

Performance on the Readiness of UNITEN Instructors for Blended Learning

Soong Der Chen, Nor'ashikin Bte. Ali, Taisir Mohammed Hameed, Norashidah Md Din

Abstract: *This paper presents a study on the readiness of Universiti Tenaga Nasional (UNITEN) for Blended Learning (BL) from the perspectives of instructors' motivation. The data in the study have been collected from 25 instructors who have been actively teaching in UNITEN. The results show that the instructors are generally motivated and ready for BL. The most motivating factor is providing flexible learning environment using ICT. The other factors surveyed include interest of student in using technology for learning, willingness of instructor for online discussion, effectiveness of online learning, enrichment of student's experience via BL and improvement in student participation through online collaboration. This study is concluded with recommendations on the categories of instructor who may need more attention to further improve their readiness.*

Keywords: *Blended Learning, E-Learning, Online Learning Readiness, Motivation, Instructor, UNITEN*

I. INTRODUCTION

The pervasiveness of ICT has brought about rapid transformation in teaching and learning process in higher education. Furthermore, in 21st century where the generation of students has a keen interest in using technology in learning, higher education institutions (HEIs) are compelled to explore strategies for effective delivery of learning and performance. The advancement of Information, Communication and Technology (ICT) provides opportunities for both instructors and learners to be innovative in stimulating and enhancing the teaching and learning process; thus new learning method like online learning, e-learning or web-learning emerges to complement traditional classroom. The recent emerging trend that is gaining popularity is blended learning, a combination of traditional teaching and online learning. It is viewed to complement face-to-face learning or traditional learning. Blended learning allows collaborative learning that enable online learners to interact together anytime and anywhere, without being time, place, or situation bound. BL use facilities such as web conferencing, Skype and group chats, and asynchronous tools that include discussion boards, blogs and social networking sites [1].

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BL facilitates learning process outside the confines of the classroom. The pervasiveness of ICT has brought about rapid transformation in teaching and learning process in higher education. Furthermore, in 21st century where the generation of students has a keen interest in using technology in learning, higher education institutions (HEIs) are compelled to explore strategies for effective delivery of learning and performance. The advancement of Information, Communication and Technology (ICT) provides opportunities for both instructors and learners to be innovative in stimulating and enhancing the teaching and learning process; thus new learning method like online learning, e-learning or web-learning emerges to complement traditional classroom. The recent emerging trend that is gaining popularity is blended learning, a combination of traditional teaching and online learning. It is viewed to complement face-to-face learning or traditional learning. Blended learning allows collaborative learning that enable online learners to interact together anytime and anywhere, without being time, place, or situation bound. BL use facilities such as web conferencing, Skype and group chats, and asynchronous tools that include discussion boards, blogs and social networking sites [1]. BL facilitates learning process outside the confines of the classroom.

While BL provides new learning environment and is often thought as a way to transform education, it may not be fully accepted by academics. A few studies reported that negative perceptions held by members of academic staff could affect the adoption of blended learning [2][3][4]. For lecturers, shifting to BL means learning new skills, mastering new technology and interacting with students in new ways [5]. It cannot be assumed that when BL is implemented, it is fully accepted by university academics or instructors. Therefore, it is of considerable importance that instructors' readiness are understood so that BL can be effectively implemented, and the university can get the most out of it. In this paper, we intend to report the readiness of instructors in one university in Malaysia, called as Universiti Tenaga Nasional (UNITEN).

II. LITERATURE REVIEW

Blended Learning: Several definitions of blended learning (BL) exist. BL is defined by [6] as a combination of synchronous interaction of face-to-face learning and the asynchronous interaction of Internet. BL environment is viewed by [7] as the blend of the face-to-face teaching environment and ICT-mediated teaching and learning environment. Similar view has been shared by [8] on the definition of BL that is the combination of ICT-



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mediated environment and traditional face-to-face in teaching and learning activities. Meanwhile, [9] tend to view BL by focusing more on pedagogy, which they view BL as learning with blended pedagogies. It is further described by [10] three components of blended learning to include integration of learning environment, instructional and media. He describes learning environment component as to be either synchronous or asynchronous while instructional component is for choosing the most appropriate instructional strategies that support the learning objectives. The instructional quality is of paramount importance to ensure the effectiveness of blended learning.

