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MOBILE LEARNING AMONG FORM SIX STUDENTS: ARE THEY READY?

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Abstract:

Prior to embarking on mobile technologies, mobile learning has become an integral part of learning strategies. It is viewed as a potentially significant learning tool as it has made learning ubiquitous with the use of wireless mobile devices. However, before designing and implementing a new learning system, learner's readiness should be taken into consideration. Despite its notable advantages, mobile learning is largely unresearched at Malaysian Form Six Students. Therefore, this quantitative study aims to investigate the extent of readiness of Malaysian Form Six students., A set of questionnaires was administered to 106 randomly selected form six students to serve this purpose. The questionnaire was designed to explore three main readiness, namely Self-Directed Learning (SDL), technological readiness, and psychological readiness. The overall findings revealed that a great majority of the students show a high level off readiness for the implementation of mobile learning. The evidence from this preliminary finding has provided valuable information for educators and curriculum designers to discover ways to exploit mobile learning in the teaching and learning process.

Keywords:

M-Learning, Student's Readiness, Self-Directed Learning (SDL), Technology Readiness, Psychology Readiness

Introduction

E-learning has been widely accepted across the world began 1990s, and now it has captured almost every aspect of learning. Since then, this learning medium has been accepted and improved to be better yet useable by everyone. Following this invention, the emergence of mobile technology has gradually introduced mobile learning into electronic learning sphere. This was followed by a tremendous growth and expansion of mobile and communication technology over the past decades. Besides that, the evolution of mobile technology also triggered the need for wireless connection using by various of mobile devices and became a common medium for educations purpose, replacing the old traditional ways of chalks and talks (Suresh, 2018). Given this trend, it is a natural progression for mobile learning to be extensively implement for education, as well in the future.

Apart from that, 21st century learning has given impressive to the exponential growth of mobile learning environment. The use of mobile devices in learning process is increasingly more common, yet not as pervasive as predicted (Kearney, Burden, & Rai, 2015). Besides that, the robust development of mobile technologies has led to incorporation of mobile devices in learning environment (Sa'don et al., 2014) worldwide. Thus, mobile learning emerged in response to the need of ubiquitous and 'on-the-go' learning access besides face-to-face classroom. With the use of mobile devices such as smart phone, tablets and personal computer, mobile learning gained popularity in its ability to facilitate teaching and learning process. One of the push factors that make this technology a potential for learning purposes is the increasing penetration rates of mobile devices and wireless broadband among Malaysian especially for the younger generation. According to MCMC (2020), the penetration rates of Malaysian in 2019 for broadband was 127.1 % while mobile-cellular was 131.4%. Moreover, it was also reported that the youth mobile subscribers account for more than 40% of total mobile subscribers in Malaysia. This indicates a vast potential for the usage and incorporation of mobile technologies in learning for Malaysia ecosystem. As can be seen, it is very important that the students and teachers in this mobile era look at the possibilities of integrating mobile devices to learning.

As other educational technologies, human factors should be considered as mobile learning successful adoption. Among of the human factors that need to be addressed is the student's readiness in embracing the technology for their learning. Several studies have reported their findings on respondents' readiness for mobile learning in terms of their ownership of mobile devices (Faizatul & Syahilia, 2017; Padmanathan & Jogulu, 2018; Nur Azlina et al., 2019). However, even if a student uses a mobile device frequently, it does not mean that they would be ready to adapt it for learning (Issham et al., 2016). Another readiness issue to ponder is student perception on how mobile learning can benefits their learning. As been found in another study (Almiah & Man, 2018; Ahmad Faizi et al., 2019) the students are not fully aware of the value that mobile learning can offer to them. Therefore, making them ready for the educational technology might challenging to achieve. In fact, for the Malaysian school context, mobile learning is not yet fully explored due to existing education policy that restricts the use of mobile devices amongst students in secondary schools (Mohd Sobri et al., 2019). As a result, there is a lack of information and understanding of student readiness and acceptance of mobile learning especially among form six student.

Thus, this study will add to the literature on a nationwide research and exploration related to students' readiness for mobile learning from the perspective of Malaysian form six students.

Are form six students in Malaysian ready for mobile learning and technology in education? This paper thus focuses on answering these tree research questions. What is the level of student SDL (Self-Directed Learning) in term of mobile learning implementation? What is the level of students readiness in term of technology skill and what is the students perceptions in term of psychology toward mobile learning implementing? This paper sought to investigate these issues and thus, present the significant implications of the study findings for future research.

