MOBILE LEARNING READINESS AMONG MALAYSIAN POLYTECHNIC STUDENTS

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Abstract: *With the rapid development of mobile technologies, mobile learning has become an integral part of electronic learning. It is viewed as potentially significant aids to learning as it has made learning possible at anytime and anywhere with the use of wireless internet and mobile equipment. However, before designing and implementing a new learning system, learners' readiness should be taken into consideration. Despite its notable advantages, mobile learning is largely unresearched at Malaysian polytechnics. Therefore, this quantitative study aims to investigate the extent of readiness of Malaysian polytechnic students. To serve this purpose, a questionnaire was administered to 274 randomly selected students at a Malaysian polytechnic. The questionnaire was designed to explore three main readiness, namely equipment readiness, technological skill readiness and psychological readiness. The overall findings revealed that a great majority of the students show high level off readiness for the implementation of mobile learning. The evidence from this preliminary study has provided valuable information for educators and curriculum designers to discover ways to exploit the mobile learning in teaching and learning.*

Keywords: *Mobile Learning, Readiness, Higher Education, Technology Integration.*

Introduction

E-learning has been widely accepted by people across the world as a means of teaching and learning. It began in 1990s, and now it has captured almost every aspect of learning. Since then, there is a need to improve the medium of learning to make it better and useable by everyone. Following this developments, the emergence of mobile technology has gradually introduce mobile learning into electronic learning sphere. This was followed by a tremendous change and development of mobile and wireless technology over the past decades. The development of mobile technology has triggered the need for wireless connection as mobile phones are become a common medium of communication, replacing the old traditional ways of landline telephones and wired computers. According to a Statista (2018), mobile phone user

penetration rate all over the world was about 64.5% in 2017 and is expected to cross 67.1% by 2019.

In this globalised world and in making learning accessible to everyone has created a need to integrate learning with these mobile technologies. In order to integrate new technologies, however, requires effective adoption of technologies into existing environment in order to provide learners with the necessary knowledge as well as to promote meaningful learning (Tomei, 2005). This is where the integration of learning process and mobile technology is seen as becoming more appropriate. Lately, the profileration of portable devices ranging from mobile phones to laptop and the emergence of new mobile technologies motivated educators and researchers to consider using them as a new medium of learning. In Malaysia, for example, mobile learning is one of the area that is extensively studied by both the government as well as academicians.

The integration of mobile learning in classroom instructions is seen to help boost the teaching and learning process and making it easier, easily accessible and open to everybody and everywhere. As long as the connection needed exists, the learning and teaching process can occur. The ubiquity of mobile phones, combined with their many capabilities, makes them an ideal platform for educational content and activities. However, we are only just beginning to take advantage of the possibilities they will offer. According to Peters (2007), mobile technologies can significantly reduce people's dependence on fixed locations, and thus have the potential to revolutionize the way people work and learn. In the same vein, over the past decade, many researchers have also indicated the potential of mobile technologies in assisting the teaching and learning process (Chen, Kao, & Sheu, 2003; Costabile et al., 2008; Ismail, Idrus, & Johari, 2010; Nordin, Embi, Yasin, Rahman, & Yunus, 2010; Tan & Liu, 2004).

The term readiness is defined by the Oxford Advanced Learner's Dictionary as "The state or quality of being ready; preparation; promptness; aptitude; willingness. Schreurs, Moreau, and Ehlers (2008) pointed out that readiness also takes account of students' capability to adapt to "…technological challenges, collaborative training and synchronous as well as asynchronous self-paced training". In this paper, the term readiness is used to describe the degree of Malaysian polytechnic's students to adopt and adapt the implementation of mobile learning in English language classes which is the variable investigated.