Another important component of BL is media, which refers to vehicles for delivery of content. Examples of media used in blended learning are virtual classroom, videos, online bulletin boards and other learning tools that are web-based platform. These media can be used either for a synchronous or asynchronous learning environment. The choice of media may affect how the instructor designs the content. Because there is no single commonly accepted definition of blended learning, practitioners define BL according to the contexts of practice. Thus, for the purpose of this study, which is for a specific university, BL is viewed as a mix of online and traditional face-to-face teaching that combines various delivery modes such as web conferencing, Skype, discussion boards and social networking sites. At this point of time when the study was conducted, we conclude that the minimum requirement for learning environment to be called as “blended learning” is when there is an integration of online instructional resources and face-to-face learning. BL is a recent major global trend that has captured attention of many higher education institutions (HEIs). HEIs have been exploring strategies for effective learning and performance, and the emergence of BL provides new learning environment for effective delivery of learning that has potential to provide a high return in investment. Nowadays, learning requirements and preferences of each learner is different thereby leading universities to move away from a faculty-centred and lecture-based paradigm to student-centred paradigm. BL can meet demands of larger and diverse population when the physical classrooms are not sufficient to accommodate increasing number of students, The advancement of Information, Communication and Technology (ICT) provides opportunities for both instructors and learners to be innovative in stimulating and enhancing the teaching and learning process; thus BL emerges as a new learning method to complement traditional classroom [1]. This paper presents a study on the readiness of UNITEN for BL from the perspectives of instructors’ motivation. The methodology used in this study will be presented in the next section, followed by analysis and discussion on the results. The conclusion and recommendations for future research will be presented towards the end of this paper.

III. METHODOLOGY

The research design used in this study was quantitative in nature. Descriptive survey method was used to gather valuable knowledge about the level of UNITEN instructors’ readiness for BL. A survey was conducted among UNITEN instructors from all the faculties including Engineering, IT and Business. The on-line survey was constructed using questions adapted from [11], [12], [13] and [14]. The survey

consisted of two sections: the first section was on the demographics and the second section was on the motivation of instructor in using BL. In the first section, there are three (3) demographic questions, including gender, designation and college. In the second section, there are six (6) statements related to instructors’ motivation for BL. The expected answer is informed of Likert scale ranging from 1 to 5 with 1 being the lowest score (Strongly Disagree) and 5 being the highest score (Strongly Agree). The statements are as follows:

1. I prefer to use ICT to provide flexible learning environment for students.
2. My students like the way I incorporate technology in my teaching.
3. I am willing to log on and contribute to an online classroom discussion and interact with student.
4. Teaching is more effective and fun with the use of online learning materials.
5. E-Learning improves the learning process and experience of students.
6. Online collaboration motivates students to actively participate in any discussion.

IV. RESULTS AND DISCUSSION

A. Demographics

A total of 25 respondents answered the survey and the demographics of the respondents are as shown in Table I. There were slightly more female respondents (64%) than male respondents (46%). The distribution of respondents according to the designation of Lecturer, Senior Lecturer, Associate Professor and Professor were 12%, 52%, 28% and 8% respectively. Instructors from five (5) different colleges of UNITEN participated in the survey. The distribution of respondents according to the colleges are as follows: College of Engineering 44%, College of Computing and Informatics 16%, College of Business Management and Accounting 12% and College of Graduate Studies 20% respectively.

Table. 1 Descriptive Statistics of Demographic Characteristics

Demographic Statistics			
	Demographic Factors	N	%
1	Gender		
	Male (M)	9	36%
	Female (F)	16	64%
2	Designation		
	Lecturer (L)	2	12%
	Senior Lecturer (SL)	14	52%
	Associate Professor (AP)	7	28%
	Professor (P)	2	8%
3	College		
	College of Engineering (COE)	11	44%
	College of Computing and Informatics (CCI)	4	16%
	College of Business Management and Accounting (COBA)	4	12%
	College of Energy Economics (CES)	1	8%
	College of Graduate Studies (COGS)	5	20%



B. Motivating Factors

Table. 2 Means of Motivating factors of instructors (Overall)

Overall			
	Motivating Factor	Mean	Standard Deviation
1	I prefer to use ICT to provide flexible learning environment for students.	4.04	0.64
2	My students like the way I incorporate technology in my teaching.	3.72	0.87
3	I am willing to log on and contribute to an online classroom discussion and interact with student.	3.48	0.95
4	Teaching is more effective and fun with the use of online learning materials.	3.64	0.96
5	Blended learning improves the learning process and experience of students	3.56	0.82
6	Online collaboration motivates students to actively participate in any discussion.	3.65	0.76

The means and standard deviations of the responses for the six motivating factors are as shown in Table II. The results show that the all the six factors have mean greater than 3.00, indicating that the respondents are generally motivated for BL. The standard deviation of the all the six factors are considered low with value less than 1, indicating that the samples' value are close to their mean.