Literature Review

Educational Technology Integration
In line with this potential of mobile devices in education, mobile learning has become one of the more influential aspects in the field of educational technology. This technology given the ubiquity of modern mobile devices and proliferation of educational applications for learning purpose (Uther, 2019). At the same time, the ownership of mobile devices in our society has allowed mobile devices to be employed to deliver content and activities in which learning can be situated outside of classroom than it has traditionally (Salih, 2019) This new technology successfully adapt and made learning become easy in outdoor settings, in augmented reality even whilst travelling on public transport (Zhau et al. 2017). Further, technology integration gives new environment and creates opportunities for better learning process to educators and learners.

According to Sharma et al (2015), educational technology integration become vital for today's students. The current generation is called "digital natives" as they were born in the era of a variety of digital devices, systems and information technology (Huang et al, 2019). Such systems have given birth to open source and free to use tools which allow students to create, collaborate and share content online. These, coupled with the power of social networking, social media, messages, wireless broadband make students more adaptive and dynamic learners (Kivunja, 2014). Such a successful integrated technology can also extend learning in powerful ways by providing up-to-date content, effective collaboration between students-teachers, opportunities for expressing creativities, self-assessment and sharing new knowledge (Mazharuddin, 2014).

Effective integration of technology is achieved when students able to select technology tools to help them obtain information in a timely manner, analyse and synthesize the information, and present it professionally. The technology should become an integral part of how the classroom functions as accessible as all other classroom tools. Furthermore, a technology can be claimed to be successful when usage of technology becomes second nature (routine) and when technology tools become a part of the user's learning process (Suartama et al, 2019).

Mobile Learning: Mobility for Learners
The evolution of mobile devices and wireless technology has changed many aspects of people's daily life around the world (Ismail et al. 2016). Ownership of mobile devices has reached critical mass around the globe and it is also predicted that significant increase of 28.34 percent of all mobile device owners around the world. The number of mobile devices is forecast to grow to 16.8 billion in 2023 (Statistica, 2020; Niemann, 2020). There for, these devices have become a must-have gadget due to its mobility features. These devices include smart phones, tablets, laptop and media devices that are portable and keep us connected at all time. Abundance of these mobile technologies has value added into educational atmosphere

especially for students and educators to consider the implications of these devices for modern teaching and learning environment (Hussein & Cronjie, 2010; Park, 2011). Recent advancement in the wireless mobile technologies has facilitated this new paradigm in education as mobile learning.

Mobile learning has been defined as the process of learning mediated by handheld devices such as smart phones and tablet computers (Schuler et al., 2012). While, Crompton (2013a) defined mobile learning as a learning across multiple contexts, through social and content interactions, using personal electronic devices. This definition describes the way in which learning is untethered from a specific location as well as how students can learn by using a mobile device to connect to people and subject matter artifacts. Previous scholars defined mobile learning as a learning, using mobile technologies where students can access the information by learning individually or in groups, face-to-face or at a distant place using personal mobile devices as a tool (Naismitsh et al. 2004). It is a new paradigm, related to e-learning, enriching formal education and student-centred. At the same time learning includes motivational and affective aspects, such as control, self-directed, communicative and offer some enjoyable (Chan T. et al., 2006). These features appear to enhance and make learning more meaningful. Although there are varying definitions and meaning of mobile learning, some scholar agreed that m-learning is the use of mobile technology and mobile devices to facilitate the process of learning or knowledge transfer, regardless of formal and informal learning structured (Mislina et al., 2010).

Mobile learning is an extension of e-learning that allows students to accomplish learning using portable wireless devices (Korucu & Alkan, 2011). However, e-learning is not necessarily m-learning. The delivery of the learning content in mobile learning focuses on using mobile computing devices supported by wireless transmissions. Mobile learning applications are being developed to provide electronic learning experience in mobile context. It provides an opportunity for learning happen at anywhere and anytime according to the convenience of learners (Lee & Chan, 2007). Learning process does not require taking place in a specified location or specified time rather it is flexible and can occur at any location and at any time. Yet it can enhance learner's engagement and improve accessibility of course contents as well as increase learners' interaction and collaboration (Kumar & Chand, 2019). To sum it up, Sharma et al. (2015) state that mobile learning stands on the 3 pillars of learning: just-in-time, just-enough, and just-for-me.

