MODERN EDUCATIONAL TECHNOLOGY: EDUCATIONAL USAGES OF CELL PHONE AS PERCEIVED BY STUDENTS OF EDUCATION FACULTIES

By

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ABSTRACT

This study investigated the educational use of cell phones at two Syrian education establishments. The research sample consisted of (n=184) students from the Department of Teacher Education at Tishreen and Damascus Universities. During the study, students filled in a self-report 17–item questionnaire. Survey results imply that cell phone use encourages students (41.30%) to acquire higher technological skills. In addition, (40.76%) of students who participated in the research also used the internet on their cell phone to look up related information. Further results showed that students at Tishreen University used the internet on their cell phone for more prolonged educational purposes than their peers at Damascus University.

Keywords: Cell Phone, Mobile Learning, Educational Usages, Educational Purposes.

INTRODUCTION

There is no doubt that "Technology" has been becoming the engine of all fields of life so people can live without technology reluctantly. Technology has supposed its self strongly on all establishments. Thus the quality of establishments has been measured by the extent in which they used technological means. Therefore technology is believed to be one of the major forces promoting socio-economic growth; it provides a means by which countries progress and succeed in international economic , political, social, cultural and educational domain. (Al-Mabrouk & Soar,2009,p.7)

Technology has grown enormously which in turn created what is called mobile learning (m-learning) that use modern mobile devices in process of teaching and learning. It is clear that using cell phones is obviously relatively immature in terms of both its technologies and its pedagogies, nevertheless it is developing rapidly. Stockwell (2010) found that mobile technologies have started to make their presence felt in the field of education, as can be seen by the increasing number of publications that have appeared in recent years. (Stockwell,2010,p.95)

Cell phone has attracted educational researchers attention as one of instructional technology tools. They have steadily assumed a place in further and higher education in the USA, the Far East, Pacific Rim, the UK and other countries. (Traxler, 2005, P.262)

Projects related to m-learning have shown how mobile technology can offer new opportunities for learning that extends beyond the traditional teacher-led classroom. (Sharples,2007,p.4). Kumar (2010) also found that cell phones have the potential to improve education for the millions of underprivileged users in the developing world. (Kumar et al.,2010,p.1)

Actually, it is difficult to find a an acceptable definition of m-learning by all researchers, but according to (Idrus & Ismail, 2010, p.2767), the majority of authors, actively or passively, apply a definition that views mobile learning as learning connected to a mobile device (and most of them imply a regular mobile phone or in the best case a PDA). Some of them defined it as any educational provision where the sole or dominant technologies are handheld, palmtop or mobile phone devices. (Traxler,2005,p.262)

Other defined mobile learning as the learning mediated via handheld devices and available anytime, anywhere. Such learning may be formal or informal. (Hashemi &

Ghasemi, 2011, p.2949). In light of the previous definitions, the researcher defines m-learning as the approach that allows learners to benefit from mobile devices features (recorder, camera, programs and internet) in their instruction and education; It is the process of learning where you want and when you want by using mobile devices.

Educational Advantages of Cell Phones

Seibu and Biju establish the following classification of advantages focused on higher education: (Seibu & Biju, 2008, p.17)

- Easy Access: Free available knowledge with updated information. Immediate access to learning materials anywhere.
- Self- Study Options: The m-learning flexibility permits to study anytime and change the level of learning intensity in each particular case (even more freedom of action than using a desktop PC).
- Evaluation and Feedback: The m-learning devices can include some evaluative tools in order to control the student's progress, even create detailed reports. That permits to know what students have learnt during the course, how the course is developing and how the student improves. We obtain information about the benefits for the learning process.
- Access to diverse online materials: An m-learning system permits a continuous interaction between teachers and students. Students have access to the course material and to digital online libraries which are useful to face their tasks and exams. It is a clearly beneficial aspect for learning.
- Cell phone helps learners to construct knowledge throughout daily activities, thereby making this technology an integral part of daily learning. (Misfsud,2003,p.100)
- Mobile phones connect students with teachers and other students and help them deal with class attendance issues, rearrange meetings, retrieve schedule and assignment data, discuss assignments and coordinate study groups. (katz,2004,p.94)