With this increasing number of mobile phone users, Malaysian polytechnics cannot escape from embracing the new learning technology. The readiness of Malaysian polytechnic students to accept mobile learning especially in English language classes must be studied closely so that if it is to be implemented, they are ready to embrace it. This is important because it will be no use if classroom ideas are being planned beautifully but Malaysian polytechnic students couldn't cope with the technology and changes it brings to teaching and learning process. Furthermore, there are very few studies that have been done on mobile learning implementation in Technical and Vocational Education Training (TVET) education. While there were studies that reported on Malaysian university students' readiness for mobile learning, research that explored mobile learning readiness among Malaysian polytechnic students were still scarce. To clearly justify the problem statement, it is the intention of the researcher to provide some information to those who are in the process of implementing mobile learning in their classroom.

The purpose of this research is to study the readiness of Malaysian polytechnic's students to implement mobile learning by focusing on technological skills, psychological and

equipment readiness. It is assumed, if found effective, with the current learning environment, the information that will be gathered from this study can help the curriculum body and those who are involved especially English lecturers and related parties to plan some measures to adapt and adopt mobile learning in teaching of English language skills and, if possible, to all disciplines as well. In other words, this study attempts to determine the state of readiness of students to the implementation of mobile learning because effective learning could happen only when the learners decides to engage themselves actively and cognitively in the prepared learning activities. This paper thus focuses on answering the following research questions:

1. How well students are equipped with necessary devices and technology for the implementation of mobile learning?

2. What is the level of technological skills needed possessed by students for the implementation of mobile leaning?

3. How prepared are the students psychologically for the implementation of mobile learning?

Literature Review

Mobile Learning

It is necessary here to clarify exactly what is meant by mobile learning. Vavoula, Lefrere, O'Malley, Sharples, and Taylor (2004) define mobile learning as a learning method where learners are not required to stay in one place and happens when learners use mobile technology. This definition is close to the one by Hashemi, Azizinezhad, Najafi, and Nesari (2011) who consider mobile learning as the dissemination of learning resources and services to students through any mobile device connected to wireless networks and happens at any time and place.

According to Brown (2005), "Mobile learning is a subset of e-learning. E-learning is the macro concept that includes online and mobile learning environments". One of the major differences between mobile learning and e-learning is mobile learning could happen "on the go" but e-learning requires a learner to be at specific place with computer and internet like in computer lab. Besides that, unlike e-learning mobile learning also allows students to take assignments and tests at any location and be free to do it anytime as long as it is done within the agreed time (Mehdipour & Zerehkafi, 2013).

Mobile Learning Advantages

There are many studies that have demonstrated that mobile learning brings a lot of benefits to teaching and learning activities. Among such studies are as follows. Nordin et al. (2010), for example, reported that 120 post-graduate students at National University of Malaysia, who participated in a survey, agreed that mobile phones had successfully enhanced the teaching and learning process. The findings also revealed that mobile-learning activities are effective ways to motivate students and to foster interaction." This is further supported by Ismail et al. (2010) in a survey found most of the respondents were satisfied with mobile learning. Higher satisfaction was related to the study material, important notes, reminder that could reach them daily. Also, they highly agreed that mobile learning has helped them to pace their studies in distance learning courses. However, the study reveals that the respondents were not satisfied with the cost of communication with the tutor and other students in mobile learning courses.

Chapelle (2001) claims that technology-based learning activities offer more advantages and opportunities. Besides being effective, it is fast and having more impact on students' achievement compared to conventional learning activities. The activities using technologies are more flexible and continous improvement can be done easily. However, Legutke (2005) stresses that the aspects related to the use of technology in education should be concerned more with how to apply the use of the latest technology in the process of teaching and learning. In a study conducted at Open University Malaysia (OUM) by Abas, Peng, and Mansor (2009) many of the respondents indicated that mobile learning could offer many advantages. Besides making learning more interesting, they thought that this method of learning could save time and help students to concentrate more as well be motivated. According to Liu, Tan, and Chu (2009) mobile learning is very suitable for language learning as language learning takes place over time and requires practise to enhance learning. Using mobile devices language learning can take place at leisure, informally in places such as hotels and trains where students can practise independent of space and time. Mobile language applications help to improve students' language ability as it focuses on grammar, speaking, reading, listening and writing skills (Liu et al., 2009).

