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Impact of Learning via Mobile Phone on Health Information Learning

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Abstract: *The present study aims to compare the impact of mobile on increasing health information of students of Kharazmi and Allame Tabatabayi Universities in 2013. The study method is quasi-experimental with pre-test and posttest design by control and experiment group. This study is based on researcher-built test composed of 20 questions. 160 students are selected by random cluster method. At first, by 20-item test, pre-test is performed. Then, the experiment group received training via mobile and control group received training by traditional method. Post-test is performed with the same questions. Finally, survey questionnaire is presented to experiment group. SPSS software, version 19, t-test and covariance analysis are used for data analysis. There is no significant difference between the mean of two groups in pre-test (experiment 7.57 and control 7.75) but there is a significant difference in posttest (experiment 17.56 and control 12.57). The training by traditional and mobile methods is effective on learning but training via mobile has high impact and the students are more interested in being trained by this method.*
Keywords: Training via mobile, Traditional training, health information, Students

INTRODUCTION

In Universities, improving learning and teaching quality is one of the important issues. Using technology to support teaching and learning process can be effective based on existing problems. Now, educational system of Universities is as students have not permanent access to lecturers. Students can not have adequate training any time needing learning in specific field and achieve the response of their questions. Based on the existing educational system, education interactions are remained in a level and are not improved (Starr, 2003). Learning situations of students are based on classroom, their learning is not continuous and the interaction in learning between students and lecturers and between the students is low (Kamar & Ong'ondo, 2007). In addition, in most of universities, pamphlets are used for textbooks but time is very important but this time is dedicated to providing pamphlets and test sources (Gregson & Jordaan, 2009). The existing educational methods don't present the information of students rapidly to them and for various conditions; students are not flexible and cannot create adequate motivation among the students (Peters, 2007). The students need

techniques helping them in better understanding of textbooks and provide required guidance. Also, students need comprehensive, global and update information. To have access to required information, using technologies is an obvious issue (Chase & Herrod, 2009). Due to the familiarity of students of technology at acceptable level, today most of educational centers to transfer educational content can take technology. Creating electronic educational environments emphasizes on this claim (Balasundaram & Ramadoss, 2008). Electronic learning is a new method in education presenting and managing learning opportunities to improve knowledge and skill via internet and computer networks and turn education and learning from training to learning. Generally, e-learning is a method of learning based on application of ICT and other computer networks (Aminpoor, 2005). Also, the term e-learning includes applications and web-based education performance, computer-based learning, electronic classrooms and collaboration in electronic networks. Generally, e-learning is a method of learning based on application of ICT and other computer networks and mobile learning is a subset of e-learning developed since 2000 in organizations, institutions and schools (Saiedipoor, Sufi, Moraddiymokhles & Usefli, 2011). This method was used since 2007 in Britain, Sweden and Italy and students aged 16 to 24 years leaving the school were covered and also this technology develops literacy and numerical school and self-confidence, independent learning and self-centeredness are developed (Sadpoor, 2008). Mostly, adults believe that this type of education let them continued their work full-time and perform their family duties during training in everywhere and anytime (Gilbert, 2001). Brown considers mobile learning as a subset of e-learning and e-learning is a wide concept including both online training and mobile training (Brown, 2003).

Mobile learning is sending and transferring learning via mobile devices as lap top, pocket computer, mobile or other mobile devices facilitating the performance of learning in learning process and the need of learner is met at any time and place (Bull, 2007). Mobile learning provides easy access of learners to various education sources at any place and time and the students by these technologies can download their sources and send e-mail to their teacher. This is a method providing continuous learning for students (Ciffci ON & Tabak, 2012).

This study has the general aim of comparison of the impact of learning via mobile Phone on health information learning of students of Kharazmi and Allametabatabayi University and the following hypothesis are evaluated:

Mobile teaching has high effect compared to traditional teaching method on learning health information of students.

RESEARCH METHODS

The present study is a quasi-experimental method. This study is composed of an independent variable (mobile learning) and its effect on a dependent variable (health information) is evaluated. Also, the results are compared with traditional classroom method (control group). The study population is all BA students of Kharazmi and Allame Tabatabayi Universities during 2012-2013, of this population, 160 people are selected

by cluster random sampling method. It means that at first three colleges and of each college, two classrooms are selected by random method. Then, they are divided into 80 people. The students of Kharazmi University are selected as experiment group being compared with Allame Tabatabayi University in control group. It was possible to distribute sending SMSs among the students and this affected the results of the study and control group was selected among Allame Tabatabayi University. These groups were divided in terms of age and education into two similar groups (80 experiment and 80 control groups). The data collection measure is 20-item researcher-built test and at first by researcher-built test, pre-test is performed and then SMSs with health information are sent to the sample selected among Kharazmi University students (experiment group). The information was given as pamphlet to control group and the required explanations were presented to the students and then post-test was performed of two groups (experiment and control) and finally a researcher-built questionnaire regarding the interest and attitude of experiment group regarding mobile teaching was presented. For the analysis of pre-test and post-test data of both groups and determining their learning, t-test is used and to compare the difference of the man of experiment and control groups, covariance analysis test is used.

The validity of 20-item test of learning is tested by experts and face and content validity of test are confirmed by 7 lecturers of educational technology, ICT and population. The reliability was calculated as 0.85 by Cronbach's alpha and this showed good reliability.

RESULT

Table 1. The features for comparison of experiment and control group

	Groups	Age mean	Education
To	Control group	3.1 ±5 /21	BA
	Experiment group	2.4 ±5 /21	BA

evaluate the health information of students in control and experiment groups, pretest and posttest are performed. This test is including 20 questions of four multiple choice of the sources of health information evaluation. The results for two mentioned groups are regarding the tests of learning in Table 2.

