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UNRAVELLING TERTIARY STUDENTS' OWNERSHIP, USAGE, ATTITUDES AND PREFERENCES OF MOBILE DEVICES AS TOOLS FOR M-LEARNING

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Throughout educational institutions around the globe, mobile learning (M-learning) has become a growing field of practice and studies. The number of students that have access to mobile devices is also increasing from time to time. The purpose of this research is to determine the students' present ownership and usage of mobile devices, find out the students' attitudes towards the application of M-learning, and discover their preferences in the use of mobile devices for learning Academic English in future. A total of 164 students who enrolled in Academic English course from Universiti Tun Hussein Onn Malaysia, Johor (UTHM) had participated in the study. This research had deployed survey method and the data was obtained from a set of questionnaire. Statistical Package for Social Science (SPSS) software was used to analyze the data. The data was processed using descriptive statistics: frequencies, percentage, mean (M) and standard deviation (SD). The findings suggested that laptops and smartphones seem to be the devices being used by the students of this institution. The findings of this research also highlight that the students use mobile devices to conduct a wide-range of learning activities. To add, the results illustrate the encouraging opportunities in creating learning activities associated with mobile devices by the lecturers and institution.

Keywords: Mobile Learning; Mobile Device Ownership; Mobile Language Learning; Tertiary-Level Students.

1. INTRODUCTION

In traditional language learning, it is crucial for the learners to come to classes and learn from their teachers. In the context of mobile learning (M-learning) however, without any restriction of time and location, learners are permitted to learn any aspects that they are interested in or need (Wang, Wu and Wang, 2009). Hence, the implementation of mobile devices in the process of teaching and learning has influenced the education field and positively, it has prompted the development of M-learning. Several mobile devices that are associated with M-learning include laptops, tablets and smart phones (Reinders and Pegrum, 2016).

Due to this scenario, there are a number of research pertaining to the potential role of mobile technology in assisting formal learning among students (Chun, Smith and Kern, 2016; Reinders and Pegrum, 2016; Stockwell, 2016) There are also a number of studies that have explored the positive impacts of using mobile technologies in language learning (Chen and Kessler, 2013; Hsu, 2013; Martin

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and Ertzberger, 2013). Hence, according to Gan and Balakrishnan (2016), there is a vast potential for utilizing mobile technologies in higher education. Several studies have also signified that students in higher learning institutions possess positive perceptions and attitudes on M-learning. Furthermore, these students have also progressively used a wide variety of their mobile devices functionalities (Al-Emran, Elsherif and Shaalan, 2016; Ibrahim, 2016).

After conducting several studies on a number of effective mobile learning projects, Naismith and Corlett (2006) have discovered that participants' 'sense of ownership' is one of the crucial aspects of the success of these projects. According to Cavus and Al Momani (2011), the process of learning can happen regardless of place and time, as long as the learner has the access to a mobile device and a good connection network. Hence, in order for the implementation of M-learning to be successful in higher institutions, ownership of mobile devices, access to technology and Internet connectivity are the important elements that need to be taken into account.

M-learning in Higher Education

In the past decade, to examine the impact of mobile technologies in in higher education, several studies have been conducted. Based on the findings of these studies, mobile devices have crafted opportunities for interaction, collaboration and communication with the assistance of constant connectivity in the process of learning (Gikas and Grant, 2013; Prieto, Migueláñez and García-Peñalvo, 2013; Cronin, Cochrane, and Gordon, 2016). However, a number of research have suggested that mobile devices as M-learning tools have its disadvantages, including the mobility of the devices (Jacob and Isacc, 2014) accessibility, connectivity and lack of training in handling the technologies (Bachmann, Menestrina and Domingues, 2015), as well as size of device, battery life, usability and cost (Picek and Grèiæ, 2013).

M-learning Research in Malaysian Higher Education Institutions

In the Malaysian landscape, the number of research activities on M-learning is rising since 2010 with several publications that explore M-learning across disciplinary areas (Song, Murphy and Farley, 2013; Embi and Nordin, 2013). However, still, the literature on students' ownership and usage of mobile devices in higher education is rather unclear (Oz, 2014), and whether these researches reflect M-learning initiatives comprehensively in Malaysia (Song *et. al.*, 2013). Therefore, the goal of this study is to examine the students' current ownership of mobile devices, present usage of mobile devices in language learning, attitudes towards the application of M-learning, as well as their preferences in the use of mobile devices as tools for M-learning, specifically in Academic English course.

