactive learning in a blended learning environment with different learners and in different subject area are essential.

Nonetheless, students gave negative evaluations on the implementation of blended learning approach when most of the teachers tend to assign more work in the virtual part than in the attending part which means an overload of online activities for students (Cabero, Llorente & Puentes, 2010). This is probably because of lack of teachers' experience in working in these environments. Thus, training and recruitment of teachers are necessary and spaces (virtual or attending) should be created for the exchange and discussion about the starting up by the teachers. As such, teacher training actions need to be established before the beginning of the experience

Methodology

The purpose of this survey is to assess the students' acceptance towards the implementation of blended learning approach. The data used were drawn from a sample of students at UiTM Pahang from two different faculties who have already registered for blended learning approach during the June – October 2013 semester. The population was all Part 4 students from the Diploma in Banking (71 students) who enrolled in

the Malaysian Economy course and all Part 5 students from the Diploma in Computer Science (102 students) who enrolled in the Programming course. A self-administered questionnaire was distributed to a random sample of 153 students from those programs. Students were asked to complete the questionnaire during class period in order to receive a high response rate. The response rate was 88.44%.

The questionnaire was designed into 3 sections. Section A consists of questionnaire items that contain the demographic profile of the respondents; Section B on the hardware and internet facilities; Section C on the students' view on blended learning approach, and Section D on the students' view on i-Learn portal to support the online teaching and learning were addressed. The measurements for close - ended questionnaire were structured using the 5-point Likert scale; according to the degree of agreements, 5 for strongly agree and 1 for strongly disagree. At the same time, the respondents were also allowed to give their views and recommendations in the open-ended question.

The data obtained from the questionnaire were analyzed using the Statistical Package for Social Sciences (SPSS), Version 21. Descriptive analyses such as mean and percentages were used to investigate how the students perceive blended learning approach in their learning process.

Findings and Discussions

Table 1 represents the descriptive statistics of the respondents' profile. This study indicates that 92 (60.13%) female and 61 (39.87%) male students have completed the questionnaire. 86 (56.21%) respondents were identified as students from the Diploma in Computer Science (CS110) and another 67 (43.79%) respondents were Diploma in Banking (BM112) students in UiTM Pahang. Out of 153 students, 71.9% of them claimed that they do have internet at home. It shows that most of the students are easily accessible to internet that could support the implementation of the blended learning approach.

Table 1: Descriptive Statistics of Respondents' Profile

Measure	Items	Frequency	Percent
Programme	CS110 (FSKM)	86	56.21
	BM112 (FPP)	67	43.79
Gender	Female	92	60.13
	Male	61	39.87
Have Internet at home	Yes	110	71.9
	No	43	28.1

Table 2 shows the students' perception towards the implementation of blended learning approach in their learning at the university. The findings show that 76.47% students agreed that they can reduce their printing cost when blended learning approach takes place. It can be seen that this item also has the highest mean score (4.03) compared to other items. Majority of the students also perceived that blended learning supports ideas and experience sharing amongst students (mean score = 3.99) and they are always being guided by the lecturers (mean score = 3.94) when using blended learning. Furthermore, they claimed that they could prepare their class session very well as they could download the notes and do their assessment online easily from i-Learn portal (mean score = 3.90). Nonetheless, the students felt that their study workload had not increased when they adopt blended learning (mean score = 2.24). Probably the students are able to adapt with the learning styles via online and traditional face-to-face methods. The students also claimed that they are not sure whether the blended learning approach would be more effective than the traditional approach (full time face-to-face) with a mean score of 3.39.

Table 2: Students' View towards the Implementation of Blended Learning (BL) Approach

Items	Percentage					Mean
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
1. BL approach encourages self-learning to students	0.65	9.80	13.73	55.56	18.95	3.83
2. BL helped students learn better	0.65	9.15	23.53	49.67	16.99	3.73

3. BL increases opportunity for discussion amongst students and lecturers	0.65	6.54	24.84	50.33	16.99	3.77
4. BL provide flexibility to students in terms of their needs (enabling students to study when they choose to)	0.65	5.23	24.84	54.25	14.38	3.77
5. BL helps students to prepare well for class sessions(eg: download notes and assessments)	0.65	3.92	22.22	50.98	22.22	3.90
6. BL increases the study workload for students	17.65	46.41	28.76	5.23	0.65	2.24
7. BL increases interaction levels between individual students and the lecturer outside class	0.65	5.88	28.76	46.41	18.30	3.76
8. BL support close relationship between students and lecturer	0.65	6.54	33.33	41.18	18.30	3.70
9. BL supports ideas and experience sharing amongst students	0.65	7.19	11.76	52.29	27.45	**3.99**
10. Online Quizzes/tests easier to implement	3.27	7.19	16.34	46.41	26.80	3.86
11. BL decreases costs for individual students (printing)	1.96	3.92	17.65	42.48	33.99	**4.03**
12. The lecturer helped to guide when using BL	1.31	2.61	20.26	50.98	23.53	**3.94**
13. Students received enough online feedback from lecturer	0.00	3.92	26.80	49.02	20.26	3.86
14. BL approach would be more effective than traditional approach (full time face-to-face)	2.61	7.84	28.10	33.33	11.76	3.39
15. BL approach encourages students to participate in the discussion(reduce inhibition)	2.61	5.88	27.45	46.41	17.65	3.71
16. BL approach supports flexibility of learning styles for students	3.27	4.58	24.84	45.75	21.57	3.78

Based on earlier discussions, Table 3 summarizes the students' view on the implementation of blended learning approach. All students do accept blended learning approach and there is no difference between CS110 and BM112 students to adopt blended learning approach in their learning at the university.

