Technological Readiness of UiTM students in Using Mobile Phones in The English Language Classroom

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ABSTRACT

Mobile Assisted Language Learning (MALL) by using devices such as mobile phones is an ideal learning platform for learners to acquire language and share knowledge beyond the confines of a fixed location. By utilizing the mobile applications available via smartphone, learners can engage in collaborative networks and find information in a variety of diverse environments. This article shares the findings of a research at Mara University of Technology (UiTM) in Malaysia to determine the technological readiness of the students by measuring their digital skills using the Digital Competence Framework (EU). Some 50 students from the English language proficiency course were purposively sampled because they have been exposed to MALL by their lecturer. Their responses were collected through an online questionnaire. The findings showed that all 50 of the students owned a smartphone. While 82.6% of the students did not attend any training on how to use the smartphones, 80.4% of them have their own storing strategies and nearly 90% of them reported having technological skills in operating their smartphone such as accessing applications, ability to record, share and produce technological resources. The findings suggest that to ensure successful MALL, educators need to be aware of the background and technological skills of learners before embedding m-learning into the English Language lessons.

Keywords: *m-learning, mobile assisted language learning, technological readiness*

INTRODUCTION

Mobile technology offers numerous benefits in the education world. Wang, Shen, Novak, and Pan (as cited in Mohamed & Norazah, 2015) posited that " … the use of Mobile Learning activities in class highlights the power of the Mobile Learning system as persuasive technologies as such technologies can be used to change people's thoughts, feelings and action *(sic)*" (p. 2). Mobile devices encourage students to learn anywhere and anytime because the students can process information in and outside the classroom. Mobile learning has the power to change a passive learner into an active learner by enhancing learner engagement in the learning process. Klopfer (as cited in Miangah & Nezarat, 2012) further explained that due to the small size and weight of the smartphone, the mobility of the learning process is increased.. Apart from that, learners can interact virtually to exchange data and collaborate in the learning input and output with other learners. In addition, the learning process is personalized because the activities platform can be customized for individual learners.

Kearney, Schuck, Burden, and Aubusson (2012) highlighted three central features of mobile learning namely; personalization, authenticity and collaboration in their mobile learning framework. Through personalization, learners are able to control the place and time of learning and they can enjoy full autonomy

over their learning content. These activities can be customized and tailored to their needs which can lead to a strong sense of ownership of one's learning. Kearney et al. (2012) further posited that "M-learning episodes potentially involve high degrees of task and process authenticity as learners participate in rich, contextual tasks (setting, characters, tools), involving real-life practices….learners can generate their own rich contexts with or through their mobile devices". Hence, mobile learning can provide an authentic learning experience because it allows learners to experience real world issues and they become more able to perceive and relate the value of these practices. Also, through mobile learning, learners are able to collaborate by making connections with peers and educators. They can collaboratively participate in creating, producing and sharing of information across time and place.

Hulme, Norris, and Donohue (2015) stressed that learning through mobile phone is "a powerful extension to classrooms and other spaces, making language learning mobile provides the possibility for learners and teachers to be able to communicate in English with peers and experts via online tools" (p.18). Hulme et al. (2015) proposed a mobile pedagogy for English teaching as they believe that teachers and learners can become active participants in making and shaping the current language learning. Miangah and Nezarat (2012) added that mobile devices could control learning progress based on the learner's cognitive state that can improve the focus of the students. It caters to both students who want to learn independently and also to those who like to learn collaboratively. It is more realistic, promotes interactive learning and gives the learner more control and fun in learning since students learn using the devices or gadgets familiar to them. As educators, we need to embrace the stage of transition in the current education system as digital media is becoming significant in many parts of the learners' lives. Mobile Learning in the classroom can promote active learning by making learners accountable and responsible for their own learning while their teachers facilitate them. By implementing mobile technologies in the English Language Classroom, students are able to bring in their own devices to facilitate their learning. Hence, it enables them to:

- Create and share multimodal texts
- Communicate spontaneously with people anywhere in the world
- Capture language use outside the classroom
- Analyse their own language production and learning needs
- Construct artefacts and share them with others
- Provide evidence of progress gathered across a range of settings, in a variety of media.