Chinnery (2006) listed out some benefits that are seen relevant to the implementation of mobile learning. According to him, (a) they – mobile devices - are readily available, (b) mobile technologies are less expensive than standard equipment, such as PCs, and (c) the portability of mobile devices where it can be utilised outside of the classroom, and learners can study and manage chunks of information at anytime convenient to them.

Mobile Learning Readiness

Mobile learning readiness can generally be defined as the readiness of students to choose and use mobile technology such as tablets or mobile phones as one of the means of learning. Mobile learning cannot be effectively implemented if there is no high level of commitment from both faculty and students. However, in addition to commitment, what is most important is the technological readiness of students (Mahat, Ayub, Luan, & Wong, 2012). Technological readiness is defined as the tendency to accept and use a new technology in the effort of achieving a target either at home or office (Parasuraman & Colby, 2015).

In an investigation into the readiness of students to mobile learning at a university in Sudan, Abdall and Hegazi (2014) found that all the surveyed students in the study have mobile phones and are also proficient in using this technology especially at the university to find course materials, referring to timetables, group discussions and instant messages. In an earlier survey by Petrova and Sutedjo (2004), students are keenly interested in mobile learning. They are willing and able to integrate mobile learning into conventional learning methods. Abas et al. (2009) reported that many students at Open University Malaysia (OUM) comprising mainly part-time working adult learners were willing to learn using mobile learning methods. In addition, they also expressed their willingness to buy a new mobile device if necessary. Another study in one of the higher education institution in Malaysia by Alzaza and Yaakub (2011) suggested that students have adequate knowledge in such technology and ready for the integration in education. In an analysis of students familiarity of mobile technology and willingness to adapt them as learning tool, (Shaqour, 2014) found that the students who are undertaking computer course showed high positive attitude towards mobile learning and posses good mobile technology proficiency. Similarly, a research carried out in English classroom by Rahamat, Shah, Din, and Aziz (2017) also concluded that respondents showed positive perceptions toward using mobile technologies for learning. However Ismail, Azizan, and

Gunasegaran (2016) in a large scale study at 11 university in Malaysia reported that the majority of the students show only a moderate level of readiness when asked about their acceptance to the mobile learning implementation at their university. One of the major concerns was the costs involved in this learning technique as well as the cost that might incur when a better and more suitable device is needed.

Studies also revealed that it is not just students readiness should be taken into account when planning the implementation of mobile learning but institutions of higher education should offer a high level of infrastructure and technical support to help the adoption of mobile learning within their campuses. Lam, Cheung, and Yau (2010) suggested that universities might offer additional informal learning environments to support mobile learning. Abas et al. (2009) encouraged universities to form a good partnership with mobile industrial companies, like mobile telecommunication operators and programmers who can design and develop mobile learning applications. In addition, technical decisions need to be made in a way that allows the development of learning materials and make them available on mobile devices (Ally, 2009). In this way higher education institutions can overcome the technical problems and supply their learners with useful and comfortable learning opportunities.

Though, considerable amount of literature has been published on the students' readiness and potential of mobile technologies in enhancing classroom teaching-learning activities in Malaysian schools and universities but none of the research found to study on polytechnic students' readiness to mobile learning. Hence, this study is an attempt to shed some light of mobile learning readiness among TVET students so that the usage of mobile learning can be determined and some justifications or future actions can be taken.