Mobile learning is one of the rich tools for presenting an active learning (Shin et al., 2012; Dobre, 2015). Thus, mobile learning could expand the ability of learners to communicate and access information through mobile and wireless devices (Martin & Ertzberger, 2013). The advantages of this devices are multitasking in nature and allow student to stay connect each other, doing group discussion, searching information, download and upload learning material (Ozturk et al., 2016). Taking advantages of mobile learning applications leads to the learning that fits the current era of knowledge and information technology as well as satisfies the needs of new generations of adults (Shin et al., 2012). It seems that this medium observed to achieve better mobile learning benefits rather than the conventional pedagogy.

Undoubtedly, mobile learning has potentially transform learning from conventional 'chalk and talk' mode towards more digitally-rich, 21st century learning environment that suits the characteristic of digital learners, who accustomed having all information at their fingertips

(Mazharuddin, 2014). It is clear that those digital native would benefit significantly from mobile learning abound, as they have developed an information technology mindset and multitasking skills where they learn best when the learning happens in a socially constructed and contextual, self-controlled method (Talan, 2020). Moreover, this millennial generations interact with screens more frequently than with people (Hill, 2016). The extensive use mobile devices are a natural extension on how students socialize nowadays, access information, and perform their daily activities (Montiel et al. 2020). So, through mobile learning it is expected that this medium would suit the learning style of savvy generation and engage them for a better academic performance and outcomes (Qi,2019). Even though mobile learning's visibility and significance is growing, it is evidently undeveloped as compared to other technologies and their pedagogies.

One of the key questions for the use of mobile devices is what advantages do mobile learning provide in learning? Some key advantages highlighted are the benefits of mobility, 'just-in-time' and location-based services (Wu et al, 2012; Sharpless et al, 2015; Sung et al, 2016; Koole et al, 2018). They also found students to be positive about the use of mobile learning such as increase creativity in learning, increasing confidence, study efficiency, enjoyment, feeling connected with fellow students, helping communication with others, and being more productive. Besides that, students suggested that they were more likely to access learning on the move (Elphik, 2018). Until now, much research has been carried out to evaluate the potential and effectiveness of mobile learning as a new pedagogy. For instance, several scholarly research has reported that mobile learning helps to improve understanding, communication and enrich students' learning experiences (Cho et al, 2018; Embi et al, 2018, Uther, 2019), provides better learning access for distance learners (Zhonggen et al, 2019) and impacts learners motivation, collaboration, information sharing, mobility and interactivity (Ktoridou & Salih; 2019; Yadav et al, 2019).

Apart from that, mobile devices are designed to provide a multitasking function that can be used for supporting and enhancing teaching and learning methods, like messaging, games, social media, web sites, internet access and multimedia convergence (Khaddage et al, 2009). Continual connectivity by these applications not only encourages more flexible access and engagement in learning and knowledge but also enhance their classroom learning experiences and give positive impact to learning (Hassim et al, 2018). Additionally, due to its size, weight and portability characteristic, the use of mobile devices removes temporal and spatial limitations of learning, thus offers opportunities for the optimisation of interaction and communication between students and teachers (Reedy et al. 2017; Huang et al. 2019;). They are able to organize their time more effectively by extending access to course related information, communication, and collaboration (Walck et al, 2015). Moreover, personalize characteristic of mobile learning also allowed students absorb information at different speeds and in different ways (Freench et al, 2019). Students enables to learn at their own pace, by uniquely catering to their requirements in a personalized way.

Students Readiness
Mobile learning readiness is a new aspect of technology adoption for students especially in school set up in Malaysia. Determining the best strategies for successfully adopting mobile learning in order to improve the efficiency of learning is the most critical aspect. For this reason, a systematic research is needed, because student's readiness was crucial to ensure effective adoption of mobile learning (Christensen & Knezek, 2017). Students must have

enthusiasm and willingness as well as skills in techniques for integrating mobile devices successfully in their learning environments.