(Hulme, Norris, & Donohue, 2015)

Problem Statement

Mobile technology has become the part and parcel in students' life as it teaches them on how to communicate, gather information, allocate time and attention and also self-regulating learning. Chen, Seilhamer, Bennet, and Bauer (2015) stated that "Effective use of mobile technology is less about tools and more about students' digital literacy skills, including the ability to access, manage and evaluate digital resources". As educators, we need to know the students' capability of using digital devices as there will be a number of students who may not know the function of certain smartphone tools that can generate a meaningful learning experience. Chen et al. (2015) also added that "Technology adoption in higher education is more than applying technical innovations. Wide-scale institutional implementation requires clear university policies, device availability and readily accessible technical and pedagogical support". In other words, it is understood that technology use in the classroom not only depends primarily on the new available tools but it is more on how the tools are available and accessible. On another note, Rung, Wamke, and Mattheos (2014) reported that "understanding the skills of the main users and their attitudes toward new tools is of fundamental importance, in order to guide development of appropriate innovation". This is because mostly students are reluctant to use the smartphone for educational purposes and they would rather use it for social networking.

The key goal of this research is to understand how the students are able to use their smartphones inside and outside the formal learning context. This is to give assurance to the teachers and educators that students would be able to learn independently at their own pace without any distractions or problem such as the kind of phones that they own, the capacity of their mobile data plan, and also the capability of the smartphone users to explore and use the tools available in their smartphones.

Research Focus

Song (2014) (as cited in Miller & Doering, 2014) stated that:

Mobile learning apps should be designed based on the learners' needs and instructional purposes. When it comes to mobile learning itself, the learners' needs vary depending on sociocultural background, prior knowledge, skills, competences (Papanikolaou & Mavromoudtakos, 2006), cognitive styles and motivation (Seong, 2006). (p. 129)

Song (2014) further posited that the teachers might not know how the learners use mobile devices in real situations due to the learners' multiple background and learning locations. It is very important to focus on the learners' skills, their use patterns of the mobile devices and their level of digital literacy. Without getting this information, teachers can never assume that learning via mobile devices can be successful. Many issues must be considered before mobile learning can take place in a MALL environment.

These issues are:

a) Accessibility

- Accessibility to the context in the mobile phone is very important because learning takes place in and outside of the classroom. Some students may have their own mobile data (internet package) while other students might heavily depend on WiFi connections at university and public places due to financial constraints. Some applications that can be used offline. However, learners still need the internet connection for retrieval of information, web services, data transactions and information sharing. So, it is very important to know how the students can access their learning applications for an uninterrupted learning process.

b) Mobile Application Platform

- This is a very significant issue as learners use different platforms based on their mobile devices. Song (as cited in Miller & Doering, 2014) explained that "In the mobile app development field, the term platform typically refers to a mobile device's operating system or its software development kits and each platform has its own user-interface conventions in its operating system that restricts the development of customised and integrated approaches" (p.131).

c) Learners' Experience

- This is another practical issue that needs to be considered closely as it is crucial for a successful mobile learning. Learners need to know how to navigate information via their mobile devices, especially using their smartphones. Apart from that, the learners also need to understand the function of their mobile devices such as the limitations of the data storage, display, the mobile applications interface and the designs. Some students may have very limited digital skills as it depends on the type of mobile phones that they have and also their understanding of the function of the devices.

Hence, the objective of this study was to look at the background and the digital skills of the learners because it is very crucial in understanding their capability of using mobile devices in the educational context.

Literature Review

Sharples, Taylor, and Vavoula (2007) proposed a theory related to mobile learning which whereby they stressed that learning can take place from a new angle and mobile technology can enhance the learner's knowledge and skills. Besides that, Mergel (1998) advocated that "this theory of mobile learning must be tested against a few criteria". One of the criteria is whether the theory is accountable to both formal and informal learning. The second criterion is whether the theory analyzes the dynamic context of learning. Since learning is a constructive and social activity, the theory needs to be tested by using these criteria. According to Kearney, Schuck, Burden, and Aubusson (2010), "Sharples, Taylor and Vavoula's framework for analysing mobile learning is structured according to theories that are tested based from the criteria stated above". They stated that the aim of this framework is "to provide a coherent account of how activities are performed, the people involved, their contexts, the tools and technologies they employ, the structure of the tasks and an account of their cognitive processes, management of knowledge and social interactions" (2007, p. 15).

The framework in Figure 1 explains how Mobile Phone Technology can be used as a learning resource where human and technology can collaborate to create and share meaning of the knowledge and skills. The interaction process directs to the subject (learners) and the object (content knowledge and skills) where both are needed in the Control, Context and Communication factors that could influence and enhance learning in this new world of global digital communication.

