Readiness of M-Learning: A Study of Politeknik Kota Bharu Students

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Abstract

M-Learning has become a crucial component of electronic learning due to the quick development of mobile technologies. It has made learning possible at any time and anyplace with the usage of wireless internet and mobile equipment, hence it is seen as a potentially significant learning aid. However, learners' readiness should be taken into account before designing and putting into place a replacement learning system. Despite its obvious benefits, Malaysian polytechnics have done limited studies on M- Learning. This quantitative study investigates how prepared Malaysian polytechnic students are for M- Learning. Purposive sampling was used to pick 285 students from Politeknik Kota Bharu to administer a questionnaire for this reason. Three key preparedness areas namely equipment readiness, technological skill readiness, and psychological readiness were the focus of the questionnaire. The overaching conclusion is that the vast majority of students exhibited a high level of preparation for the use of M-Learning. The type of gadgets utilized during the M-Learning session strongly correlates negatively with the students' readiness. The results of this study can provide educators and curriculum designers with important information about how to promote M-Learning in their teaching and learning processes.

Keywords: *M-Learning, readiness, polytechnic students*

Introduction

The Oxford Advanced Learner's Dictionary's (2nd edition) definition of readiness is "The condition or attribute of being ready; preparation; promptness; ability; willingness" (p. 576). According to Schreurs, Moreau, and Ehlers (2008), preparedness also considers a student's capacity to adjust to "...technology hurdles, collaborative training, as well as synchronous as well as asynchronous self-paced instruction." (p.262). The term "readiness" is used in this study to characterize how well Malaysian polytechnic students can accept and modify the use of M-Learning in English language classrooms, which is the variable being looked at.

M-Learning is characterized as remote teaching approaches that support student-centered learning and enable learning at any time, anywhere (Naciri, Baba, Achbani, & Kharbach, 2020). According to Ismayati et al. (2021), the M-Learning evolved into a substitute method for carrying out the government-recommended teaching and learning process during the Covid- 19 pandemic. Additionally, the introduction of M-Learning offers pupils a great chance for lifetime learning (Azizi & Khatony, 2019). Similarly, a study by Samad, Iksan, and Khalid (2019) found that since M-Learning is used in a wireless technology-designed

environment, the training and facilitation process is more fun and entertaining with its approach which is versatile and easy to modify depending on the setting. Mobile technology use is very prevalent in Malaysia, where it is regarded as a pervasive culture and a possible teaching tool.

Malaysian polytechnics are compelled by the growing number of mobile users to adopt new educational technologies. To ensure that Malaysian polytechnic students are prepared to adopt M-Learning if it is introduced, it is important to rigorously examine their willingness to do so, particularly in English language classes. This is crucial because it would not matter how well- planned the classroom concepts are if Malaysian polytechnic students cannot adapt to the changes that technology brings to the teaching and learning process. Furthermore, the use of M-Learning in Technical Vocational Education and Training (TVET) has only been the subject of a small number of research. Although studies on Malaysian university students' preparedness for mobile learning have been published, there has not been enough done to examine readiness among Malaysian polytechnic students. We want to inform those who are putting mobile learning into practice in their classrooms to support the problem.

The goal of this research is to examine the technological, psychological, and equipment preparedness of Malaysian polytechnic students to apply M-Learning using the Chapnick Readiness Model (2000). It is anticipated that the knowledge gained from this study, if found to be effective in the current learning environment, will be able to assist the curriculum body and those involved, particularly English lecturers and related parties, in planning some measures to adapt and adopt M-Learning within the teaching of English language skills and, if possible, to any or all disciplines as well. In other words, this study aims to assess how prepared students are for the usage of M-Learning because successful learning can only occur when the students choose to actively and intellectually participate in the planned learning activities. Thus, the purpose of this work is to respond to the following research questions.:

1.   To what extent are students provided with the tools and technology required to adopt M-Learning?

2.   What level of technological proficiency are students required to have to use M- Learning?

3.   How psychologically ready are students for the introduction of M-Learning?

Literature Review

Advantages of M-Learning

Numerous research has shown that M-Learning has many advantages for teaching and learning processes. According to Demir, Kadir, and Akpinar (2018), for instance, students at the Buca Faculty of Education at Dokuz Eylul University in Turkey understood the value of M-Learning as a strategy that could significantly boost their motivation, be able to support student's academic achievement, and have significantly positive attitude scores toward M-Learning. The study by Biswas, Roy, & Roy (2020), which claimed that M-Learning

is very helpful to fill the study gap during the Covid-19 pandemic, provides further support to this. They overwhelmingly concurred that M-Learning has given them the ability to pace their studies in online courses.