2. PURPOSE OF THE STUDY

This research was designed to examine tertiary students' current ownership and usage patterns of mobile devices particularly in learning, their expectations in the use of M-learning technology in future learning, as well as their perceptions in employing mobile language learning. Therefore, the following research questions were attended in this research:

(i) What is the students' present ownership of mobile devices?

(ii) What is the students' present usage of mobile devices in learning?

(iii) What are the students' attitudes towards the application of M-learning?

(iv) What are the students' preferences in the use of mobile devices for learning Academic English?

3. RESULTS

3.1 Ownership of Mobile Devices

The respondents were given a list of mobile devices and were asked to choose the devices that they owned. The following table shows the students' ownership of mobile devices. As shown in the table, a significant portion of the respondents currently owns a smartphone, a laptop/netbook, and broadband/Internet data. 96.3% or 158 of the respondents own a smartphone, 92.6% or 152 students own a broadband/Internet data, while 89.6% or 147 respondents own a laptop/tablet. Ownership of tablet (39.6% or 65 respondents) was less common.

TABLE 1: OWNERSHIP OF MOBILE DEVICES

Mobile Devices	*Frequencies*	*Percentage*	*Interpretation*
Smartphone	158	96.3	High
Tablet	65	39.6	Medium Low
Laptop/Netbook	147	89.6	High
Broadband/Internet data	152	92.6	High

3.2 Frequency of Use of Mobile Devices for Learning

Following that, the respondents were required to provide information on the frequency in using the stated mobile devices for learning activities. The following table indicates the frequency of use of mobile devices for learning. The findings display that laptop/netbook were the dominant technologies used by the respondents to support their learning, with the total percentage of 'often' and 'very often' of 96.9%. Broadband/Internet data and smartphone were at the same time used greatly by the respondents, with the total percentage of 'often' and 'very often' of 91.4% and 80.5% respectively. Tablet was used less often by the respondents, with the total number of 'very often' and 'often' percentage of 23.2%.

TABLE 2: FREQUENCY OF MOBILE DEVICES USAGE FOR LEARNING

Mobile Devices	*Not Very Often*	*Not Often*	*Not Sure*	*Often*	*Very Often*	*Interpretation*
Smartphone	6 (3.7%)	3 (1.8%)	23 (14%)	75 (45.7%)	57 (34.8%)	High
Tablet	51 (31.1%)	48 (29.3%)	26 (15.9%)	28 (17.1%)	11 (6.1%)	Medium Low
Laptop/Netbook	7 (4.3%)	0 (0%)	3 (4.3%)	49 (32.9%)	105 (64%)	High
Broadband/Internet data	7 (4.3%)	0 (0%)	7 (4.3%)	54 (32.9%)	96 (58.5%)	High

3.3 Frequency of Learning Activities Projected with Mobile Devices

To uncover the frequency of learning activities done with mobile devices, the students were given a list of potential learning activities. Then, they were required to indicate the learning activities that they have done using mobile devices. The following table illustrates the frequency of learning activities projected with mobile devices. From the findings, the total percentages of 'often' and 'very' often of all the activities listed were high. It shows that the respondents felt the learning activities underlined can be accomplished through mobile devices.

TABLE 3: FREQUENCY OF LEARNING ACTIVITIES PROJECTED WITH MOBILE DEVICES

Activities	*Not Very Often*	*Not Often*	*Not Sure*	*Often*	*Very Often*	*Interpretation*
Discussing with course mates	9 (5.5%)	3 (3%)	9 (5.5%)	74 (45.1%)	69 (42.1%)	High
Gathering information to complete assignments	7 (4.3%)	0 (0%)	8 (4.9%)	63 (38.4%)	86 (52.4%)	High
Finding learning materials	6 (3.7%)	3 (1.8%)	23 (14%)	75 (45.7%)	57 (34.8%)	High
Sharing learning materials	7 (4.3%)	1 (0.6%)	11 (6.7%)	78 (47.6%)	67 (40.9%)	High
Obtaining latest information about the course	9 (5.5%)	5 (3%)	13 (7.9%)	83 (50.6%)	54 (32.9%)	High

3.4 Attitudes Towards M-learning

In order to find out the students' attitudes about M-learning, the respondents were asked to give their response to seven statements on a 5-point Likert scale from strongly disagree (1) to strongly agree (5). The majority of the respondents think that M-leaning should be applied in UTHM (M = 4.62, SD = 0.51) and see that M-learning should be another course of action to the traditional teaching and learning method (M = 4.62, SD = 0.65). Most of the respondents also agree that

mobile devices can be used in supporting their learning (M = 4.54, SD = 0.66) and M-learning encourages communication with their lecturers (M = 4.54, SD = 0.66). In addition, the majority of the respondents think that the use of mobile devices in learning will save their money (M = 4.46, SD = 0.66). Moreover, most of the respondents think that M-learning heightens their self-directed learning (M = 4.38, SD = 0.87).