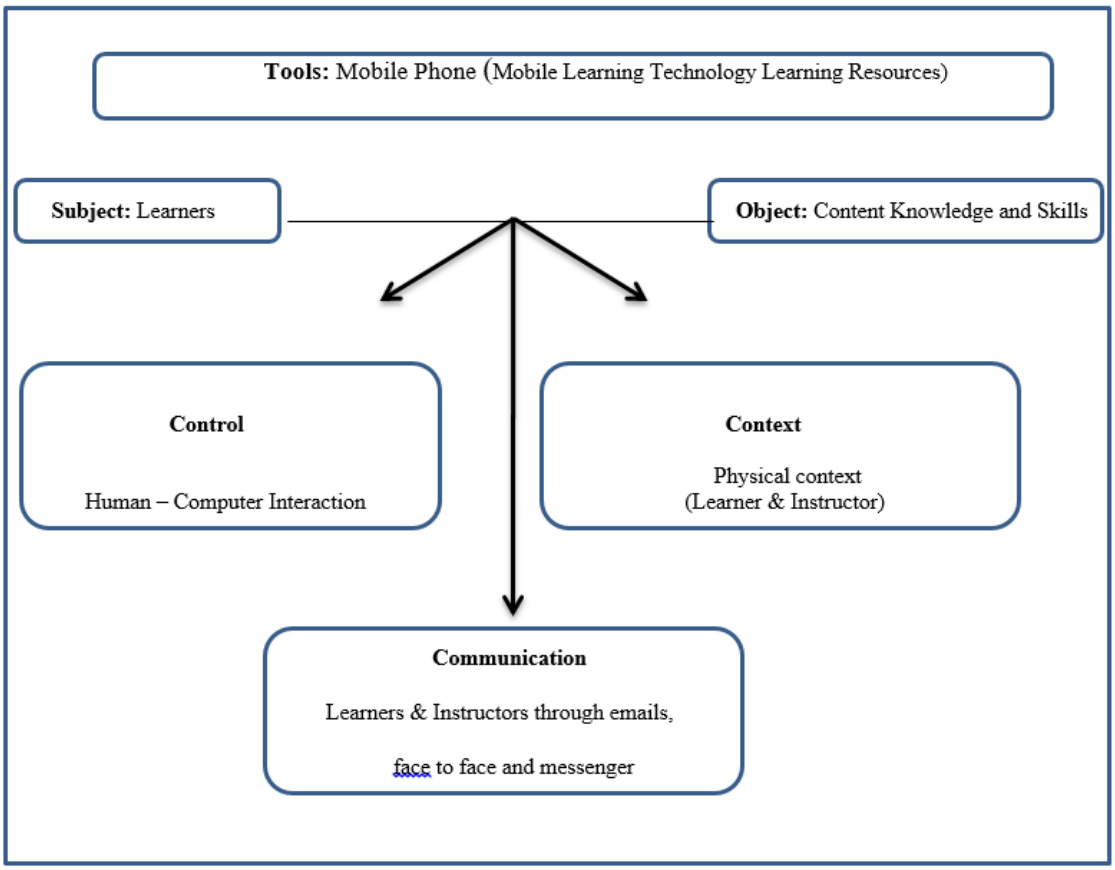

Figure 1. **Framework for Analysing Mobile Learning (Adapted from Taylor, Sharples, O'Malley, Vavoula, & Waycott, 2007)**

Research Questions

The following were the research questions of this study.

1. What is the level of technological readiness of the selected UiTM students in using mobile phones in their English Language classroom?
2. Are the participants aware of the ethics related to using mobile phones in mobile learning?
3. Do the participants have the cognitive skills in using mobile phones in mobile learning?

METHOD

A survey was carried out to obtain the data for this research survey. The questionnaire was uploaded online through the 'Survey Monkey' tool and the link was sent to the students via Whatsapp.

a) Participants

The participants for this research were chosen based on purposive sampling method. "Purposive sampling is different from convenience sampling in that researchers do not simply study whoever is available but rather use their judgement to select a sample that they believe, based on the prior information, will provide the data they need" (Fraenkel, Wallen, & Hyun, 2015, p. 101). The participants were purposefully selected by the researcher because they have been exposed to MALL as compared to other students in UiTM who have not been exposed to MALL. The participants were all from the 2nd semester and were enrolled in the same English course at UiTM. The participants for the research are shown in Table 1.

