Perspectives on Blended Learning in Malaysian Institute of Higher Education: Needs, Readiness and Future Challenges

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Abstract: Online learning has become one of the important components in Malaysian institutions of higher education. Some of the higher learning institutions have began to use online learning to complement the face-to-face learning where others use it as added learning to enhance teaching and learning. This paper examines the needs, readiness and future challenges of blended learning in Malaysian institutions of higher education from the perspectives of expert, lecturers and students. The data in the study were collected from six experts and eight lecturers who were directly involved in the blended learning courses. In addition, 38 students who had attended at least one blended learning course were also involved in the interview. Results of the study show that there are needs to offer blended learning courses to overcome increasing number of students intake and the shortage in subject experts, cater for different learning style, allow flexibility in terms of time and place, complement for traditional face-to-face learning, reduce cost and save time, offer convenient, provide stiff competition within industry and receive immediate feedback. Respondents also indicated that Malaysian Institutions of Higher Education are ready to offer blended learning courses in terms of infrastructure, support from stake holders and government policy. The future challenges for offering these courses are up-to-date hardware and software, infrastructure maintenance, optimizing the usage of tools in the system, overcome the resistance to organizational change, continuing commitment of the management, support staff and learners, aligning standard of blended learning courses offered among universities and convert online learning materials to be accessible by other mobile technologies. Malaysian institutions of higher education are ready to offer blended learning courses and the future challenges identified in the study can be used in the future as a guideline in planning these courses.

Key words: E-learning · Automated document download · Automated announcement delivery · E-learning system

INTRODUCTION

Traditional face-to-face method still remains as the main teaching and learning process in Malaysia. With the advancement in technology, educators are enhancing technology in the teaching and learning process. According to [1], the idea of incorporating different learning experiences existed since human started thinking about teaching.

The advancement of technology especially the World Wide Web (WWW) is continually changing the new millennium teaching and learning process [2]. The first wave of e-learning had found that e-learning alone is inadequate in the process of teaching and learning [3]. The second wave of e-learning had suggested the use of blended learning to complement the weaknesses identified in e-learning and traditional face-to-face learning [4] by combining the best from both online learning and traditional face-to-face [2,5,6].

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The infusion using WWW in teaching and learning has become a limelight in the new millennium [7]. With this advancement, educators are facing new challenges of enhancing the WWW in teaching and learning. Some of the higher institutions have taken the initiative to develop and offered courses through Web based [8]. Many of the higher institutions in Malaysia have also started to enhance WWW in teaching and learning such as Universiti Kebangsaan Malaysia, Universiti Sains Malaysia and Universiti Malaya. Some institutions of higher education have incorporated online learning and traditional face-to-face learning known as blended learning course such as Universiti Teknologi MARA Malaysia, Tun Abdul Razak University, Multimedia University Malaysia and Open University Malaysia. Blended learning courses have been widely offered in the new millennium in higher education institution [9] where it maximizes the benefits of both online learning and traditional face-to-face learning [6,10].

Literature has shown that students preferred blended learning courses [11] and they learn positively in blended learning courses [12-14] and have high satisfaction towards blended learning courses [15,2]. Do Malaysians need blended learning? What is the preparation towards this latest sound instruction? What are the future challenges in this instruction? Therefore, it is timely to gather a better insight in the Malaysia scenario on blended learning courses before venturing into it.

The purpose of the current study is to examine the needs, readiness and the future challenges of offering blended learning courses in Malaysian institutions of higher education from the perspectives of expert, lecturers and students.

MATERIALS AND METHODS

In order to explore the needs, readiness and future challenges of offering blended learning courses in Malaysia higher learning institutions, in-depth interview was used to gather the various points of views from expert, lecturers and students on these issues. Semi-structured questionnaire was designed to collect the qualitative data so that the same sequence and style of questions were used during the interview and at the same time, opening for interviewer to change the questions according to the situation based on [16].