Table 3: Students' View on Blended Learning (BL) Approach (CS110 vs BM112)

Programme	N	Mean
CS110	86	3.72
BM112	67	3.68

Table 4 indicates the students' view on i-Learn portal as the platform for blended learning in UiTM. Majority of the students (80.39%) responded that the notes in i-Learn portal are beneficial to them in the teaching and learning process. Probably because the students who use i-Learn portal can easily get the notes needed from any UiTM campuses as long as they registered for the same courses in the portal. The students also found that i-Learn portal is user-friendly and easily to access. On the other hand, most students reported that they were uncertain whether they faced any technical problems when accessing i-Learn portal (mean score = 3.20). The implementation of blended learning could not be done smoothly if technical problems always occur especially at the beginning of the semester as it would disrupt the courses registration for students. However, all students perceived that i-Learn portal is beneficial to be used as the platform for blended learning as seen in Table 5.

Table 4: Students' View on i-Learn Portal as Platform for Blended Learning

	Items	Percentage					Mean
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
1.	i-Learn portal is user friendly portal	1.31	1.96	16.34	54.90	19.61	3.96
2.	i-Learn portal was easy to access	1.31	1.96	18.95	54.25	22.88	3.96
3.	**Notes in iLearn portal help in teaching and learning process**	0.65	1.96	16.34	52.94	27.45	**4.05**
4.	No technical problems when accessing the i-Learn portal	4.58	16.34	41.83	28.10	8.50	3.20
5.	The instructions provided on the i-Learn portal were easy to follow	1.31	2.61	24.18	56.21	15.03	3.82
6.	Functionalities (group forum, course materials, etc) provided on the i-Learn portal is sufficient for BL	0.00	3.27	22.88	53.59	19.61	3.90
7.	Monitoring tools in i-Learn portal helps in tracking the participations of students	1.31	0.65	26.14	54.25	16.99	3.86

Table 5: Students' View on i-Learn Portal as Platform for Blended Learning

Programme	**N**	**Mean**
CS110	86	3.91
BM112	66	3.71

Conclusion and Recommendations

It is no doubt that the diploma students from the Faculty of Business Management, and the Faculty of Computer Science and Mathematics do accept the implementation of blended learning approach in UiTM. From the recommendations given by the students, 60.8% of them prefer to have a balance mixture of online learning and face-to-face learning time as mostly practised in UiTM at the moment, followed by 20 (13.1%) students who would like to spend more time using online and have less face-to-face lecture session, 18 (11.8%) students prefer traditional teaching with no online learning and only 15 (9.8%) students prefer to have 100% online for learning and teaching process.

The university plays a big role in providing facilities such as computer and sufficient internet connection for the students and lecturers to support the blended learning activities. Access to the computer network is very important as the students need unlimited access and flexible time to fulfill their online learning. Most of the students agreed that the implementation of blended learning should be continued corresponding with the development of technology, provided that they have necessary and reliable computer hardware and internet connection.

Interestingly, the Diploma in Banking students prefer to have more online learning and have less face-to-face lecture session compared to the Diploma in Computer Science, probably because they want to experience different learning style . The blended learning approach would be more challenging to the lecturers if the students show more interest on online learning because it will require the lecturers' creativity and commitment to fully utilize the usage of i-Learn portal. It is very crucial for the lecturers to have different teaching styles in order to attract and encourage their students to do online learning. However, the technical problems that do occur sometimes at the beginning of the semester should be rectified in order to

support successful implementation of blended learning in UiTM. It is also recommended that i-LeC should prepare some enhancement in i-Learn portal in terms of the functionality and the reliability of the system as the number of users is growing and the system should be able to handle massive users simultaneously. Some students found difficulties in fulfilling the online assessment such as online quizzes and tests that have been conducted using the portal due to the technical problems.

Another drawback found from the survey is that there is no email notification available on i-Learn portal to alert the students of any important updates from their lecturers regarding the subjects they have registered. Thus, some students found that blended learning approach is somewhat burdensome to them as they will miss any announcement made by their lecturers especially when their lecturers upload the assignment or online quizzes, unless they are told to do so earlier during their face-to-face lecture session.

Further study is currently being carried out to determine the students' performance in their quizzes or test as a result of using blended learning and to look at how both lecturers and students really make use of blended learning in their teaching and learning process. It is also suggested to have larger sample size in this study because only 153 students were involved in this study compared to the whole population of students in UiTM Pahang.

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