Table 1. Participants of the Research

Group	Program	Number of Students
HM1112A1A2	Hotel & Tourism	20
EE1112A1A2	Electrical Engineering	10
EM1102C1C2	Mechanical Engineering	20

Research Instrument

The questionnaire used in this research was adapted from the 'Measuring Digital Skills across the EU: EU wide indicators of Digital Competence report, 2014' and Sakinah's (2013) MReadiness questionnaire. The instrument considers many aspects. Hoz, Gutierrez, and Mediavilla (2015) stressed that the EU Digital Competence instrument consists of "key aspects such as information management, learning and solving problems and meaningful participations as well as the user attitudes including aspects such as critical ability, creativity, responsibility, self-sufficiency and intercultural respect". Sakinah (2013) stated that the "MReadiness questionnaire had three purposes: (1) to gain better understanding of common mobile devices and applications; (2) to investigate students' perceptions of usefulness of mobile learning activities, and (3) to understand how the students use them to support their learning". This questionnaire was piloted at a higher education institute in 2012 and to test the validity and adequacy of the instrument. It was found that this questionnaire meets the survey's aim after a few improvements made during the research process.

There were 35 questions in this questionnaire. The questionnaire was divided into a few sections:

Section A: Demographic Profile of the students

Section B: Demographic details on the Technology Competency of the Students

Section C: Technology Concepts and Operation

Section A, B and C were to address Research Question 1

Section D: Technology Ethics

Section D was to address Research Question 2

Section E: Cognitive Skill in Technology

Section E was to address Research Question 3

RESEARCH FINDINGS AND DISCUSSION

Student Demographic Profile

The students for this research came from three different Diploma programs: Mechanical Engineering, Electrical Engineering and Hotel and Tourism. Some 32 female and 18 male students were involved in this research. There were 41 students who were 19 years old, five students who were 18 years old and four students were 20 years old. The students mainly came from a Malay speaking background and English is their second language. This is the 2nd semester of their studies at UiTM Pulau Pinang.

The research shows that 48% of the students' financial assistance to pursue their studies were from study loans while 44% were sponsored by their parents. Only 6% of the students received scholarship and 2% took personal bank loans. The students' average expenses for a month ranged between RM70 to RM200. Most of them spent their money on Internet/Mobile Data, toiletries, meals and others. The data above is an indication for the teachers to know the financial status of the students before embarking on the research. It is important for us to know whether the students are studying under a scholarship or study loan so that it will not be a burden for them when we are integrating technology in classroom as teaching and learning. Mobile devices and mobile data consume a sum of money and from the data, we can come to an understanding that all of them own a smartphone and mostly it is equipped with mobile data. An efficient educator who integrates mobile learning will definitely look into how to minimize cost in teaching and learning based on findings of the demographic profile of the students.

Technological Competency of the Students

This section addresses research question 1: What is the level of technological readiness of the selected UiTM students in using mobile phones in their English Language classroom?

The data showed that all of the students own at least a smartphone. Besides that, they also have other devices such as laptops (76.6%), tablet (3%) and MP3 Player (4%). The students had been using these technological devices from 6 months to 2 years. The participants mentioned that this was because they were still schooling a few years ago and were not allowed to use mobile devices. From the survey, it was noted that the students at UiTM Pulau Pinang used their mobile devices, especially their smartphones for chatting, messaging, browsing education websites and accessing social networks, playing games and listening to music.

The findings also showed that only 17.4% students have attended seminars/trainings/workshops on how to use the mobile devices and 82.6% of the students did not attend any proper training or workshops on how to use such devices. Some 86.6% of the students stated that they learned from their siblings, parents, friends, online and their teachers in school. Table 2 shows the information given by the students regarding their skills in utilizing their smartphones.

Table 2 Smartphone Operating Skills

Answer Options	Yes
Able to switch the smartphone's language to English	46
Able to log onto Wi-Fi	45
Able to switch on and off the silent mode and flight mode	46
Find the privacy settings and describe what they mean	42
Enable or disable location services	44
Access to the Voice Command	37
Able to access the Apps store, search for and understand the permissions required, in-app purchases and data storage required	45
Send and receive emails	45
Input the address of a website	45
Take and share photographs	46
Able to make notes	43
Able to make audio recording	46
Able to make Video recording	46
Find out how much data storage is available	46
Know how to update software	42
Take a screen shot	45
Scan a QR code and a bar code	37
Make free phone calls and send free texts using platforms apps such as Skype, WhatsApp, Viber and etc.	43

The findings showed that nearly 90% of the students reported having the following skills in operating their smartphone: accessing applications, ability to record, share and produce technological resources. This shows that most of the participants have the basic skills in handling the functions of their mobile devices and they have the technological competence to use them for mobile assisted language learning in the English Language classroom.