Obstacles of Using Cell phones for m-Learning

- The reduced size of the screen of mobile phone makes some people doubt about their efficacy for the purposes of high level formation. (Lopez et al.,2009,p.2674)
- The limited charging capacity of the phone batteries is also a problem learners face it when they use mobile phones. (Ferry,2009,p.52)
- Connections and typing are slow. Storage is also limited.
- Costs are too high. Risks of theft, rain, mud and breakability. (Wentzel et al., 2005,p.7)
- Limitations of Programs: Actually, there are not enough programs to cover all educational fields.
- Lacking of Educational Programmers: There are few educational programmers who can design and produce programs for educational purposes.

General Requirements for Mobile Learning

According to (Nordin,2010b,p.132) Sharples et al. (2000) outlined a number of general requirements that have to be considered when designing mobile materials. The requirements include technology that is:

- Highly Portable: So as to support learning whenever and wherever.
- Individual: The design should be able to support individual learning, cater for individual learning styles and be adaptable to learners' abilities.
- Unobtrusive: Learners should be able to retrieve knowledge without the technology becoming a deterrent.
- Available: Enabling communication with friends, experts and/or teachers.
- Adaptable: The context of learning should be adaptable to situations and the individual's skills and knowledge development.
- Persistent: Able to manage the learner's learning despite the changes in the technology itself.
- Useful: Useful to learners for everyday chores.
- User-Friendly: Easy for people to use and must not create techno phobia among new users.

Literature Review

Suki & Suki (2007) studied mobile phone usage for m-learning and compared between heavy and light mobile

phone users. The questionnaires were distributed to (436) mobile phone users in Kuala Lumpur, the capital city of Malaysia. The study involved many fields such as: the users' adoption level of mobile technologies usage and mobile content consumption, the frequency of access to internet and mobile games. Results showed that heavy mobile phone users access/subscribe to more than one type of mobile content than light mobile phone users, have more frequent access to internet, heavy mobile phone users use mobile games for educational purposes more than light mobile phone users.

Hartnell & Heym (2008) explored how mobile phones help students secondary schools by students in UK in learning process. This survey involved (331) students. Results asserted that students used their mobile phones in classes, mainly in Maths (27%), Science (15%), English and Geography (both 11%) and ICT (9%). Student used their mobile phones for educational purposes as the following percentages Calculator (37%), SMS (19%), Camera (18%), Stopwatch (16%), Mp3 (14%), Internet (11%) and phone calls (9%).

According to (Brown & Metcaf, 2008) MASIE Center conducted a survey research to investigate the mobile learning practices and future plans and desires. The data were collected from 200 member at MASIE Center. The results showed that: (24%) of respondents deploy some mobile learning in their organizations. The most common transactions on a mobile device include placing and receiving organizational phone calls (98%), emails (91%), and text messages (83%). Many use mobile devices for writing/word processing (68%) and to deploy audio podcasts (63%). Respondents (52%) used mobile phones in-house resources to develop mobile learning.

Chen et al. (2008) aimed at comparing between computer assisted instruction and mobile devices assisted instruction. The researchers created website, providing functions enabling learning to take place anytime and anywhere with any available learning device. The web site was included three modules from a course "Introduction to Computer Science". The experiment was performed at the National Central University in Taiwan, and the subjects were (54) students. First, all Students were then trained for two weeks on how to access the web-based. Second, the researcher split the students into two groups; experimental group (n=27) and control group (n=27). The results showed that the grades of the experiment group outperformed the control group by (12%), (5.3%),(13%), and (9%) in four weekly tests respectively. Moreover, t-test analysis showed that the test results of the experimental group were significantly different from those of the control group, indicating that this module can signally enhance the learning performance of the experiment group by using learning system through a cell phone and PDA (Personal Digital Assistants).

