STUDENTS' READINESS AND PERCEPTIONS TOWARDS USING MOBILE TECHNOLOGIES FOR LEARNING THE ENGLISH LANGUAGE LITERATURE COMPONENT

Rashidah Bt Rahamat
Parilah M. Shah
Rosseni Bt Din
Juhaida Bt Abd Aziz
Universiti Kebangsaan Malaysia

ABSTRACT

The appropriate use of materials and tools in teaching and learning is undeniably helpful in making the process more meaningful. Current global developments open up more opportunities for educationists to design and implement ICT-based lessons. Realizing the fact that students nowadays are from the Net-generation and do not suffer from technophobia, a survey was conducted with the aim of examining students' readiness and perceptions towards the use of mobile technologies in learning. In this paper, results from a preliminary study provide useful information about students' readiness and perception towards using mobile technologies for learning the English language literature components in school. A total of 235 students were randomly selected to respond to an adapted questionnaire. Using SPSS 16, the data were processed and analyzed descriptively. The descriptive results showed that the participants displayed readiness and positive perceptions toward using mobile technologies for learning. The findings provide some insights to teachers so that they can employ suitable approaches in order to make learning the English language literature component more meaningful through the integration of tools used by Net-generation students.

Introduction

The use of suitable materials and tools in the teaching and learning is undeniably helpful in making the process more meaningful. Current global developments have opened up more opportunities for educationists to design and implement ICT-based lessons. The impact of ICT in education has been proven in various studies as it is able to make teaching and learning more interesting, motivating as well as meaningful (Radlow, 1986; Ely, 1997; Tinio, 2002; Chapelle, 2003; Kenning, 2007). The term technology is no longer considered alien in the field of education and now the use of mobile technology in learning has started to attract interest from educators. More significantly, ICT opens more ways of learning, for instance, Web 2.0 applications may trigger some 21st century skills namely critical thinking and problem solving, collaboration and communication, global awareness and information literacy (Dohn, 2009; Rotherham

& Willingham, 2010; Buchem & Hamelmann, 2011). Some people seem to believe in the myth that for any problem there is a technological solution. However, in education, this assumption is dangerous and can be disastrous (Ely, 1997). There is no best tool which can be claimed to be the best solution to cure problems in education (Bingmals, 2009). The use of ICT is only one of the new routes to make learning and teaching more appealing (Tinio, 2002; Mohd Arif, 2004; Kenning, 2007).

Realizing that teenagers nowadays are familiar with technologies, quite a number of surveys have been carried out by various researchers to identify the use of technologies among teenagers or school students. Hung and Khine (2006, p.9) mention in their critical review that it is appropriate and in fact vital for educators to engage learning with emerging technologies because they view today's era as an era where the notion "…engagement with learning is likely to mean engagement with technology". Teachers nowadays know that most of their students own at least a hand phone or other mobile devices such as an MP3 player, a laptop or a game station, and they are surrounded with technological gadgets which keep on changing at a very fast rate. Most of the time, these devices are mainly used for socializing or entertainment (Ally, 2009). But the question is whether they (students and teachers) are ready to explore the new path of using these mobile technologies for learning. This preliminary study aims to explore students' readiness and perception toward using mobile technologies for learning the English language literature components in school. In order to fulfil this objective, the study aims to seek answers to the following research questions: RQ1: What is the extent of students' readiness to use mobile technologies for learning? RQ2: What are the students' perceptions towards the use of mobile technologies for learning?

Readiness is one of the important variables investigated in this study and the term is defined by the Oxford Advanced Learner's Dictionary as "The state or quality of being ready; preparation; promptness; aptitude; willingness. Prepared for what one is about to do or experience; equipped or supplied with what is needed for some act or event; prepared for immediate movement or action". As pointed by Schreurs, Ehler and Moreau (2008, p.3), readiness also takes account of students' capability to adapt to "…technological challenges, collaborative training and synchronous as well as asynchronous self-paced training".