Students' Knowledge of Technological Concepts and Operations

Smartphones come with many unique features which allow us to store our documents in folders. It is important for the users to have various skills in handling and storing information in their smartphones (Miangah & Nezarat, 2012). Some 80.4% of the students in the study stated that they have their own strategies in storing information in their folders; while 10.9% of them used Dropbox to save and keep their documents, 8.7% of them did not know how to save or store information. This information is important to teachers because it allows the teachers to know the background of the students' knowledge of technological concepts and operations before the teachers can implement MALL. Knowing this, the teachers might need to tutor the students on how to manage the storage of their information.

Table 3 shows the information on the types of files saved by the students' in their smartphone.

Table 3 Types of Files Saved by Students in Their Smartphones

Answer Options	Response Percent
L1 I don't know	10.6%
.JPEG / .PNG	19.1%
.docx	17.0%
.PDF	53.2%

Table 3 shows that 53.2% of the students know how to save their files in the PDF format. This means that the teachers of the participants of this study can send their educational content via PDF documents to the students. Besides that, the data in this table also shows that 19.1% of the students know how to save through .JPEG/.PNG format and 17% of them know how to save through .docx. It was found that about 10.6% of the students do not know how to save the files and documents via their mobile phones.

Table 4 shows the students' skill of saving and bookmarking resources via their smartphone.

Table 4 Saving Webpage and Bookmarking in The Smartphones

I know how to save a webpage and bookmark it in my smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	6.4%	3
L2 Save every page that I access	10.6%	5
L3 Save only one reliable resources	55.3%	26
L4 Save all reliable resources	27.7%	13

However, the teachers need to brief the students on how to save webpages, use bookmarking, and search for information using keywords. This is because 6.4% of the students admitted that they did not know those skills and can be left out or become passive if the teacher starts using mobile applications in the classroom. About 55.3% of the students saved only one reliable resource and 10.6% of the students saved every page that they accessed. Some 27.7% of the students saved all reliable resources. Students need to know this skill as mobile application activities will involve many technological skills such as surfing for specific information, saving website pages and sharing information with their peers in the educational classroom.

Table 5 show the findings about the students' ability in searching for keywords, finding and deciphering information and in refining their search by using their smartphones.

Table 5 Ability to Search by Keywords, Find, Decipher Information and Refine Search by Using The Internet Through Smartphone

I have the ability to search by keywords, find, decipher information and refine my search by using the Internet through my smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	4.3%	2
L2 Long stretch of keywords	17.0%	8
L3 Exact keywords for the search	40.4%	19
L4 Use the exact keywords and refine the final search documents	38.3%	18

It was found that about 40.4% of the students have this ability by using the exact keywords for their search. 38.3% of students could use exact keywords and refine their final search documents. About 17% of students used long stretch of keywords to search for the information. However, 4.3% of students did not know how to search for information by using keywords.

Table 6 Checking, Analyzing and Filtering Information by Students Through Their Smartphones for Their Assignments

I will check, analyze and filter the information that I search via my smartphone before I use for my assignments		
Answer Options	Response Percent	Response Count
L1 I don't know	6.4%	3
L2 Save every webpage that I access	6.4%	3
L3 Save only one reliable source	25.5%	12
L4 Save all reliable sources	17.0%	8
L5 Verify the origin, author and site history before I save the sources	44.7%	21

Table 6 shows that 44.7% of the students were likely to verify the origin of the author and the website history first before they used the information saved in their smartphone for completing their assignments. Some 25.5% of the students would save only one reliable source and 17% of the students would save all the reliable sources. Around 6.4% of students saved every webpage that they accessed without checking and filtering for authenticity of the information. Only 6.4% did not know how to check, analyze and filter for information through their Smartphone.

Table 7 shows the awareness of the students on the authenticity of the information, online materials and resources before they saved the materials or webpages through their Smartphone.