The study used cluster sampling method. Higher learning institutions which offered blended learning courses were clustered and respondents from each cluster were chosen randomly. The number of respondents chosen for the study depended on the data collected. The interview was ended once the data collected did not produce any additional new data [17]. A total of 38 students who had attended at least one blended learning course were involved in the interview. The data in the study were also collected from six experts and eight lecturers who were directly involved in the blended learning courses using purposive sampling method. The interview data were coded using NVivo 7 right after each interview. The combined lists of the coded data were then converted into a common form based on the three sub-headings: need, readiness and future challenges.

RESULTS AND DISCUSSION

The results are discussed based on the objective of the research that is to examine: (i) the needs, (ii) readiness and (iii) the future challenges of offering blended learning courses in Malaysian institutions of higher education.

Is it a need for institutions to offer blended learning courses? From the interview data, all interviewees agreed that there were needs for Malaysia higher institutions to offer blended learning courses. The needs suggested for blended learning are to overcome increasing number of students' intake, the shortage in subject experts cater for different learning style, allow flexibility in terms of time and place, complement for traditional face-to-face learning, reduce cost and save time, convenient, provide stiff competition within industry and receive immediate feedback.

Most of the universities in Malaysia are expanding. The impact is that as some universities are facing drastic increase in the number of students' intake [18]. These institutions have started facing a shortage in subject experts [19]. The fastest way to accommodate this problem is by offering blended learning course where the seat times will be reduced and hence reduce the pressure of shortage in subject experts. According to [20], two of the biggest challenges with traditional face-to-face classrooms are lack of scale and long deployment time. Therefore, by offering blended learning courses, it can immediately reduce the pressure of shortage in subject expertise and lecture rooms by reducing the 'seat time'. These findings were supported by [19] where they suggested blended learning courses to overcome these problems.

Different students have their own preferred learning styles. The traditional way of teaching can only accommodate certain and limited learning styles. Respondents indicated that blended learning mode could

accommodate different learning styles. The finding was consistent with [21] where the best model for teaching and learning is to offer a buffet style as in blended learning to accommodate different individual's learning style. The finding was also consistent to [22] where they pointed out that people learn differently and one approach could not fit all needs.

Respondents revealed that in the traditional lectures, students and lecturers can only meet each other during the face-to-face sessions. In the blended learning course, students and lecturers are connected all the time in online learning. Students can discuss, cooperate and motivate each other. Besides this, students can share many things including their experience and learn from each other through constructivist way. This finding was supported by [23]. Students revealed that they have the opportunity to communicate further with their lecturers after the face-to-face sessions. This is similar to the suggestion by [4, 2]. Students also indicated that the flexibility in time and location allowed them for a flexible course scheduling options. This suggestion was consistent with [5, 24]

With the advancement in technology especially in WWW, many educators had enhanced technology in teaching and learning [2]. Respondents revealed that for concepts which were difficult to explain, online learning could be used to complement the face-to-face learning. As suggested by [25,26], the use of information and communication technologies (ICT) in teaching and learning will provide at least part of the solution to the following issues which were suggested in the study. First, students are able to extent their learning hours after their face-to-face session through a variety of learning resources in blended learning and secondly, students also can prepare themselves before the face-to-face session through the aid of online learning. By doing this, the culture of using technology to enhance teaching and learning will be created.

University students are from all over Malaysia. The study groups, discussions and projects may require students to group together. According to respondents, with blended learning mode, all the above activities could be done online. With that, students will be able to save their travelling time and reduce their study cost. [10, 4] also reported that blended learning course reduce travelling time and thus save cost. [4] further suggested that for part-time students, most of them were working adults and reduce travelling time might reduce some of their problems which occurred from travelling such as leaving family, save travelling expenses and time away from job. Consistent with [22], blended learning save cost.