The most motivating factor with mean above 4.00 and the smallest standard deviation is to provide flexible learning environment for students using ICT. This result reveals that the main advantage of BL lies on the flexibility provided such as enabling instructor to spend more time on discussion with students by complementing the conventional face-to-face lecture session with online lecture video. The second most motivating factor is the interest of student in using technology for learning. This result may be explained by the fact that current students are generally having good access to ICT like personal computers (PC) and smartphones which enable them to study anytime, anywhere at their own pace. The least motivating factor is using BL to improve learning process and student experience. Perhaps more activities such as workshop or seminar are required to inspire instructors on how BL could improve learning process and experience of student.

Table. 3 Means of motivating factors by gender

Gender		
Motivating Factor	Mean Value	
	M	F
1 – flexibility of learning environment	4.56	4.25
2 – interest of student in using technology	3.56	3.94
3 – willingness of instructor for online discussion	3.33	3.81
4 – effectiveness of online learning	3.67	3.56
5 - enrichment of student's experience	3.56	3.56
6 - improvement in student participation	3.78	3.56

Table III presents the mean of response for each motivating factor by gender. The maximum and minimum mean of each factor are highlighted by **bold** and *italic* font respectively (this convention is also used in Table IV and V). The means of response from male instructors for motivating factor 1, 4, 6 are the highest while the means of response from female instructors for motivating factor 2 and 3 are the highest. The least motivating factor for male instructor is their willingness for online discussion. UNITEN management may therefore, consider to look for ways to improve willingness for online discussion among the male instructors.

Table. 4 Means of motivating factors by designation

Designation				
Motivating Factor	Mean Value			
	L	SL	AP	P
1 – flexibility of learning environment	4.0 0	4.36	4.3 3	5.0 0
2 – interest of student in using technology	3.0 0	3.93	3.6 7	4.5 0
3 – willingness of instructor for online discussion	3.3 3	3.79	3.1 7	4.5 0
4 – effectiveness of online learning	4.0 0	3.64	3.1 7	4.0 0
5 - enrichment of student's experience	3.6 7	3.71	3.0 0	4.0 0
6 - improvement in student participation	3.3 3	3.71	3.5 0	4.0 0

Table IV shows the mean of response for each motivating factor by the designation of instructor. It's noticed that the means of response from instructors with designation of Professor are the highest for all the six factors. However, the lowest means are from those with designation of Associate Professor (factor 3, 4 and 5) and Lecturer (factor 1, 2 and 6). Besides, the means of response from instructors with designation of Lecturer for all the factors except factor 1 are close to 3.00 or not motivating in general. Since they constitutes 40% of the respondents, UNITEN management is recommended to pay special attention to improve the readiness of instructors from the two categories.

Table V presents the mean of each motivating factor by the college of the instructors. It's worth highlighting that the means of response from CCI instructors for five (5) out of the six (6) motivating factors are the lowest among the four colleges. Besides, the means of response for factor 3, 4 and 5 are below 3.00, indicating that CCI instructors are not motivated by the three factors despite of having good knowledge and skills in ICT. This issue deserves further study to identify the root cause and potential strategies to improve the readiness of CCI instructors for BL.



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Table. 5 Means of motivating factors by college

Factor	College				
	Mean Value				
	COBA	CCI	CES	COE	COGS
1 – flexibility of learning environment	4.33	4.50	5.00	4.17	4.60
2 – interest of student in using technology	4.67	3.50	4.00	3.58	4.00
3 – willingness of instructor for online discussion	4.33	2.50	4.00	3.75	3.80
4 – effectiveness of online learning	3.67	2.50	5.00	3.75	3.80
5 - enrichment of student’s experience	4.00	2.75	4.00	3.58	3.80
6 - improvement in student participation	3.67	3.00	4.00	3.67	4.00

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V. CONCLUSIONS AND RECOMMENDATIONS

It’s concluded from this study that UNITEN instructors are generally ready for BL from the perspective of motivation. The most motivating factor is to provide flexible learning environment for students using ICT. It is recommended to improve the readiness of instructors from CCI and also those with designation of Associate Professor and Lecturer. Last but not least, it’s also recommended to increase willingness of male instructors in UNITEN for online discussion.

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