Table 7 Students' Awareness of The Authenticity of Information Searched Through Their Smartphones

I am aware that I can't trust everything that I see, read or hear from the Internet which I browse through my smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	2.1%	1
L2 Save every webpage that I access	2.1%	1
L3 Save only one reliable source	27.7%	13
L4 Save all reliable sources	12.8%	6
L5 Verify the origin, author and site history before I save the sources	55.3%	26

Some 55.3% of the students showed a positive sign that they were aware of this issue because they will verify the origin of the author and the website history before saving the sources through their Smartphone. Only 27.7% of the students would save just one reliable source and 12.8% saved all the reliable sources. However, teachers still need to guide the students on the awareness on the authenticity of the information that they have browsed through the internet via their smartphone. This is because 2.1% of the students saved all the webpages that they accessed and another 2.1% did not know how to check for the authenticity of the online resources browsed through their Smartphone.

Table 8 Students' Ability in Sharing Information through Messengers, WhatsApp, Dropbox and Others Through their Smartphones

I know how to share information via messengers, WhatsApp, Dropbox etc. through smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	0.0%	0
L2 Able to receive only	6.4%	3
L3 Able to receive and forward the information to others	8.5%	4
L4 Able to receive, send, share and forward the information to others	85.1%	40

Table 8 shows that 85.1% of the students were highly competent in receiving, sending, sharing and forwarding information to others through Smartphone by using applications such as messengers, WhatsApp, Dropbox and many more. Only 8.5% of the students were able to receive and forward the information to others and 6.4% of them were able to receive information only.

As discussed on the findings of question 1, it is understood that students know how to do proper internet search by using search terms and modifiers. Apart from that, they also know how to create, edit and modify documents, presentations and video recording because these skills will be essential when the teacher starts implementing mobile devices in classroom teaching and learning. In order to have an effective e-learning to take place, it is best to evaluate the students' capability on how they handle daily technology routines that uses mobile phones or smartphones such as sending and receiving emails, basic internet etiquette skills of communicating in different platform and navigating different programs through different software.

Participants' Awareness of Ethics related to Technological Competence

This section addresses research question 2: Are the participants aware of the ethics related to using mobile phones in mobile learning?

Apart from finding out about the students' knowledge and skills in using their devices, teachers can further investigate the students' background knowledge of ethics in the cyber world. It is important for students to know about cyber-crimes such as hacking, spamming and downloading unauthorized materials from the Internet. Crystal (2011, p. 1) stated that "if everyone does whatever they want on a network, it uses up a ton of space and interferes with other users……if they download a virus along with the software, they risk destroying the entire system…..incurring tremendous financial loss". In addition, teachers need to identify the students' knowledge on the danger of misusing intellectual property such as articles, books and software, which are available online. They need to be taught to acknowledge the original author and creators of the cyber world. This will enhance a culture of using technology ethically.

Table 9 Students' Awareness in Saving and Trusting Reliable Resources Searched Through Their Smartphones

B3 ETHICS I am aware that I can't trust everything that I see, read or hear from the Internet via Smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	2.1%	1
L2 Save every webpage that I access	2.1%	1
L3 Save only one reliable source	23.4%	11
L4 Save all reliable sources	19.1%	9
L5 Verify the origin, author and site history before I save the sources	53.2%	25

Table 9 clearly shows that most of the students (53.2%) in this study verified the sources first before they downloaded their materials. 23.4% students stated that they saved only ONE reliable source after going through all the sources. 19.1% of the students saved all the reliable sources and 2.1% of them saved all the webpages that they browse through. Another 2.1% of the students did not know how to check for the reliability of the resources found in the internet.

Table 10 Students' Ability in Cross-checking Information Received Through their Smartphones

I think it is important to cross-check the information received via Smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	14.9%	7
L2 Save every webpage that I access	0.0%	0
L3 Save only one reliable source	21.3%	10
L4 Save all reliable sources	17.0%	8
Verify the origin, author and site history before I save the sources	46.8%	22

The students also knew about the importance of cross checking the information first before downloading it into their devices as shown in Table 10. Some 46.8% of the students verified the origins of the author and the websites before saving any information into their smartphones, while 21.3% saved only one reliable source and 17.0% saved all the reliable sources. Furthermore, the students also checked the writer's credibility of the resources found online before saving the information into their smartphone folders.

Table 11 Students' Ability in Checking the Writer's Credibility Before Saving Resources Through Their Smartphones

I will check the writer's credibility before accepting the information that I get in my Smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	17.4%	8
L2 Save every webpage that I access	4.3%	2
L3 Save only one reliable source	17.4%	8
L4 Save all reliable sources	13.0%	6
L5 Verify the origin, author and site history before I save the sources	47.8%	22

Table 11 shows that 47.8% of them would verify the origins of the author and the resources, 13% of the students would save all the reliable sources and 17.4% saved only ONE reliable source. About 4.3% saved every page that they browsed through the internet by using their smartphones.