For Alshurideh, Salloum, Al Kurdi, Monem, and Shaalan (2019), M-Learning platforms should be taken into account by policymakers and education developers as both a technology solution and new e-learning platforms, especially for students who are enrolled in distance learning. The results of a study conducted among university students who accept and use M-Learning platforms by Romero-Rodrguez, Aznar-Daz, Hinojo-Lucena, and Gómez-Garca, (2020) showed that the degree of implementation of mobile devices was close to 73 percent of the population surveyed, with the sociodemographic factors that significantly influenced the development of M-Learning are the existence of the teacher status, type of institution, and educational technology.

Dumford and Miller (2018) discovered that students who took more online courses also reported being exposed to less effective teaching methods and interactions of lesser quality. According to their findings, some forms of engagement may benefit from an online setting while others may find it quite restricting. This is supported by the engagement and proportion of classes that are taken online. A much-needed conversation about the positive and negative effects of technology on the teaching and learning process is suggested by Pedro, Barbosa, and Santos (2018), who assert that the interference of technology in learning affects teachers' roles when they must juggle their roles as material providers and learning facilitators.

Readiness for M-Learning

The ability of students to choose and use mobile technology, such as tablets or mobile phones, as one of their learning tools is known as M-Learning readiness. If the academic teachers and students are not highly committed, M-Learning cannot be applied successfully. The level of attitudes that the respondents had toward M-Learning was moderate for the affective and cognitive aspects, while the behavior aspect was rated at a high level, according to Rohanai et. al investigations into the readiness of students for M-Learning in Malaysian Technical University Network (MTUN) in 2022. Modern university students are technically and psychologically prepared to use mobile technologies in education, according to a previous study by Sattarov and Khaitova (2019), and it is important to think about new prospects for more effectively utilizing the potential of M-Learning. Similar findings were reached by Shamsuddin, Wahab, Abdullah, and Suratkon (2018), who conducted research at a public university in Malaysia. They found that undergraduate students are highly prepared to adopt M- Learning, particularly in terms of the technological aspect that lessens their workload when integrating M-Learning sessions (Mohamed Yusoff, Hashim, & Muhamad, 2020).

However, Shuib, Azizan, and Ganapathy's (2018) study of English language learners in a Malaysian institution found that the students were only marginally prepared for mobile technology and felt considera-

ble uneasiness and insecurity when using it. One of the main issues was the expense of this learning method as well as the expense that can arise when a better gadget is required. All schools of education should have a strong LMS that would prevent further incidents (Aheto-Domi, Issah, and Dorleku, 2020) and LMS policies should be put in place.

Methodology

The objective of this quantitative study was to provide an understanding of the status quo of the Malaysian polytechnic students' readiness to use M-Learning as a strategy for teaching and learning in ESL classes. To this end, the descriptive research design was used to describe the characteristics of the population and to urge details on the current status of the phenomenon.

A total of 285 semesters worth of students from Politeknik Kota Bharu's (PKB) various academic departments were selected using the purposive sampling technique as a sample, according to the table created by Krejcie and Morgan (1970) to establish the sample size. Students at Malaysian polytechnics must pass their English courses Communicative English 1, Communicative English 2, and Communicative English 3 to graduate with a diploma. These courses are offered in the first, third, and fourth semesters, respectively.

Since semester one students completed a 14-week virtual learning period using the Learning Management System (LMS) called Curriculum Information Document Online System (CIDOS) version 3.5, they are regarded as the most appropriate respondents for this study because they have spent the most time in the ESL classroom via M-Learning. They would therefore have a better chance than others of having a M-Learning experience. It is also important to note that PKB requires all students to register for CIDOS, a web-based tool created expressly for controlling the inventory of curriculum documents, teaching and learning (T&L) resources, and knowledge exchange. It is a platform that facilitates online communication between instructors and students at all polytechnics in Malaysia (Education, 2011). Both a computer and any mobile device, like a handphone or a tablet, are frequently used to access it. In addition to the CIDOS LMS, it is also typical for instructors to use mobile social media platforms like WhatsApp, Telegram, WeChat and Facebook to share notes with students and disseminate material.