Blended learning course is a flexible mode and is convenient for students and lecturers as also mentioned by [5,27,28]. Respondents pointed out that in the blended learning courses, lecturers could make announcement, upload content at any time when needed and utilise teaching and learning websites as the resources. This feature was reported by [29] where he revealed that blended learning increases the variety of reference materials presentation format. Students said that they could ask questions and share the learning materials at anytime and anywhere. The convenient feature suggested in the study was consistent with [27,28]. The convenience of course scheduling revealed by respondents was consistent with [24] and the flexible feature was consistent with [5]. The finding was also consistent to [22] where they reported blended learning was convenient and flexible in delivery methodologies and technologies.

Universities are facing stiff competitions among industries in students' intake. The primary goal of learning is to deliver educational content. In order to achieve these enduring goals, respondents suggested creating a learning environment which will enable students to feel comfortable and intellectually challenge up-to-date professional manner subject content and setting of high standard [2]. Each university is trying to offer and give their students the best education. According to respondents those universities which offer flexible mode may attract more students. Therefore, universities may need to follow the current trend and blended learning is proven to be the solution for typical traditional face-to-face learning and fully learning mode. This suggestion was supported by [14].

Students mentioned that they like the immediate feedback feature offered in blended learning. The immediate feedback will acknowledge them their current learning status and therefore, they may make some adjustment to master the content. According to [29], feedback may lead students directly to change in the necessary area.

Readiness: All respondents consensually agreed that Malaysia Universities are ready to offer blended learning courses. They indicated the readiness of Malaysia in term of infrastructure, support from stake holders and government policy. Some of the universities in Malaysia already offered blended learning course such as Tun Abdul Razak University (www.unitar.edu.my/), Open University Malaysia (www.oum.edu.my/) and Multimedia University (www.mmu.edu.my/) where some other universities

Table 1: Malaysia Internet Usage and Population Statistics

Country	Population (2009, Estimated)	Internet Users (Year 2000)	Internet Users Latest Data	Penetration (% Population)	Use Growth(2000-2009)
Malaysia	25,715,819	3,700,000	16,902,600	65.7%	356.8%

have been using online learning as the added learning tool. Respondents said that Malaysia has good internet facilities and easily accessible in most areas. Malaysia also has enough expertise to design, implement and maintain the blended learning system. These are proven by some of the universities which have already offered the blended learning courses.

In terms of support from stake holders, academicians are enthusiastic to create the interactive contents. For parents, they are concerned on their children computer skills by sending their children to the computer basic courses and letting their children access the Internet. People in Malaysia are slowly creating the culture of buying laptops or computers which are accessible to Internet. This can be seen in the world Internet usage and population statistics (http://www.internetworldstats.com/stats3.htm) where Internet users have increased by 356.8% from year 2000 to year 2009 (Table 1).

Respondents also revealed that the Malaysian government policy is working towards teaching and learning through technology. In line with the Government policy, the Ministry of Education has created policies to enhance information, communication technologies in teaching and learning. The policies from the foundation of Education Ministry plan for Information and Communications Technology (ICT) in education are: (i) ICT will be used to reduce the digital divide between the country's schools, enabling ICT access for all students; (ii) ICT will be used as teaching and learning tools in education, taught as an independent subject and integrated into others; and (iii) ICT will be used to enhance efficiency, effectiveness and productivity of management in education, through the automation and mechanization of work processes (http://www.comminit. com/en/node/148397/36).

Respondents pointed out that smart schools are the initial step for preparing students to use the blended learning mode. The smart school project intends to fulfil national development goals and aspirations and also to address various educational needs. The education needs which are related to the technology and education are: (i) to prepare school leavers for the information age, (ii) to re-emphasize science and technology education with a focus on creativity and innovation and (iii) to equip students with information technology competence. Schools today are equipped with computer laps for teaching and learning

(http://www.ppk.kpm.my/smartschool/concept.html). Schools also collaborate with outside agencies to offer affordable fees for students to attend basic computer courses.

