

## Mobile Learning: A comparative Study For the Future of Blended Learning

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**Abstract**— As the use of ICT in higher education matured, mobile technologies emerged as a new mode of flexible learning. Mobile learning opened up exciting learning experiences and challenges as well. In spite of the highly laudatory exposition of research in m-learning, as the literature in the field investigated the students' interaction with various social networks both formally and informally, it investigated the application of learning principles in mobile learning,... little has been done in terms of evaluating the development of this new model of learning that is constantly on the move. This paper intends to gauge the proliferation of the m-learning through impartial data-based findings of a survey conducted upon a large cohort of Arab Open University students of Kuwait Branch and through previous recent studies in the domain.

**Keywords**— M-Learning, Blended learning, Open learning, socio-cultural mobility, Kuwait, ecology, agency, structure

### I. Introduction

A few decades back, paradigm shift in education brought about a new learning trend called e-learning. As advancements in technology are rapidly developing, the current decade generated a newer approach referred to as m-learning. The portability and affordability of mobile phones along with wireless technologies have had a profound effect upon the merge of this ubiquitous mode of learning whereby the learner is becoming increasingly independent.

Researchers in the west, such as the LMLG, engaged in prolific projects, workshops and conferences to develop a theoretical and practical framework for m-learning. Successful case studies have been documented. However, since m-learning is seen within ecological terms of cultural and pedagogical contexts, specifically tailored innovative approach to educational practices is the ultimate goal of the researchers. Hence the need arises for educators' ongoing update within the new educational context.

### II. Rationale

As educators at the Arab Open University, Kuwait Branch and in our daily contact with our students, it has been recently noticed that learning practices are gradually shifting towards incremental ubiquitous digital interaction, using smart phones and wireless connection.

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What started as a Veblen good pretentiously owned by a few, ended up massively owned by every student, each vying for acquisition of latest options. Students' appetite for mobile devices is quite perceptible as their obsession with this technological tool has become quite distractive to their learning experience. The tendency is that students are using their mobile phones for personal and social communication rather than for educational purposes. Therefore, there is a necessity to diagnose this challenge and to come up with viable solutions. As researchers, it is the learning process we are interested in, in the first place, as it would yield better learning outcomes.

### III. Methodology

The present research attempts to evaluate the status-quo of m-learning at the AOU Kuwait branch, using empirical study and quantitative research based upon a survey conducted upon junior and senior university students.

A questionnaire has been designed whereby students' views have been sought in order to collect data pertaining to the role of mobile learning in their blended learning experience at AOU. Impartial data-based conclusions would allow us to come up with recommendations for the future of blended learning at the AOU.

### IV. Review of Literature

The west has been so inundated in mobile technologies that prolific researches appeared during the last decade, notably by the LMLG. Yet, the mobile age has also infiltrated into developing countries in Africa and Asia as well, imposing the need to design learning differently. In the report of the workshop by the Kaleidoscope Network of Excellence Mobile Learning Initiative and while mapping the landscape of mobile learning, K Walker (2006) added that there is a need of a proper directing of this 'cool' educational tool. It acts as a motivating factor for an innovative implementation of formal educational practices. Hence researchers delved into all kinds of researches on the mobility of the learner, on the technical novelties, on the learning process, etc... as fits their interest. N. Winters (2006) therefore characterized the dimensions of m-learning, 'repositioning the mobile in learning'.

The Kaleidoscope workshop is a sound educational practice that empowers educators and exposes them to a rich exchange of expertise. C. Callum et al (2014) asserted being technologically literate is insufficient to implement technology in the classroom. Pedagogical practices using the technology would allow tutors overcome their apprehension of m-learning.

On another level of research, S. Chizari et al (2011) stressed the need to consider the cultural differences while

designing e-learning environments based on Hall's theory of context, time and space, an approach that is relevant to co-authors recommendation of tailoring m-learning educational practices. A AL Hunayan et al (2008) echoed Chizari in the address of the non-negligible cultural issues educators need to focus on in the design of multimedia e-learning systems. Their study has been reverberated in Seipold and Pachler's evaluation of mobile learning practices (2011). The co-authors realize the importance of ecology in m-learning and the environmental impact upon its rise within this rapid technological fervor.

## v. Data Analysis

A number A number of around 100 undergraduate students were randomly selected to participate in this study in which 2/3 of them were female students and 1/3 males. Most of these students were in the second and third level courses. There were ten questions the students had to answer. These questions were summarized in Table 1

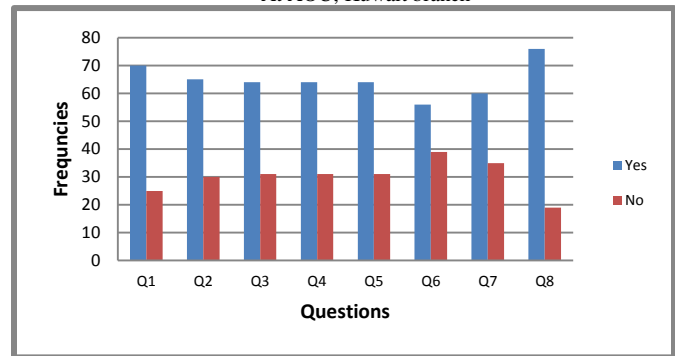
TABLE 1: A QUESTIONNAIRE OF MOBILE LEARNING