Due to their prior learning and experience, the first-semester students are in the greatest situation to be chosen as respondents because of their capacity to comprehend both the specific study objectives and the questionnaire's questions. Data was gathered using a questionnaire with a set of questions created following the study's aims. It was divided into two parts. The respondents supplied demographic data in section one. The second section was used to gather information about the respondents' level of preparedness for the use of M-Learning. The questionnaires are made available in both Malay and English to eliminate the possibility that respondents won't grasp the question due to a lack of English language proficiency.

Findings

Demographic Information

In terms of respondents' frequency and percentage by gender, the majority of the respondents (n=203) are male (71.2%), while 28.8%(n=82) are female respondents. In addition, this is roughly reliable with the proportion of male and female students at PKB. Five types of devices were asked to know the respondents' type of device used whenever accessing CIDOS 3.5 LMS. The devices included were a smartphone, laptops, tablets, and Personal Digital Assistants (PDA). Based on the analysis, the highest percentage of the type of devices used by the respondents is the smartphone (n=192) with 67.4%. This is often followed by other types of devices which obtained 19.8 % and the laptop stated 9.1% of the entire percentage. The smallest amount percentage of devices used is tablets with only 3.9%.

Furthermore, most of the respondents in this study are from Diploma in Electrical Engineering (n=68) with 23.9% followed by Diploma in Civil Engineering (Quantity Surveying) (n=59) or 20.7%. Following that, n=55 with 19.3% of the respondents are from Diploma in Civil Engineering, while n=41 or 14.4% are from Diploma in Electrical Engineering (Electronics) and 11.2 % (n=32) are studying Diploma in Electronic Engineering (Communications). Additionally, the respondents who took a Diploma in Mechanical Engineering (Agricultural) is 6.0% (n=17). This is followed by n=9 (3.2%) respondents with Diploma in Mechanical Engineering (Mechatronics) and the least number comes from Diploma in Mechanical Engineering with n=4 and 1.4% of the total number of respondents.

Apart from that, for the English Language Malaysian Examination (SPM) result, the majority of the respondents obtained D+ to D in SPM (n=109) or 38.2%. The second-highest (n=70,24.6%) English Language grade acquired by the respondents in SPM is C+ to C-. There are n=48 or 16.8 % of the respondents who failed the English Language subject in SPM. Other than that, the number of respondents who obtained good and excellent results in English Language Subject in SPM is n=44 or 15.4% obtained B+ to B- and A to A- is n=14 or 4.9% respectively.

Equipment Readiness

Table 1.0 below explains the mean and standard deviation values on the respondents' equipment readiness. The respondents found to have social media applications, for example, Facebook, Instagram, Twitter, LinkedIn, etc. on their handphones with mean=4.40. Moreover, the vast majority of the students owned a handphone that can be connected to Wi-Fi at any time (mean=4.48) since PKB provides Wi-Fi service at all the buildings around the campus. Additionally, the students found to always download any type of file for example word, pdf, video, or audio (mean= 4.44) and do photos and video editing (mean=4.24). This shows

that the students are highly equipped with the necessary devices and technology for the implementation of M- Learning.

Table 1: Respondent Equipment Readiness

Item	Mean	Standard Deviation
I have a social media app (Facebook, Instagram, Twitter, LinkedIn, etc.	4.40	0.73
I can access the internet and wi-fi at any place.	4.48	0.68
I always download any type of file (eg: word, pdf, video, audio, etc.)	4.44	0.64
I always do editing (eg: videos and photos).	4.24	0.75
Average	4.42	0.55

Technological Skill Readiness

In terms of technological readiness, the level of technological skills possessed by students for the implementation of M-Learning is found to be very high. The majority of the students always read and open up the basic Microsoft Office files, for example, word, pdf, PowerPoint, video, audio, photo, etc. at any time and anywhere (mean=4.43). Furthermore, the vast majority of the students always make video calls (mean=4.35) which means they are familiar with the usage of many applications (refer to table 2).