Stockwell (2010) conducted a study to examine the effect of using cell phone for vocabulary activities. He examined (175) pre-intermediate learners of English who could choose to complete vocabulary activities on either a cell phone or a desktop computer in Law at Waseda University, Tokyo. The results indicated that 60% (105 learners) did not use the cell phone at all for the activities, and a further 18.9% (33 learners) used the cell phone for (20%) or less of the activities completed. Only very small numbers of learners used the mobile phone for the majority of the activities, with just (3) learners (1.7%) electing to use the cell phone for all of the vocabulary activities.

Nordin et al. (2010a) reported a study on the students' acceptance of the m-Learning approach in the teaching and learning process. A total of (100) students from the undergraduate programmes responded to a self-report questionnaire. From the data analysis, the study reported that the students agreed that cell phones can be used for teaching and learning. The study also revealed that with this age group (35–45 years old), SMS is the most popular method of communication and cell phones are mainly used for talking and messaging. Furthermore, the m-learning activities are great ways to motivate students and foster interaction among them.

Georgieva, et al. (2011) conducted a research to evaluate mobile learning system named (Flagman) developed in the University of Ruse, Bulgaria. The system supports foreign languages learning using mobile devices (Personal Digital Assistants, smart phones or wireless laptops). All learning materials and system interface are in seven languages

–English, German, French, Spanish, Portuguese, Greek and Bulgarian. Investigation method was used for evaluation of the system. A questionnaire which consists of (35) questions. The evaluation of the system is made during its trials in the British Hellenic College in Athens, Greece, in the International College, Dobrich, Bulgaria and in the University of Ruse, Bulgaria. (214) users (students and university lectures) were asked to fill in the questionnaire after using the system. The analysis of results showed that the mobile learning system is technical feasible, didactic, effective and user friendly.

Hakoama & Hakoyama (2011) investigated the relationship among m-learning and many factors, gender is one of them. The sample consisted of (499) students; (340) of them are females. The students were recruited from students enrolled in courses in Human Development in a mid-sized, Midwestern University during (2009-2010). Results indicated that females spent significantly more time on the cell phone than the males. Females appreciated the importance of cell phone more than males did.

Although, the phenomenon of using cell phone for educational purposes is widely spread all over the world, there haven`t been any serious evaluations for this phenomenon in Syria. In addition, the need to establish the context in field of using mobile technologies has been a basic prerequisite. This formed a sense for me as researcher to conduct this study. Thus, here is the research problem. This study attempts to highlight educational usages of cell phone in two fields: The first field focuses on the role of cell phone in acquiring knowledge and experiences while the second one refers to the educational usages of internet on cell phone. Students were selected form Department of Class Teacher in two faculties of education in Syrian Arab Republic. The two Faculties are: The Education Faculty at Damascus University and The Second Faculty of Education at Tishreen University. The main question that this research attempt to answer is: What is educational usages of cell phone as perceived by students of Faculty of Education at both of Damascus and Tishreen Universities?

Essentiality of this Research and its Objectives

Essentiality of this Research

The significance of conducting this research springs from the following points

- The results of this study may help decision makers in Syrian educational authorities to do serious steps toward developing educational usages of cell phone.
- The results of this study may clarify the positive and negative points that need reinforcement and instauration in field of m-learning.
- The results may introduce to educational researchers in other countries an obvious imagine about m-learning in Syria.
- This study may motivate educational researchers to conduct similar studies from different aspects.

Objectives of this Research

This study aimed at answering two questions and testing two hypotheses.

Questions of this Research

- The first Question: What is percentage of students who use cell phone to acquire knowledge and experiences?
- The Second Question: What is percentage of students who use internet on cell phone for educational purposes?

Hypotheses of this Research

The following hypotheses will be tested at level of significance (0.05)

- H1: Students at both of Damascus University and Tishreen University use cell phone to acquire knowledge and experiences at the same level.
- H2: Students at both of Damascus University and Tishreen university use internet on cell phone for educational purposes at the same level.

Methodology

Participants

The sample consisted of (184) students. They were selected randomly from the fourth year students-Department of Class Teacher–Education Faculty at Damascus University (n=80) and The Second Education Faculty[1] at Tishreen University (n=104) in academic year 2010-2011. Students at the two universities were asked to fill in a self-report

[1] Tishreen University contains two faculties of education; the first is located in Lattakia city, the second is located in Tartous city.