Future Challenges: The key to future challenges on blended learning courses in Malaysia were identified as up-to-date hardware and software, infrastructure maintenance, optimizing the usage of all available tools in the blended learning system, overcoming the resistance of organizational change, continuing commitments of the management, support staff and learners, aligning standard of blended learning courses offered among universities and converting online learning materials to be accessible by other technologies such as mobile phone and pocket personal computer.

Respondents revealed that technologies are changing rapidly which are difficult to keep track. Today, they are training lecturers and students for this field and tomorrow the world technology may be improved to another advance version. With that, the hardware and software are difficult to keep up-to-date. The infrastructures need to support the drastic increase of users too. The accessibility of all components needs to be available at anytime and anywhere. The system itself needs to be upgraded frequently so that more functions are available and more user friendly. The implementation and development of resources also need to be in place. The content needs to be of quality in order to attract students and make the online learning interactive. All these technological challenges take time and difficult to keep up-to-date. Respondents indicated that although technology is difficult to keep up-to-date, they will make sure the system is enough to support their blended learning courses. [30] reported the technical issues, meanwhile, [31] reported that fast changing technology as one of the challenges in implementing blended learning.

Respondents indicated that users should be encouraged to make use of all available tools in the blended learning system to enhance teaching and learning. They pointed out that users only use few tools such as forums, content, resources, online discussions, online tutorials and communication tools. Similarly, many researchers have suggested that most of the tools were used for communication [32,29,22,33,34]. Respondents suggested that other available tools should be fully used to support the teaching and learning process.

Resistance to organizational change is a common challenge to an organization which intends to bring changes to their organization. This resistance was also mentioned by [35,36]. Respondents revealed that the resistances towards the implementation of new things exist because humans are not willing to be out from their comfort zone. Respondents pointed out few challenges involving the resistance to organizational change such as: Are the management willing to accept the current proven instruction of study? Are computer illiterates willing to catch up with the usage of technologies in teaching and learning? Are those having negative attitudes towards blended learning instruction willing to change? Some respondents indicated that attitude in human factors is the most challenging factor. Respondents also commented the degree of collaboration between internal partnerships will determine the success of change. [37] pointed out the lack of collaboration between internal partnership and organizational structure could be a formidable constraint for a blended learning initiative. [30] also mentioned that human factor is part of the resistance to change in blended learning setting.

Respondents revealed that it needed a lot of commitment from the higher management, support staff and learners to establish any system. The commitment from the higher management should be serious and continuous. Management needs to take it seriously and gives fully support in terms of allocation, policies and the implementation. [30] revealed that the learners, support staff and faculty with the right attitude and ownership are essential to the success of blended learning.

Standardizing the blended learning courses among universities is another future challenge. This suggestion was also mentioned by [38]. How should the content and the assessment methods be standardized? Respondents suggested setting up a committee to look into this matter.

Another future challenge indicated by the respondents was to convert the online learning materials to be accessible by other technologies such as mobile phone and pocket personal computer. [24] mentioned that there was a need for faculty to support for course redesign for blended learning courses. One of the respondents stated, "Now blended learning is expanding at university level. I believe in 10 years time as Internet becomes more accessible and computer is easily available, blended learning will expand from primary to secondary level". Respondents also indicated the extent of its expansion depended on the information technology infrastructure provided by the government especially in rural areas and how computers were available for students. One of respondents said, "I believe one day, having a computer is just like a student who has a calculator today. It is a necessity and not a luxury. By then blended learning will be truly 'blended' into the education system". Today, mobile phones can access Internet. Are the interface, contents and tools available online suitable to be used in mobile phone or personal digital assistant (PDA)? This finding was also mentioned by [39,40] as one of the future trend in blended learning course. They predicted the use of handheld devices will be increased in the next decade. In future, blended learning courses planners may need to consider this factor.

CONCLUSION

There is a need for Malaysian institutions of higher learning to offer blended learning courses to overcome some of the existing problems. Most of the higher learning institutions in Malaysia are ready in terms of facilities, support from stake holders and government policy. The future challenges in the study may provide a lens for organizations to plan for a long term implementation of blended learning mode.

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