Table 2: Respondent Technological Skill Readiness

Section B	Mean	Standard Deviation
I always read/open up the following basic Microsoft Office files (eg: word, pdf, PowerPoint, video, audio, photo, etc) at any time and anywhere.	4.43	0.64
I always make video calls.	4.35	0.67
Average	4.42	0.55

Psychological Readiness

In response to Table 3 below, most of those surveyed indicated that they knew well about M- Learning (mean=4.41) and that they will prepare for their M-Learning session (mean=4.44). The students were found to be interested in the integration of M-Learning by their lecturer (4.53). Furthermore, they think polytechnic

students are ready for M-Learning (4.45). From this result, it could be concluded the students are psychologically prepared for the implementation of M-Learning.

Table 3: Respondent Psychological Readiness

Section B	Mean	Standard Deviation
I will prepare for my Mobile Learning.	4.44	0.64
I would like my lecturer to integrate Mobile Learning	4.53	0.63
I know what Mobile Learning is all about.	4.41	0.67
I think polytechnic students are ready for Mobile Learning.	4.45	0.63
Average	4.42	0.55

The Relationship between the Students' Level of Readiness with Their Type of Devices Used, Course of Study, and Respondent English Language Grade in SPM

By using the Pearson correlation coefficient, it is revealed from Table 4 below, that there is a significantly negative correlation between the students' readiness and the type of device used, r= - 0.20 (p > 0.01). This indicates that the changes in one variable are strongly correlated with changes in the second variable contrarywise. Based on the analysis, although the students are having a good type of device, it does not imply that they are ready to use CIDOS 3.5 LMS for their M-Learning session. Furthermore, the results show there is no significant relationship between the students' level of readiness and course of study together with their English language SPM grade.

Table 4: Relationship between the Student's Level of Readiness with the Typeof Devices, Course of the Study, and English Language Grade in SPM.

		Level of readiness
Type of Devices	Pearson Correlation	-.200[**]
	Sig. (2-tailed)	.001
Course of Study	Pearson Correlation	-.059
	Sig. (2-tailed)	.319
English language SPM Grade	Pearson Correlation	-.115
	Sig. (2-tailed)	.053

**. Correlation is significant at the 0.01 level (2-tailed)

Discussion

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 secure to say that the majority of the respondents are well equipped and have good knowledge of handling the devices. These results concurred with Shamsuddin, Wahab, Abdullah & Suratkon (2018) and Mohamed Yusoff, Hashim, and Muhamad, (2020) who found that the students possess good readiness levels in their learning by using their mobile devices for study. Our findings also show that in terms of psychological readiness respondents have a positive attitude towards M-Learning. This finding is parallel with studies conducted by Sattarov and Khaitova (2019) and Rohanai et al. (2022) where the studies reported that students show a positive behavior towards using mobile technologies for learning. Overall, the findings show that the respondents welcomed the thought of integrating mobile learning into future courses as they were already familiar with computing and communication activities that M-Learning may require.

The research findings showed that students are ready and have favorable opinions on M- Learning, therefore lecturers should take advantage of this to transform the learning process into one that can get students thinking, develop their skills, and encourage lifelong learning. In short, the market's most recent technological advancements should only be used for educational purposes. This is crucial because mobile devices will continue to permeate all facets of life and because mobility will become one of the traits that set learners apart in greater numbers.

Although the results of this study have helped illuminate the level of preparedness of PKB students, it must be acknowledged that this study has limitations that need to be considered and can be resolved in subsequent studies. Selected PKB students are the respondents. Therefore, a more comprehensive generalization may not be possible because the sample data does not necessarily represent all of the students from the various semesters or other polytechnics. In the future, we choose to gather information from Malaysia's other polytechnics.

Additionally, it is somewhat incomplete to focus on just one group of respondents, in this case, the students, as is the case with any study on preparation. Administrators and educators are two more key groups whose opinions on mobile learning implementation need to be researched. Each group depends on the other in some way. In order to promote a higher success in the adoption of mobile learning at the polytechnic, administrators must be prepared with a solid support system that offers infrastructure and mobile phone gadgets, human resource training for instructors, annual allow M-Learning and incentives. Teachers should be prepared with pedagogical strategies that offer creative but appropriate methods to use mobile devices in their teaching for M-Learning. It is unfair to generalize that Malaysian polytechnics are prepared for M-Learning because, in short, while students may appear to be ready for it in this study, administrators and

teachers may not be. Following the findings above, many different mobile technologies and applications can be utilized to implement M-Learning. Mobile technologies are frequently one of the best technologies for building and delivering the educational process. As these gadgets develop in power, they will replace or co-exist with other technologies to increase the portability of learning.

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