In a paper written by Aydin and Tasci (2005), they used Chapnick (2000) instrument to assess organizational readiness for e-learning. Chapnick in her paper; "She considers her instrument as an e-learning needs assessment model and she states that the model helps to answer three main questions, (1) 'Can we do this?', (2) 'If we can do this, how … are we going to do it?', and (3) 'What are the outcomes and how do we measure them?'. She claims that there "are several factors that must be considered to assess readiness. She lists 66 factors in question format and groups them into 8 categories: (1) psychological; (2) sociological; (3) environmental; (4) human resources; (5) financial readiness; (6) technological skill (aptitude); (7) equipment; (8) content readiness. With regards to education, Yun and Murad (2006) claimed that there are are two main factors that influence readiness for elearning: psychological readiness and technical skill readiness. As pointed out at the beginning of this chapter, since e-learning and mobile learning are closely connected in nature (Brown, 2005), the survey questions for this study were adapted from Chapnick (2009) by focusing on the most relevant readiness for investigating mobile learning readiness among PTSB students which are equipment, technological and psychological readiness.

Methodology

This quantitative study employed the descriptive research design to depict the characteristics of the population and to get details on the current status of the phenomenon, in this case, to provide an understanding of the status quo of the Malaysian polyetchnic students' readiness to use mobile learning as a strategy for teaching and learning in ESL classes (Burns & Bush, 2014).

Based on the table to determine sample size by Krejcie and Morgan (1970), a total number of 274 semester four students were recruited using simple random sampling technique as sample from the various academic departments at Politenik Tuanku Sultanah Bahiyah (PTSB). This method was chosen to give every member of the population an equal chance of being selected, therefore, offers an unbiased representative of the group (Rasinger, 2013). In addition, giving each person an equal probability of inclusion would provide a better reflection of the population.

At PTSB, to earn a diploma, students are required to pass English language subjects which are taken in their semester one, three and four namely Communicative English 1, Communicative English 2 and Communicative English 3 respectively. Semester four students are considered as the most suitable respondents for this study because they have spent the most time in the ESL classroom as to compared to semester one and three students, therefore, would have higher chances of having mobile e-learning experience in comparison.

In addition, it is noteworthy to mention that students at PTSB are required to sign up for Curriculum Information Document Online Systems or better known as CIDOS. CIDOS is a web-based solution designed specifically for efficient and effective control over curriculum document inventory, teaching and learning (T&L) materials, and knowledge sharing. It is a tool that supports the T&L via the Internet between lecturers and students at all Malaysian polytechnics (Education, 2011). It can be accessed using a computer as well as any mobile devices such as a hand phone or a tablet.

Besides CIDOS, it is also a common practice for the lecturers to use mobile social media applications such as WhatsApp, Telegram, WeChat, Facebook and others to disseminate information, make announcement, have discussion and also to share notes with students. This experience and existing knowledge has put the semester four students in a best position and be eligible to be selected as respondents as the ability to understand the questionnaire questions as well as the overall objectives of the study compared to students in semester one and three.

Questionnaire containing a set of questions designed in accordance to the research objectives was used to collect data. It was structured into 2 sections. In section one, the respondents provided demographic information. Meanwhile, the second part was devoted to collect data pertaining the level of respondents' readiness for the implementation of mobile learning. To rule out the possibility of the respondents not understanding the question as a result of poor command of English language, the questionnaires are made available in dual languages both Malay and English.

Findings

Demographic Information

Male students represented a slightly larger proportion (52.2%) of the respondents group than did female students (47.8%). The difference in number between the male and female students' was not significant. In addition, this is roughly consistent with the proportion of male and female students at PTSB. At just over 80%, Malay students made up the broad majority of the respondent pool. The second largest, but substantially smaller group was Indian (13.1%). Only a small number of respondents were made up of Chinese (4%) and others (2.2%).

Equipment Readiness

Item 1 in Table 1 illustrates the proportion of students had a messaging app installed on their hand phone. The majority (238, 86.9%) of those responded to this item indicated that they had some sort of messaging app on their phone. Only a mere 13.1% (36) of the respondents claimed to not having such app on their hand phone. 30 (10.9%) respondents claimed that they didn't have a social media app on their phone. However, this does not indicate that they did not access to social media using their hand phone. This is because, as can be seen in Table 2, only 6 respondents have never visited a social media sites using their hand phone. Therefore, it can be implied that, 24 respondents who did not have a social media app, do use social media through web browsers.