In addition to benefits of implementing mobile learning, scholar such as Sabah (2016); Hamzah et al. 2017; Almaiah & Mulhem (2019) suggested readiness factors should be taken into consideration. Before that some experts (Chapnick (2000); Gold et al. (2001); Clark & Mayer (2003) emphasized of student readiness are the significant factors influence acceptance of electronic learning. They point out that adapting electronic learning without careful planning most likely ends with cost overruns, unacceptable and failure. Thus, educators and policy makers have to be careful in the process of adopting mobile learning for their students. Besides that, Padmanathan & Jogulu (2018) and Hidayah et al (2019) stated any other major innovation, mobile learning strategies require considerable up-front analysis, development time, technological of infrastructure and human factors to be successful.

Readiness is determined as an individual's action- or object-related experience (Teo, 2010) and has been changed to be strongly in relation to the occurrence of an action or the usage of an object. The object can be technology as in the context of readiness to adopt a technology (Parasuraman, 2000). Mobile learning readiness can be generally defined as the availability of students to choose and use mobile technology such as smart phones, tablet or laptops as one of the means of learning. Apart from that, the concept of mobile learning readiness from a psychology perspective will be at the intersection of readiness to adopt a technology and readiness to learn. As mobile learning is defined as incorporating mobile technology into learning activities (Motiwalla, 2007), mobile learning readiness can be defined as individual's propensity to embrace mobile technology to execute formal and informal learning activities. However, mobile learning cannot be effectively adopted if there is no high level of commitment from both educators and students. Thus, Mahat et al, (2012) suggested the most important thing to be committed is the technological readiness of the students itself.

Although mobile learning technology provides new opportunities and benefits, the adoption and acceptance of this new promising technology has become a significant problem for both practitioners and academicians (Bere & Rambe, 2016; Hsia 2016). The factors that affect the use and user acceptance of mobile learning are still controversial (Joo et al. 2016; Keengwe & Bhargava, 2014). Almaiah et al. (2016a, b) stated that the factors that motivates users to accept and use the mobile learning systems are not clear. In most studies, the successful of mobile learning systems are determined based on the user's readiness to adapt the system (Lai et al. 2016). Hence, it is an important to determine and understand readiness factors that contribute to users' intentions to use new mobile learning applications.

Prior studies have found that e-learning or online learning readiness (OLR) has substantial impacts on learning effectiveness. As mobile learning is derived from e-learning (Ozuorcun & Tabak, 2012), it is very plausible that mobile learning readiness could have similar effects on learning effectiveness and thus could be quite important to the successful of mobile learning implementations. As a result, a variety of variable has been tested as a potential factor to determine student readiness. Pamanathan & Jogulu (2018) used Chapnik readiness model indicated that Politeknik students are well equipped, skilled enough and mentally had a positive perception of using technology for education purpose. The overall findings revealed that a great majority of the students show high level off readiness for the implementation of mobile learning. Similarly, Fauzi et al. (2019) found that Quantity Surveying undergraduates students

in UTM accepted mobile technology as a learning tool and showed positively improvement in their scores.

However, Ismail et al. (2016) using technology readiness index by Parasuraman and Colby (2001) found that in generally, university students were moderately ready for implementing mobile learning. They would not quite sure that they would prefer of mobile learning in their course. Furthermore, some respondents also seemed to be worried about the cost issue, thinking they would spend more money if mobile learning were introduced. Some scholars also indicated that variety of factors should be taken into consideration in term of readiness such as student Self-Directed Learning (SDL) and motivation (Geng et al. 2019); self-efficacy, SDL and optimism (Lin et al. 2016); quality, organizational and technological factors (Almaiah & Mulhen, 2019); technological equipment (Fauzi et al. 2019).

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

Methodology
This study employed a quantitative design using survey method to investigate the level of mobile learning readiness among form six students in Tawau, Sabah. The questionnaires were distributed to 120 students in selected form six school. The face and content validity of the questionnaire instrument were evaluated by experts in the faculty and related field.

The questionnaire consisted of 4 sections: demographic information, readiness for Self - Directed Learning, Technology readiness and Psychology readiness. The first section consisted 5 demographic questions, which are gender, ethnic group, program of study, year of study, current institution, and field of study. The second section contained 9 items surveying students' readiness for Self -Directed Learning which adapted the MLR instrument developed by Lin et al. (2016). As for the third section, it contained 9 items on technology readiness while for the fourth section, it contained 10 items on psychology readiness. Both section C and section D were adapted from Patmanathan & Jogulu (2018) based on Chapnick Readiness Model (2010). All items were close-ended type. Sections on readiness utilized five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5).