Review of Related Literature

ICT in Education

ICT in education is usually associated with the use of the latest technologies related to the use of the computer. According to Tinio (2002, p.3), any technologies related to ICT are regarded as "…as potentially powerful enabling tools for educational change and reform…". The process of teaching and learning would not only turn out to be engaging and active, but would also help to expand the access to education and

strengthen the relevance of education. However, these aims can only be realized if ICT is used appropriately and wisely. Therefore, the vital aspect of effective use of ICT in education is actually not the latest technology but the need to understand how and whether it can enhance people's learning (Education in ICT, 2006).

According to Chapelle (2003), technology-based learning activities offer more advantages and opportunities for natural learning, besides being effective, fast and having more impact on students' achievement compared to conventional learning activities. The activities using technologies are more flexible and can be developed further. However, Legutke (2005) stresses that the aspects related to the use of technology in education should be concerned more with how to apply the use of the latest technology in the process of teaching and learning. To these researchers, the most important aspect is to integrate technology into the curriculum with responsibility, meaningfulness and efficiency.

Mobile Technologies

Mobile technologies are usually associated with devices that are portable. Sharples (2000) states that technologies can be used in learning as: 1) an intelligent tutor system, 2) simulators and learning tools as well as pedagogy agents, 3) system devices and resources, 4) communication devices, and 5) simulation classrooms. In addition to that, Naismith et al. (2004) identify two dimensions of mobile technologies: 1) personal and shared, and 2) portable and static. These researchers also identify six learning theories related to the use of mobile technologies such as behaviorism, constructivism, situated, collaboration, informal learning and lifelong learning, and support in teaching and learning. The current generation of students is keen to seek information using technological devices and their world is dominated by high-tech devices. This enables them to engage in networking globally (Mohd Arif & Rosnaini, 2003; Roziah, 2004).

ICT is able to serve as a medium for students to access knowledge. This is where the term e-learning started to be used, when students started using electronic technology particularly computers to access the Internet to get information. Now, e-learning has evolved to the use of mobile technology to access and improve the quality of education (Pieri & Diamantini, 2009). Today, the Internet is not only accessed from desktop computers; it can also be accessed from any mobile device such as mobile phones or laptops. According to the Malaysian Communication Commission, 11.5% of school students aged between 15 to 19 years old own hand phones.

Mobile learning

Mobile learning or m-Learning is commonly associated with the use of mobile technology especially the mobile phone (Cavus, Bicen & Akçil, 2008; Naismith et al., 2004). Naismith et al. (2004) state that the term mobile generally refers to something that is portable and personal. Some scholars classify portable devices such as hand

phones and handheld computers as suitable combinations for m-Learning. Alexander (2004) regards m-Learning as wireless learning, a subset of e-Learning which focuses more on using personal computers such as desktop computers with Internet access to learn. M-learning relates more to access of the Internet via a portable device such as a mobile phone or a game console. Therefore, the integration of mobile learning for school students is seen as an alternative to increase their interest and motivation.

Mobile Technology Use among Net-generation Students

The third Generation, better known as 3G, is said to have started around 2003/2004. Andersson et al. (2006) report that in 2005 it was estimated that about 2 billion people world wide were using hand phones and about 680 million mobile phones were sold. Economides and Grousopoulou (2008) mention that one out of six people in the world own a mobile phone, personal digital assistant (PDA) or a laptop with wireless fidelity (Wi-Fi). This is supported by the findings by ITU (2006) which found that the number of hand phone users is double that of PC users. Most teenagers treat hand phones as a fashion for their social actvities regardless of location (Economides & Grousopoulou, 2008). These teenagers aged 13 to 17 years old can be grouped as millennial sudents who were born in the 1990s when technology was booming and encroaching into our daily lives (Rocca, 2009). Apart from that, McAlister (2009) agrees that these millennial students are comfortable and confident in dealing with computers and are delighted with the "multi-sensory engagement" related to a variety of media used in their learning. This researcher further explains "...using these new tools in combination with our sound pedagogical knowledge will lead to well-grounded, engaged students who will continue to explore the world...beyond their lesson years..." (McAlister, 2009, p.13-15).

Methodology

This is a survey study using quantitative methods which seeks to explore students' readiness and perceptions towards ICT for learning. The survey is part of a larger study aimed at developing and evaluating a mobile learning package for the English language literature component for secondary school students, specifically Form four students.