Table 1: Respondents Equipment Readiness

No.	Items	Yes (%)	No (%)
1.	Do you have a messaging app (WhatsApp, Telegram, WeChat, Viber and etc) on your hand phone?	86.9	13.1
2.	Do you have a social media app (Facebook, Instagram, Twitter, LinkedIn or etc) on your hand phone?	89.1	10.9
3.	Can your hand phone make video calls?	86.1	13.9
4.	Do you have an email app on your phone?	82.5	17.5
5.	Can your hand phone connect to Wi-Fi?	98.9	1.1
6.	Do you subscribe to any data plan?	71.5	28.5

7.	Can your hand phone read/open up the following files?
	   i. Word document
	   ii. PDF document
	   iii. Excel document
	   iv. PowerPoint
	   v. Video files
	   vi. Audio files
	   vii. Photo/graphics
		
		92
		85.4
		70.1
		89.1
		100
		100
		100
			
			8
			14.6
			29.9
			10.9
			0
			0
			0

8.	Does your hand phone have video editing app?	65.3	34.7
9.	Does your hand phone have photo editing app?	91.2	8.8
10.	Is your hand phone's camera more than 5 Megapixel?	94.5	5.5
11.	Is the size of your hand phone storage 8 GB or higher?	100	0

Most respondents (236, 86.1%) owned hand phone with video call feature compared to those who don't only accounts 13.9% (38). It is apparent that the vast majority of the respondents owned a hand phone that can be connected to Wi-Fi (271, 98.9%). Since PTSB provide Wi-Fi service at all the buildings around the campus, having a hand phone with Wi-Fi internet connectivity is useful for them. Only 3 (1.1%) out of 274 students surveyed claimed that their hand phone could not connect to this facility provided. Of the 274 respondents, more than one third (196, 71.5%) subscribed to a data plan. However, it is worth pointing out that students at PTSB have access to internet as the institution provides free Wi-Fi service for all students.

The total number of participants who could edit video using their hand phone was 179 (65.3%). Conversely, slightly more than a third (95, 34.7%) of the respondents reported that they don't have a video editing app on their hand phone. Most (91.4%) of the surveyed indicated that they owned a hand phone with photo editing app. Only a small fraction (8.6%)

of the participant claimed otherwise. From the 274 participants, 15 (5.5%) learners possessed a hand phone with 2 to 4 megapixel camera and the remaining (259, 94.5%) owned mobile phone camera with 5 megapixel and above. All the respondents owned a hand phone with 8 GB or higher storage. The breakdown of the storage capacity are as follow, the majority (119, 43.4%) of the respondents owned a hand phone with 16GB storage. This is followed by 8GB with slightly lower percentage (109, 39.8%), while; only 46 (16.4%) respondents owned the biggest storage which is 32GB.

Technological Skill Readiness

Table 2: Respondents Technological Skill Readiness

No.	Items	Percentage (%)				
		Never	Occasionally	Sometimes	Often	Always
1	I use messaging app (WhatsApp, Viber, Telegram and etc) to text or share files.	0	0	16.4	22.6	60.9
2	I use social media app on my hand phone.	2.2	5.1	11.3	9.5	71.9
3	I use video call service on my hand phone.	69.3	22.6	8	0	0
4	I send or receive emails on my hand phone.	4	7.7	1.5	53.3	33.6
5	I use Wi-Fi to connect to the internet using my hand phone.	1.1	0	0	9.1	89.8
6	I use my data (data plan) to connect to the internet using my hand phone.	6.9	23.7	40.1	13.5	15.7
7	I open/read Word document, Excel document, PDF document or PowerPoint) on my hand phone.	3.3	9.9	3.6	18.2	65
8	I view video files, audio files and photos on my hand phone.	0	0	0	0	100
9	I download files (document, video, audio or software) using my hand phone.	2.6	0	0	9.1	88.3
10	I edit video files using my hand phone.	46.4	40.1	13.5	0	0
11	I edit photos using my hand phone.	2.9	0	0	32.8	64.2

Item 1 of Table 2 shows that the majority of the students possess the skills to use mobile phone messaging app such as WhatsApp, Viber, Telegram and etc. Data of the second item depicted that only a mere 2.2% (6) of the participants have never used social media app on their phone. The vast majority 197 (71.9%) indicated that they were frequent users of social media app on mobile phone. This is perhaps due to the availability of good Wi-Fi connection around the campus.