Data collected were pooled and analyzed by using the Statistical Package for Social Science (SPSS) version 23. Statistical analysis used for the data analysis were descriptive analysis based on means score. Unless stated, all statistical analyses reported were conducted with a significant level of 0.05.

Data Analysis and Findings

Demographic Profiles

Table 1: Demographic Profiles

Variables	N(%)
Gender	
Male	46
Female	64
Ethnicity	
Malay	69
Chinese	27
Others	4
School category	
City	72
Rural	28
Type of Devices	
Hand Phone	82
Tablet	6
Laptop	12
Internet subscription	
Yes	94
No	6

Respondents' demographic profiles were summarized in Table 1. As can be seen, majority of respondents were female (64%) compare to male (46%). In term of ethnicity, 69% respondents were Malay, followed by Chinese (27%) and others ethnic were only 4%. As for devices ownership, most respondents have their own hand phone (82%) whereby laptop (12%) and only 6% own a tablet. Majority of respondents reported have their own internet subscription (94%).

Reliability Analysis
Table 2 shows the results of reliability analysis for three variables, which are self-directed learning, technology readiness and psychology readiness. As can be observed, the cronbach's alpha coefficients for all variables exceeded minimum value for exploratory study, which is 0.60 (Hair et al. 2012). Therefore, all variables in this study were deemed to be reliable.

Table 2: Cronbach's Alpha Coefficients

Variables		Cronbach's Alpha
Self-Directed	*Learning*	*0.724*
readiness		*0.806*
Technology readiness		*0.813*
Psychology readiness		

Students Self-Directed Learning Readiness

Descriptive analysis was done to study respondents self-directed learning readiness for the use of mobile learning in their learning process. Results of the analysis were summarized in Table 3.

Table 3: Respondents Mean Score for Self-Directed Learning Readiness

No.	Items	Mean	Standard Deviation
1	In my study, I have a high degree of initiative.	3.88	0.73
2	I manage my learning time well.	3.33	0.82
3	In my learning, I am self-disciplined.	3.52	0.74
4	I set specific times for my study.	3.61	0.84
5	I can find out information for myself.	3.90	0.73
6	I prefer to set my own learning goals.	3.57	0.78
7	I prefer to plan my own learning.	3.70	0.79
8	I prefer to direct my own learning.	3.66	0.84
9	I can be trusted to pursue my own learning.	3.57	0.75
	Overall mean score	**3.63**	

As can be seen, based on item 1 "*In my study, I have a high degree of initiative*", mostly respondents agreed that they have a slightly high degree of initiative in their study (mean=3.88). Thus, this result indicate that they can find out information for their self (mean=3.90), based on item 5 "*I can find out information for myself*". Further, these results show some influence on item 7 "*I prefer to plan my own learning*" and item 8 "*I prefer to direct my own learning*" perhaps because of respondent willingness to study by their own initiative. These two items also have slightly high mean score (mean=3.70, mean=3.66). Besides that, item 2 "*I manage my learning time well*", item 6 "*I prefer to set my own learning goals*" and item 9 "*I can be trusted to pursue my own learning*" have a moderate of mean score (mean=3.33, mean=3.57 and mean=3.57). These results indicate that not all students have strong initiative to manage and organize their own learning activities. Overall, the students had

a moderate mean score (mean=3.63) for self-directed learning readiness. From the result, it can be concluded that the form six students have not strong enough self-initiative to manage their own learning practice.

Students Technology Readiness

Descriptive analysis was done to study respondents technology skill readiness for the use of mobile learning in their learning process. Results of the analysis were summarized in Table 4.

Table 4: Respondents mean score for technology skill readiness.

No.	Items	Mean	Standard Deviation
1	I have enough ICT competencies to acquire online learning materials.	3.87	0.77
2	I have enough ICT facilities to adopt mobile learning in my learning activities.	3.78	0.75
3	I have enough ICT skills to use mobile learning.	4.43	0.70
4	I have the basic skills to use messaging app (WhatsApp, Telegram, Email, Google Drive) to text or share files.	4.33	0.64
5	Accessing the internet is not a problem to me.	4.05	0.86
6	I am prefer to use the most advanced learning technology in my learning.	4.25	0.70
7	I have enough skills to download and upload files using mobile devices.	4.08	0.75
8	I am able to find online information and learning materials.	4.27	0.64
	Overall mean score	**4.13**	