The Instrument

In order to look at the students' perceptions towards using mobile technologies for learning, a questionnaire was adapted for the investigation. The questionnaire uses a three-point Likert scale with "Yes, No and Maybe" choices to focus only on one construct, "perceptions toward using mobile technologies for learning the English language literature component". Before the questionnaire was piloted, the researchers gave it to a few experienced English language teachers to check on its face and content validity as well as the construct for the items in the instrument. A few changes were made in terms of arrangement of items, and corrections were made to typing errors and inappropriate translation. The questionnaire was in two languages: Malay and English.

A pilot test was carried out to determine the reliability of the items representing the construct being measured , "perceptions", and the Alpha Cronbach value found for the pilot test was 0.771. Furthermore, based on the reliability test, the results show that the Alpha Cronbach value would not get higher even if any of the items were deleted. As for the actual study, the Alpha Cronbach value of the items was 0.808, and therefore the items for this construct were still classified as having acceptable reliability. According to the Alpha Cronbach Reliability Classification Index, this value is classified as acceptable and therefore no changes were made to all the 16 items (Pallant 2001; Palant, 2002; Sekaran 2003; Kamarul Azmi Jasmi, 2010).

Participants

The participants involved in this study were Form four students of six daily schools in Seremban, Negeri Sembilan. A total of 235 respondents aged 16 years old answered the questionnaire which consists of a few sections on mobile learning. A random sampling technique was used in selecting the respondents based on the category of school. These respondents were from Grade A schools in Negeri Sembilan.

Data Collection and Analysis

The survey was administered by the researcher after obtaining a permission letter from the Ministry of Education as well as the State Education Department. The schools involved were contacted before the actual study was done. The respondents were assembled in classrooms as arranged by the school administration, and they were given approximately 20-30 minutes to complete the questionnaire. The actual study was carried out at the end of the school term. The survey took four weeks to complete from October to November 2010.

Each questionnaire returned by the participants was checked for any incomplete answers. SPSS 16 software was used to analyze the data. Descriptive analysis which focused mainly on mean, standard deviation and frequency was carried out.

Findings

The results of the study are presented in two parts in answering the two research questions. In answering Research Question 1 (What is the extent of the students' readiness to use mobile technologies for learning?), demographic data as well as responses to the four items in the questionnaire are presented. The frequencies and percentages of the data such as the availability of mobile technologies owned, the model of mobile phones, the activities as well as willingness to use the mobile technologies for learning are presented.

Analysis of the demographic data of the respondents shows that there is some readiness among the students to use ICT, specifically the mobile devices owned such as hand phones or laptops. The survey found that a majority of the respondents owned a mobile phone (n=215 or 91.5%). Table 1 presents the demographic data.

Table 1: Percentage of Hand Phones Owned by the Respondents

	Do you own a hand phone?	
	n	%
Yes	215	91.5
No	17	7.2

As for the type of mobile phones, 54.5% (n=128) owned the 3G type of phones. This means that the phones have applications which enable the students to access the Internet either for free (Wi-Fi applications) or charged in their monthly bill.

Table 2: Type of Mobile Phones Owned by the Respondents

	What type of phone do you use?	
	n	%
2G	90	38.3
3G	128	54.5

Interestingly, the results show that some of the students own more than one model of phone. The detailed analysis presented in Table 3 shows that a majority of the participants have either a Nokia or Sony Ericson model: Nokia 61.3% (n=144), and Sony Ericson 37.4% (n=88). Out of the 235 students involved, 77.9% (n=183) owned at least one phone and 15.3% (n=36) had two hand phones, and 1.3% (n=3) owned three and four phones. The data are as tabulated in Table 4.