When asked if they have any experience using video call service using their hand phone, a total of 190 (69.3%) of the respondents answered 'never'. This is followed by 'occasionally' (22.6%) and 'sometimes' (22%). None of the respondents have chosen 'often' and 'always'. Hence, video call is not one of the skills that were possessed by many of the students in the study. A minority of participants (11.7%) indicated low frequency of email usage in which 11 respondents chose 'never' and 21 respondents selected 'occasionally. On the other hand, based on the data, the majority of the students are frequent users of email on their phone. A total of 146 (53.3%) students responded 'often' while 92 (33.6%) students picked 'always'. Item 5 shows the results of the survey in which the respondents were asked

if they access internet via Wi-Fi connection. It is clear that the majority (246, 89.9%) of the participants always use Wi-Fi connection to access to the internet. The rest (25, 9.1%) indicated that they use Wi-Fi often.

It can be seen from item 6, respondents diverged in the usage of data to connect internet on their phone. 29.2% (80) of the respondents reported that they use data either always or often. A slightly higher percentage (84, 30.7%) is recorded for students who use occasionally or never. Most (110, 40.1%) respondents indicated that they use data sometimes. The majority of the respondents have experience reading or viewing a document file using their hand phone. Participants who responded to "always" and "often" makes up more than 80% (228) of the overall number of respondents. Only small fraction (9, 3.3%) of the respondents indicated that they have never read or viewed a document file before. While, respondents who picked "occasionally" and "sometimes" accounted 9.9% (27) and 3.6% respectively. Watching videos, listening to audio files and viewing photos are common activity performed by the respondents using hand phone. When the participants were asked how often do they edit photos on their phone, the majority responded 'always' (64.2%) followed by 'often' (32.8%). Only a small percentage (2.9%) of respondents indicated that they have never edited a photo on their hand phone before.

Psychological Readiness

In response to item 1, most of those surveyed indicated that they knew well about mobile learning. 203 (74.1%) respondents agreed with the statement while 4 (4.4%) strongly agreed. A small percentage (20.1%) of those surveyed expressed the belief that they were not well informed about mobile learning.

Table 3: Respondents Psychological Readiness

No.	Items	Percentage (%)				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I know what mobile learning is all about.	0	20.1	4.4	74.1	1.5
2	I want to know more about mobile learning.	0	0	0	16.4	83.6
3	I prefer mobile learning than conventional learning.	0	0	4	26.3	69.7
4	I don't mind paying extra money for mobile learning.	0	31.8	0	47.8	20.4
5	I am ready for mobile learning if the polytechnic implements it now.	0	0	0	17.9	82.1
6	I would like my lecturer to integrate mobile learning in my class in addition to face-to-face meetings in the class.	0	0	12.4	51.1	36.5
7	Mobile learning will save my learning time.	0	0	21.2	68.2	10.6
8	Mobile learning is an alternative to web based learning.	0	25.2	21.5	53.3	0
9	I think my polytechnic is ready for mobile learning using hand phone facility.	0	35.4	5.1	59.5	0
10	Some of my lecturers are already integrating mobile learning in their teaching.	0	0	0	87.2	12.8

The majority (96%) of those who responded prefer mobile learning over conventional learning, with 70 (26.3%) respondents agree and 191 (69.7) respondents strongly agree. None of them thought otherwise. Nevertheless, 11 (4%) students chose to neither agree nor disagree.