Q1. Do you have a PC that is always connected to the internet?
Q2. Is your mobile always connected with a Wi-Fi connection?
Q3. Would you be more comfortable if you had access to your tutors' mobile phone?
Q4. Do you always carry your mobile phone?
Q5. Would it be more academically beneficial to download your course material on your mobile phone?
Q6. Would you spare time to install applications to ease the access to these resources on your mobile phone?
Q7. Would you buy a more updated mobile phone if it would be more beneficial for your academia?
Q8. Would mobile learning software improve your learning experience?
Q9. Where do you most often use your mobile phone? Home, Univ, Work, Malls, Others.
Q10. I most often use my mobile phone while: Studying, Chatting, Webs, Calls, etc.

Figure 1 below provides the results for the questions of the above survey. The first survey question investigated whether the students still have a personal computer connected to the internet to find out whether PCs are still predominantly used or whether mobile phone became the major source of their information.

Around 73% of the students answered they still own PCs. One third of the students do not own PCs any longer which gives the assumption of its being supplanted by mobile phones. This assumption is supported by informal interviews with the students who claimed that they hardly use their PCs anymore. All they need is stored in their small portable device. However, questions 2 and 4 show that mobile phones became the main source of information since 68% are connected.

Figure 1. Results of the M-learning survey  
At AOU, Kuwait branch



This analysis supports the hypotheses that smartphones are becoming trendier and with the wireless connection, they are becoming increasingly more practical than PCs. Students are frequently using their smartphones throughout the campus for informal m-learning. This informal setting leads to juxtaposition between mobile learning and formal education (N. Winters, 2006) whereby researchers turn this obsession with mobile phones into an opportunity to design technology-enhanced learning that is pedagogically and educationally innovative (M. Milrad, 2006)

The third question of the survey resulted in about two third of the students' preference to have access to their tutors' mobile phones. In fact a few students stated that they have created groups with their tutors as a replacement of the discussion and news forums on the Learning Management System. However, within these rapidly changing cultural and pedagogic contexts of learning, some tutors are still lagging behind the integration within technologically enhanced learning, like ubiquitous information retrieval that support their teaching. Hence, the co-authors' call for m-learning workshops through which tutors do not feel alienated but rather keep pace with mobile technologies and its usages within educational contexts in order to direct the students for self-directed learning. Duncan, Howell and Lee (2007) echoed our view when they stated that "Teachers need access to more training, more information and more opportunities to see and use new technologies for themselves". C. Callum et al (2014) asserted that digital literacy is not enough to implement technology in the classroom. They linked the agency of the tutors with their anxiety about m-learning.

R. Yadollahi (2011) added that the apprehension of coping with ICT tools engenders negative effects upon lecturers' adoption of the new technologies.

The difference, in the results of questions 5 and 6, shows that students are more enthusiastic to download their course material on their smartphones. There is a slight decrease in the percentage of the students' readiness to install the applications that would ease the access to their material. The fascination with smartphones among students is indeed not mainly directed towards formal academic usage. Around half of the students are keen on using mobile technologies for learning and this ought to be enhanced for a more rewarding learning experience to wean the students away from social distractions mobile technologies generate.

Question 9 indicated that most students are using their smartphones at home, university, malls, work, etc. and 67% of the students always carry their mobile phones. This excitement with the smartphones is in many cases on the expense of students' achievement, we may notice that our students are excited about the new technology and the facilities that smartphones bring. Most of them prefer to have more updated mobile phone and their readiness to spare time in installing applications to ease their access to academic resources. However, the authors have observed a decline in students achievements in their grades compared to old students. Several cases have been seen when students are distracted from paying attention to their tutors. This result is consistent with Norwood's (2012) findings that the increase in using cell phones and iPads sometimes hurt students' ability to retain any the information that is being taught.

The above results show that the students enjoy the new learning atmosphere brought up by the smartphones. This indicator is supported by the high percentage of students (80%) who are looking forward to improve their learning experience through using smartphones. This confirms the degree of integration mobile devices have achieved in our daily lives. J. Seipold and N. Pachler (2010) linked the normalization of mobile devices to the theories of structure and agency. They see m-learning within ecological terms as cultural and pedagogic contexts are constantly changing. The affordability and accessibility of these tools were coupled with personal fascination with them.

## VI. CONCLUSION

M-learning at the AOU Kuwait Branch is still a novice. However, as the survey indicates there is a big potential for its accruing integration within the educational experience. Challenges to direct the students to more academic use of their smartphones still persist as the trend is more towards informal academic contexts of self-directed learning. Our study focused on students' attitude towards m-learning, their ownership of mobile devices and linked that to their achievement. The survey's results indicate that not only the students need more access to innovative learning activities through their mobile phones, but the tutors themselves need to be within the boat. These findings help to map future research areas of educational practices using mobile technologies.

The present research opened up new opportunities and potential plans to form an m-learning group of enthusiastic researchers at the AOU within its eight branches whereby tutors gain knowledge and expertise of these innovative technologies with a user-friendly integration within the curriculum. They will thereby help the students with a sound ubiquitous learning experience.

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