Table 3: The model of Mobile phones owned

Model of your mobile phone					
	n	%		n	%
Nokia	144	61.3	iPhone	3	1.3
Sony Ericson	88	37.4	LG	2	0.9
Samsung	11	4.6	Sharp	1	0.4
Motorola	10	4.2	Panasonic	1	0.4
CSL	8	3.4	China Mobile	1	0.4
Blackberry	5	2.1	Siemens	0	0

Table 4: Number of mobile phones owned by respondents

No of mobile phones	n	%
0	10	4.3
1	183	77.9
2	36	15.3
3	3	1.3
4	3	1.3

From the data about the activities carried out using the mobile phones owned by these students, the results reflect what was expected.. From the list of activities, four common tasks were often carried out by the students. The activities were: SMS (79.1%), making phone calls (39.1%), taking photos (38.7%) and surfing the Internet (21.3%). Other activities which were sometimes carried out by these respondents were: MMS (57%), making phone calls (56.2%), recording voice (51.1%) and taking photos (46.8%). Activities they never carried out were: sending e-mail (71.9%) and checking e-mail (66.4%) (see Table 5).

Table 5: Activities commonly done using mobile phones

No	What are the common activities that you normally do with your hand phones?					
	Never		Sometimes		Often	
	n	%	n	%	n	%
1 Making phone calls	2	0.9	132	56.2	92	39.1
2 SMS	1	0.4	41	17.4	186	79.1
3 MMS	77	32.8	134	57	16	6.8
4 Taking photos	25	10.6	110	46.8	91	38.7
5 Recording voice	92	39.1	120	51.1	14	6
6 Surfing the internet	78	33.2	99	42.1	50	21.3
7 Sending e-mail	169	71.9	47	20	11	4.7
8 Checking e-mail	156	66.4	55	23.4	16	6.8

Besides these results, the demographic data also provide input for analyzing other types of mobile devices owned by the students. It was found that 91.5% (n=215) possessed a mobile phone and some of them even owned more than one phone, and the analysis of the other mobile devices revealed that these students also owned other types of mobile devices. Based on the data, 45% (n=106) of the participants owned only one type of mobile device, 19% (n=45) owned two gadgets, 3% (n=7) owned

three devices, and 2% (n=5) had four devices other than their hand phones. The mobile devices they possessed besides the hand phone are: laptops, MP3 players, PSPs and iPods.
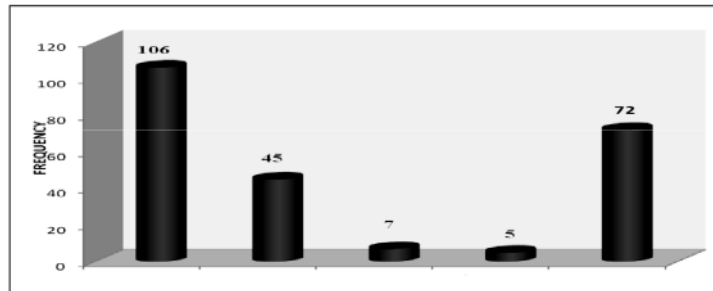

Figure 1: The number of Other Mobile Devices Owned by the students

As for the amount of money these students were willing to spend on broadband bills, the results are as shown in Table 6. A majority of them, 55.7% (n= 131), were willing to spend less then RM30, about 25.5% (n=60) were willing to spend between RM30-RM60, 9.4% (n=22) would spend between RM61-RM90, 5% (n=12) were willing to spend between RM91-RM120, and none of them would be willing to allocate more than RM120 on a mobile broadband bill.

Table 6: Acceptable Mobile broadband Costs

How much are you willing to spend on mobile broadband bill?		
	N	**%**
a Less than RM30	131	55.7
b RM30-RM60	60	25.5
c RM61-RM90	22	9.4
d RM91-RM120	12	5.1
e More than RM120	0	0

Apart from the demographic data, the first four items in the survey also show that these respondents are ready to use the mobile devices for learning. A high number of respondents (72%, n=170) responded "Yes" to the question whether they want to learn anywhere and anytime. Although the "Yes" responses for doing enrichment activities are not as high as the other responses, the figure for the third item supports

the readiness to use the mobile phone as a learning tool. About 37% (n=87) agreed that they would use the device as a learning tool and 73.2% (n=172) agreed that they would use the learning package designed on a mobile medium. The results are as displayed in Table 7.