17–item questionnaire.

Instrument of this Research

A self-report 17–item questionnaire was prepared by the researcher. For every item, there are three options for answer (agree, Somewhat agree, disagree). A questionnaire was given to four of staff members to see whether it measured what was prepared for or not. They emphasized that questionnaire was valid but staff members deleted three items. To ensure that self-report questionnaire was reliable, it was distributed to an exploratory sample consisted of (35) students of Education Faculty at Tishreen University, then Cronbach's Alpha coefficient was computed by using SPSS. It is (0.91). The self-report questionnaire was corrected according to likert scale; beginning from (0) score for answer (Disagree) to (2) scores for answer (Agree). The last form of the self-report questionnaire consisted of (17) items divided in two fields: The first field items measure the role of cell phone in acquiring knowledge and experiences while the second field items measure the educational usages of internet on cell phone.

Results of this Research

Results Related to the First Question

What is percentage of students who use cell phone to acquire knowledge and experiences? Frequencies and percentages were computed for every item of the first field of the questionnaire.

Table 1 shows the results as the following

- Cell phone- as it is clear from item No (11) helps students (45.65%) to keep schedule of lectures as a picture on their cell phone.
- As it can be seen from item No (2), there are (41.30%) of students asserted that cell phone helps them to acquire new modern technological skills.
- Cell phone helps students (39.67%) to learn cultural information, item No (4). It also helps students (39.13%) to translate foreign words, item No (5).
- Approximately, cell phone helps students (32%) to learn social skills and save their examinations scores. (Items No 3 &10)
- As for item No (9), students (28.80%) use cell phone to listen to religious objects. Students (23.36%) emphasize that cell phone helps them to listen to historical speeches, item No (8).
- Cell phone helps students (22.28%) to acquire scientific terms, item No (1).
- Cell phone also helps students (18.47%) to train on pronunciation of foreign words, item No (6).

As for item No (7), It is clear that only (16.30%) of students use their cell phone to record lessons of practical education but this doesn`t mean that most majority of students refuse the idea, we have to take into consideration that (33.69%) of students accept the idea of item No (7) partially.

	The First Field: The cell phone helps me to :	Percentages		
No:	Items	D	SA	A
1	Acquire Scientific terms.	33.69	44.02	22.28
2	Acquire new modern technological skills.	17.39	41.30	41.30
3	Learn social skills.	26.08	42.93	32.06
4	Learn cultural information.	30.97	40.21	39.67
5	Translate foreign words.	29.34	31.52	39.13
6	Train on pronunciation of foreign words.	44.56	36.95	18.47
7	Record lessons of practical education.	50	33.69	16.30
8	Listen to historical speeches.	44.56	32.06	23.36
9	Listen to religious objects.	39.67	31.52	28.80
10	keep my examinations scores	39.67	28.80	31.52
11	keep schedule of lectures in college.	27.17	27.17	45.65

D = Disagree, SA = Somewhat Agree, A= Agree

Table 1. Responses to the First Field Items by Students (n=184)

Results Related to the Second Question

What is percentage of students who use internet via cell phone for educational purposes? Table 2 shows the results as the following

- As for item No (15), students (41.84%) use internet on cell phone to exchange information with college mates.
- It is clear from Item No (13) that students (40.76%) use internet on cell phone to search for information related to their study.
- Students (38.58%) use internet on cell phone to build social relationship, item No(17).

- There are (33.69%) of students use internet on cell phone to explore cultural news, item No (14).
- Students (32.60%) use internet on cell phone to explore educational news, item No (12).

Responses related to item No (16) show that students (23.91%) use internet on cell phone to send and receive e-files.

Testing Hypotheses: Before testing hypotheses, Kolmogorov - Smirnov test was used to decide whether or not parametric tests would be used. Table 3 shows that sig values are fewer than (0.05) in all fields except that belongs to students at Damascus University in the first field. This emphasizes that students' scores aren`t distributed normally, therefore non parametric tests (Mann-Whitney U test) must be used.

H1: Students at both of Damascus University and Tishreen University use cell phone to acquire knowledge and experiences at the same level.