The overall response to this item was very positive. It is clearly evident from the table that all respondents were positive towards the implementation of mobile learning at PTSB. Among the respondents agreed, "strongly agree" scored the highest with 225 respondents (82.1%) while the remaining 49 (17.9%) selected "agree". As is observed from the table, most participants agreed that lecturers should integrate mobile learning in the class. Over half of the respondents (140, 51.1%) agreed with the statement and more than one-third (100, 36.5%) strongly agreed with the statement. However, 34 (12.4%) respondents neither disagree nor agree with the statement.

According to most respondents, time can be saved if learning is done using mobile devices. In response to item number 8, a range of responses was elicited. Over half (53.3) of those surveyed thought that mobile learning is an alternative to web based learning. 69 (25.2%) respondents disagree with the statement while 59 (21.5%) of them chose to stay neutral. What is interesting in this data is that, even though, PTSB management has taken effort to make internet connection available at all buildings around the campus, more than one third (35.4%) of the respondents think that the institution is not ready for mobile learning. However, a large proportion of the respondents (59.5%) were in the opinion that mobile learning could be implemented at PTSB.

Discussion

The rising speed of mobile technology is increasing and penetrating all aspects of the lives and it plays a vital role in learning different dimensions of knowledge. Today, a clear shift from teacher-led learning to student-led learning is possible with mobile technology has made learners to feel using the technology is more effective and interesting.

In this study, the responses for three areas of readiness i.e, technological skills, psychological and equipment readiness were analyzed and interpreted. With regards to the equipment and technological skill readiness it is safe to say that the majority of the respondents are well equipped and have good knowledge in handling the devices. This results concurred with Abdall and Hegazi (2014), Alzaza and Yaakub (2011) and Shaqour (2014) where they found that the students posses good proficiency in using mobile devices for study. Our findings also show that in terms of psychological readiness respondents have positive attitude towards mobile learning. This finding is parallel with studies conducted by Nordin et al. (2010), Alzaza and Yaakub (2011), Abas et al. (2009), Shaqour (2014) and Rahamat, Shah, Din, and Aziz (2011) where the studies reported that students are show positive attitude towards using mobile technologies for learning. Overall, the findings show that the respondents welcomed the idea of integrating mobile learning into future courses as they were already familiar with computing and communication activities that mobile learning may require.

Since the data from this research revealed that students are ready and have positive perceptions toward using mobile learning for learning, lecturers should grab this opportunity to make the teaching a process that could trigger the students' thinking, develop their potential and also promote lifelong learning. In short, the emergence of latest technologies in the market should be fully utilized for learning purposes. This is important because mobile devices will continue to penetrate all aspects of life and mobility will become one of the defining characteristics of increasing numbers of learners.

Although this research has generated findings that are useful to bring some light to understand the readiness of students at PTSB, it must be acknowledge that this as any other

studies, cannot escape from its limitation that need to be discussed and can be addressed in future research. The participants of the study are from only one polytechnic. Hence, the sample data does not necessarily represent all the students from different polytechnics and a broader generalization may not be possible. In future, we plan to collect data from other polytechnics in Malaysia.

In addition to this, as in any research on readiness, it is rather incomplete to look into only one group of respondents, in this case the students. For mobile learning implementation, there are two other important groups i.e., administrators and educators, whose responses need to be studied. Each group is interdependent of one another. Administrators have to be ready with a strong support system which provides infrastructure and mobile phone gadgets, human resource training for educators, annual budget for mobile learning, and incentives to promote a greater success in the implementation of mobile learning at the polytechnic. Educators too should be ready in terms of pedagogical techniques which offer innovative but appropriate way of using the mobile phone in their teaching for mobile learning. In brief, students might seem to be ready for mobile learning in this study but the administrators and educators might not; therefore it is too early to make a blanket claim that Malaysian Polytechnics are ready for mobile learning.

Based on the findings above, mobile technologies can be one of the suitable technologies for developing and delivering the education process hence; there are varieties of mobile technologies and applications that can be used in implementing mobile learning. As these devices become more powerful, they may coexist with or supplant other technologies to make learning more portable.

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