TABLE 4: ATTITUDES TOWARDS M-LEARNING

Statement	*Mean*	*SD*	*Interpretation*
Mobile devices can be used to support my learning.	4.54	0.66	High
M-learning is suitable to be applied institution.	4.62	0.51	High
M-learning should be an alternative to traditional learning method.	4.62	0.65	High
M-learning enhances my self-directed learning.	4.38	0.87	High
M-learning encourages communication between the lecturers and I.	4.54	0.66	High
Using mobile devices for learning will save my money.	4.46	0.66	High

3.5 Mobile Devices Preferences for Learning Academic English in Future

Officially, there is no learning activity and material for Academic English course specifically designed that can be accessed via mobile devices by the institution. Hence, the respondents were required to specify on a 5-point scale from 'strongly disagree' (1) to 'strongly agree' (5) on the level of likeliness to use smartphone, tablet, laptop/netbook and broadband/Internet data if relevant learning platforms were designed to support them. The findings are illustrated in the following table. Looking at the findings, laptop/netbook was the mobile device that most of the respondents would want to apply in supporting their learning with the total percentage of 'agree' and 'strongly agree' of 86.6%. At the same time, majority of the respondents signified that smartphones was desirable to be used as the learning devices. Tablet (36.6%) was less desirable among the respondents.

TABLE 5: MOBILE DEVICES PREFERENCES FOR LEARNING ACADEMIC ENGLISH

Suggested Mobile Device	*Total of Strongly Agree and Agree Percentage (%)*	*Interpretation*
Smartphone	85.7	High
Tablet	36.6	Medium Low
Laptop/Netbook	86.6	High

4. DISCUSSION

The findings of this study determine that the ownership of mobile devices is considerably high among the students. The findings of this research resemble the findings of another study that has highlighted that the students' use of mobile devices centres on smartphones and laptops (Song, Murphy and Farley, 2013). Most students of this research own technological devices, as these technologies had acquired substantial record sales around the globe (Gülbahar, Jacobs, and König,

2015). In addition, the students also use their mobile technological devices, particularly laptops/netbooks and smartphones to reinforce their learning activities. This is in line with the findings from Jarvis and Achilleos (2013) that has stated that laptop is a preferred tools for learning activities, and a research conducted by Wong, Wang, Ng, and Kwan (2015) which highlights that in contrast with personal computers, students prefer to use mobile devices to perform learning activities. On top of that, the students' ownership to mobile devices and the wide-range uses of the technological devices to support their learning shows that these students would gain positive impact from the anticipation to support M-learning in this institution.

5. CONCLUSION

Generally, in order to comprehend on ways the students use mobile technology for learning, the goal of this research was to investigate the current state of ownership and usage of mobile devices by them. The research was also pursued to give understanding into their attitudes towards the application of M-learning and preferences in the use of mobile devices for learning Academic English course. The results of this research clearly illustrate that laptops/netbooks and smartphones seem to be dominant devices being used by the students of this institution. The findings of this research also suggest that the students use mobile technological devices to perform a variety of learning activities. In addition, the results signify that opportunities in creating learning activities facilitated by mobile devices such as laptops/netbooks and smartphones are open for the lecturers and institution. This research has the capability in giving understandings into the ways these students are using mobile devices for learning, as well as their attitudes and mobile devices preferences for learning Academic English in future.

6. FUTURE RESEARCH DIRECTION

The sample size of this research was restricted to only first-year diploma students of Universiti Tun Hussein Onn Malaysia. Hence, this research does not address tertiary-level students from other higher learning institutions. Nonetheless, the results of this study are aligned with other studies in relation to this research, signifying that the sample of research is not absolutely unreliable. Therefore, future investigation in relation to this topic should use a larger sample size. On top of that, it should also involve students across the country from other higher learning institutions.

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