Table 4 shows that percentages belong to answer "Agree" are greater at students of Tishreen University in all first field items except items No (3& 6). For instance, the percentage of students who agree to items No (1&2) are (24.03% & 42.30%) at Tishreen University, whereas these percentages reduce to (20% & 40%) at students of Damascus University.

Actually, descriptive statistic isn`t enough to take a decision about refusing or accepting a hypothesis, thus, Mann-Whitney test is going to be used for testing the first hypothesis.

The Second Field: I use internet on cell phone to :		Percentages		
No	Items	D	SA	A
12	Explore educational news.	33.69	33.69	32.60
13	Search for information related to my study.	26.08	33.15	40.76
14	Explore cultural news.	27.17	38.58	33.69
15	Exchange information with college mates.	23.91	34.23	41.84
16	Send and receive e-Files.	46.19	29.89	23.91
17	Build social relationships.	22.82	38.58	38.58

D = Disagree, SA = Somewhat Agree, A= Agree

Table 2. Responses to the Second Field Items by Students (n= 184)

Field	University	Statistic	df	Sig
The first	Damascus	0.080	80	0.200
	Tishreen	0.099	104	0.013
The second	Damascus	0.110	80	0.019
	Tishreen	0.131	104	0.000

Table 3. Results of Kolmogorov-Smirnov Test for Normality

Item	Damascus University			Tishreen University		
No	D	SA	A	D	SA	A
1	36.25	43.75	20	31.73	44.23	24.03
2	23.75	36.25	40	12.5	45.19	42.30
3	30	31.25	38.75	23.07	51.92	25
4	33.75	45	21.25	28.84	36.53	34.61
5	32.5	40	27.5	26.92	25	48.07
6	36.25	43.75	20	50.96	31.73	17.30
7	47.5	35	17.5	51.92	32.69	18.38
8	51.25	30	18.75	39.42	33.65	26.92
9	47.5	26.25	26.25	33.65	35.57	30.76
10	42.5	31.25	26.25	37.25	26.92	35.57
11	38.75	30	31.25	18.26	25	56.73

Table 4. Comparing Between Students` Answers at Both of Damascus and Tishreen Universities in the First Field Items

Table 5 shows that sig value (0.04) is fewer than (0.05). Thus, there is a statistical significance difference between students at the two mentioned universities. Students` mean rank at Tishreen university is higher, therefore the difference is in favor of them. This can be translated that students at Tishreen University use the cell phone to acquire knowledge and experiences more than their peers do at Damascus University.

H2: Students at both of Damascus University and Tishreen university use internet on cell phone for educational purposes at the same level.

Table 6 shows that Percentages related to answer "Agree"

University	Mean Rank	Sum of Rank	Man-Whitney U	Wilcoxon W	Z	Sig
(n= 80)	83.64	6691.5	3451.5	6691.5	1.98-	0.04
Tishreen (n=104)	99.31	10328.5				

Table 5. Results of Mann-Whitney U Test for Testing the First Hypothesis

Item	Damascus University			Tishreen University		
No	SA	A	D	SA	A	D
12	45	27.5	27.5	25	38.46	36.53
13	38.75	3.75	27.5	16.34	32.69	50.96
14	36.25	35	28.75	21.15	41.34	37.5
15	23.75	38.75	37.5	24.03	30.76	45.19
16	41.25	32.25	26.25	50	27.88	22.11
17	13.75	53.75	32.5	29.80	26.92	43.26

Table 6. Comparing Between Students` Answers at Both of Damascus and Tishreen Universities in the Second Field Items

are greater at students of Tishreen University in most of the second field items. For instance, item No (12) asserted that students (36.53%) at Tishreen University use internet on cell phone to explore educational news while this percentage decreases to (27.5%) at Damascus University. Students (50.96%) at Tishreen University use internet on cell phone to search for information related to their study while this percentage reduces to (27.5%) at Damascus University. In contrast, answers related to item No (16) asserted students (26.25%) at Damascus University use internet on cell phone to send and receive e-files whereas this percentage reduces to (22.11%) at Tishreen University.