Table 12 Students' Awareness of Adware, Scamming and Fraud Websites Appearing in Their Smartphones

If I encounter Adware, Scamming, Fraud Website popup in my Smartphone screen, I will:		
Answer Options	Response Percent	Response Count
L1 I don't know	10.6%	5
L2 Try to open	0.0%	0
L3 Close	44.7%	21
L4 Block	17.0%	8
L5 Block and Report	27.7%	13

Table 12 is about the students' awareness of Adware, Scamming and Fraud Website that appears in their Smartphone. Some 44.7% of the students would close the sites if they encountered dangerous popups while browsing the Internet using their smartphones. Another 27.7% of the students would block and report to the respective authorities that deal with the dangerous hardware and viruses and only 17% of them would block the popups without taking further actions.

Although most of the students were aware of basic technology ethics, some of them still did not know how to find genuine information or software from the Internet. As shown in Table 10, 14.9% of the students, 17.4% of students in Table 11 and 10.6% of students in Table 12 were unaware of how to check the credibility of the information found in the Internet.

From these findings, teachers cannot assume that all students are aware of the rules and ethics related to technology use. Teachers need to teach the students about these before they proceed to use smartphone applications in the classroom. Moreover, the students should be taught how to block and report to the respective authorities rather than merely closing the websites because this action could prevent cyber-crimes from happening.

Table 13Students' Ability in Installing and Updating the Applications in Their Smartphones

You have been asked to install and update applications on your smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	2.2%	1
L2 Install the applications immediately without reading the terms and conditions	17.4%	8
L4 Install the applications after reading the terms and conditions	28.3%	13
L5 Install the applications after reading the terms and conditions and explore the site after the installations process are done	52.2%	24

Based on Table 13, it is found that there was a positive sight for the teachers as many students know how to install applications after reading all the terms and conditions properly. Some 52.2% of the students would explore the site immediately after the installation and another 28.3% of students would install first but would only explore later during their free time. Teachers need to be aware that 17.4% of students did install before reading the terms and conditions. Only 2.2% of students did not know how to install and update the applications through their Smartphones. The students need to be reminded on the importance of reading the terms and conditions because not all the applications are free and offer full features. Some applications come with a price which will be deducted through the phone bill and some may have bad reviews from their customers.

As an educator, we must not take things lightly when it comes to awareness and ethics of using technology devices for educational purposes. The preceding data analysis shows that most of the students are aware of the function of antivirus, spam, phishing and other Internet safety issues. If the students are unaware of these safety issues, it may bring more harm than good when the teachers implement mobile learning in the classroom. Teachers also need to educate the students about privacy policies of Internet usage such as recognizing genuine and authentic information,, steering clear from websites that share personal information and also type of viruses that can be malicious to technology devices.

Participants' Cognitive Skill in Technology

This section addresses research question 3: Do the participants have the cognitive skills in using mobile phones in mobile learning?

Cook (2015, p. 1) stated that students from generation Y and Z are active learners in terms of building and understanding the world's experience, interactions and observations. The student "craves regular and technology-enhanced learning opportunities and looks for educational opportunities that use visually enhanced methods of teaching" (Cook, 2005). When technology is used appropriately, the students can explore, experiment and create according to the needs of the context. With more understanding and exposure of the materials found on the Internet, students are able to create, produce, share and review the materials or information effectively.

Table 14 Students' Ability in Creating and Producing Ideas for Educational Purposes Through Their Smartphones

B4 COGNITIVEI am able to create/produce ideas for educational purposes via the help of my Smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	10.6%	5
L2 A few ideas	42.6%	20
L3 Many ideas	36.2%	17
L4 Extremely many ideas	6.4%	3
L5 Everything	4.3%	2

Based on Table 14, only 4.3% of the students were able to create and produce ideas for educational purposes via their smartphone. Some 6.4% of them had extremely many ideas for creating and producing and about 36.2% had many ideas; 42.6% have only a few ideas and 10.6% of them did not know and were unable to create or produce ideas by using their smartphones.