Table 2. The results of covariance analysis and survey of experiment group students

Group	Pre-test	Post-test	t	Significance	covariance analysis	Significance
Control	7/50	12/57	-17/03	12/57	F(1&157)=264/41	Control
Experiment	8/40	17/56	-37/40	17/56	8/4	Experimental

Survey of experiment group students regarding mobile teaching						
Questions	Very much	Much	Average	Low	Never	Sum
1-Can we use mobile for teaching?	19	38	17	6	0	80
2-Are you interested to receive the textbook by mobile phone?	12	24	31	9	4	80
3-Do you agree with receiving SMS regarding generation information on holidays?	21	42	14	3	0	80
4-When do you want to receive sms?	8-11	12-15	16-18	20-22	80	
	32	2	7	39		

Based on the information of Table 2, the comparison of the impact of two methods of teaching regarding health information is significant statistically. Thus, teaching via mobile is effective than traditional teaching method. Based on significance of covariance analysis test, it is inferred that mobile-based teaching compared to traditional method has high effect on learning of health information of students. The third question of study is supported. Mobile-based teaching has high effect compared to traditional method on learning of students.

Also, at the end of questionnaire, survey is performed of the trained students by mobile (experiment group).

First question: Is Mobile applied in teaching? 74 students of experiment group in three levels (very much, much and average) believe that we can use mobile in teaching and learning and 6 people believe that mobile is used less in learning and teaching.

Second question: Are you interested to receive the textbook by mobile? 67 people in three levels of very much, much and average agree to learn via mobile. 9 people have low interest and 4 people are not interested at all.

Third question: Do you agree to receive sms regarding health information on holidays? 77 people at levels (very much, much and average) receive sms regarding health information on holidays and only three people are less interested to do it.

Fourth question: When is appropriate to receive sms? IN this question, 38 people select 8 to 11 a.m., 2 people 12 pm to 3pm, 7 people 3 pm to 6pm and 39 people select nights for learning. These results show that most students know mobile effective on their learning and are interested in learning by this method as even they agree with mobile-based learning on holidays and other periods.

CONCLUSSION

In a general conclusion, we can present the results of study as mobile is effective on increasing learning of students of Kharazmi University as not only the learning of students in pre-test and post-test is increased, by comparing this group (experiment) with control group (students of Allame Tabatabayi University) receiving traditional teaching, the results show the superiority of experiment group. In other words, both teaching methods (lecture and mobile) are effective on learning of learners but training via mobile has high effect on learning. This method increases the motivation, interest, attitude of students to learning. The results of survey of students to learning via mobile show that the students are interested in learning by this method as on holidays or other times, they are interested in mobile learning. As mobile increases motivation, excitement of learners in learning even in non-educational days, the lecturers should use less lecture teaching methods and identify the abilities and advantages of mobile in education and try to apply this new technology mostly.

REFERENCES

Aminpoor, F. (2005). *Investigate the structure and benefits of e-learning*. Articles Collection of e-learning to virtual universities Conference. Tehran: Islamic Azad University.

Balasundaram, S. R., Ramadoss, B. (2008). SMS for Question-Answering in the m-learning Scenario. *Journal of the Computer science. 3*(2), pp.119-121.

Brown, T. H. (2003). The role of m-learning in the future of e-learning in Africa. *Presentation at the 21st ICDE world conference Hong Kong 5*(3), pp.18-29.

Bull, G. (2007). Beyond e-learning: Practical insights from the USA. *University of Abertay Dundce, Report of DTI Global watch Mission 16*(7), pp.32-41.

Chase, E. M., & Herrod, M. (2009). College Student Behaviors' and Attitudes Towards Technology on Campus, Slippery Rock University. *Slippery Rock, PA., Presented at the Broadcast Educators Association Conference, Las Vegas, NV.USA.Retrieved*. Retrieved from http://srufaculty.sru. edu/mark. Chase/index.htm.

Ciffci, ON., & Tabak, F. (2012). Is M- learning versus E-learning or they supporting each other?. *Social and Behavioral Sciences 46*, pp.299-305.

Gilbert, S.D. (2001). *How to Be a Successful online student.* New York: McGraw Hill Publishing.

Gregson J., Jordaan D. (2009). Exploring the Challenge s and Opportunities of M-learning Within an International Distance Education Program, University of London External System United Kingdom and University of Pretoria South Africa. *Originally, International Review on Research in Open and Distance Learning(IRRODL).* 8(2).

Kamar, N., & Ong'ondo M. (2007). Challenge of M-learning on social change. *Eger ton University*. Retrieved from http://www.informatik. uniulm.de/DE/intra/bib/2007/IMCL/ papers/76_Final_Paper.

Peters, K. (2007). M-learning: Positioning Educators for a Mobile, Connected Future, Reproduced with permission of Athabasca University Canada's Open University, Originally. *International Review on Research in Open and Distance Learning (IRRODL).* Retrieved from http://www.irrodl.org/index.php/irrodl/a rticle/view/3 48/873.

Sadpoor, K. (2008). Mobile applications require comprehensive training. *Journal of the Scientific Communication 9*(4), pp.11-21.

Saiedipoor, B., Sufi, R., Moraddiymokhles, H., & Usefli, S. (2011). Mobile learning is a bridge for transition from inactive context to active one. *Islamic Azad University of Kermanshah. 28*(9), pp.13-24.

Starr, S. (2003). *Application of mobile technology in learning & teaching: m-learning, learning & teaching enhancement unit (LTEU).* Briefing paper.