In fact, we can't depend on percentages to refuse or to accept a hypothesis, so Mann-Whitney U test must be used.

It is apparently from Table 7 that sig value (0.03) is fewer than (0.05) and students` mean rank at Tishreen University is greater (99.88>82.90). Thus, there is a statistical significance difference between students at the two mentioned universities. The difference is in favor of students at Tishreen University. This emphasizes that students at Tishreen University use the internet on cell phone for more prolonged educational purposes than their peers at Damascus University.

Conclusion and Recommendation

Actually, the results of this research emphasize that there are six main educational usages of cell phone

- Keeping schedule of lectures in college (45.65%).
- Using internet on cell phone to exchange information with college mates (41.84%).
- Acquiring new modern technological skills. (41.30%).
- Using internet on cell phone to search for information related to their study (40.76%).
- Learn cultural information (39.67%).
- Translate foreign words (39.13%).

As for students at Tishreen University, the main educational usages of cell phone are

- Keeping schedule of lectures in college (56.48%).
- Using internet on cell phone to search for information related their study (50.96%).
- Translate foreign words (48.07%).

As for students at Damascus University, the main educational usages of cell phone are

- Acquiring new modern technological skills (40%).
- Learn social skills (38.75%).
- Using internet on cell phone to exchange information with college mates (37.5%).

The results of this research assert that cell phone have attracted students participated in this study as one of modern instructional technology tools regardless of level of usage. Despite the results revealed that there is a simple usage of cell phone for educational purposes, this forms a good beginning point for educational researchers in Syria and other Arab countries to conduct experimental studies in field of m-learning. Therefore, educational researchers can specify the best methods and styles for educational usages of cell phone.

It is also quite clear that students used the cell phone for educational purposes as a form of informal learning forms. This emphasizes that cell phone is used in Syria in frame of self learning only. This suppose on authors of educational courses to guide students to educational methods that can be used by cell phone.

The results are also benefit for students and instructors; because results of this research referred to cell phone as one of instructional technology tools, thus the percentage of students and instructors who use cell phone for educational usage may increase gradually by reading the results.

The services introduced especially for students by tow companies worked in Syria (Syriatel and MTN) are relatively cheap, so students used internet on cell phone for educational purposes effectively. In the light of results, the researcher recommends educational establishments to:

- Train students of all colleges to utilize of cell phone features in their instruction.

University	Mean Rank	Sum of rank	Man-Whitney U	Wilcoxon W	Z	Sig
(n= 80)	82.90	6632	3392	6632	2.15-	0.03
Tishreen (n=104)	99.88	10388				

Table 7. Results of Mann-Whitney U test for Testing the First Hypothesis

- Specialize chapter related to educational usages of cell phones in curriculum of instructional technology.
- Form a corporation; its main task is to design instructional programs and websites that can be worked by using cell phones devices.
- Prepare experts in field of m-learning.
- Shift m-learning in Syria from informal learning to Non formal learning and formal learning.

Conduct more researches about educational usages of cell phones.

References

[1]. Al-Mabrouk., Khalid and Soar, J. (2009). A delphi study on issues for successful information technology transfer in the Arab world. *The International Arab Journal of Information and Technology.* 6 (1),pp. 7-13. 2009.

[2]. Brown, J., and Metcalf, D. (2008). Mobile Learning Update. The MASIE Center & The Learning Consortium Saratoga Springs, NY 12866 USA. Retrieved June 9,2010 from www.masie.com.

[3]. Chen, G.D., Chang, C.K., and Wang. C.Y. (2008). Ubiquitous learning website: Scaffold learners by mobile devices with information-aware techniques. *Computers & Education*, 50 (2008). pp.77–90. Retrieved January 9,2011, from www.sciencedirect.com

[4]. Ferry, B. (2009). Using mobile phones to enhance teacher learning in environmental education. Research online. Faculty of Education, University of Wollongong, pp 45 - 55. Retrieved May 9,2010 from http://ro.uow.edu.au/.