Table 7: Readiness to use Mobile Devices for Learning

No	Question Item	Yes		Maybe		No	
		n	%	n	%	n	%
1	I want to be able to learn whatever I want anywhere and anytime	170	72	51	22	14	6
2	I want to do enrichment activities while waiting for the bus/parents/friends.	47	20	132	56	56	24
3	I want to use my hand phone as a learning tool.	87	37	90	38	58	25
4	If a learning package material for the literature component is designed on mobile media, I would use it.	172	73.2	55	23.4	8	3.4

Perceptions on Future Use of Mobile Technology in Educational Contexts

The second part of the survey seeks answers for the second research question: "What are the students' perceptions towards the use of mobile technologies for learning?" From the data obtained, the respondents responded positively to the use of mobile devices for learning. The data for this research question are divided based on the three types of mobile devices the respondents owned: the networked mobile phone, smart phone and laptop.

The survey managed to get some information about the respondents' choice if they were given the chance to own mobile devices such as networked mobile phones, smart phones or laptops. The analysis for four uses of the three devices shows that the students had positive reactions to using the devices for learning, socializing and searching for information. As presented in Table 8, the participants responded positively to carrying out various activities if they were given an internet-able mobile. Among them, 46% (n=109) would download entertainment materials, 57% (n=135) would download educational materials, 66% (n=155) would surf the Internet, and 50% (n=117) would log on to a social networking site.

Table 8: Perceptions of using a networked mobile phone for learning

No	Question Item	Yes		Maybe		No	
		n	%	n	%	n	%
5	If I had an internet-able mobile phone, I would download entertainment materials such as songs, films, videos and games.	109	46	89	38	37	16
6	If I had an internet-able mobile phone, I would download educational materials such as mobile dictionaries and educational games.	135	57	88	37	12	5
7	If I had an internet-able mobile phone, I would surf the net to find information as and when required.	155	66	61	26	19	8
8	If I hah an internet-able mobile phone, I would log on to social networking sites like Facebook, Twitter, Yahoo Messenger, Friendster etc.	117	50	62	26	35	15

As with the smart phones, 48% (n=113) would download entertainment materials, 62% (n=145) would download educational materials, 67% (n=157) would surf the internet and 56% (n=131) would log on to a social networking site (see Table 9).

Table 9: Perceptions of using a smart phone for learning

No	Question Item	Yes		Maybe		No	
		n	%	n	%	n	%
9	If I had a smart phone, I would download entertainment materials such as songs, films, videos and games.	113	48	93	40	28	12
10	If I had a smart phone, I would download educational materials such as mobile dictionaries and educational games.	145	62	78	33	11	5
11	If I had a smart phone, I would surf the net to find information as and when required.	157	67	53	23	23	10
12	If I had a smart phone, I would log on to social networking sites like Facebook, Twitter, Yahoo Messenger, Friendster etc.	131	56	66	28	38	16

Based on the analysis, if these students were given a laptop, 68% (n=158) responded that they would download entertainment materials, 76% (n=179) would download educational materials, 79% (n=185) would surf the Internet, and 68% (n=160) would log on to a social networking sites (see Table 10).

Table 9: Perceptions of using a laptop for learning

No	Question Item	Yes		Maybe		No	
		n	%	n	%	n	%
13	If I had a laptop, I would download entertainment materials such as songs, films, videos and games.	158	68	61	26	13	6
14	If I had a laptop, I would download educational materials such as mobile dictionaries and educational games.	179	76	47	20	7	3
15	If I had a laptop, I would surf the net to find information as and when required.	185	79	36	15	13	6
16	If I had a laptop, I would log on to social networking sites like Facebook, Twitter, Yahoo Messenger, Friendster etc.	160	68	48	20	24	10

Discussions and Implications of the Findings

In terms of determining students' readiness to use of ICT, the results show that these respondents were ready to use ICT particularly mobile devices for learning based on the definitions of readiness by Turnbull et al (2010). Readiness is defined as "The state or quality of being ready; preparation; promptness; aptitude; willingness. Prepared for what one is about to do or experience; equipped or supplied with what is needed for some act or event; prepared for immediate movement or action" (Turnbull et al, 2010). Owning mobile phones as well as having the ability to carry out tasks using the latest devices show that the students were ready indirectly since the devices are not foreign to them. As pointed out by Schreurs, Ehler and Moreau (2008, p.3), readiness also takes account of students' capability to adapt to "…technological challenges, collaborative training and synchronous as well as asynchronous self-paced training".