Based on data collected, majority of the respondents have a high level of technology readiness. This shown in Table 4, mostly items have a higher score mean which is score more than 4 out of 5. Based on item 3 "*I have enough ICT skills to use mobile learning*" shows that majority of respondents have enough ICT skill and very competence to adapt mobile learning in their learning activities (mean=4.43). While item 2 "*I have enough ICT facilities to adopt mobile learning in my learning activities*" and item 5 "*Accessing the internet is not a problem to me*" have mean score of 3.78 and 4.05 respectively. This is probably because of they have enough facilities such as Internet connection and portable devices to pursue mobile learning activities. Data collected also shown that respondents have enough skills to acquire information and learning materials as shown by item 1 "*I have enough ICT competencies to acquire online learning materials*" and item 8 "*I am able to find online information and learning materials*" by mean score of 3.87 and 4.27 respectively. Thus, all respondents show that they are good enough to use learning applications to upload and download learning materials. This is verified

by item 4 "*I have the basic skills to use messaging app (WhatsApp, Telegram, Email, Google Drive) to text or share files*" and item 7 "*I have enough skills to download and upload files using mobile devices*" with mean score 4.33 and 4.08 respectively. Due to this, majority of respondents prefer to use the most advanced learning technology in their learning as shown by item 6 "*I am prefer to use the most advanced learning technology in my learning*" with higher mean score 4.25. Based on the higher total mean score (mean=4.13) majority of the form six students indicated that they have a good enough ICT skill and very competences to adapt mobile learning in their learning activities. Thus, this show that they have good enough skill in term of technology and ready to mobile learning implementation.

Students Psychology Readiness
Descriptive analysis was done to study respondents psychology readiness for the use of mobile learning in their learning process. Results of the analysis were summarized in Table 5.

Table 5: Respondents mean score for psychology readiness.

No.	Items	Means	Standard Deviation
1	Mobile learning will help me learn anytime anywhere.	4.27	0.78
2	Staying connected with peers using mobile learning helps acquiring knowledge.	4.36	0.66
3	I am ready to integrate mobile learning in my learning activities.	4.07	0.72
4	It is easy to gain information from the use of mobile learning.	4.33	0.65
5	I think mobile learning is helpful to improve teaching and learning process.	4.14	0.70
6	I think mobile learning can help students to be more active.	3.98	0.67
7	Using mobile learning for education suits my learning style.	3.67	0.81
8	I would like my teacher to integrate mobile learning in addition to face-to-face meetings in the class.	4.04	0.89
9	I think mobile learning can improve out class interaction among teachers and students.	3.92	0.8e
	Overall mean score	**4.01**	

As can be observed, most respondents somewhat agreed that mobile learning have a positive impact to their learning process. This finding indicated respondents have a good perception and interest to adapt mobile learning. Based on data collected, majority of respondents have a

higher score mean for item 1 "*Mobile learning will help me learn anytime anywhere*", item 2 "*Staying connected with peers using mobile learning helps acquiring knowledge*", item 3 "*I am ready to integrate mobile learning in my learning activities*", item 4 "*It is easy to gain information from the use of mobile learning*", item 5 "*I think mobile learning is helpful to improve teaching and learning process*" and item 8 "*I would like my teacher to integrate mobile learning in addition to face-to-face meetings in the class*". All item had a score mean more than 4 out of 5. This suggest that, majority of respondents believe that mobile learning could enhance their learning effectiveness thus can increase their learning outcomes. Beside that, item 6 "*I think mobile learning can help students to be more active*", item 7 "*Using mobile learning for education suits my learning style*" and item 9 "*I think mobile learning can improve out class interaction among teachers and students*" shows slightly higher score mean (3.98, 3.67 and 3.92). For this reason, majority of respondents agreed that mobile learning can produce active learning and suit their style of learning. They also considered that mobile learning could improve student-teachers communications even outside classroom. An overall mean value of 4.01 which is slightly high suggested that respondents were generally have a positive perception and believed that mobile learning could give significant impact to their learning outcomes. Therefore, it can be said that form six students quite optimistic and mentally ready for the mobile learning adoption.

Discussions and Conclusion
Development and innovation of information and communication technologies, primarily mobile devices made the use of technology in education has been a new norm in the last decade. Mobile technology has been penetrated all aspects of life and plays a vital role in learning environment. Today, a strong change to student-led learning is possible with mobile technology has made learners feel more successful and interesting using the technology.