[5]. Georgieva, E.S., Smarikarov, A., and Georgieva., T.S. (2011). Evaluation of mobile learning system. *Procedia Computer Science* 3 (2011). pp. 632–637.Retrieved December14,2011 from www.sciencedirect.com

[6]. Hakoama, M., and Hakoyama, S. (2011). The impact of cell phone use on social networking and development among college students. *The American Association of Behavioral and Social Sciences Journal*, Vol.15, pp.1-20.Retrieved December14,2011 from www.sciencedirect.com

[7]. Hartnell, E., and Heym, N. (2008). How mobile phones help learning in secondary schools. A report to Becta March 2008, *Learning Sciences Research Institute*, University of Nottingham. Retrieved February15,2010 from www.lsri.nottingham.ac.uk.

[8]. Hashemi, M., and Ghasemi, B. (2011). Using Mobile Phones in Language Learning/Teaching. *Procedia Social and Behavioral Sciences* 15 (2011), pp. 2947–2951. Retrieved December 14,2011, from www.sciencedirect.com

[9]. Idrus, R., and Ismail, I. (2010). Role of institutions of higher learning towards a knowledge-based community utilising mobile devices. *Procedia Social and Behavioral Sciences* 2 (2010) 2766–2770. Retrieved January 9, 2011, from www.sciencedirect.com

[10]. Katz, J.E. (2004). Mobile Phones in Educational Settings. Retrieved February 15, 2010 from www.sciencedirect.com

[11]. Kumar, A., Tewari, A., Shroff. G., Chittamuru, D., Kam, M., and Canny, J. (2010). Exploratory Study of Unsupervised Mobile Learning in Rural India. CHI 2010, pp10–15, 2010, Atlanta, Georgia, USA. Retrieved April 9, 2011.

[12]. Lopez, G., Royo, T.M., Laborda, J.G., Calvo, F.G. (2009). Methods of adapting digital content for the learning process via mobile devices. *Procedia Social and Behavioral Sciences* 1 (2009),pp. 2673–2677. Retrieved February 2,2010 from www.sciencedirect.com

[13]. Misfsud, L. (2003). Learning 2go: Making reality of the scenarios?. In *Proceeding of m-learning* 2003:Learning with mobile devices" London: Learning and skills Development Agency. pp. 99 – 104.

[14]. Nordin, N., Embi, and Yunnis, M.M. (2010b). Mobile Learning Framework for Lifelong Learning. International Conference on Learner Diversity 2010. *Procedia Social and Behavioral Sciences* 7(C) (2010), pp. 130–138. Retrieved January 9,2011, from www.sciencedirect.com

[15]. Nordin, N., Embi, M.A., Hamza, M.I., and Yunnis, M.M., (2010a). The Mobile Learning Environment for the In-Service School Administrators. International Conference on Learner Diversity 2010. *Procedia Social and Behavioral Sciences* 7(C) (2010), pp. 671–679. Retrieved January 9,2011, from www.sciencedirect.com

[16]. Seibu, M.J., Biju, I. (2008). Mobile Technologies and its impact – an analysis in higher education context. *IJIM* –Vol 2, No 1, pp.17.

[17]. Sharples, M. (2007). Big issues in mobile learning. Report of a workshop by theKaleidoscope Network of Excellence Mobile Learning Initiative. The university of Nottingham, UK, pp.4-9.

[18]. Stockwell, G. (2010). Using mobile phone for vocabulary activities: examining the effect of the platform. Language Learning & Technology, Vol. 14, No.2, pp. 95–110.Retrieved January 9,2011, from http://llt.msu.edu/vol14num2/stockwell.pdf

[19]. Suki, N.M., & Suki, N.M. (2007). Mobile Phone Usage for m-Learning: Comparing Heavy and Light Mobile Phone Users. Capmus - Wide Information System. Vol.24, No.5. pp 355 -365.Retrieved January 9,2011, from www.emeraldinsight.com/1065-0741.htm

[20]. Traxler, J. (2005). Defining mobile learning. In proceeding of International Conference Mobile Learning 2005.IADIS.University of Wolverhampton, pp.261-266.

[21]. Wentzel, P., Lammeren, R.V., Molendijk, M., Bruin, S. and Wagtendonk, A. (2005). Using Mobile Technology to

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