These students are of the Net-generation and they are born with the technology, hence, they are able to explore, adapt and use the technologies emerging in the market (Mohd Arif, 2003; Duffy, 2008). In short, it can be concluded based on the participants' demographic results as well as responses to the other items that they do

are ready especially in terms of resources. These resources can be further classified according to 1) technological readiness with regard to the technological devices owned and the way they are being used; 2) economic readiness, which concerns their willingness to use the learning package designed for them involving the use of their mobile devices; and 3) the human readiness, which is related to their knowledge and skills in using their mobile devices (Psycharis, 2005).

Apart from that, the findings are also beneficial for teachers especially in making full use of the devices owned by and close to the students as learning tools. Zainal (1999) mentions that when teachers are willing to use high technology in their teaching and learning, it gives the impression that these teachers do no suffer from technophobia. Pierson (2001) stresses, in his review, that integration of ICT in education cannot be separated from good teaching. Rodrigues (2006, p.188) found from his study that teachers only start to integrate ICT when they are confident, change their opinions on students' expertise, develop strategies which "…shared influence on directing the students' learning process". If teachers are confident and interested in using ICT in their teaching, it shows that they are up-to-date with the latest ICT which would eventually bring about a more interesting approach in their teaching.

Teachers are an important group who can ensure that education policies are realized; the success of producing students as aimed at in the National Philosophy of Education relies on teachers' pedagogical approach which would make lessons really engaging and meaningful. Lee (2006, p.211) stresses that teachers need to take a few factors into consideration in maximizing "ICT-enriched learner-centred environments" in their teaching lessons and it must be "…promoted on the basis of quality, rather than expediency". In addition to this, McAlister (2009, p.13-15) points out that, a combination of teachers' pedagogical knowledge and use of ICT in the teaching and learning processes would lead to a "well-grounded, engaged students" who would eventually be able to step ahead beyond the classroom to explore the borderless world of information. Thus, it is vital for teachers to plan their lessons wisely to ensure that the lessons are not only enjoyable but meaningful. The technologies used by teachers act only as tools in assisting the teachers to deliver the learning content. Laturnau (2001, p.8) says teachers need to pose themselves some reflective questions in their plans to provide students with meaningful learning experiences. Questions related to the materials or resources needed, the length of time allocated for an activity, the need for prior knowledge, the examples which could be shared, the formal as well as informal assessment used to measure students' progress, the ways instructions might be modified or differentiated to serve students' diversity level as to ensure all students "…have the potential to reach or exceed the expected learning outcomes of this unit…"

Nunan and Wong (2005) state that effectiveness and success in educational organization is dependent on the people who are the instrument of change. If teachers are not willing to change, there will be no change if the teachers are not willing to change their teaching practice and integrate ICT in their lessons, then the teaching and learning processes might turn out to be mundane and conventional. The lesson might turn up to be the same basic "chalk and talk" process. Muhammad Kamarul Kabilan et al. (2008) point out that the lack of ICT use in the classroom is because the teachers are afraid of exposing their weaknesses in using ICT. Since the data from this research shows that students are ready and have positive perceptions toward using ICT for learning, teachers should grab this opportunity to make the teaching a process that could trigger the students' thinking, develop their potential and also promote lifelong learning. In short, the emergence of latest technologies in the market should be fully utilized for learning purposes; this can be a part of instilling good values in using the technologies wisely among the school children.

Conclusion

The study shows that students are technologically, economically and competently prepared for the use of ICT in learning. This gives the English language teacher for the opportunity to blend the use of ICT with their conventional teaching. This not only helps the teacher to create a new learning environment but also promotes the positive aspects of ICT as a means of lifelong learning. The data presented in this paper were analyzed descriptively using frequencies and percentages. In the next step of the analysis, the research would be using the RASCH Model analysis technique to further examine the item reliability of the study.

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