Table 15 Students' Ability in Creating, Producing and Sharing Ideas for Educational Purposes with Their Friends Through Smartphones

I am able to create/produce ideas for educational purposes via the help of my Smartphone and share it with my friends		
Answer Options	Response Percent	Response Count
L1 I don't know	10.6%	5
L2 A few times	38.3%	18
L3 Many times	36.2%	17
L4 Extremely many times	6.4%	3
L5 Every time	8.5%	4

Table 15 shows the findings about the students' ability in creating, producing and sharing ideas for educational purposes with their friends by using their smartphone as their tool. 6.4% of the students were able to perform these ability extremely many times, 36.2% were able to do this many times, 8.5% of them did it every time, 38.3% of them did it for a few times and 10.6% of them did not know how to perform this ability.

Table 16 Students' Ability in Restructuring and Reviewing the Content Received Through Their Smartphones

I am able to restructure and review the content that I received via Smartphone		
Answer Options	Response Percent	Response Count
L1 I don't know	10.6%	5
L2 Not every time	34.0%	16
L3 Many times	40.4%	19
L4 Extremely many times	6.4%	3
L5 Every time	8.5%	4

Table 16 shows the data on the students' ability in restructuring and reviewing the online contents received via their smartphone. About 40.4% of the students were able to restructure and review the online contents many times, 6.4% extremely many times, 8.5% every time, 34% not every time, and 10.6% of them

admitted that they did not have this ability when they received online contents through their smartphones.

Based on Table 14, Table 15 and Table 16, it was found that many students did not know or only had a few ideas. The percentages of those in both categories are quite high compared to other categories and this clearly shows that students need to be taught the fundamentals of knowing how to create, produce, share and review information or materials from the Internet.

The participants' Cognitive Skill in Technology seem to be important as it highlights the higher order thinking skills based from Bloom's Taxonomy. Bloom's Taxonomy suggested that students will start to create, evaluate and analyze in e-learning situations. It is very important in the Instructional design process that requires the learners to reach certain level of cognitive skills that focuses on knowledge dimensions such as factual, conceptual, procedural and metacognitive. With these basic skills, teaching via smartphone would be more successful in the classroom.

CONCLUSION

To ensure a successful MALL in a truly transformative manner, it is vital that educators have a proper understanding of the mobile technology characteristics such as accessibility, mobility and collaborations in the teaching and learning environment. This article aimed at identifying the readiness of the UITM students in MALL before they are exposed to educational technological tools in the classroom. The students were measured according to their demographic background, competency in technological skills, technology concepts and operation, technology ethics and cognitive skills. All these information are very important before implementing any activities related to technology in the classroom.

The research findings in this study showed that most of the UiTM students have the technological readiness to use mobile phones in the English Language classroom. However, the teachers still need to tutor some of the students on the strategies for storing the information. Teachers also need to guide some students so that they know the technological concepts, operations and have adequate awareness of some issues pertaining to the usage of smartphones. This is to ensure that students would not be left out when mobile applications are being used in MALL classes.

These findings are able to benefit both teachers and the students in fully capitalizing on the advantages afforded by mobile educational technology. Teachers need to facilitate the students on the basics of computer skills especially the cognitive skills in technology before they can use web tools available online for teaching purposes. This can simultaneously build the confidence of the students and they will have a positive attitude in embracing technology into education besides strengthening their digital skills. The report 'Measuring Digital Skills across the EU: EU wide indicators of Digital Competence, 2014' further described that:

Skills needed include the ability to search, collect and process information and use it in a critical and systematic way, assessing relevance and distinguishing the real from the virtual while recognising the links. Individuals should have skills to use tools to produce, present and understand complex information and the ability to access, search and use internet-based services. Individuals should also be able use IST to support critical thinking, creativity, and innovation (p. 4).

To prevent educators from viewing mobile learning as a distraction in teaching, teachers need to be made aware of the benefits of using this mobile technology. Educators need to understand the characteristics, possibilities and peculiarities of mobile learning so that they can successfully conduct mobile learning. Knowing the vital elements of mobile learning will make the teachers appreciate the use of mobile phones in aiding their teaching and more importantly in their students' development, satisfaction and motivation to enhance their knowledge and skills in learning English. Vygotsky's sociocultural theory suggested that mobile learning is a wonderful opportunity that can support the learners through a lifetime of learning, providing them with tools to capture and organize their everyday experiences, to create and share images of the world and to probe and explore their surroundings. In order to improve the usefulness

of mobile technologies in education, educators should strive to understand the uniqueness of the mobile phone applications and how to effectively use them in the teaching and learning process.

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