Findings of this exploratory study underlined important insights pertaining to students' readiness for the educational use of mobile technologies from the form six student perspective. It was revealed in this study that, an overwhelming majority of students in form six were slightly ready in term of self-directed learning. Many of them seemed to be ready and have their own initiative to manage and organize their own learning activities. Consistent with the previous study by Allam et al. (2020); Ahmad et al. (2020); Kaur et al. (2020); Geng et al. (2019) and Lin et al. (2016), the finding indicated that respondents were motivated, self-determined and committed to their learning. Findings also indicated that self-directed learning have a strong correlation with emerging of mobile technology in education. For this reason, Lin et al. (2016) and (Lin & Hsieh, 2001) emphasized that integrating all the resource accessed possibly, an individual able to actively develop and responsible for his/her learning activities. The inclusion of self-directed learning readiness in mobile learning was in line with Huang et al. (2012) and Smith's (2005) argument that self-directed learning is the core of technology-mediated distance education and thus could derived mobile learning adoption.

Taking a further examination of student technology skill readiness suggested that form six students were skill enough in term of technology skill to pursue mobile technology in their learning activities. Majority of the respondents are well equipped and able to handle and use devices for learning purpose. This result concurred with Geng et al. (2019); Padmanathan & Jogulu (2018); Ismail et al. (2016) and Hussin et al. (2012) where they found that the students posses a good proficiency in using mobile devices for study. This finding is not surprising due to the characteristic of the respondents. They are well known as digital generations who are

also known as digital natives and has an ability to multitask and utilizing technological devices simultaneously (Lindsey & William, 2014; Gasser & Palfrey, 2008; Shaw, 2008). The unique traits of these millennial learners do not only shape the personalities but also contributes towards their learning preferences. Thus, this treats has created a need for new tools and supplemental learning environments such as multiple media and technology based environments (Howard, 2011), interactive learning (Capuono et al. 2013), less lecture, active learning approaches, collaborating with peers (Thomas, 2016; Sheehy et al. 2014) are some of the pedagogical approaches to reach the digital generation.

The finding of this study also indicated that form six students were very optimistic in term of integrating mobile technology in to learning process. Majority of the students have a positive about mobile learning and believe that this mobile technology could enhance their learning effectiveness and outcomes. This finding is parallel with studies conducted by Nordin et al. (2010), Alzaza & Yaakub (2011), Abas et al. (2009), Shaqour (2014) and Rahamat et al. (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 their learning environment as they were already familiar with computing and communication technology that mobile learning may require. According to these results, majority of students think that mobile learning is useful, makes it possible to learn, to meet needs and interests, to communicate with lecturers and peers and more quickly than through traditional methods. Therefore, these findings suggest that most of the participants are quite familiar and enthusiastic with mobile learning.

As mobile learning technologies become usual as a learning tools, more attention to the learning experiences that occur between students, teachers and the devices should be given (Tagoe & Abakah, 2014). As argued by Kukulska-Hulme et al (2009), these learning experiences transcend spatial, temporal and involve interactions with mobile technologies. Naismith et al. (2005) explicate that as learning moves more and more outside of the classroom and into the learner's setting, both real and virtual, learning will become more situated, personal, collaborative and lifelong. Since the data from this research revealed that students are ready and have positive perceptions toward using mobile learning for learning, educators should grab this opportunity to make the teaching a process that could trigger the students' thinking, develop their potential and also promote lifelong learning. Although the application of technology is appealing, it is important to remember that the most successful applications tend to be those that are sensitive to the perceptions of the user. Technology should be used in an integrated way and students must understand why and how technology can assist their learning.

The implications of mobile learning on form six students are far reaching. Consequently, it will not be surprising that learners will begin to embrace mobile learning as a significant part of their learning process.   Considering the trend, mobile learning could be recognized in Malaysian school within the next few years and this has called for all policy makers and stakeholders to be ready for it. More research with a larger sample from form six students will provide a better and clearer insight into the issue of readiness in term of using mobile learning approaches. More specifically, factors jointly affecting use intentions and student readiness as well as equipment, device preferences, secure connectivity and communication, technology facilities, costing issue, demographic factors are also significant issues.

Rerences

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